**Operating Instructions and Parts Manual**

**6-inch Woodworking Jointer**

**Models 54A and 54HH**

54A (1791279DXK) serial # 8040543557 and up

54HH (1791317K) serial # 8010540313 and up

**WALTER MEIER (Manufacturing) Inc.**

427 New Sanford Road

LaVergne, Tennessee 37086 **Part No. M-1791279DX**

Ph.: 800-274-6848 Revision C1 07/2012

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**Warranty and Service**

Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our

Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter

Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance

and major repair on your POWERMATIC® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

**MORE INFORMATION**

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local

Walter Meier distributor, or visit powermatic.com.

**WARRANTY**

POWERMATIC products carry a limited warranty which varies in duration based upon the product.

**WHAT IS COVERED?**

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives

and other consumables are excluded from warranty coverage.

**WHO IS COVERED?**

This warranty covers only the initial purchaser of the product.

**WHAT IS THE PERIOD OF COVERAGE?**

The general POWERMATIC warranty lasts for the time period specified in the product literature of each product.

**WHAT IS NOT COVERED?**

The Five Year Warranty does not cover products used for commercial, industrial or educational purposes. Products with a Five

Year Warranty that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does

not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or

alterations, or lack of maintenance.

**HOW TO GET SERVICE**

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the

location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our

inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option.

We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the

defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the

product. In the event you choose to have the product returned, you will be responsible for the handling and shipping costs of the

return.

**HOW STATE LAW APPLIES**

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

LIMITATIONS ON THIS WARRANTY

WALTER MEIER (MANUFACTURING) INC., LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED

WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY

AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY

LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

WALTER MEIER 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.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO

THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Walter Meier sells through distributors only. The specifications in Walter Meier catalogs are given as general information and are

not binding. Members of Walter Meier reserve the right to effect at any time, without prior notice, those alterations to parts,

fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

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Warnings

1. Read and understand the entire owner's manual before attempting assembly or operation.

2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with

all of these warnings may cause serious injury.

3. Replace the warning labels if they become obscured or removed.

4. This woodworking Jointer is designed and intended for use by properly trained and experienced

personnel only. If you are not familiar with the proper and safe operation of a jointer, do not use until

proper training and knowledge have been obtained.

5. Do not use this machine for other than its intended use. If used for other purposes, Walter Meier

(Manufacturing) Inc., disclaims any real or implied warranty and holds itself harmless from any injury

that may result from that use.

6. Always wear approved safety glasses/face shields while using this jointer. Everyday eyeglasses only

have impact resistant lenses; they are not safety glasses.

7. Before operating this machine, remove tie, rings, watches and other jewelry, and roll sleeves up past

the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips

are recommended. Do **not** wear gloves.

8. Wear ear protectors (plugs or muffs) during extended periods of operation.

9. Some dust created by power sanding, sawing, grinding, drilling and other construction activities

contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples

of these chemicals are:

Lead from lead based paint.

Crystalline silica from bricks, cement and other masonry products.

Arsenic and chromium from chemically treated lumber.

Your risk of exposure 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 face or dust masks that are specifically designed to filter out microscopic

particles.

10. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.

11. Make certain the switch is in the **OFF** position before connecting the machine to the power source.

12. Make certain the machine is properly grounded.

13. Make all machine adjustments or maintenance with the machine unplugged from the power source.

14. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting

wrenches are removed from the machine before turning it on.

15. Keep safety guards in place at all times when the machine is in use. If removed for maintenance

purposes, use extreme caution and replace the guards immediately after maintenance is complete.

16. Make sure the jointer is firmly secured to the stand or a bench before use.

17. Check damaged parts. Before further use of the machine, a guard or other part that is damaged

should be carefully checked to determine that it will operate properly and perform its intended

function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting

and any other conditions that may affect its operation. A guard or other part that is damaged should

be properly repaired or replaced.

18. Provide for adequate space surrounding work area and non-glare, overhead lighting.

19. Keep the floor around the machine clean and free of scrap material, oil and grease.

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20. Keep visitors a safe distance from the work area. **Keep children away.**

21. Make your workshop child proof with padlocks, master switches or by removing starter keys.

22. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are

careless acts that can result in serious injury.

23. Maintain a balanced stance at all times so that you do not fall or lean against the cutterhead or other

moving parts. Do not overreach or use excessive force to perform any machine operation.

24. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for

which it was not designed. The right tool will do the job better and safer.

25. Use recommended accessories; improper accessories may be hazardous.

26. Maintain tools with care. Keep knives sharp and clean for the best and safest performance. Follow

instructions for lubricating and changing accessories.

27. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do

not use your hands.

