User Manual

Read and understand this manual before using machine.

12” INDUSTRIAL JOINTER

Model Number 40610

C US

STEEL CITY TOOL WORKS

Manual Part No. OR71980

THANK YOU for purchasing your new Steel City Jointer. This jointer has been designed, tested, and inspected with you, the customer, in mind. When properly used and maintained, your jointer will provide you with years of trouble free service, which is why it is backed by one of the longest machinery warranties in the business.

This jointer is just one of many products in the Steel City's family of woodworking machinery and is proof of our commitment to total customer satisfaction.

At Steel City we continue to strive for excellence each and every day and value the opinion of you, our customer. For comments about your jointer or Steel City Tool Works, please visit our web site at **www.steelcitytoolworks.com** .

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INTRODUCTION

This user manual is intended for use by anyone working with this machine. It should be kept available for immediate reference so that all operations can be performed with maximum efficiency and safety. Do not attempt to perform maintenance or operate this machine until you have read and understand the information contained in this manual.

The drawings, illustrations, photographs, and specifications in this user manual represent your machine at time of print. However, changes may be made to your machine or this manual at any time with no obligation to Steel City Tool Works.

WARRANTY

STEEL CITY TOOL WORKS
5 YEAR LIMITED WARRANTY

Steel City Tool Works, LLC ("SCTW") warrants all "STEEL CITY TOOL WORKS" machinery to be free of defects in workmanship and materials for a period of 5 years from the date of the original retail purchase by the original owner. SCTW will repair or replace, at its expense and at its option, any SCTW machine, machine part, or machine accessory which in normal use has proven to be defective, provided that the customer returns the product, shipping prepaid, to an authorized service center with proof of purchase and provides SCTW with a reasonable opportunity to verify the alleged defect by inspection. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, or lack of maintenance, or to repairs or alterations made or specifically authorized by anyone other than SCTW. Normal wear components are also excluded under this coverage. Every effort has been made to ensure that all SCTW machinery meets the highest quality and durability standards. We reserve the right to change specifications at any time due to our commitment to continuous improvement of the quality of our products.

EXCEPT AS SET FORTH ABOVE, SCTW MAKES NO EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES WITH RESPECT TO ITS MACHINERY, OR ITS CONDITION, MERCHANTABILITY, OR FITNESS FOR ANY PARTICULAR PURPOSE OR USE. SCTW FURNISHES THE ABOVE WARRANTIES IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY SPECIFICALLY DISCLAIMED.

SCTW SHALL NOT BE LIABLE FOR ANY (A) SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOSS OF PROFITS, ARISING FROM OR RELATED TO THIS WARRANTY, THE BREACH OF ANY AGREEMENT OR WARRANTY, OR THE OPERATION OR USE OF ITS MACHINERY, INCLUDING WITHOUT LIMITATION DAMAGES ARISING FROM DAMAGE TO FIXTURES, TOOLS, EQUIPMENT, PARTS OR MATERIALS, DIRECT OR INDIRECT LOSS CAUSED BY ANY OTHER PARTY, LOSS OF REVENUE OR PROFITS, FINANCING OR INTEREST CHARGES, AND CLAIMS BY ANY THIRD PERSON, WHETHER OR NOT NOTICE OF SUCH POSSIBLE DAMAGES HAS BEEN GIVEN TO SCTW; (B) DAMAGES OF ANY KIND FOR ANY DELAY BY OR FAILURE OF SCTW TO PERFORM ITS OBLIGATIONS UNDER THIS AGREEMENT; OR (C) CLAIMS MADE A SUBJECT OF A LEGAL PROCEEDING AGAINST SCTW MORE THAN ONE (1) YEAR AFTER SUCH CAUSE OF ACTION FIRST AROSE.

The validity, construction and performance of this Warranty and any sale of machinery by SCTW shall be governed by the laws of the Commonwealth of Pennsylvania, without regard to conflicts of laws provisions of any jurisdiction. Any action related in any way to any alleged or actual offer, acceptance or sale by SCTW, or any claim related to the performance of any agreement including without limitation this Warranty, shall take place in the federal or state courts in Allegheny County, Pennsylvania.

STEEL CITY TOOL WORKS

WARRANTY CARD

Name _____
Street _____
Apt. No. _____
City _____ State _____ Zip _____
Phone Number _____
E-Mail _____

Product Description: _____
Model No.: _____
Serial No. _____

The following information is given on a voluntary basis and is strictly confidential.

1. Where did you purchase your STEEL CITY machine?
   Store: _____
   City: _____

2. How did you first learn of Steel City Tool Works?
   ___ Advertisement ___ Mail Order Catalog
   ___ Web Site ___ Friend
   ___ Local Store Other_____

3. Which of the following magazines do you subscribe to?
   ___ American Woodworker ___ American How-To
   ___ Cabinetmaker ___ Family Handyman
   ___ Fine Homebuilding ___ Fine Woodworking
   ___ Journal of Light Construction ___ Old House Journal
   ___ Popular Mechanics ___ Popular Science
   ___ Popular Woodworking ___ Today's Homeowner
   ___ WOOD ___ Woodcraft
   ___ WOODEN Boat ___ Woodshop News
   ___ Woodsmith ___ Woodwork
   ___ Woodworker ___ Woodworker's Journal
   ___ Workbench Other_____

4. Which of the following woodworking / remodeling shows do you watch?
   ___ Backyard America ___ The American Woodworker
   ___ Home Time ___ The New Yankee Workshop
   ___ This Old House ___ Woodwright's Shop
   Other_____

5. What is your annual household income?
   ___ $20,000 to $29,999 ___ $30,000 to $39,999
   ___ $40,000 to $49,999 ___ $50,000 to $59,999
   ___ $60,000 to $69,999 ___ 70,000 to $79,999
   ___ $80,000 to $89,999 ___ $90,000 +

6. What is your age group?
   ___ 20 to 29 years ___ 30 to 39 years
   ___ 40 to 49 years ___ 50 to 59 years
   ___ 60 to 69 years ___ 70 + years

7. How long have you been a woodworker?
   ___ 0 to 2 years ___ 2 to 8 years
   ___ 8 to 20 years ___ over 20 years

8. How would you rank your woodworking skills?
   ___ Simple ___ Intermediate
   ___ Advance ___ Master Craftsman

9. How many Steel City machines do you own? _____

10. What stationary woodworking tools do you own?
    Check all that apply.
    ___ Air Compressor ___ Band Saw
    ___ Drill Press ___ Drum Sander
    ___ Dust Collection ___ Horizontal Boring Machine
    ___ Jointer ___ Lathe
    ___ Mortiser ___ Panel Saw
    ___ Planer ___ Power Feeder
    ___ Radial Arm Saw ___ Shaper
    ___ Spindle Sander ___ Table Saw
    ___ Vacuum Veneer Press ___ Wide Belt Sander
    Other_____

11. Which benchtop tools do you own? *Check all that apply.*
    ___ Belt Sander ___ Belt / Disc Sander
    ___ Drill Press ___ Band Saw
    ___ Grinder ___ Mini Jointer
    ___ Mini Lathe ___ Scroll Saw
    ___ Spindle / Belt Sander Other_____

12. Which portable / hand held power tools do you own?
    Check all that apply.
    ___ Belt Sander ___ Biscuit Jointer
    ___ Dust Collector ___ Circular Saw
    ___ Detail Sander ___ Drill / Driver
    ___ Miter Saw ___ Orbital Sander
    ___ Palm Sander ___ Portable Thickness Planer
    ___ Saber Saw ___ Reciprocating Saw
    ___ Router Other_____

13. What machines / accessories would you like to see added to the STEEL CITY line?
    _____
    _____

14. What new accessories would you like to see added?
    _____
    _____

15. Do you think your purchase represents good value?
    ___Yes ___ No

16. Would you recommend STEEL CITY products to a friend?
    ___ Yes ___ No

17. Comments:
    _____
    _____
    _____
    _____
    _____

✂ CUT HERE

FOLD ON DOTTED LINE

PLACE
STAMP
HERE

Steel City Tool Works
P.O. Box 10529
Murfreesboro, TN 37129

FOLD ON DOTTED LINE

PRODUCT SPECIFICATIONS

Motor Specifications:

Type	TEFC Induction, Ball Bearing
Continuous Duty Horsepower	3 HP
Amps	15
Voltage	230V
Phase	Single
Hertz	60
RPM	3450 (no load)

Product Specifications:

Noise Level (Decibel)	85dB
Table	12” x 83-1/2”
Knives, High Speed Steel	3@12-1/8” x 1-1/8” x 1/8”
Knife Adjustment	Jackscrews
Maximum Speed of Cutterhead	5000 RPM
Knife Cuts Per Minute	15,000 CPM
Maximum Depth-of-Cut	3/4”
Maximum Rabbeting Cut	3/4”
Fence Size Overall	5-3/8” x 47”

Product Dimensions:

Length	83-1/2”
Width	39”
Height	43”
Total Net Weight	750 lbs.

Shipping Dimensions:

Carton Type	Wooden Crate
Length	88”
Width	29-1/2”
Height	40-1/2”
Gross Weight	890 lbs.

ACCESSORIES AND ATTACHMENTS

There are a variety of accessories available for your Steel City Product. For more information on any accessories associated with this and other machines, please contact your nearest Steel City distributor, or visit our website at: **www.steelcitytoolworks.com**.

DEFINITION OF TERMS

Edge Jointing: The process of making the edge of a piece of stock straight and square

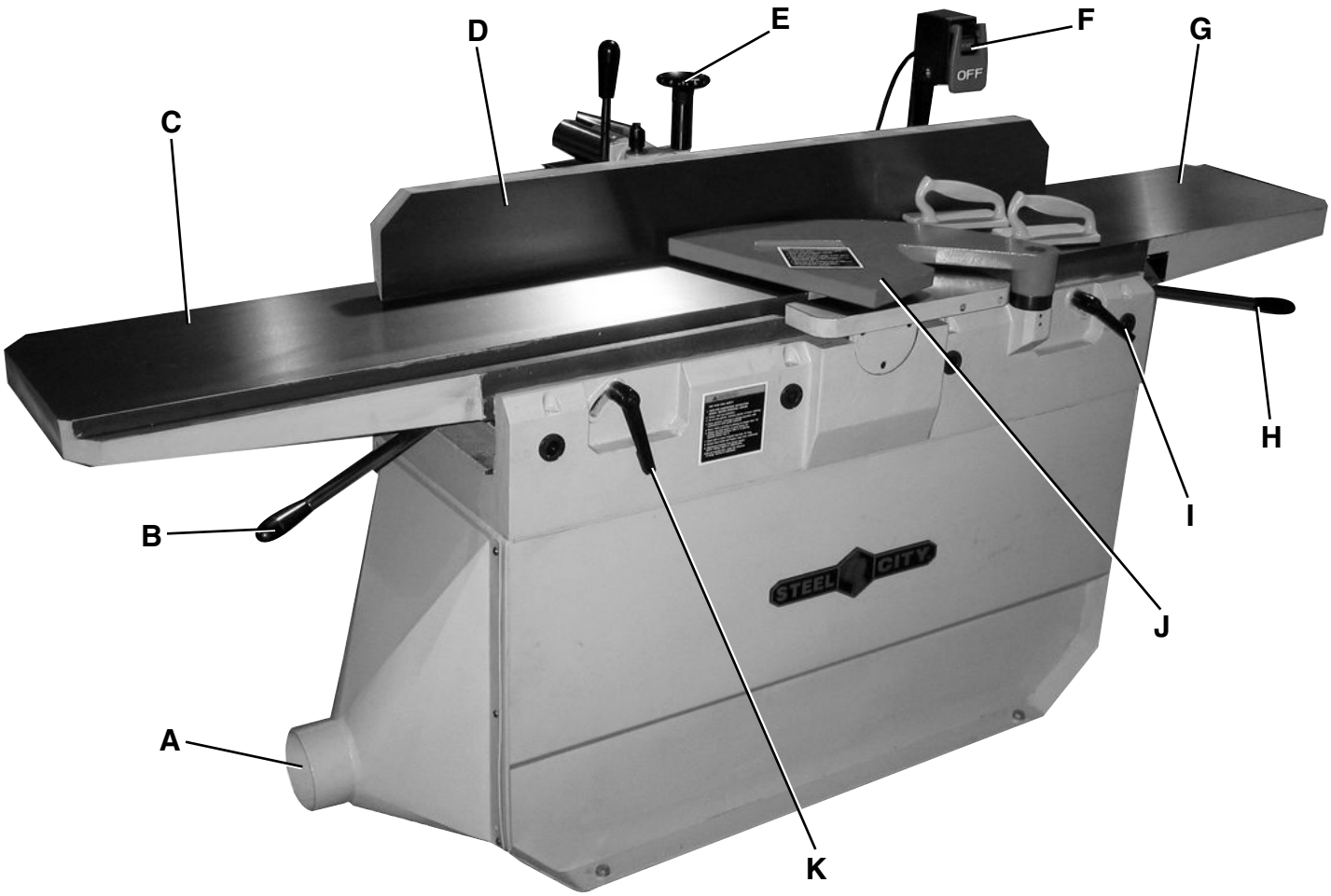
Face Jointing: Similar to edge jointing except rather then the edge it is the face of the board that is being machined flat and square.

Gum, Pitch or Resin: A sticky sap based residue that comes from wood products.

Rabbet: A rectangular cut or groove along or near the edge of a piece of wood that allows another piece to fit into it to form a joint

Snipe: Gouging or depression of the board at the ends. Snipe can occur either at the beginning of the board going into the jointer or at the end of the board as it comes out of the jointer.

FEATURE IDENTIFICATION



A. Dust Port
B. Outfeed Table Adjustment Handle
C. Outfeed Table
D. Fence
E. Fence Adjusting Knob
F. Power Switch
G. Infeed Table
H. Infeed Table Adjustment Handle
I. Infeed Table Lock Handle
J. Cutterhead Guard
K. Outfeed Table Lock Handle

GENERAL SAFETY

⚠ WARNING

TO AVOID serious injury and damage to the machine, read and follow all Safety and Operating Instructions before assembling and operating this machine.