28. Do not stand on the machine. Serious injury could occur if the machine tips over.

29. Before turning on machine, remove all extra equipment such as keys, wrenches, scrap, stock, and

cleaning rags away from the machine.

30. Never leave the machine running unattended. Turn the power off and do not leave the machine until

the cutterhead comes to a complete stop.

31. Always use a hold-down or push block when surfacing stock less than 12" inches long, or 3 inches

wide, or 3 inches thick.

32. Do not perform jointing operations on material shorter than

8", narrower than 3/4" or less than 1/4" thick.

33. The hands must never be closer than 3 inches to the

cutterhead (see Figure at right).

34. Never apply pressure to stock directly over the cutterhead.

This may result in the stock tipping into the cutterhead along

with the operator's fingers. Position hands away from

extreme ends of stock, and push through with a smooth,

even motion. Never back workpiece toward the infeed table.

35. Do not make cuts deeper than 1/2" when rabbeting. On other cuts such as edging, surfacing, etc.,

depth of cut should not be over 1/8" to avoid overloading the machine and to minimize chance of

kickback.

36. To avoid kickback, the grain must run in the same direction you are cutting. Before attempting to

joint, or plane, each work piece must be carefully examined for stock condition and grain orientation.

37. When working with a swirl grain wood or burls, making it necessary to plane against the grain, use a

lesser depth of cut and a slow rate of feed.

38. Move the hands in an alternate motion from front to back as the work continues through the cut.

Never pass the hands directly over the cutter knives. As one hand approaches the knives remove it

from the stock in an arc motion and place it back on the stock in a position beyond the cutter knives.

39. At all times hold the stock firmly.

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Familiarize yourself with the following safety notices used in this manual:

This means that if precautions are not heeded, it may result in minor injury and/or

possible machine damage.

This means that if precautions are not heeded, it may result in serious injury or possibly

even death.

**On-Off Switch Padlock**

The jointer is equipped with a push-button

switch that will accept a safety padlock (not

included). To safeguard your machine from

unauthorized operation and accidental starting

by young children, the use of a padlock is highly

recommended – see figure at right.

A padlock, Stock No. 709012-A, is available

from your local authorized WMH distributor or by

calling WMH at the phone number on the cover

of this manual.

*On-Off Switch Padlock*

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**Introduction**

This manual is provided by Walter Meier (Manufacturing) Inc., covering the safe operation and

maintenance procedures for the Powermatic Model 54A and 54HH Jointers. This manual contains

instructions on installation, safety precautions, general operating procedures, maintenance instructions

and parts breakdown. This machine has been designed and constructed to provide years of trouble free

operation if used in accordance with instructions set forth in this manual. If there are any questions or

comments, please contact your local supplier or Walter Meier, or visit our web site: www.powermatic.com.

**Specifications**

Model.................................................................................54A................................................... 54HH

Stock Number:

Jointer and Stand ............................................. 1791279DXK............................................ 1791317K

Jointer only ........................................................ 2365013DX...............................................1791317

Table Size (in.) .......................................................... 7-1/4 x 66............................................. 7-1/4 x 66

Table support .................................................. dove-tailed ways................................... dove-tailed ways

Cutterhead Style ............................... straight w/ quick-set knives.................................................. helical

Knives.............................................................. 3 double-edged............................. 40 four-sided inserts

Number of cutterhead rows .................................................... --.......................................................... 6

Cutterhead Speed (RPM) .................................................. 6000.................................................... 6000

Cuts per Minute ............................................................. 18,000....................................... not applicable

Cutting capacity (in.) .................................................... 1/2" x 6"............................................... 1/2” x 6”

Blade Size (in.) ............................................ 6-1/16" x 3/4 x 5/64............................... 0.10T x 0.59 x 0.59

Switch .................................................................... push button.......................................... push button

Fence size overall (in.) .....................................................4 x 38...................................................4 x 38

Fence tilt (degrees) .......................................................... +/- 45................................................... +/- 45

Stops .................................................. - 45, 45, and 90 degrees....................... - 45, 45, and 90 degrees

Table Surface Height (in.)................................................ 31-1/2.................................................. 31-1/2

Motor ................................ TEFC, 1 HP, 1 PH, 115/230V\*, 60Hz..... TEFC, 1 HP, 1 PH, 115/230V\*, 60Hz

Overall Dimensions (LxWxH)(in.) ....................... 66 x 24 x 37-1/2.................................... 66 x 24 x 37-1/2

Jointer Bed Weight (lbs.) ..................................................... 254...................................................... 254

Stand Weight (lbs.) ............................................................... 80........................................................ 80

*\* (pre-wired 115V)*

The above specifications were current at the time this manual was published, but because of our policy of

continuous improvement, Walter Meier reserves the right to change specifications at any time and without

prior notice, without incurring obligations.

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**Unpacking**

Upon delivery, open shipping containers and check

that all parts are in good condition. Any damage

should be reported to your distributor and shipping

agent immediately. Before proceeding further, read

your manual and familiarize yourself thoroughly

with assembly, maintenance and safety

procedures.

Compare the contents of your container with the

following parts list to make sure all parts are intact.

Missing parts, if any, should be reported to your

distributor. Read the instruction manual thoroughly

for assembly, maintenance and safety instructions.

**Shipping Contents**

***Note:*** *This unit is shipped in two cartons.*

**Stand Carton**

1 Jointer Stand

1 Door with Mounting Hardware

1 Dust Chute with Mounting Hardware

**Main Unit Carton**

1 Jointer Assembly

1 Fence Assembly

1 Pulley Cover

1 Belt

1 Cutterhead Guard

2 Push Blocks

1 Fence Handle

1 Hardware Package

**Hardware Package (all models):**

*(p/n PM54A-HP, see Figure 1)*

4 1/4-20 x 1/2” Pan Head Screws (A)

3 3/8” x 5/8” Spring Washers (B)

4 1/4-20 x 1/2” Flat Washers (C)

3 Lock Bolts (D)

**Hardware Package - model 54A only**

*(p/n PM54A-HP2)*

1 8/10mm Open End Wrench

1 12/14mm Open End Wrench

1 3mm Hex Wrench

1 4mm T-Hex Wrench

1 8mm Hex Wrench

1 Cross Point Screwdriver

**Hardware Package - model 54HH only**

*(p/n PM54HH-HP, see Figure 2)*

1 8/10mm Open End Wrench

1 12/14mm Open End Wrench

1 3mm Hex Wrench

2 Star Point Screwdrivers (E)

5 Knife Inserts (F)

10 Knife Insert Screws (G)

1 Cross Point Screwdriver

*Figure 1*

*PM54A-HP Hardware Package contents*

*(all models)*

*Figure 2*

*PM54HH-HP Hardware Package partial contents*

*(54HH only)*

**Tools Required**

open end wrenches (8, 10, 12, 14, & 19mm)

hex wrenches (3 & 6mm)

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**Assembly**

**Unpacking and Cleanup**

Locate the jointer in an area that is level and

provides a solid foundation. Make sure that any

potential kickback is not in line with aisles,

doorways, wash stations or other work areas.

1. Carefully finish removing all contents from both

shipping cartons. Compare contents of the

shipping cartons with the list of contents on

page 8. Place parts on a protected surface.

2. Set packing material and shipping cartons to

the side. Do not discard until machine has

been set up and is running properly.

**Cutterhead knives are**

**dangerously sharp; use**

**extreme caution when cleaning. Failure to**

**comply may cause serious injury!**

3. Moisten a soft cloth with kerosene and remove

the protective coating from all machined

surfaces of the jointer. Do NOT use an

abrasive pad. Do not use gasoline, acetone or

lacquer thinner, as these may damage painted

surfaces.

4. Apply a thin layer of paste wax to the bright

surfaces of the fence and tables to prevent

rust. Alternatively, white talcum powder rubbed

in vigorously once a week with a blackboard

eraser will fill any casting pores and form a

moisture barrier. Talcum powder will not stain

wood or mar finishes.

**Installing Bed to Stand**

1. Position the jointer on the stand so that the

pulley attached to the cutterhead on the jointer

is directly above and on the same side as the

motor pulley.

2. Use three lock bolts and spring washers

(Figure 3) to firmly fasten the jointer to the

stand. The bolts are threaded up through the

holes in the stand into the base of the jointer

(Figure 4).

3. Use a 14mm wrench to tighten the lock bolts.

*Figure 3*

*Figure 4*

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**Installing Fence to Bed**

Referring to Figure 5:

1. Before moving the fence assembly, secure the

tilt lock handle (K).

**Secure the tilt lock handle to**

**avoid personal injury from moving parts.**

2. Place the *key* (F) into the machined slot of the

*fence support* (G) as shown. The *spring pin* (E)

should go into the hole in the slot. The *key* (F)

should be firmly seated in the slot.

3. Lightly coat the mating surfaces of the *fence*

*support* (G) and *fence slide base* (B) with oil.

4. Place the *fence slide base* (B) on the *fence*

*support* (G), aligning the *machined slot* (D) in

the fence slide base with the *key* (F).

5. Attach the *flat washer* (H) and two *hex nuts* (J)

on to the *locking screw* (A) but do not tighten.

6. Orient the *lock handle* (C) in the position as

shown; then tighten the hex nuts (J) with a

19mm wrench.