This manual is not totally comprehensive. It does not and can not convey every possible safety and operational problem which may arise while using this machine. The manual will cover many of the basic and specific safety procedures needed in an industrial environment.

All federal and state laws and any regulations having jurisdiction covering the safety requirements for use of this machine take precedence over the statements in this manual. Users of this machine must adhere to all such regulations.

Below is a list of symbols that are used to attract your attention to possible dangerous conditions.

⚠

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

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

⚠ WARNING

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

⚠ CAUTION

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

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTICE

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

⚠ WARNING

Exposure to the dust created by power sanding, sawing, grinding, drilling and other construction activities may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust. The dust may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

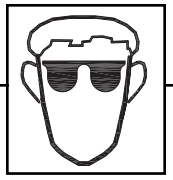
Some examples of these chemicals are:

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

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

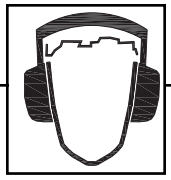
1. To avoid serious injury and damage to the machine, read the entire User Manual before assembly and operation of this machine.

⚠ WARNING



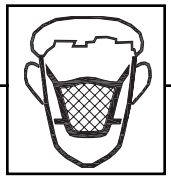
2. **ALWAYS** wear eye protection. Any machine can throw debris into the eyes during operations, which could cause severe and permanent eye damage. Everyday eyeglasses are **NOT** safety glasses. **ALWAYS** wear Safety Goggles (that comply with ANSI standard Z87.1) when operating power tools.

⚠ WARNING



3. **ALWAYS** wear hearing protection. Plain cotton is not an acceptable protective device. Hearing equipment should comply with ANSI S3.19 Standards.

⚠ WARNING



4. **ALWAYS** wear a NIOSH/OSHA approved dust mask to prevent inhaling dangerous dust or airborne particles.

5. **ALWAYS** keep the work area clean, well lit, and organized. **DO NOT** work in an area that has slippery floor surfaces from debris, grease, and wax.

6. **ALWAYS** unplug the machine from the electrical receptacle when making adjustments, changing parts or performing any maintenance.

7. **AVOID ACCIDENTAL STARTING**. Make sure that the power switch is in the "OFF" position before plugging in the power cord to the electrical receptacle.

⚠ WARNING

8. **AVOID** a dangerous working environment. **DO NOT** use electrical tools in a damp environment or expose them to rain or moisture.

⚠ WARNING

9. **CHILDPROOF THE WORKSHOP AREA** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.

10. **DO NOT** use electrical tools in the presence of flammable liquids or gasses.

11. **DO NOT FORCE** the machine to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the machine was intended.

12. **DO NOT** stand on a machine. Serious injury could result if it tips over or you accidentally contact any moving part.

13. **DO NOT** store anything above or near the machine.

14. **DO NOT** operate any machine or tool if under the influence of drugs, alcohol, or medication.

15. **EACH AND EVERY** time, check for damaged parts prior to using any machine. Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breakage of all moving parts. Any guard or other part that is damaged should be immediately repaired or replaced.

16. Ground all machines. If any machine is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The third prong is used to ground the tool and provide protection against accidental electric shock. **DO NOT** remove the third prong.

17. Keep visitors and children away from any machine. **DO NOT** permit people to be in the immediate work area, especially when the machine is operating.

18. **KEEP** protective guards in place and in working order.

19. **MAINTAIN** your balance. **DO NOT** extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.

20. **MAINTAIN** all machines with care. **ALWAYS KEEP** machine clean and in good working order. **KEEP** all blades and tool bits sharp.

21. **NEVER** leave a machine running, unattended. Turn the power switch to the OFF position. **DO NOT** leave the machine until it has come to a complete stop.

22. **REMOVE ALL MAINTENANCE TOOLS** from the immediate area prior to turning the machine ON.

23. **SECURE** all work. When it is possible, use clamps or jigs to secure the workpiece. This is safer than attempting to hold the workpiece with your hands.

24. **STAY ALERT**, watch what you are doing, and use common sense when operating any machine. **DO NOT** operate any machine tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.

25. **USE ONLY** recommended accessories. Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the machine. If in doubt, **DO NOT** use it.

26. **THE USE** of extension cords is not recommended for 230V equipment. It is better to arrange the placement of your equipment and the installed wiring to eliminate the need for an extension cord. If an extension cord is necessary, refer to the chart in the Grounding Instructions section to determine the minimum gauge for the extension cord. The extension cord must also contain a ground wire and plug pin.

27. Wear proper clothing, **DO NOT** wear loose clothing, gloves, neckties, or jewelry. These items can get caught in the machine during operations and pull the operator into the moving parts. Users must wear a protective cover on their hair, if the hair is long, to prevent it from contacting any moving parts.

28. **SAVE** these instructions and refer to them frequently and use them to instruct other users.

29. Information regarding the safe and proper operation of this tool is also available from the following sources:

    Power Tool Institute
    1300 Summer Avenue
    Cleveland, OH 44115-2851
    www.powertoolinstitute.org

    National Safety Council
    1121 Spring Lake Drive
    Itasca, IL 60143-3201

    American National Standards Institute
    25 West 43rd Street, 4th floor
    New York, NY 10036
    www.ansi.org

    ANSI 01.1 Safety Requirements for
    Woodworking Machines, and the U.S. Department of Labor regulations
    www.osha.gov

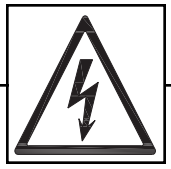
PRODUCT SAFETY

1. Serious personal injury may occur if normal safety precautions are overlooked or ignored. Accidents are frequently caused by lack of familiarity or failure to pay attention. Obtain advice from supervisor, instructor, or another qualified individual who is familiar with this machine and its operations.

2. Every work area is different. Always consider safety first, as it applies to your work area. Use this machine with respect and caution. Failure to do so could result in serious personal injury and damage to the machine.

3. Prevent electrical shock. Follow all electrical and safety codes, including the National Electrical Code (NEC) and the Occupational Safety and Health Regulations (OSHA). All electrical connections and wiring should be made by qualified personnel only.

⚠ WARNING



4. **TO REDUCE** the risk of electrical shock. **DO NOT** use this machine outdoors. **DO NOT** expose to rain or moisture. Store indoors in a dry area.

5. **STOP** using this machine, if at any time you experience difficulties in performing any operation. Contact your supervisor, instructor or machine service center immediately.

6. Safety decals are on this machine to warn and direct you to how to protect yourself or visitors from personal injury. These decals **MUST** be maintained so that they are legible. **REPLACE** decals that are not legible.

7. **DO NOT** leave the unit plugged into the electrical outlet. Unplug the unit from the outlet when not in use and before servicing, performing maintenance tasks, or cleaning.

8. **ALWAYS** turn the power switch “OFF” before unplugging the jointer.

⚠ WARNING

9. **DO NOT** handle the plug or jointer with wet hands.

10. **USE** accessories only recommended by Steel City.

11. **DO NOT** pull the jointer by the power cord. **NEVER** allow the power cord to come in contact with sharp edges, hot surfaces, oil or grease.

12. **DO NOT** unplug the jointer by pulling on the power cord. **ALWAYS** grasp the plug, not the cord.

13. **REPLACE** a damaged cord immediately. **DO NOT** use a damaged cord or plug. If the jointer is not operating properly, or has been damaged, left outdoors or has been in contact with water.

14. **DO NOT** use the jointer as a toy. **DO NOT** use near or around children.

15. **ENSURE** that the machine sits firmly on the floor before using. If the machine wobbles or is unstable, correct the problem by using shims or blocks prior to operation.
16. **ALWAYS** keep hands and fingers away from the blades when operating.
17. **USE** push blocks on any materials less than 3" in height or thickness.
18. **DO NOT** use the jointer on pieces less than 10" in length.
19. **NEVER** use the jointer with the depth of cut at more than 1/8".
20. **ALWAYS** keep the cutterhead guard in place during any edge jointing or surfacing operation. Check it periodically to insure that it is operating smoothly.
21. **MAINTAIN** the proper relationship between the infeed and outfeed tables and the cutterhead knives.
22. **NEVER** remove any chips without turning off the machine and disconnecting the power.
23. **NEVER** turn on the machine if the workpiece is in contact with the cutterhead.
24. **ALWAYS** feed against the rotation of the cutterhead. Never apply feed pressure with your hands directly over the cutterhead. Always lift your hands, one at a time, over the cutterhead as you pass the work along the jointer bed. Always support the workpiece and maintain control throughout the operation.
25. **KEEP** cutterhead knives sharp and free of all rust and pitch.
26. **ALWAYS** disconnect the machine from the power source before making any adjustments.
27. **NEVER** perform "free hand" operations. Use the fence to position and guide the workpiece.

ELECTRICAL REQUIREMENTS

⚠ WARNING

To reduce the risk of electric shock, follow all electrical and safety codes, including the National Electric Code (NEC) and the Occupational Safety and Health Regulations (OSHA). All electrical connections and wiring should be made by qualified personnel only.

The switch provided with your jointer is designed for 230 volt single phase usage only. The switch has a plug that is designed to plug into a 230 volt outlet. There are many different configurations for 230 volt outlets, so it is conceivable that the configuration of the plug may not match the configuration of your existing outlet. If this is the case, you will have to replace the plug with a UL/CSA approved plug that matches the configuration of your 230V outlet.

GROUNDING INSTRUCTIONS

⚠ WARNING

This machine **MUST BE GROUNDED** while in use to protect the operator from electric shock.

In the event of a malfunction or breakdown, **GROUNDING** provides the path of least resistance for electric current and reduces the risk of electric shock. The plug **MUST** be plugged into a matching electrical receptacle that is properly installed and grounded in accordance with **ALL** local codes and ordinances.

If a plug is provided with your machine **DO NOT** modify the plug. If it will not fit your electrical receptacle, have a qualified electrician install the proper connections to meet all electrical codes local and state. All connections must also adhere to all of OSHA mandates.

IMPROPER ELECTRICAL CONNECTION of the equipment-grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment-grounding conductor. **DO NOT** connect the equipment-grounding conductor to a live terminal if repair or replacement of the electric cord or plug is necessary.

Check with a qualified electrician or service personnel if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

PLUGS/RECEPTACLES

⚠ WARNING

- Electrocution or fire could result if this machine is not grounded properly or if the electrical configuration does not comply with local and state electrical codes.
- **MAKE CERTAIN** the machine is disconnected from power source before starting any electrical work.
- **MAKE SURE** the circuit breaker does not exceed the rating of the plug and receptacle.

The motor supplied with your machine is a 230 volt, 60 hertz, single phase motor. Never connect the green or ground wire to a live terminal.

A machine with a 230 volt plug should only be connected to an outlet having the same configuration as the plug.

EXTENSION CORDS

⚠ WARNING

To reduce the risk of fire or electrical shock, use the proper gauge of extension cord. When using an extension cord, be sure to use one heavy enough to carry the current your machine will draw.

The smaller the gauge-number, the larger the diameter of the extension cord is. If in doubt of the proper size of an extension cord, use a shorter and thicker cord. An undersized cord will cause a drop in line voltage resulting in a loss of power and overheating.

⚠ CAUTION

USE ONLY a 3-wire extension cord that has a 3-prong grounding plug and a 3-pole receptacle that accepts the machine's plug.

If you are using an extension cord outdoors, be sure it is marked with the suffix "W-A" ("W" in Canada) to indicate that it is acceptable for outdoor use.

Make certain the extension cord is properly sized, and in good electrical condition. Always replace a worn or damaged extension cord immediately or have it repaired by a qualified person before using it.

Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

MINIMUM RECOMMENDED GAUGE FOR EXTENSION CORDS (AWG)

230 VOLT OPERATION ONLY

	25' LONG	50' LONG	100' LONG
0 to 6 Amps	16 AWG	16 AWG	14 AWG
6 to 8 Amps	16 AWG	16 AWG	12 AWG
8 to 12 Amps	14 AWG	14 AWG	10 AWG
12 to 15 Amps	12 AWG	12 AWG	10 AWG
15 to 20 Amps	10 AWG	10 AWG	Not recommended

UNPACKING & INVENTORY

⚠ WARNING

The jointer is a very heavy piece of machinery and should only be moved by a forklift or overhead lift.

Check shipping crate and machine for damage before unpackaging. Carefully remove packaging materials, parts and machine from shipping crate. Always check for and remove protective shipping materials around motors and moving parts. Lay out all parts on a clean work surface.