This is the locked position for the fence

assembly. Rotating the lock handle (C)

clockwise loosens the fence assembly,

permitting you to slide the assembly back and

forth. The hex nuts may need to be readjusted

to allow the fence to slide back and forth

(handle clockwise position) and still sufficiently

secure the fence (lock handle positioned as

shown in C).

When the locking screw (A) is tightened, the

fence should be secure.

**Installing the Drive Belt**

Referring to Figure 6:

1. Place *V-belt* (A) onto *cutterhead pulley* (B) and

through opening in stand.

2. Pull V-belt down and place onto the *motor*

*pulley* (C).

If the belt is difficult to roll on the pulley, loosen

the *motor mounting screws* (D). Then raise the

motor as high as possible and mount the belt

on to both pulleys. Allow the motor to drop and

create tension on the belt.

3. Check to make sure that motor pulley and

cutterhead pulley are vertically aligned and the

V-belt does not contact the sides of the

opening in the base. If the pulleys are not

aligned, remove belt and adjust the motor

pulley in or out on the motor shaft and then reattach

the belt.

*Figure 5*

*Figure 6*

*Figure 7*

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4. Pull down on the motor to achieve the desired

belt tension.

The V-belt is properly tensioned when finger

pressure on the belt half way between the two

pulleys causes 1/2" deflection (Figure 7).

5. Tighten the mounting bolts.

After two hours of operation, check belt tension

again. Readjust the tension if necessary.

**Installing the Pulley Cover**

Referring to Figure 8:

1. Place the *pulley cover* (A) over the opening in

the stand.

2. Line up the holes in the stand with the holes in

the guard.

3. Attach the *pulley cover* to the *stand* using four

1/4-20 x 1/2” *pan head screws* and 1/4” *flat*

*washers* (B).

**Installing Cutterhead Guard**

1. Remove the *screw* from the guard *post*.

Referring to Figure 9:

2. Turn spring knob (B) approximately one-half

revolution counter-clockwise (as viewed from

the top) and hold.

3. Insert the guard post into hole in table. Make

sure that the spring inside the spring knob (B)

engages the slot in guard post. If needed,

slightly turn the knob until the guard seats

itself.

4. Thread the *screw* (C) back into the *guard post*.

5. Check for proper operation. The *cutterhead*

*guard (*A) must return fully to the fence when

released. If guard does not return fully, pull

guard, apply more tension to the *spring knob*

(B) by turning it another half turn counterclockwise,

and re-insert guard. If guard closes

too quickly and strikes fence too hard, reverse

the process.

6. Insert *screw* (C) back into the guard post.

**Installing Access Door and Dust Chute**

Referring to Figure 10:

Install *access door* (C) by placing bottom of panel

in the stand and fastening with four 1/8 x 3/8 *pan*

*head screws* (A) and four 1/8" *flat washers* (B).

Attach the dust chute (D) to the base with four 1/4"

x 1/2" *machine screws* and four 1/4" *flat*

*washers* (D).

*Figure 8*

*Figure 9*

*Figure 10*

**Electrical**

**Grounding Instructions**

**This jointer must be**

**grounded while in use to**

**protect the operator from electric shock.**

In the event of a malfunction or breakdown,

grounding provides a path of least resistance for

electric current to reduce the risk of electric

shock. This tool is equipped with an electric cord

having an equipment-grounding conductor and a

grounding plug. The plug must be inserted into a

matching outlet that is properly installed and

grounded in accordance with all local codes and

ordinances.

Do not modify the plug provided. If it will not fit

the outlet, have the proper outlet installed by a

qualified electrician. Improper connection of the

equipment-grounding conductor can result in a

risk of electric shock. The conductor, with

insulation having an outer surface that is green

with or without yellow stripes, is the equipmentgrounding

conductor. If repair or replacement of

the electric cord or plug is necessary, do not

connect the equipment-grounding conductor to a

live terminal.

Check with a qualified electrician or service

personnel if the grounding instructions are not

completely understood, or if in doubt as to

whether the tool is properly grounded. Use only

three wire extension cords that have three-prong

grounding plugs and three-pole receptacles that

accept the tool’s plug.

Repair or replace a damaged or worn cord

immediately.

**115 Volt Operation**

Referring to Figure 11:

As received from the factory, your Woodworking

Jointer is ready to run at 115-volt operation. This

Jointer, when wired for 115 volt, is intended for

use on a circuit that has an outlet and a plug that

looks like the one illustrated in (A). A temporary

adapter, which looks like the adapter shown in

(B), may be used to connect this plug to a twopole

receptacle if a properly grounded outlet is

not available.

*Figure 11*

The temporary adapter should only be used until

a properly grounded outlet can be installed by a

qualified electrician. This adapter is not

applicable in Canada. The green colored rigid

ear, lug, or tab, extending from the adapter,

must be connected to a permanent ground such

as a properly grounded outlet box.