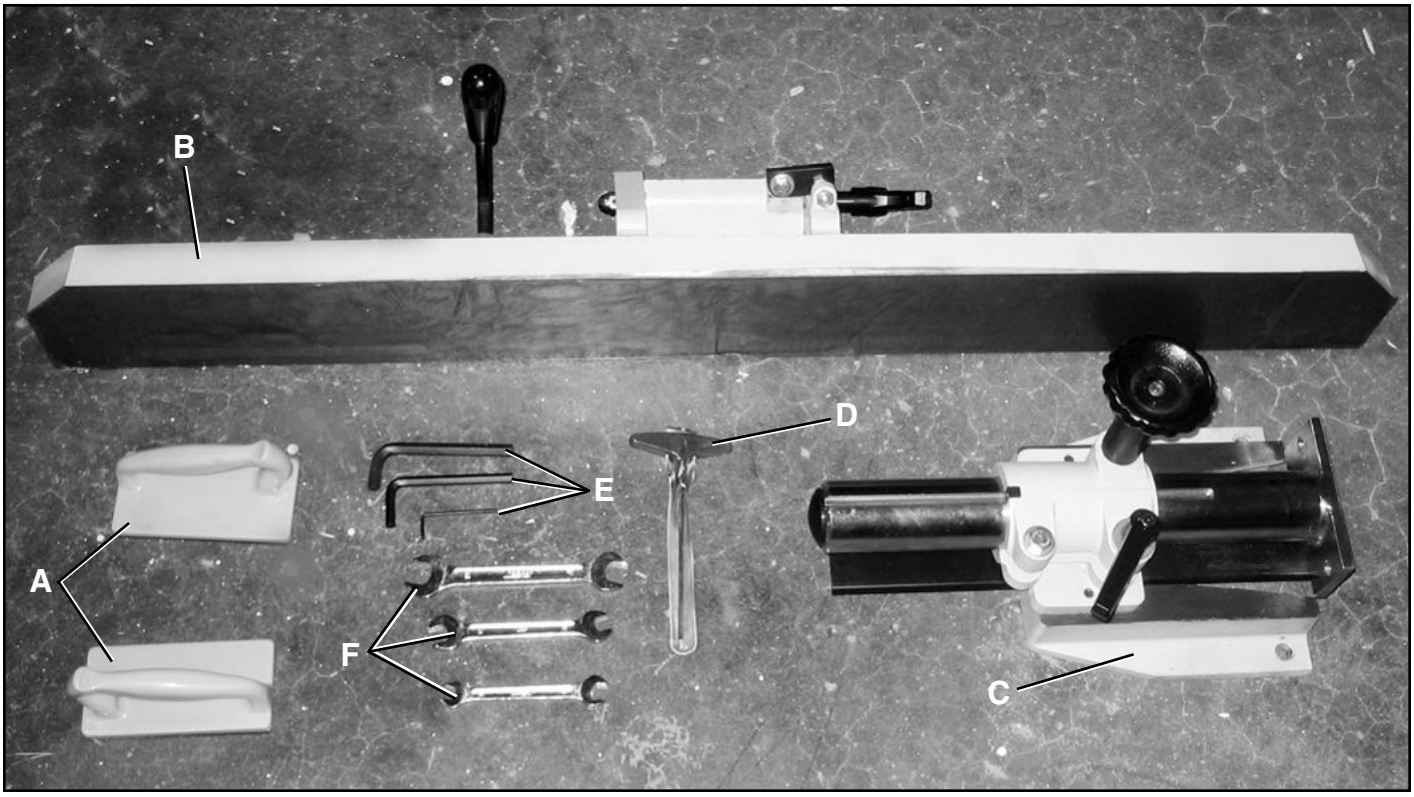
Remove any protective materials and coatings from all of the parts and the jointer. The protective coatings can be removed by spraying WD-40 on them and wiping it off with a soft cloth. This may need to be redone several times before all of the protective coatings are removed completely.

After cleaning, apply a good quality paste wax to any unpainted surfaces. Make sure to buff out the wax before assembly.

Compare the items to inventory figures; verify that all items are accounted for before discarding the shipping box.

⚠ WARNING

If any parts are missing, do not attempt to plug in the power cord and turn “ON” the machine. The machine should only be turned “ON” after all the parts have been obtained and installed correctly. For missing parts, contact Steel City at 1-877-SC4-TOOL.



A. Push Paddles

B. Fence

C. Rack and Pinion Assembly

D. T-Handle Hex Wrench

E. L-Handle Hex Wrench

F. Open End Wrenches

ASSEMBLY

REMOVING MACHINE FROM SHIPPING CRATE

1. Open door on the backside of the unit and remove the mounting hardware that fastens the machine to the wooden skid.
2. All remaining hardware to be removed is accessible from the front of the jointer.
3. Remove machine from the shipping skid.

MACHINE PLACEMENT

Take into consideration the following factors when determining a final location for the jointer.

FLOOR

It is very important that the jointer be set on a solid and level surface, capable of supporting the weight of the jointer and the operator. If the jointer rocks, use metal shims at the corners of the machine between the base and the floor to eliminate the rocking. The jointer may also be bolted to the floor with bolts or lag screws, if desired, using the same holes that fastened the jointer to the wooden shipping skid.

WORKING CLEARANCES

Make an allowance for the size of the material to be processed. Make sure that you have adequate clearance on both the infeed and outfeed sides of the jointer. Make sure that the operator has enough room to operate freely.

OUTLET LOCATION

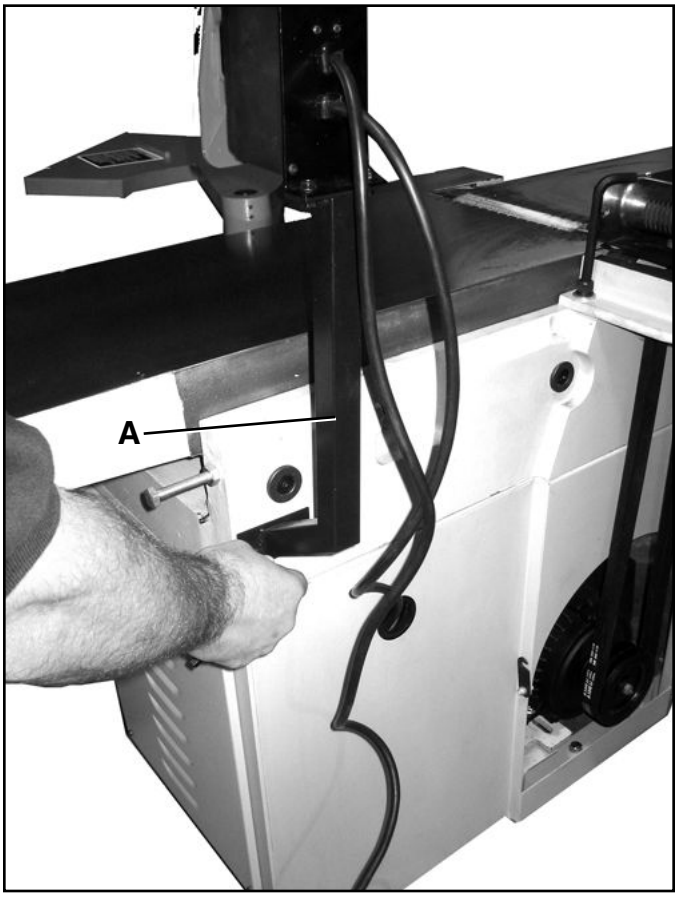
Electrical outlets should be located close enough to the machine so that the power cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

MOVING START STOP SWITCH TO THE UPRIGHT POSITION

For shipping purposes, the start/stop switch and switch arm is shipped in the down position. To install:

1. Remove the two screws that fasten the switch arm (A) to the jointer. **SEE FIG 1.**

Fig. 1

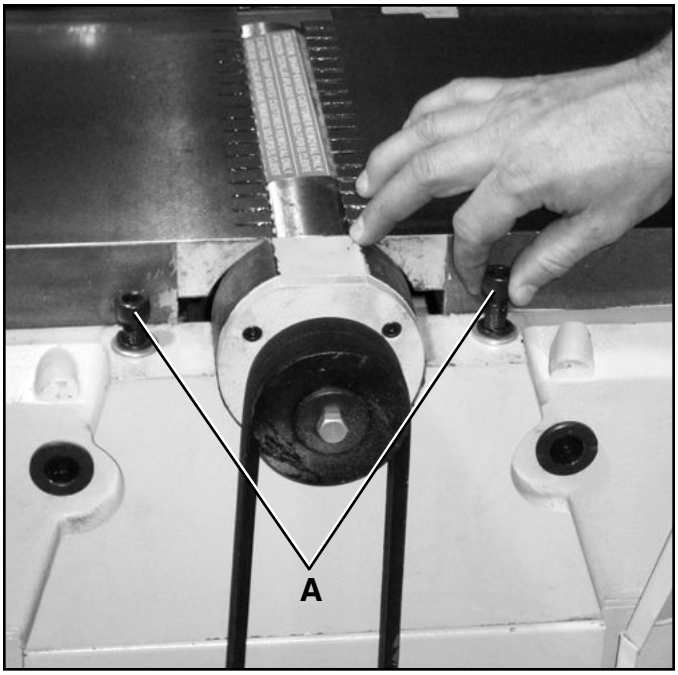


2. Rotate the switch arm 180 degrees and replace the two screws with the switch in the upright position. Tighten securely.

ASSEMBLING RACK AND PINION ASSEMBLY TO JOINTER

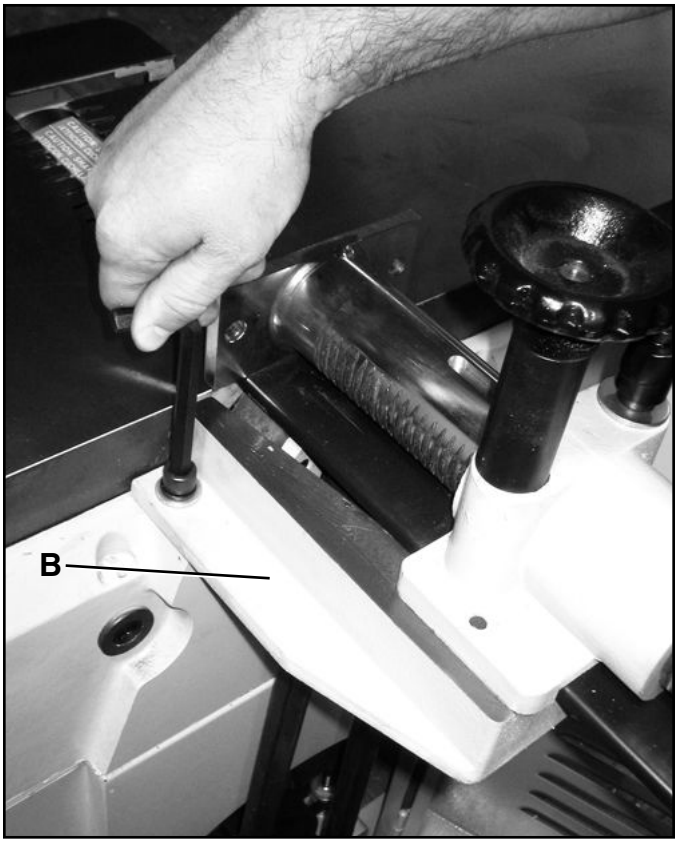
1. Remove the two screws (A) from the jointer. **SEE FIG 2.**

Fig. 2



2. Attach the rack and pinion assembly (B) with the two screws that you removed in Step 1. **SEE FIG 3.**

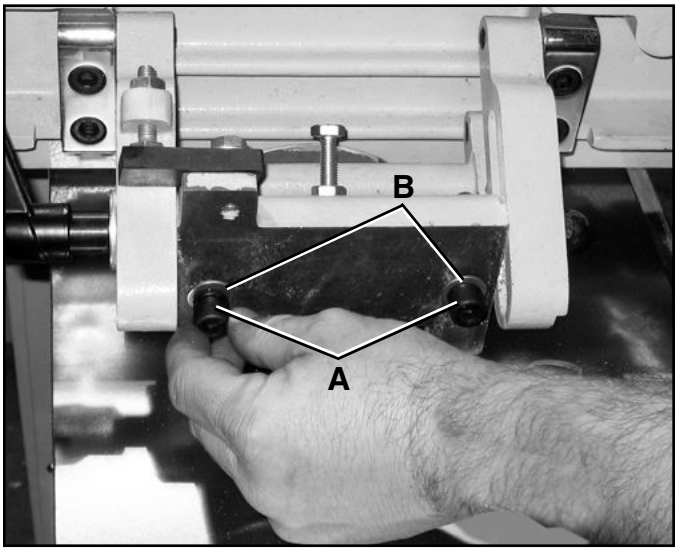
Fig. 3



ASSEMBLING FENCE TO RACK AND PINION ASSEMBLY

1. Remove two 1-1/8" long screws (A) and flat washers (B) from the fence assembly. **SEE FIG 4**.

Fig. 4



2. Attach fence assembly to rack and pinion assembly using the bolts and washers removed in Step 1. **SEE FIG 5**.

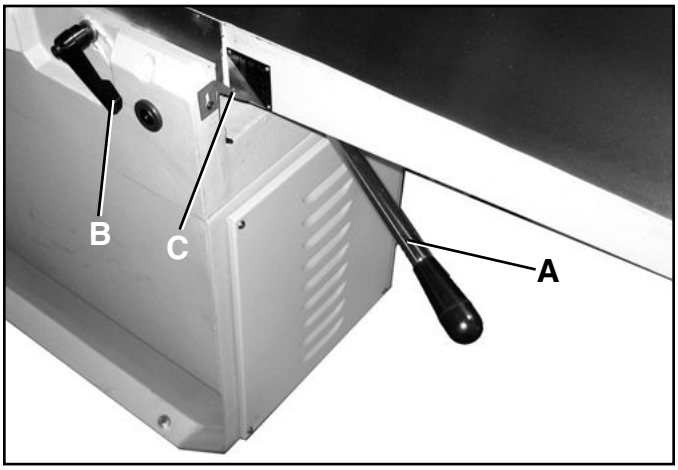
Fig. 5

ADJUSTMENTS

INFEED TABLE ADJUSTMENTS

To raise or lower the infeed table, loosen infeed table lock handle (B) and move the table raising and lowering hand lever (A), up or down until the table is at the desired position and tighten infeed table lock handle. **NOTE:** The table lock handle can be repositioned by pulling out the handle and repositioning it on the serrated nut located underneath the handle. **SEE FIG. 6.**

Fig. 6



The depth of cut of the infeed table (position of table in relationship with the cutting circle) can be read with the pointer and scale (C).

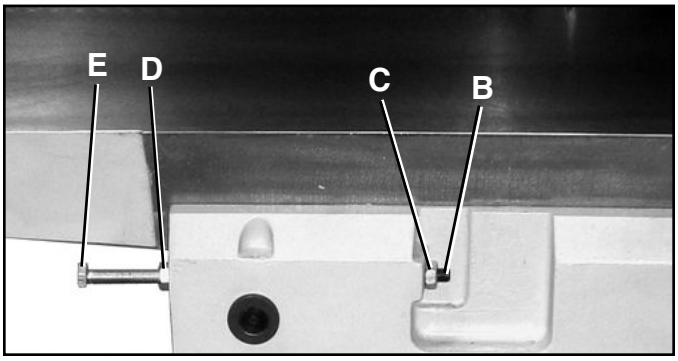
INFEED TABLE POSITIVE STOPS

⚠WARNING

DISCONNECT MACHINE FROM POWER SOURCE.

Positive stops are provided to limit the height of the infeed table. The positive stops can be set by loosening lock nuts (C) and (D), and turning the two adjusting screws (B) and (E). We recommend that the height of the infeed table be adjusted so that the table, at its highest point, will be 1/2mm (.020") below the highest point of the knives. This is an important feature of your jointer which enables you to rapidly position the infeed table for a finish or final cut. **SEE FIG. 7.**

Fig. 7



OUTFEED TABLE ADJUSTMENTS

⚠WARNING

DISCONNECT MACHINE FROM POWER SOURCE.

The outfeed table must be exactly level with the knives when the knives are at their highest point of revolution. To move the outfeed table, loosen table lock handle (F) and move the table raising and lowering hand lever (A) up or down until the table is level with the knives. It may be necessary to loosen the two locknuts (B) and (D), and the two adjusting screws (C) and (E) when moving the table up or down. When the outfeed table is exactly level with the knives at their highest point of revolution, tighten table lock handle and turn adjusting screw (E) until it bottoms. Then tighten lock nut (D). Screw (C) is also a positive stop for the lower limit of the outfeed table. We suggest that this stop also be tightened with locknut (B), when the outfeed table is set level with the knives. This will prevent the outfeed table from accidentally being lowered. **SEE FIGS. 8 AND 9.**

Fig. 8

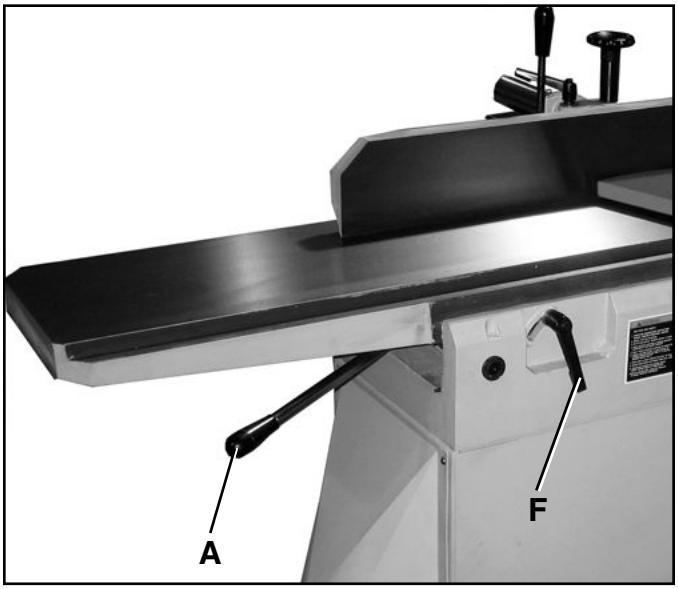
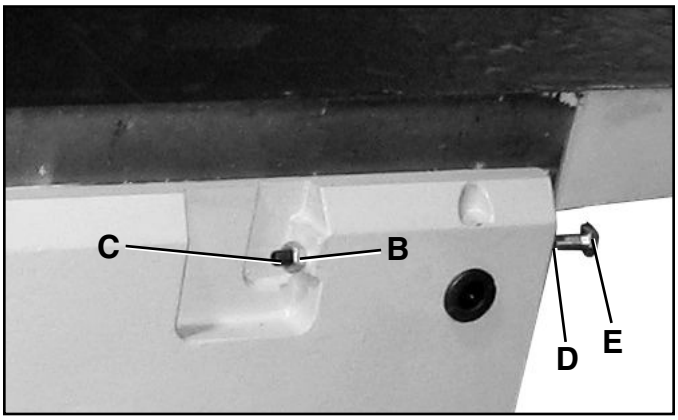


Fig. 9



KNIFE ADJUSTMENTS

In order to do accurate work, the knives must be exactly level with the outfeed table. To check and adjust, proceed as follows:

⚠ WARNING

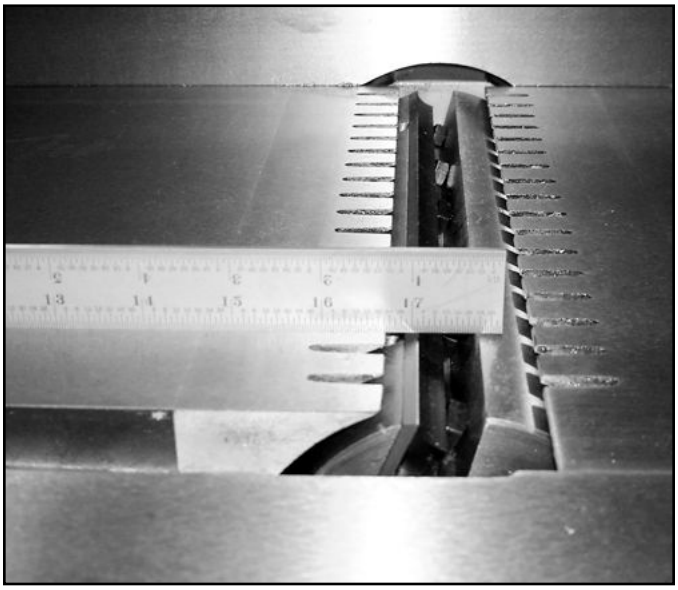
DISCONNECT MACHINE FROM POWER SOURCE.

1. Loosen infeed table lock lever and lower infeed table as described under section “INFEED TABLE ADJUSTMENTS”.
2. Remove cutterhead guard by loosening the two set screws (A). **SEE FIG. 10.**

Fig. 10

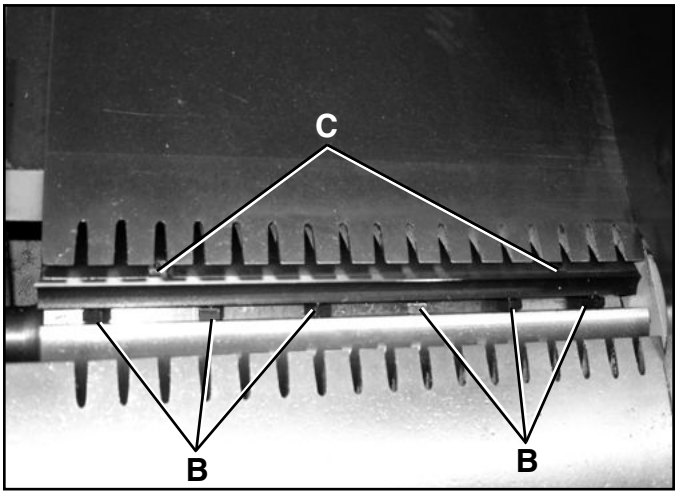
3. Place a steel straight edge on the outfeed table, extending over the cutterhead as shown. **SEE FIG. 11.**

Fig. 11



4. Carefully rotate the cutterhead by hand. The knives should just touch the straight edge.
5. If the knife is too high or too low at either end, turn the six screws (B) in the knife locking bar clockwise to loosen, using an open end wrench. Then using a hex wrench, adjust the height of the knife by turning the knife raising screws (C) counterclockwise to lower and clockwise to raise the knife. **SEE FIG 12.**

Fig. 12



⚠ WARNING

CARE MUST BE TAKEN WHEN HANDLING THE KNIVES, AS THE CUTTING EDGES ARE VERY SHARP. WEAR PROTECTIVE GLOVES WHEN HANDLING THE KNIVES.

If the knife is to be lowered, it will be necessary to carefully push down on the knife with a scrap piece of wood, after screws have been turned counterclockwise to achieve desired depth. Tighten six screws (B) by turning them counterclockwise, after adjustment is made.

6. Repeat these procedures for adjusting the remaining two knives if necessary, and replace cutterhead guard removed in STEP 2.
7. If the knives are set too low, the finished surface will be curved.
8. If the knives are set too high, the work will be gouged, curved, or bowed at the end of the cut.
9. As a final check, run a piece of work slowly over the knives for 6 to 8 inches. The wood should rest firmly on both tables with no open spaces under the finished cut.

ADJUSTING FENCE POSITIVE STOPS

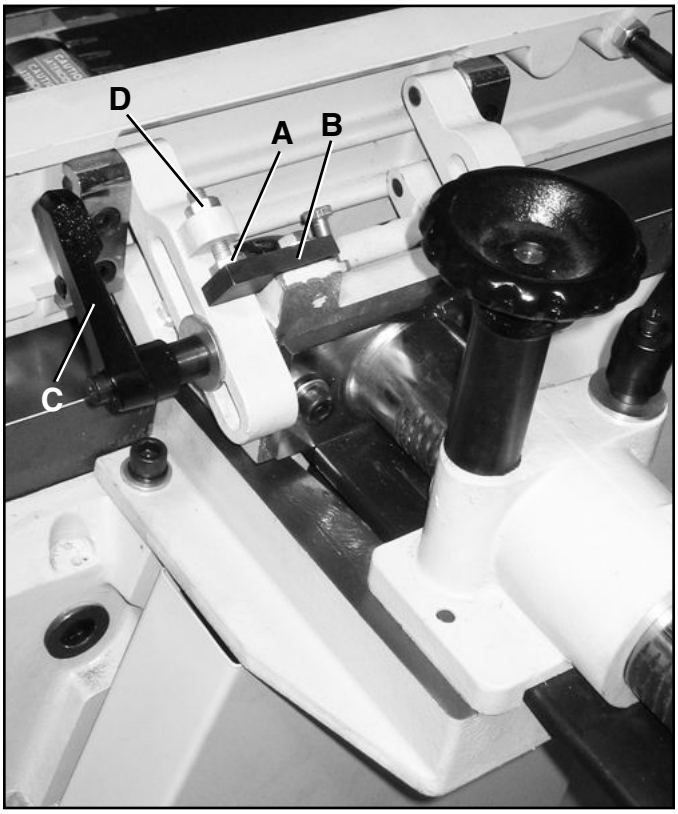
The fence on your jointer is equipped with positive stops at the most used fence positions of 90 degrees and 45 degrees in and out. To check and adjust the positive stops, proceed as follows:

⚠ WARNING

DISCONNECT MACHINE FROM POWER SOURCE.

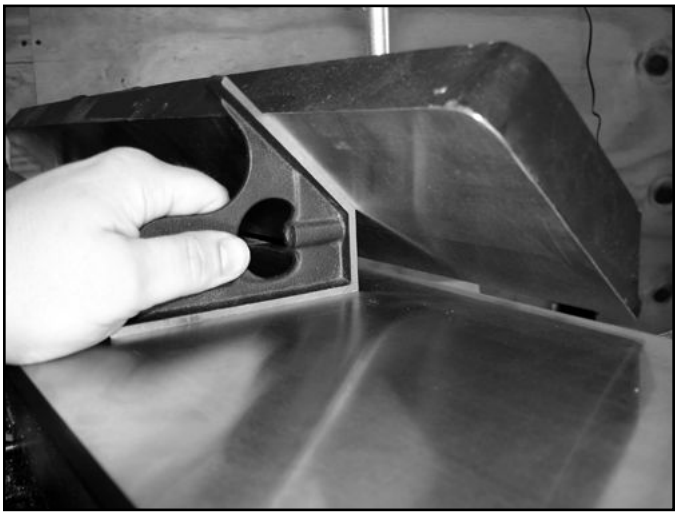
1. Set the fence at 90 degrees to the table, making certain that the end of the stop screw (A) is against the stop (B). **SEE FIG 13.**

Fig. 13



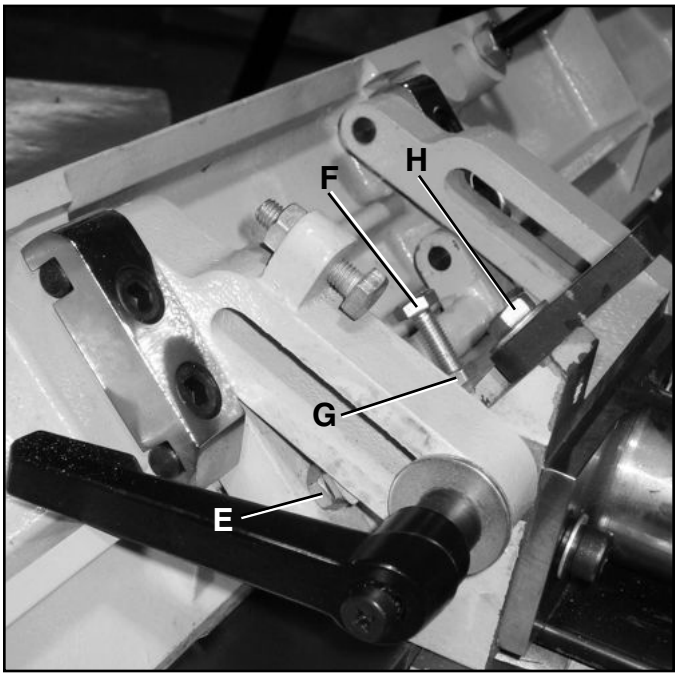
2. Tighten bevel lock handle (C)
3. Use a square to determine if the fence is 90 degrees to the table. If the fence is square to the table, skip ahead to step 6. If the fence is not square to the table, proceed to step 4
4. Loosen lock handle and lock nut (D).
5. Adjust the stop screw until the end of the screw contacts the stop when the fence is 90 degrees to the table and the lock handle is tightened.
6. Once the 90 degree positive stop is set, loosen the lock handle and tilt the fence as far inward as possible.
7. Using a combination square, check to see if the fence is tilted inward 45 degrees. **SEE FIG 14.**

Fig. 14



8. If an adjustment is necessary, turn adjusting screw (E) in or out until the fence is 45 degrees to the table when the lock handle is tightened. **SEE FIG 15.**

Fig. 15



9. Loosen lock handle and tilt fence outward as far as possible

NOTE: In order to tilt the fence outward, the stop must be rotated to an upright position. To rotate the stop, loosen screw (H) and rotate stop upwards.