**230 Volt Operation**

Referring to Figure 12:

If 230V, single-phase operation is desired, the

following instructions must be followed:

1. Disconnect the machine from the power

source.

2. The Jointer motor has four numbered leads

that are factory connected for 115V

operation, as shown in (A). For 230V

operation reconnect the leads as shown in

(B). This is also shown in the diagrams on

pages 39 and 40.

3. The 115V attachment plug (C) supplied with

the Woodworking Jointer must be replaced

with a UL/CSA listed plug suitable for 230V

operation (D). Contact your local Authorized

Powermatic Service Center or qualified

electrician for proper procedures to install

the plug. The Woodworking Jointer must

comply with all local and national codes after

the 230-volt plug is installed.

4. The Jointer with a 230-volt plug should only

be connected to an outlet having the same

configuration as shown in (D). No adapter is

available nor should be used with the 230-

volt plug.

*Figure 12*

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**Extension Cords**

Make sure your extension cord is in good

condition. When using an extension cord, be sure

to use one heavy enough to carry the current your

machine will draw. An undersized cord will cause

a drop in the line voltage resulting in power loss

and overheating. Table 1 shows the correct size to

use depending on the cord length and nameplate

ampere rating. If in doubt, use the next heavier

gauge. Remember, the smaller the gauge number,

the heavier the cord.

**Adjustments**

**Fence Movement**

The fence can be moved forward or backward

across the width of the table. It also tilts up to 45

degrees forward and has a positive stop at 90

degrees.

The fence assembly should periodically be moved

to different positions when edge jointing to

distribute wear on the cutterhead knives.

Referring to Figure 13:

*To slide the fence forward or backward:*

1. Loosen the *lock handle* (A).

2. Push the entire fence assembly to the desired

position, and tighten the locking handle.

*To tilt fence forward:*

The fence can be tilted forward to any angle down

to 45 degrees.

1. Loosen the *lock handle* (B).

2. Adjust the fence to the desired level down to

45 degrees. Or you can place your reference

piece on the table and against the fence, and

adjust the fence until the angle of the fence

matches the bevel of your gauge piece.

3. Tighten *lock handle* (B).

*To tilt fence backward:*

The fence can be tilted backward up to 45° (that is,

for a total included angle of 135° from table

surface).

**Recommended Extension Cord Gauges**

**Amps**

**Extension Cord Length in Feet \***

**25 50 75 100 150 200**

< 5 16 16 16 14 12 12

5 to 8 16 16 14 12 10 NR

8 to 12 14 14 12 10 NR NR

12 to 15 12 12 10 10 NR NR

15 to 20 10 10 10 NR NR NR

21 to 30 10 NR NR NR NR NR

\*based on limiting the line voltage drop to 5V at 150% of the

rated amperes.

*NR: Not Recommended.*

*Table 1*

*Figure 13*

1. Loosen *lock handle* (B).

2. Flip the 90° *stop block* (C) out of the way.

3. Adjust the fence to the desired angle up to 135

degrees. Or you can place your beveled

reference piece on the table and against the

fence, adjusting the fence until the angle of the

fence matches the bevel of your reference

piece.

5. Tighten *lock handle* (B).

**Important:** When the tilted operation is finished and

the fence is returned to 90°, do not forget to flip the

90° *stop block* C) back to its original position.

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**Fence Stop Adjustments**

Periodically check the 90° and 45° backward

(135°) tilt accuracy of the fence with an angle

measuring device, such as an adjustable square or

machinist’s protractor.

**90º Stop Adjustment**

Referring to Figure 14:

The 90º stop is controlled by the *stop bolt* (F) and

the *stop block* (C).

1. Set the infeed table to approximately the same

height as the outfeed table.

2. Move the fence by releasing *lock handle* (A)

and pushing the fence assembly until it

overlaps the tables.

3. Tighten *lock handle* (A).

4. Adjust the fence to a 90º angle by releasing

*lock handle* (B), pulling up on the *fence handle*

E), and tightening the *lock handle* (B).

**Note:** The *stop bolt* (F) should be resting

against the *stop block* (C).

5. Place an angle measuring device on the table

and against the fence to confirm a 90º setting

(A, Fig. 15).

6. If the fence is not square to the table, release

the *lock handle* (B), loosen the *lock nut* (D) that

secures the *stop bolt* (F), and turn the stop bolt

until the fence is square to the table.

7. Tighten the *lock nut* (D) to secure the *stop bolt*

(F) which retains the setting.

8. Tighten the *lock handle* (B).

**45º Forward Stop Adjustment**

Position the fence tilt lever (E, Fig. 14) toward the

operator.