10. Using a combination square, check to see if the fence is tilted outward 45 degrees. **SEE FIG 16.**
11. If an adjustment is necessary, loosen locknut (G) and turn adjusting screw (F) until the fence is 45 degrees to the table when the lock handle is tightened. **SEE FIG 15.**
12. Retighten locknut (G).

Fig. 16

CUTTERHEAD ROTATION

⚠WARNING

The rotation of the cutterhead must be in a clockwise direction when viewed from the left side of the machine; that is, the knives must be rotating toward the infeed table from the top. If the cutterhead rotation is incorrect, disconnect the machine from the power source and interchange leads T5 and T8 in the motor junction box.

ADJUSTING BELT TENSION

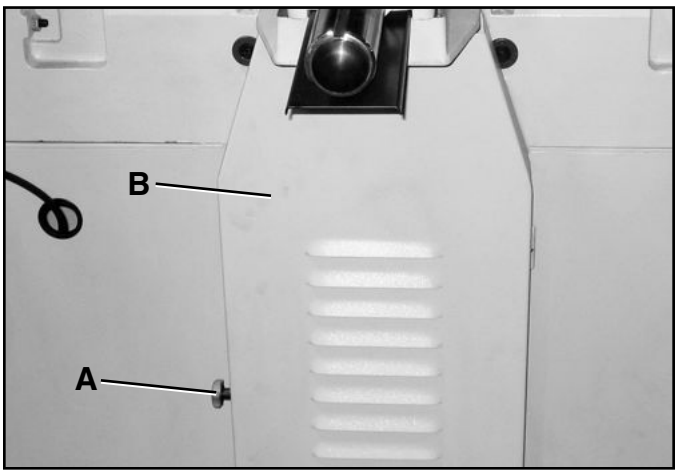
The belt tension is set at the factory and should not need adjustment, however if it becomes necessary to adjust the belt tension, follow the steps listed below:

⚠WARNING

MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

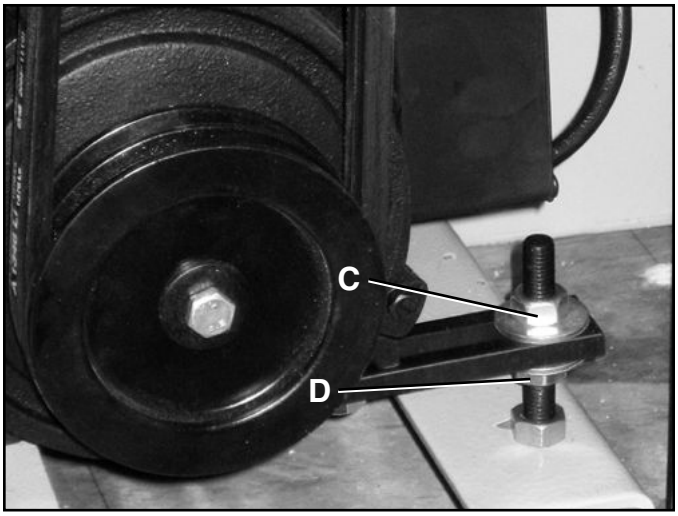
1. Unscrew the latch knob (A) and open motor access door (B). **SEE FIG 16A.**

Fig. 16A



2. Using light finger pressure, squeeze the belt at it's midpoint. It should deflect about 1/2".
3. To adjust the belt tension, turn nuts (C) and (D) to adjust the motor plate up or down until there is about 1/2" deflection at the midpoint of the belts. **SEE FIG 17.**

Fig. 17

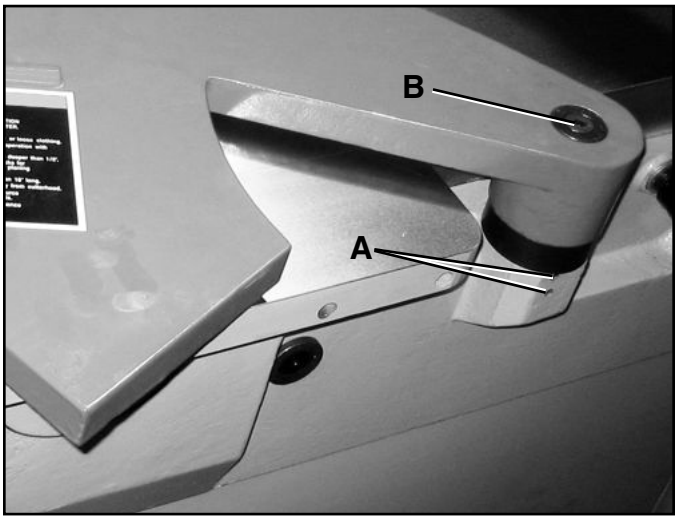


ADJUSTING CUTTERHEAD GUARD SPRING TENSION

The cutterhead guard covers the entire cutterhead. When the jointer is operated, the material being jointed and/or planed pushes the guard out of the way. Once the workpiece is through the cutterhead, the spring tension on the cutterhead guard returns the guard to its original position. If it becomes necessary to adjust the spring tension of the guard:

1. Loosen the two set screws (A) **SEE FIG 18.**
2. Turn screw (B) counterclockwise to decrease tension and clockwise to increase tension.
3. Once the tension is set, retighten the two set screws.

Fig. 18



OPERATIONS

According to many OSHA, ANSI, STATE, and LOCAL CODES, it is the Employers Responsibility to:

- **PERMIT ONLY** trained and authorized employees to operate equipment.
- **INSPECT AND MAINTAIN** guards, safety devices and start/stop controls.
- **INSTRUCT, TRAIN** and **SUPERVISE** the safe method of work.

⚠WARNING

Serious personal injury may occur if normal safety precautions are overlooked or ignored. Accidents are frequently caused by lack of familiarity or failure to pay attention. Obtain advice from supervisor, instructor, or another qualified individual who is familiar with the machine and its operations.

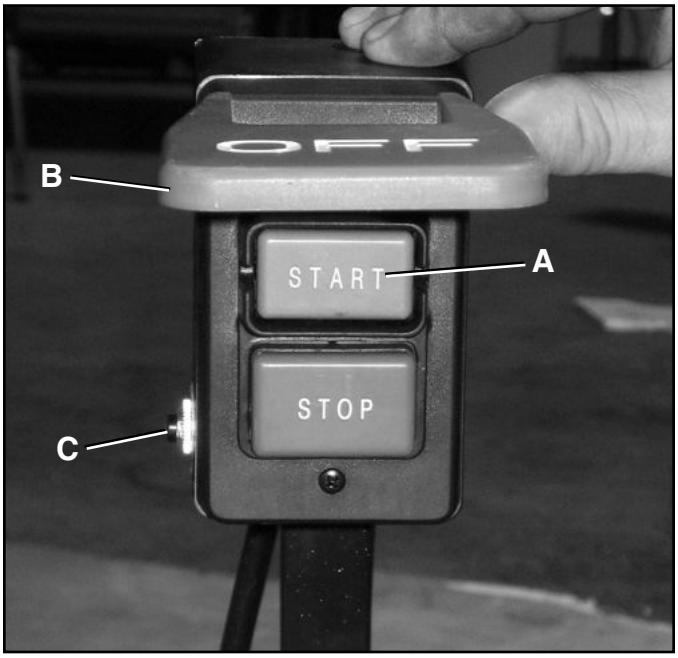
Every work area is different. Always consider safety first, as it applies to your work area. Use any machine with respect and caution. Failure to do so could result in serious personal injury and damage to the machine.

STOP using the machine, if at any time you experience difficulties in performing any operation. Contact your supervisor, instructor or machine service center immediately.

START/STOP SWITCH

The START/STOP switch assembly is located above the infeed table. To turn the jointer “ON”. push the green start button (A). To turn the jointer “OFF”, push the red stop paddle (B). **SEE FIG. 32A.**

Fig. 32A



⚠WARNING

CHILDPROOF THE WORKSHOP AREA by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.

LOCKING SWITCH IN THE "OFF" POSITION

When the jointer is not in use, the start button can be locked so that it cannot be started, using a padlock (not included) through the holes in the side of the start button.

CIRCUIT BREAKER

Your jointer is supplied with a resettable circuit breaker (C). It is located on the side of the start/stop switch box. If the motor shuts off or fails to start due to an overload condition, turn the jointer “OFF”, let the motor cool for three to five minutes, and push the reset button on the circuit breaker to reset the breaker. The motor can then be turned on again in the usual manner. **SEE FIG. 32A.**

The following directions will give the beginner a start on jointer operations. Use scrap pieces of lumber to check settings and to get the feel of the operations before attempting regular work.

CAUTION

THE KNIVES ON THE JOINTER WILL NOT WEAR EVENLY BY FEEDING THE WOOD THROUGH THE SAME SPOT ON THE TABLE EVERY TIME. FEED THE WOOD THROUGH THE JOINTER AT DIFFERENT SPOTS ON THE TABLE BY REPOSITIONING THE FENCE WHEN POSSIBLE, TO HELP ELIMINATE UNEVEN WEAR OF THE KNIVES.

⚠WARNING

ALWAYS USE CUTTERHEAD GUARD AND KEEP HANDS AWAY FROM CUTTERHEAD. ALWAYS USE PUSH BLOCKS WHENEVER POSSIBLE. NEVER MAKE JOINTING AND PLANING CUTS DEEPER THAN 1/8” IN ONE PASS.

PLACEMENT OF HANDS DURING FEEDING

At the start of the cut, the left hand holds the work firmly against the infeed table and fence, while the right hand pushes the work toward the knives. After the cut is underway, the new surface rests firmly on the outfeed table. The left hand should then be moved to the work on the outfeed table, at the same time maintaining flat contact with the fence. The right hand presses the work forward, and before the right hand reaches the cutterhead, it should be moved to the work on the outfeed table.

⚠ WARNING

NEVER PASS HANDS DIRECTLY OVER THE CUTTERHEAD.

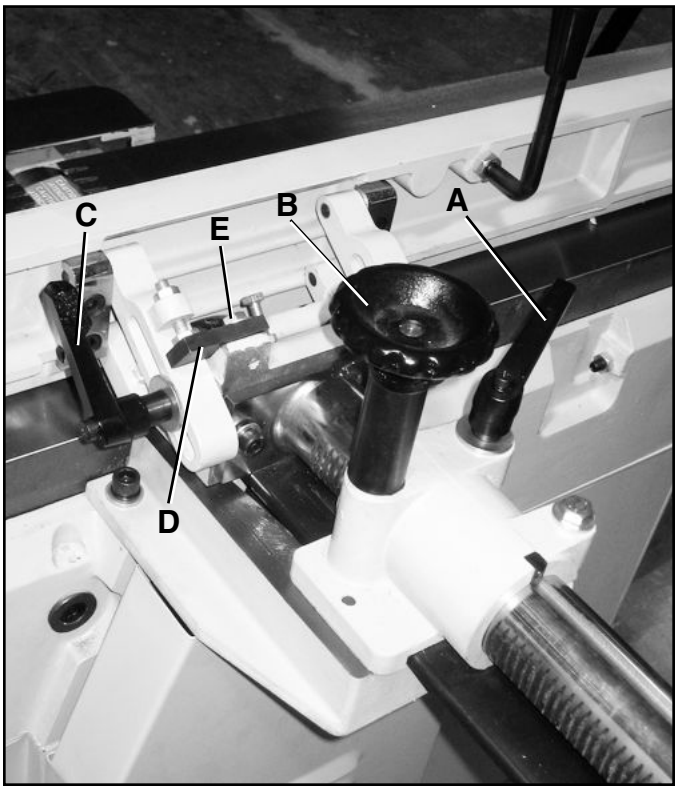
DIRECTION OF GRAIN

Avoid feeding work into the jointer against the grain. The result will be chipped and splintered edges. Feed with the grain to obtain a smooth surface.

FENCE OPERATION

1. The fence can be moved across the table by loosening the fence lock lever (A) and rotating the handwheel (B). This handwheel engages the rack and pinion mechanism of the fence assembly and moves the fence in or out across the table. **SEE FIG 19.**

Fig. 19



2 Once the fence is in its desired location, retighten the fence lock lever.

3. To tilt the fence inward or outward, loosen bevel lock handle (C) and move the fence to its desired angle.

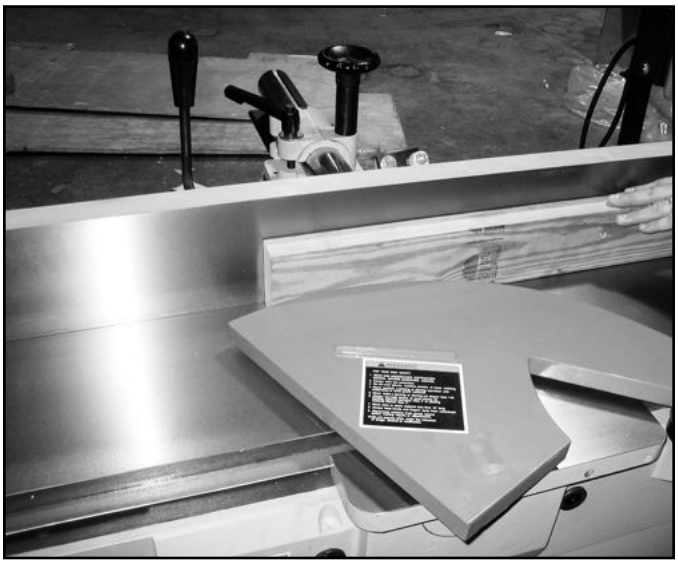
4. Once the fence is positioned where you want it, retighten the bevel lock handle.

NOTE: In order to tilt the fence outward, the stop (D) must be rotated to an upright position. To rotate the stop, loosen screw (E) and rotate stop upwards.

JOINTING AN EDGE

This is the most common operation for the jointer. These cuts are made to square an edge of a workpiece. Set the guide fence square with the table. Depth of cut should be the minimum required to obtain a straight edge. Hold the best face of the piece firmly against the fence throughout the feed as shown in Fig. 20. **SEE FIG. 20.**

Fig. 20



CAUTION

MAXIMUM DEPTH OF CUT SHOULD NOT BE MORE THAN 1/8" IN ONE PASS.

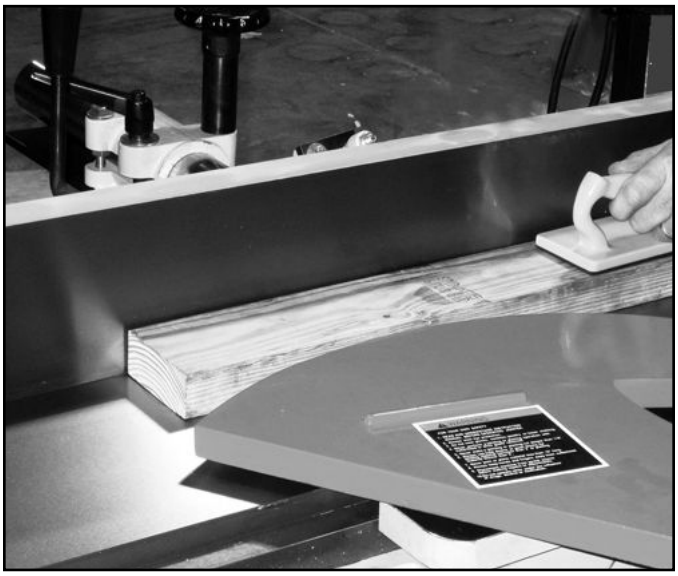
⚠ CAUTION

DO NOT PERFORM JOINTING OPERATIONS ON MATERIAL SHORTER THAN 10 INCHES, NARROWER THAN 3/4 INCH, OR LESS THAN 1/2 INCH THICK.

SURFACING

Surfacing is identical to the jointing operation except for the position of the workpiece. For surfacing, the major flat surface of the workpiece is placed on the infeed table of the jointer with the narrow edge of the workpiece against the fence, as shown in Fig. 21. The workpiece is moved from the infeed table, across the cutterhead to the outfeed table, establishing a flat surface on the workpiece. **SEE FIG. 21.**

Fig. 21



⚠ WARNING

ALWAYS USE PUSH BLOCKS WHEN PERFORMING SURFACING OPERATIONS AND NEVER PASS YOUR HANDS DIRECTLY OVER THE CUTTERHEAD.

CAUTION

MAXIMUM DEPTH OF CUT SHOULD NOT BE MORE THAN 1/8" IN ONE PASS.

BEVELING

To cut a bevel, lock the fence at the required angle and run the work across the knives while keeping the work firmly against the fence and tables. Several passes may be necessary to arrive at the desired result. When the angle is small, there is little difference whether the fence is tilted in or out. However, at greater angles approaching 45 degrees, it is increasingly difficult to hold the work properly when the fence is tilted out. The advantage of the double-tilting fence is appreciated under such conditions. When tilted in, the fence forms a V-shape with the tables, and the work is easily pressed into the pocket while passing it across the knives. If the bevel is laid out on the piece in such direction that this involves cutting against the grain, it will be better to tilt the fence out.

TAPER CUTS

One of the most useful jointer operations is cutting an edge to a taper. This method can be used on a wide variety of work. Tapered legs of furniture are a common example. Instead of laying the piece on the infeed table, lower the forward end of the work onto the outfeed table. Do this very carefully, as the piece will span the knives, and they will take a "bite" from the work with a tendency to kick back unless the piece is firmly held. Now push the work forward as in ordinary jointing. The effect is to surface off all the stock in front of the knives, to increasing depth, leaving a tapered surface. The ridge left by the knives when starting the taper may be removed by taking a very light cut according to the regular method for jointing, with the infeed table raised to its usual position. Practice is required in this operation, and the beginner is advised to make trial cuts on waste material. Taper cuts over part of the length and a number of other special operations can easily be done by the experienced craftsman.

CUTTING A RABBET

When making a rabbet cut, the cutterhead guard must be removed.

⚠ CAUTION

AFTER THE RABBET CUT IS COMPLETED, BE CERTAIN GUARD IS REPLACED.

1. Adjust the fence so that the distance between the end of the knives and the fence is equal to the width of the rabbet.
2. Lower the infeed table an amount equal to the depth of the rabbet. If the rabbet is quite deep, it may be necessary to cut it in two or more passes. In that event, the table is lowered an amount equal to about half the depth of the rabbet for the first pass, then lowered again to proper depth to complete the cut.

SURFACING WARPED PIECES

If the wood to be surfaced is dished or warped, take light cuts until the surface is flat. Avoid forcing such material down against the table; excessive pressure will spring it while passing the knives, and it will spring back and remain curved after the cut is completed.

SURFACING SHORT OR THIN WORK

⚠ CAUTION

WHEN SURFACING SHORT OR THIN PIECES, ALWAYS USE PUSH BLOCKS TO MINIMIZE ALL DANGER TO THE HANDS.

⚠ CAUTION

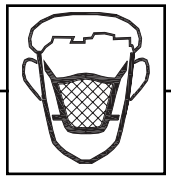
DO NOT PERFORM SURFACING OPERATIONS ON MATERIAL SHORTER THAN 10 INCHES, NARROWER THAN 3/4 INCH, WIDER THAN 8 INCHES, OR LESS THAN 1/2 INCH THICK.

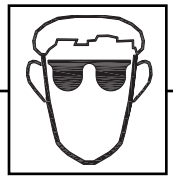
MAINTENANCE

- **DO NOT** begin cleaning up until you have read and understand all of the clean up instructions.
- Disconnect the machine from the power source prior to cleaning this machine or any part of this machine.
- **DO NOT USE FLAMMABLE MATERIALS TO CLEAN JOINTER.**

CLEANING

⚠ WARNING





With the machine unplugged, blow off motor with low pressure air to remove dust or dirt. Air pressure above 50 P.S.I. should not be used as high-pressured air may damage insulation. The operator should always wear a respirator and eye protection when using compressed air.

Do not allow chips and dust to accumulate under jointer. Keep area clean and in safe order.

⚠ WARNING

Turn the power switch “OFF” and unplug the power cord from its power source prior to any maintenance.

LUBRICATION

The jointer has sealed lubricated bearings in the motor housing that do not require any additional lubrication from the operator.

Repairs to the jointer should be performed by trained personnel only. Contact your nearest Steel City Dealer for authorized service. Unauthorized repairs or replacement with non-factory parts could cause serious injury to the operator and damage to the jointer.

After considerable use, the knives will become dull and it will not be possible to do accurate work. Unless badly damaged by running into metal or other hard material, the knives may be sharpened as follows:

WHETTING KNIVES

⚠ WARNING

DISCONNECT MACHINE FROM POWER SOURCE.

Use a fine carborundum stone; cover it partly with paper to avoid marking the table. Lay the stone on the infeed table, lower the table and turn the cutterhead forward until the stone lies flat on the bevel of the knife. Hold the cutterhead from turning, and whet the beveled edge of the knife, stroking lengthwise by sliding the stone back and forth across the table. Do the same amount of whetting on each of the three knives.

REMOVING, REPLACING, AND RESETTING KNIVES

If the knives are removed from the cutterhead for replacement or sharpening, care must be used in removing, replacing, and resetting them.

⚠ WARNING

DISCONNECT MACHINE FROM POWER SOURCE.

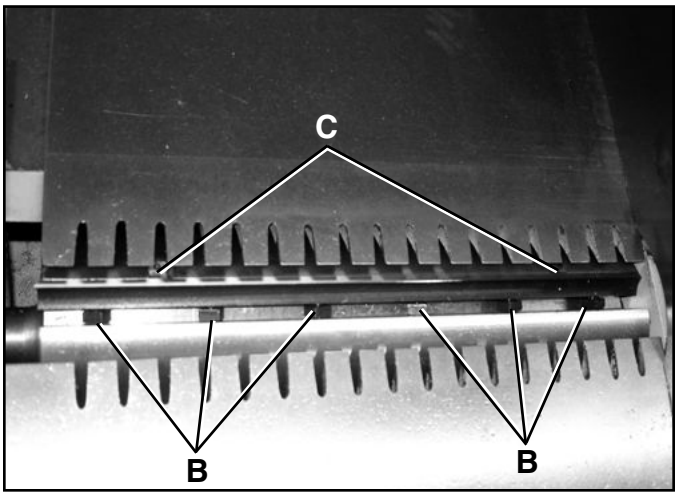
1. Move the fence to the rear and remove the cutterhead guard.

⚠ WARNING

BE EXTREMELY CAREFUL THAT YOUR HANDS DO NOT COME IN CONTACT WITH THE KNIVES. THE KNIVES ARE VERY SHARP. WEAR PROTECTIVE GLOVES WHEN HANDLING THE KNIVES.

2. Using an open end wrench, slightly loosen the six locking screws (B) in each knife slot by turning the screws clockwise. Loosen the screws further and remove the knife and knife locking bar. **SEE FIG. 22.**

Fig. 22



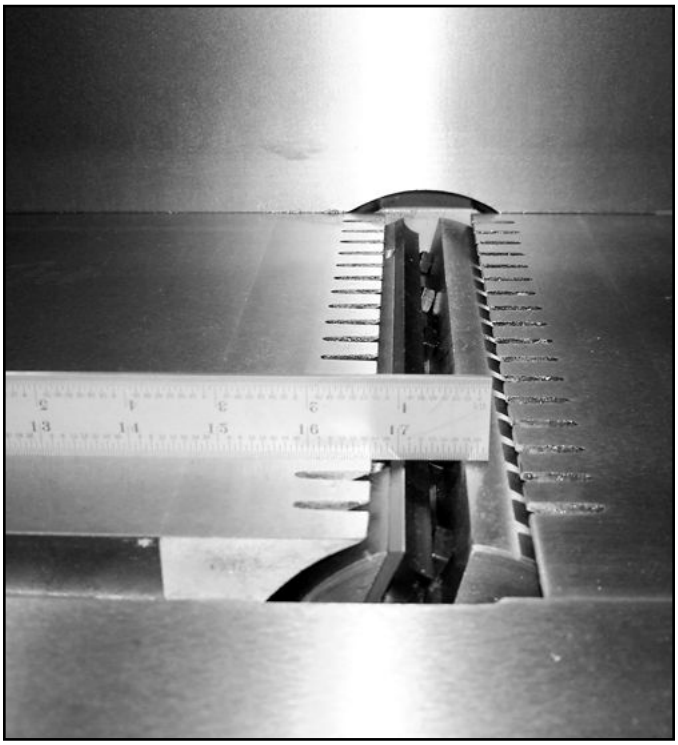
4. Using an allen wrench, lower the two knife adjustment blocks to the bottom of the cutterhead by turning screws (C) counterclockwise in all three slots of the cutterhead.
5. Before assembling knives, make certain the knives and locking bars are thoroughly clean and free of gum and pitch.
6. Place the knife locking bars and knives into each slot in the cutterhead.

⚠ WARNING

CARE MUST BE TAKEN WHEN INSERTING THE KNIVES, AS THE CUTTING EDGES ARE VERY SHARP. WEAR PROTECTIVE GLOVES WHEN HANDLING THE KNIVES.

7. Push the knife down as far as possible and turn each screw (B) counterclockwise just enough to hold the knife in position. Replace the remaining two knives in the same manner.
8. The knives are adjusted correctly when the cutting edge of the knife extends out .015" from the cutterhead diameter.
9. Carefully rotate the cutterhead until the round portion of the cutterhead is on top.
10. Place a .015" feeler gage on the cutterhead and using a straight edge on the rear table, adjust the height of the rear table until it is .015" above the cuttinghead diameter.
11. Lock the rear table in position and remove the feeler gage.
12. Lower the infeed table and place a straight edge (E) on the outfeed table extending over the cutterhead (D) as shown. **SEE FIG. 23.**

Fig. 23



13. Rotate the cutterhead by hand until the knife is at its highest point **at each end of the cutterhead**. To raise the knife, use an allen wrench and turn raising screw clockwise until the knife just touches the straight edge on each end and center of the cutterhead when the knife is at its highest point.When you are certain the knife is adjusted properly, tighten the six locking screws by turning them counterclockwise.
14. Adjust the remaining two knives in the same manner. **MAKE CERTAIN THAT ALL KNIVES ARE SECURELY FASTENED IN CUTTERHEAD BEFORE TURNING ON POWER.**
15. Replace cutterhead guard.

TROUBLESHOOTING GUIDE

Motor and Machine Operation

PROBLEM	LIKELY CAUSE(S)	SOLUTION
Motor will not start.	1. Low voltage. 2. Open circuit in motor or loose connections.	1. Check power line for proper voltage. 2. Inspect all lead connections on motor for loose or open connections.
Fuses or circuit breakers blow.	1. Short circuit in line cord or plug.	1. Repair or replace cord or plug for damaged insulation and shorted wires
Motor fails to develop full power (output of motor decreases rapidly with decrease in voltage at motor terminals).	1. Power supply circuit overloaded with lights, appliances, and other motors. 2. Undersized wires or circuits too long.	1. Reduce load on circuit. 2. Increase wire sizes or reduce length of the circuit.
Motor overheats.	1. Motor overloaded during operation. 2. Air circulation through the motor restricted.	1. Reduce load on motor; take lighter cuts. 2. Clean out motor to provide normal air circulation.
Motor stalls or shuts off during a cut.	1. Motor overloaded during operation. 2. Short circuit in motor or loose connections. 3. Circuit breaker tripped.	1. Reduce load on motor; take lighter cuts. 2. Repair or replace connections on motor for loose or shorted terminals or worn insulation. 3. Install correct circuit breaker; reduce number of machines running on that circuit (circuit overload).
Knife slows when cutting or makes a squealing noise, especially on start-up.	1. V-belt loose. 2. V-belt worn out.	1. Tighten V-belt. 2. Replace V-belt.
Loud, repetitious noise coming from machine.	1. Pulley setscrews or keys are missing or loose. 2. Motor fan is hitting the cover. 3. V-belts are damaged.	1. Inspect keys and setscrews. Replace or tighten if necessary. 2. Adjust fan cover mounting position, tighten fan, or shim fan cover. 3. Replace V-belts.
Vibration when running or cutting.	1. Loose or damaged knife. 2. Damaged V-belt. 3. Worn cutterhead bearings.	1. Tighten or replace knife. 2. Replace. 3. Check/replace cutterhead bearings.