The 45 degree forward stop is controlled by the

*cap screw* (G, Fig. 14). The adjustment is done the

same way as for the 90 degree stop adjustment

except that a 45 degree protractor is used.

*Figure 14*

*Figure 15*

**45º Fence Backward Stop Adjustment**

Referring to Figure 14:

The 45º fence backward stop is controlled by the

*stop bolt (H)*.

1. Loosen the lock handle (B).

2. Move the stop block (C) out of the way and

position the fence at the 135º angle; fence tilt

lever (E) is positioned *away* from the operator

as shown. Make sure the fence sits against the

*stop bolt* (H).

3. Tighten the lock handle (B).

4. Place an angle measuring device on the table

and against the fence to confirm a 135º setting

(B, Fig. 15).

5. To adjust, loosen the *lock nut* (J) securing the

*stop bolt* (H) and turn the stop bolt until a 135º

angle of the fence is obtained.

6. Tighten the *lock nut* (J).

15

**Infeed Table Height Adjustment**

Refer to Figures 16 – 18.

*Initial (Coarse) Adjustment:*

1. Loosen the rear *thumb screw* (D) and the *lock*

*knob* (B).

2. **Raise or lower** the *height adjustment handle*

(C) until the *scale* (A, Fig. 16 and Figure 17)

reads approximately the desired depth of cut.

If you can't adjust to zero or 1/8", see the

*Helpful Hint* below.

*Fine Adjustment:*

3. Turn the locking handle (B) until it is snug.

4. **Rotate** the *height adjustment handle* (C) until

the scale reads exact. Clockwise raises the

table, counterclockwise lowers the table.

**Note:** The height adjustment handle (C) has a

fine adjustment of 1/16" travel per rotation.

5. When set, retighten the *thumb screw* (D).

**Important:** For normal operations, the depth of cut

should *never exceed* 1/8", except for rabbetting

operations.

**Helpful Hint:** Occasionally you will find that you

cannot set the coarse adjustment all the way up to

zero or all the way down to 1/2" on the *Depth of*

*Cut* scale (Figure 17) when raising or lowering the

handle (C, Fig. 16). When this happens:

With the *lock knob* (B, Fig. 16) unlocked, *rotate* the

*height adjustment handle* (C, Fig. 16) a few times,

then raise or lower it. Once you are able to reach

the zero or 1/2” setting (Figure 17), you will again

be able to swing the handle (C) through the full

range.

**Infeed Table Travel Limiter**

Referring to Figure 19:

The *infeed table travel limiter* located on the back

of the table sets the upper and lower range for the

infeed table height adjustment and should not

require any adjustments. For *infeed table height*

*adjustment* refer to the preceding section.

*Figure 16*

*Figure 17*

*Figure 18*

*Figure 19*

16

**Table Gib Adjustment**

The *infeed* and *outfeed table gibs* on your machine

are factory adjusted and initially should not require

re-adjustment. After a period of use, the gibs may

become loose, introducing play and causing the

tables to sag. This requires adjustment.

To adjust (refer to Figure 20):

1. With a 10mm wrench, loosen the *jam nuts* that

secure the *gib set screws* (A or B).

2. Have another person support the end of the

table, slightly raising it while you make

adjustments.

3. With a 3mm hex wrench, tighten each

setscrew 1/4 turn starting with the lower one,

then the upper one. If a 1/4 turn does not

remove the table play, take another 1/4 turn.

Repeat a 1/4 turn at a time for both set screws

until play is removed.

**Note:** If the gibs are too tight the *adjustment*

*handles* (C) will be difficult to turn.

4. When adjustment is complete, hold the set

screws in position with the 3mm hex wrench to

maintain the setting while tightening the jam

nuts with the 10mm wrench.

**Outfeed Table Height Adjustment**

When you receive the jointer, the knives have

been pre-set at the factory. However, the height

and parallelism of the knives with the outfeed table

should be checked and any needed adjustments

made before putting the jointer into operation.

Adjust the height of the outfeed table as follows:

1. Disconnect jointer from power source.

2. Carefully number each blade (model 54A only)

with a marker to make them easier to

differentiate.

3. Place a straightedge upon the outfeed table

and extend it over the cutterhead (Figures 21

and 23).

**Planer knives and knife inserts**

**are dangerously sharp. Do not**

**grab the cutterhead itself to rotate it!**

4. Rotate the *cutterhead*, using the drive belt or

pulley, until *knife number one* (or a knife insert

on the 54HH model) is at its highest point. The

apex of the knife should just barely come in

contact with the straightedge.

If the apex of the *knife number one* just makes

contact with the straightedge, no adjustment is

required for the outfeed table. Proceed to the

*Setting Cutterhead Knives* section.