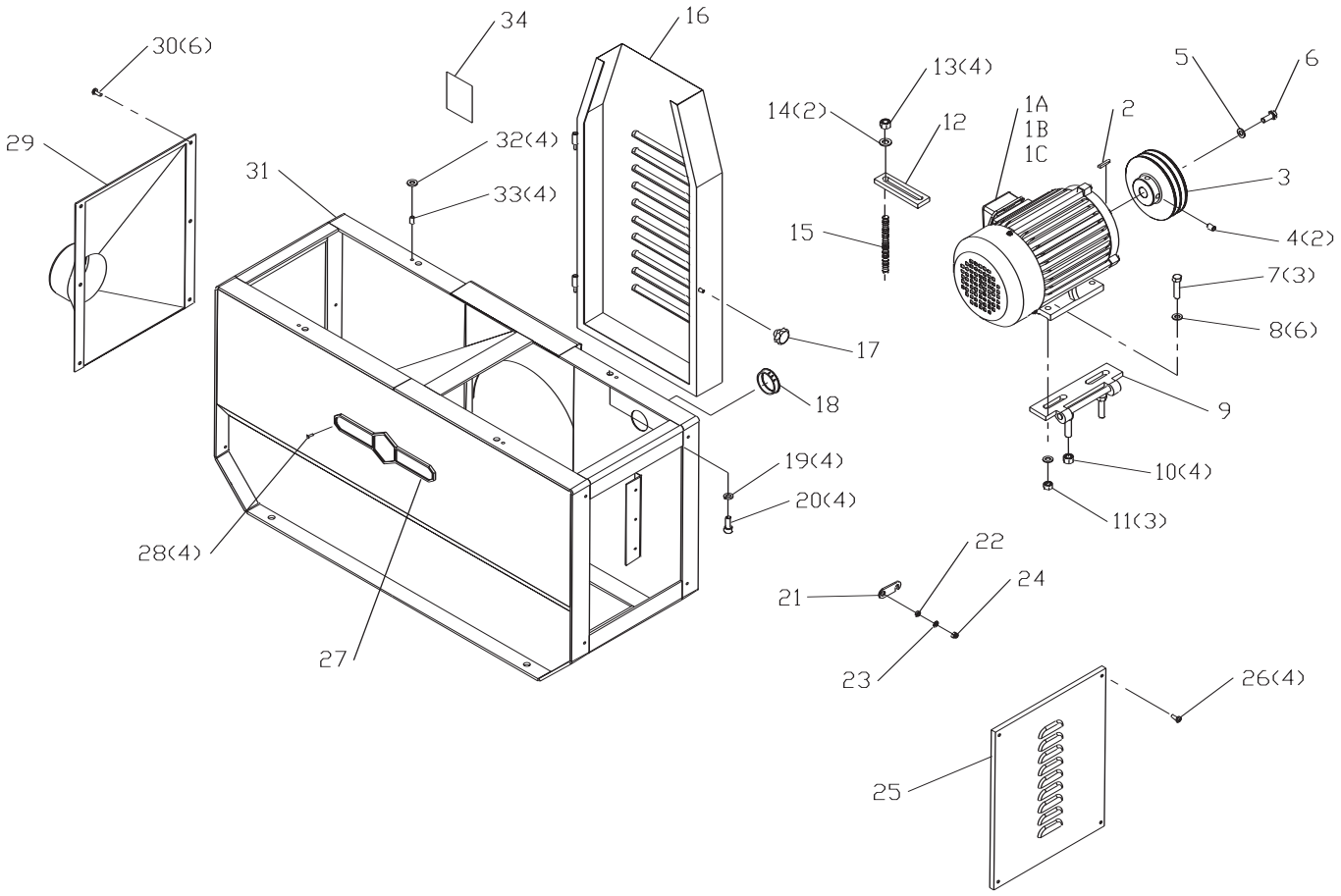
Table

PROBLEM	LIKELY CAUSE(S)	SOLUTION
Tables are hard to adjust.	1. Table lock is engaged or partially engaged.	1. Completely loosen the table lock.

Cutting

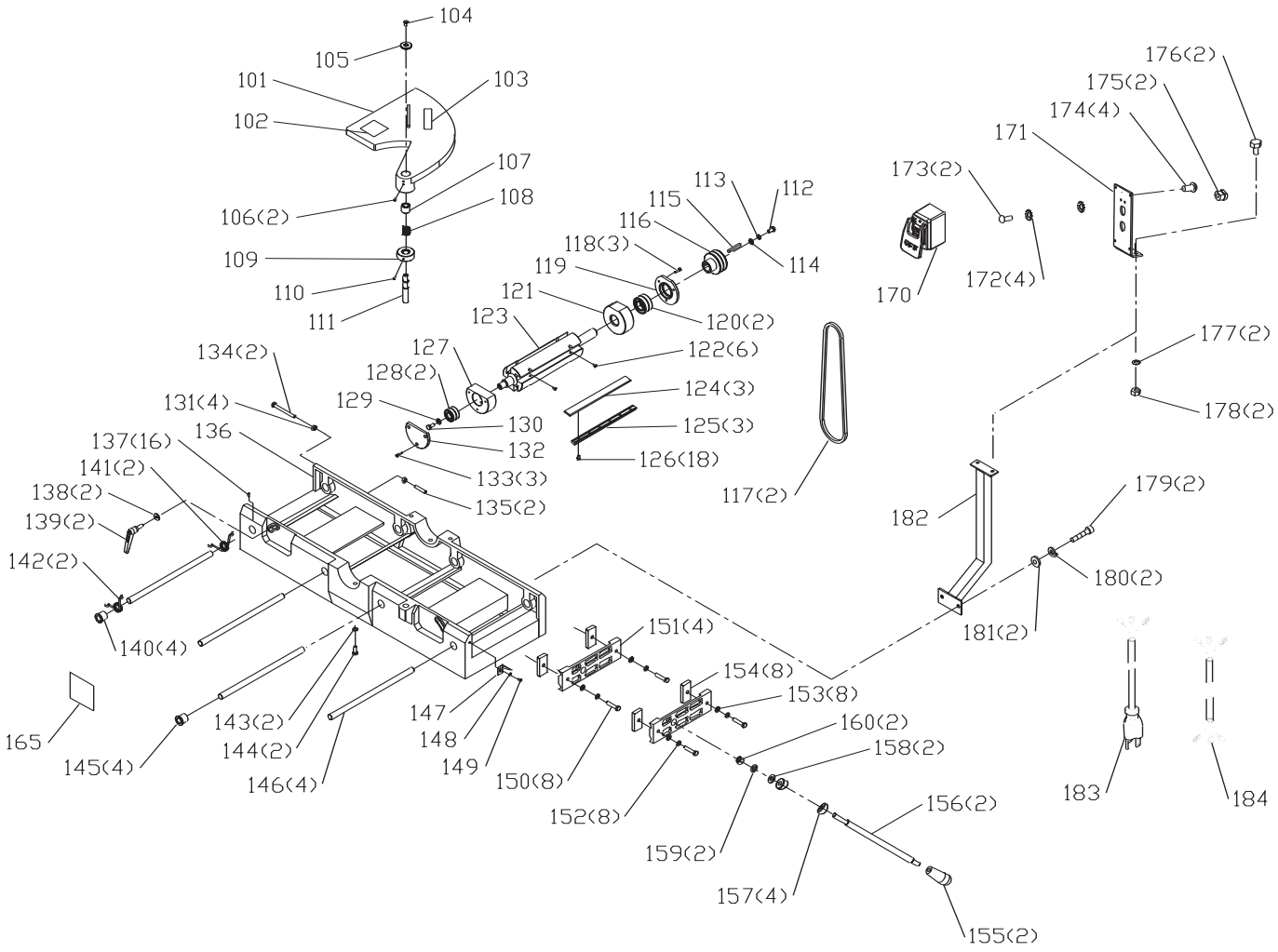
PROBLEM	LIKELY CAUSE(S)	SOLUTION
Excessive snipe (gouge in the end of the board that is uneven with the rest of the cut).	1. Outfeed table is set too low. 2. Operator pushing down on end of workpiece.	1. Align outfeed table with cutterhead knife at top dead center. 2. Reduce/eliminate downward pressure on that end of workpiece.
Workpiece stops at the beginning of the cut.	1. Outfeed table is set too high.	1. Align outfeed table with cutterhead knife at top dead center.
Chipping.	1. Knots or conflicting grain direction in wood. 2. Nicked or chipped blades. 3. Feeding workpiece too fast. 4. Taking too deep of a cut.	1. Inspect workpiece for knots and grain; only use clean stock. 2. Adjust one of the nicked knives sideways or replace knives. 3. Slow down the feed rate. 4. Take a smaller depth of cut. (Always reduce cutting depth when surface planing or working with hard woods.)
Fuzzy grain.	1. Wood may have high moisture content. 2. Dull knives.	1. Check moisture content and allow to dry if moisture is too high. 2. Replace knives.
Long lines or ridges that run along the length of the board.	1. Nicked or chipped knives.	1. Adjust one of the nicked knives sideways; replace knives.
Uneven cutter marks, wavy surface, or chatter marks across the face of the board.	1. Feeding workpiece too fast. 2. Knives not adjusted at even heights in the cutterhead.	1. Slow down the feed rate. 2. Adjust the knives so they are set up evenly in the cutterhead.
Board edge is concave or convex after jointing.	1. Board not held with even pressure on infeed and outfeed table during cut. 2. Board started too uneven. 3. Board has excessive bow or twist along its length. 4. Insufficient number of passes.	1. Hold board with even pressure as it moves over the cutterhead. 2. Take partial cuts to remove the extreme high spots before doing a full pass. 3. Surface plane one face so there is a good surface to position against the fence. 4. It may take 3 to 5 passes to achieve a perfect edge, depending on the starting condition of the board and the depth of cut.
Uneven cut or breakout when rabbeting.	1. Uneven feed rate. 2. Depth of cut too deep. 3. Knives not adjusted evenly with each other in the cutterhead. 4. Nicked or chipped knives.	1. Feed the board evenly and smoothly during the cut. 2. Raise the infeed table to take a smaller depth of cut. Never exceed 1/16” per pass when rabbeting. 3. Adjust the knives so they are set up evenly in the cutterhead. 4. Adjust one of the nicked knives sideways or replace knives.

PARTS



KEY NO.	PART NO.	DESCRIPTION	QTY.
1A	OR70424	Motor	1
1B	OR70371	Motor Spec Plate	1
1C	OR94309	Capacitor	1
2	OR94349	5mm x 5mm x 45mm key	1
3	OR71897	Motor Pulley	1
4	OR94310	M10 x 16mm Hex Soc Hd Set Scr	2
5	OR71898	Collar	1
6	OR93917	M8 x 20mm Hex Hd Scr	1
7	OR94311	M10 x 45mm Hex Soc Hd Scr	3
8	OR90230	M10 Flat Washer	6
9	OR71899	Motor Bracket	1
10	OR90280	M12 Hex Nut	4
11	OR90228	M10 Hex Nut	3
12	OR71901	Motor Mtg Plate	1
13	OR90280	M12 Hex Nut	4
14	OR90304	M12 Flat Washer	2
15	OR71902	Rod	1
16	OR71903	Rear Door	1