*Figure 20*

*Figure 21*

17

If the apex of the *knife number one* comes

below the straightedge (a gap exists) or

pushes the straightedge up, proceed with the

following steps:

5. Loosen both *gib lock screws* (Figure 22).

6. With the *outfeed table handwheel* (Figure 21)

raise or lower the *outfeed table* until the

*straight edge* contacts the *knife tip*, as shown

in Figure 23. Using the drive belt or pulley,

rock the cutterhead slightly to make sure the

apex of the knife is just barely contacting the

*straight edge*.

When adjustment is complete:

7. Lock the *outfeed table* to this height setting by

tightening the *gib lock screw* (Figure 22). The

outfeed table adjustment is complete.

The outfeed table adjustment is only made against

one knife or knife insert (blade number one was

arbitrarily selected here). After the outfeed table

has been set at the correct height, do not change it

except for special operations or after replacing

knives.

After this adjustment is completed on the model

54A, it is necessary to proceed to the *Setting*

*Cutterhead Knives* section to verify that all three

knives are at the correct height and parallel to the

outfeed table. For the model 54HH, proceed to

*Replacing or Rotating Knife Inserts* on page 20.

**Setting Cutterhead Knives *(Model 54A***

***only)***

**Note**: Before setting knives for the 54A Jointer, the

*Outfeed Table Height Adjustment* should be done

to ensure the proper knife height in relation to the

outfeed table.

Knives for the 54A cutterhead are adjusted by

means of a cam. It is important to note that the

entire adjustment is accomplished within one

complete rotation (360 degrees) of the cam. A full

rotation of the cam will cause the knife blade to

move a total of .015” from one extreme to the

other. Turning the cam more than one full rotation

will not further adjust the knife setting, but will

simply begin the adjustment all over again. The

knife adjustment procedure is outlined below.

**Cutterhead knives are**

**dangerously sharp! Use extreme caution when**

**inspecting, removing, sharpening or replacing**

**knives into the cutterhead. Failure to comply**

**may cause serious injury!**

To adjust (refer to Figures 24 & 25):

1. Disconnect jointer from power source.

*Figure 22*

*Figure 23*

18

2. Carefully number each blade with a marker to

make them easier to differentiate.

3. Place a straightedge across the outfeed table

extending it over the cutterhead *towards one*

*end of the knife*.

**Cutterhead knives are**

**dangerously sharp. Do not grab the cutterhead**

**itself to rotate it! Failure to comply may cause**

**serious injury.**

4. Rotate the cutterhead *back and forth* using the

drive belt or pulley, until *knife number one* is at

its highest point. The apex of the knife should

just barely come in contact with the

straightedge.

5. Move the straightedge *towards the other end*

*of the knife* and repeat step 4.

The apex of the knife *at both ends of the knife*

must *just make contact* with the straightedge. If

the apex of the knife comes below the

straightedge (a gap exists) or pushes the

straightedge up, proceed to the next step.

6. Using a 4mm hex wrench, slightly loosen the

four gib screws.

7. Using a 3mm hex wrench, loosen the cam

locking screws to permit adjustment of the cam

(described in the next step).

**Important:** Always keep the cam locking

screws snug enough so that the cam can’t

rotate freely. This is especially important for

when the cam is rotated counterclockwise

since this action will cause the cam locking

screw to loosen further.

8. Using an 8mm hex wrench, adjust the cam

(see Figure 25). This is a very sensitive

adjustment. Start by rotating the cam in a

clockwise direction just a few degrees.

9. Next, keep the cutterhead steady by firmly

holding on to the pulley, place a piece of wood

pressed against the knife’s edge and press to

properly seat the blade.

10. Check your progress by repeating steps 4 and

5. If the knife becomes more out of adjustment,

turn the cam in the other direction.

11. The adjustment is almost complete when the

requirements described in Steps 4 and 5 are

met.

12. Next, while pressing the knife firmly against the

cam, snug the two inside gib screws that hold

the gib and knife in place. Verify that the knife

is still in adjustment (steps 4 and 5).

13. Tighten the two outside gib screws, then the

two inside gib screws.

*Figure 24*

*Figure 25*

19

14. Verify that the knife is still in adjustment (steps

4 and 5).

15. Tighten the gib lock screws.

16. Repeat this entire procedure for the remaining

two knives

**Replacing Knives *(Model 54A only)***

**Planer knives are dangerously**

**sharp. Use extreme caution when inspecting,**

**removing, sharpening, or replacing knives.**

**Failure to comply may cause serious injury.**

To remove and replace a knife (Refer to

Figure 26):

1. Remove four *gib screws* (A) with a 4mm hex

wrench.

2. Remove the *gib* (B) and *knife* (C).

If the knife is being re-used (knives are doubleedged),

clean the knife, gib and cutterhead of

all pitch and debris.