KEY NO.	PART NO.	DESCRIPTION	QTY.
17	OR71904	Knob	1
18	OR71905	Cable Guard	1
19	OR90227	M10 Lock Washer	4
20	OR90777	M10 x 25mm Hex Soc Hd Scr	4
21	OR71906	Latch	1
22	OR71907	Bushing	1
23	OR90059	M6 Flat Washer	1
24	OR94312	M6 Special Hex Nut	1
25	OR71908	Right Access Panel	1
26	OR94313	M6 x 25mm Hex Soc Button Hd Scr	4
27	OR70484	Name Plate	1
28	OR93823	Rivet	4
29	OR71909	Dust Chute	1
30	OR94314	M6 x 10mm Hex Soc Pan Hd Scr	6
31	OR71910	Cabinet	1
32	OR94315	Rubber Washer	4
33	OR93380	M8 x 16mm Hex Soc Hd Set Scr	4
34	OR70319	Spec Plate	1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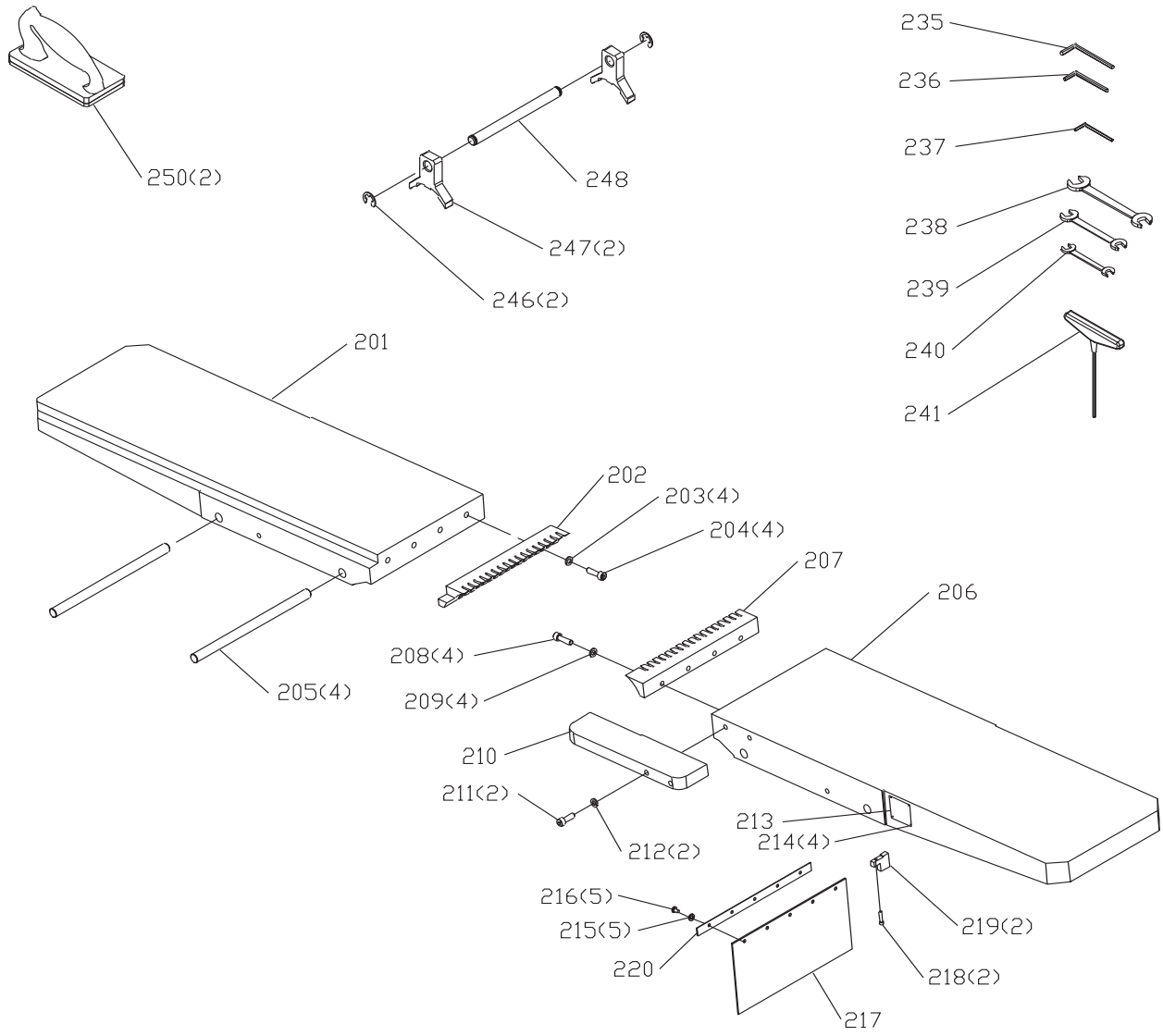
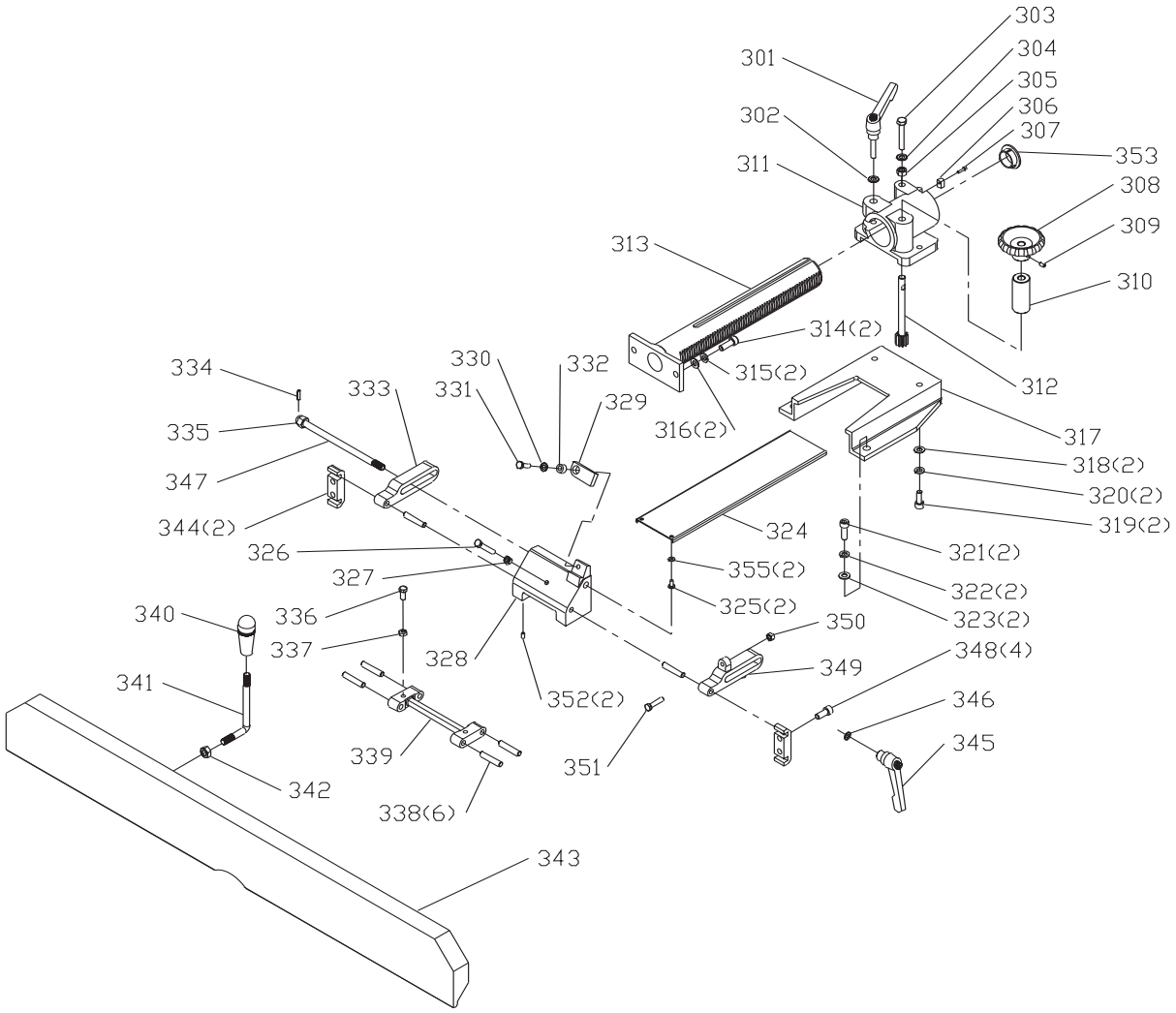
KEY NO.	PART NO.	DESCRIPTION	QTY.
101	OR71911	Cutterhead Guard	1
102	OR71912	Warning Label	1
103	OR71913	Warning Label	1
104	OR94316	M8 x 16mm Flat Head	1
105	OR94317	Special Flat Washer	1
106	OR90306	M6 x 12mm Hex Soc Set Scr.	2
107	OR71914	Adapter	1
108	OR94318	Spring	1
109	OR71915	Shaft Collar	1
110	OR90306	M6 x 12mm Hex Soc Set Scr.	1
111	OR71916	Shaft	1
112	OR94319	Cutterhead Scr.	1
113	OR90227	M10 Lock Washer	1
114	OR94320	Washer	1
115	OR94320	8mm x 8mm x 60mm Key	1
116	OR71917	Cutterhead Pulley	1
117	OR94322	V-belt	2
118	OR93374	M6 x 20mm Hex Soc Cap Scr.	3
119	OR71918	Bearing Cover	1
120	OR71919	Bearing	2
121	OR71920	Bearing Support	1
122	OR92720	M5 x 12mm Flat Head Scr.	6
123	OR71921	Cutterhead	1
124	OR71922	Knife	3
125	OR71923	Knife Bar	3
126	OR71924	Knife Lock Scr.	18
127	OR71925	Bearing Support	1
128	OR94323	Bearing	2
129	OR90311	M8 Flat Washer	1
130	OR94324	Cutterhead Scr.	1
131	OR90228	M10 Hex Nut	4
132	OR71926	Bearing Cover	1
133	OR93374	M6 x 20mm Soc Head Cap Scr	3
134	OR94325	M10 x 150mm Hex Head Scr	2
135	OR94326	M10 x 60mm Hex Soc Set Scr.	2
136	OR71927	Base	1
137	OR90306	M6 x 12mm Hex Soc Set Scr.	16
138	OR94327	Flat Washer	2
139	OR71928	Lock Handle	2
140	OR71929	Eccentric Bushing	4
141	OR94328	Left Spring	2
142	OR94329	Right Spring	2
143	OR90227	M10 Lock Washer	2
144	OR94330	M10 x 25mm Hex Head Scr	2
145	OR71929	Eccentric Bushing	4
146	OR71930	Shaft	4
147	OR71931	Pointer	1
148	OR90462	M5 Flat Washer	1
149	OR90867	M5 x 10mm Pan Hd Scr.	1
150	OR94331	M10 x 50mm Hex Head Scr	8
151	OR71932	Clamp Plate	4
152	OR90227	M10 Lock Washer	8
153	OR90230	M10 Flat Washer	8
154	OR71933	Clamping Block	8
155	OR71934	Knob	2
156	OR71935	Lever Rod	2
157	OR71936	Adjusting Block	4
158	OR90304	M12 Flat Washer	2
159	OR93912	M12 Lock Washer	2
160	OR90280	M12 Hex Nut	2
165	OR71937	Warning Label	1
170	OR71938	Switch Assy	1
171	OR71939	Switch Box Plate	1
172	OR90362	M5 Ext Tooth Washer	4
173	OR93814	M5 x 20mmPan Head Scr	2
174	OR94332	Flat Head Scr	4
175	OR94333	Strain Relief	2
176	OR94334	Hex Head Flange Scr	2
177	OR90059	M6 Flat Washer	2
178	OR90235	M6 Hex Nut	2
179	OR91806	M8 x 25mm Soc Head Cap Scr	2
180	OR90248	M8 Lock Washer	2
181	OR90311	M8 Flat Washer	2
182	OR71940	Switch Support	1
183	OR71941	Motor Cord	1
184	OR71942	Power Cord	1



KEY NO.	PART NO.	DESCRIPTION	QTY.
201	OR71943	Outfeed Table	1
202	OR71944	Table Lip	1
203	OR90227	M10 Lock Washer	4
204	OR94335	M10 x 35mm Soc Head Cap Scr	4
205	OR71945	Shaft	4
206	OR71946	Infeed Table	1
207	OR71947	Table Lip	1
208	OR94335	M10 x 35mm Soc Head Cap Scr	4
209	OR90227	M10 Lock Washer	4
210	OR71948	Rabbet Ledge	1
211	OR93908	M10 x 30 Soc Head Cap Scr	2
212	OR90227	M10 Lock Washer	2
213	OR71949	Depth Label	1
214	OR94336	Rivet 2X4MM	4
215	OR90059	M6 Flat Washer	5
216	OR94337	M6 x 10mm Button Head Scr	5

KEY NO.	PART NO.	DESCRIPTION	QTY.
217	OR71950	Dust Deflector	1
218	OR90847	M5 x 25mm Soc Head Cap Scr	2
219	OR71951	Stop Block	2
220	OR71952	Bar	1
235	OR94338	10MM Allen Wrench	1
236	OR90807	8MM Allen Wrench	1
237	OR90290	3MM Allen Wrench	1
238	OR94339	17-19 Open End Wrench	1
239	OR93975	12-14 Open End Wrench	1
240	OR90050	10-12 Open End Wrench	1
241	OR94340	4MM “T” Handle Wrench	1
245	OR71953	Knife Setting Guage Assy Const.Of: Ref 246 To Ref 248	1
246	OR93976	8MM EXT RET RING	2
247	OR71954	Knife Gauge Block	2
248	OR71955	Knife Gauge Rod	1
250	OR71956	Push Block	2



KEY NO.	PART NO.	DESCRIPTION	QTY.
301	OR71957	Lock Handle	1
302	OR94341	Flat Washer	1
303	OR94342	M10 x 60mm Hex Head Scr	1
304	OR90230	M10 Flat Washer	1
305	OR90228	M10 Hex Nut	1
306	OR71958	Guide Block	1
307	OR94343	M4 x 15mm Soc Head Cap Scr	1
308	OR71959	Hand Wheel	1
309	OR90306	M6 x 12mm Hex Soc Set Scr	1
310	OR71960	Adapter	1
311	OR71961	Bracket	1
312	OR71962	Gear Shaft	1
313	OR71963	Gear Column	1
314	OR93908	M10 x 30mm Hex Soc Hd Scr	2
315	OR90227	M10 Lock Washer	2
316	OR90230	M10 Flat Washer	2
317	OR71964	Fence Support	1
318	OR90230	M10 Flat Washer	2
319	OR94344	M10 x 25mm Hex Hd Scr	2
320	OR90227	M10 Lock Washer	2
321	OR94345	M12 x 15mm Hex Soc Hd Scr	2
322	OR93912	M12 Lock Washer	2
323	OR90304	M12 Flat Washer	2
324	OR71965	Guard	1
325	OR91755	M6 x 12mm Hex Soc Button Head Scr	2
326	OR94346	M8 x 55mmHex Hd Scr	1
327	OR90307	M8 Hex Nut	1
328	OR71966	Fence Bracket	1
329	OR71967	Block	1
330	OR90311	M8 Flat Washer	1
331	OR91752	M8 x 25mm Hex Hd Scr	1
332	OR71968	Sleeve	1
333	OR71969	Left Bracket	1
334	OR92721	5mm x 20mm Spring Pin	1
335	OR90280	M12 Hex Nut	1
336	OR93917	M8 x 20mm Hex Hd Scr	2
337	OR90307	M8 Hex Nut	2
338	OR71970	Pin	6
339	OR71971	Support	1
340	OR71972	Knob	1
341	OR71973	Handle Rod	1
342	OR90280	M12 Hex Nut	1
343	OR71974	Fence	1
344	OR71975	Rear Clamp	2
345	OR71976	Handle	1
346	OR94347	Flat Washer	1
347	OR71977	Shaft	2
348	OR90777	M10 x 25mm Hex Soc Hd Scr	4
349	OR71978	Right Bracket	1
350	OR90307	M8 Hex Nut	1
351	OR94348	M8 x 35mm Hex Hd Scr	1
352	OR90306	M6 x 12mm Hex Soc Set Scr	2
353	OR71979	Column Cover	1
355	OR90502	M6 Lock Washer	2
400	OR71980	Manual	1
401	OR71981	Manual French (Not Shown)	1
402	OR71982	Manual Spanish (Not Shown)	1

◆ NOTES ◆

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