3. Lay the new knife or unused edge of the old

knife back onto the *cutterhead* (D).

4. Replace the *gib* (B) and *screws* (A). Fingertighten

only at this time.

5. Press against the cutting edge of the knife at

the center of the blade with a piece of wood.

**DO NOT USE FINGERS!** This is to ensure that

the cam is making proper contact with the

knife.

6. Snug the inside two screws, then the outside

two screws.

7. Release the piece of wood pressing against

the knife and tighten the gib screws.

8. Replace the remaining two blades by repeating

steps 1 – 7.

9. Determine if knives need to be set.

Follow the *Outfeed Table Height Adjustment*

section steps 3 and 4 only, to determine if

knives need to be set. **Do not complete the**

**entire outfeed table adjustment**. If knives

need to be set, proceed to the *Setting*

*Cutterhead Knives* section.

*Figure 26*

20

**Setting Knives for Rabbeting and Nicks**

***(Model 54A only)***

*NOTE: Rabbeting is not applicable on helical*

*cutterhead models*.

To position the knives for rabbet cuts, take a shop

scale with 1/32” graduations and place it against

the end of the cutterhead. Slide the knife out until it

is at the 1/32” mark on the scale; that is, the knife

will now be 1/32” beyond the edge of the

cutterhead. The gib should remain in normal

position, even with the edge of the cutterhead.

(Figure 27). This adjustment will ensure that the

knife clears the end of the gib and cutterhead, and

has good contact with the workpiece. (See the

*Rabbet Cuts* section for further information.)

**Note:** This will also correct for small nicks without

requiring replacement of blades.

**Replacing or Rotating Knife Inserts**

***(Model 54HH only)***

The knife inserts on the model 54HH Jointer are

four-sided. When dull, simply remove each insert,

rotate it 90° for a fresh edge, and re-install it.

Use the two provided star point screwdrivers to

remove the knife insert screw. See Figure 28. Use

one of the screwdrivers to help hold the cutterhead

in position, and the other to remove the screw. It is

advisable to rotate all inserts at the same time to

maintain consistent cutting. However, if one or

more knife inserts develops a nick, rotate only

those inserts that are affected.

Each knife insert has an etched reference mark so

that you can keep track of the rotations.

**IMPORTANT:** When removing or rotating inserts,

clean saw dust from the screw, the insert, and the

cutterhead platform. Dust accumulation between

these elements can prevent the insert from seating

properly, and may affect the quality of the cut.

Before installing each screw, lightly coat the screw

threads with machine oil and wipe off any excess.

Securely tighten each screw which holds the knife

inserts before operating the planer!

**Make sure all knife insert**

**screws are tightened securely. Loose inserts**

**can be propelled at high speed from a rotating**

**cutterhead, causing injury.**

*Figure 27*

*Figure 28*

21

**Determining Correct Table Height**

The *Outfeed Table Height Adjustment* section tells

you how to set the correct table height with respect

to the cutterhead knives or knife inserts. This

section explains how to determine if the outfeed

table needs adjustment based upon the cuts being

produced.

When you receive the jointer, the knives have

been pre-set at the factory. However, the height

and parallelism of the knives with the outfeed table

should be checked and any needed adjustments

made before putting the jointer into operation.

The *outfeed table* and *cutterhead knives (Model*

*54A only)* are correctly adjusted when all three

blades are parallel to the outfeed table and all

three blades are set at the same height in the

cutterhead.

*Outfeed table too high* – If the outfeed table is too

high, a curved finished surface results (Figure 29).

*Outfeed table too low* – If the outfeed table is too

low, the work will have a gouge, or snipe, at the

end of the cut (Figure 30).

*Outfeed table at correct setting* – Figure 31

illustrates the correct setting of outfeed table level

with the knives. The workpiece will rest firmly on

both tables with no open space under the finished

cut.

*Figure 29*

*Figure 30*

*Figure 31*

22

**Operating Controls**

1. Outfeed Table Height Adjust Hand Wheel

2. Outfeed Table

3. Cutter Guard

4. Fence Adjustment Handle

5. Fence

6. Infeed Table

7. Infeed Table Lock Knob

8. Infeed Table Height Fine/Coarse Adjustment

9. On/Off Switch

10. Infeed Table Lock

11. Fence Travel Lock Handle

12. Fence Tilt Lock Handle

13. Outfeed Table Lock

14. Infeed Table Travel Limiter

**Operation**

**IMPORTANT: On the helical head model 54HH,**

**make sure all knife inserts are tight before**

**operating machine.**

If you are inexperienced at jointing, use scrap

pieces of lumber to check settings and get the feel

of operations before attempting regular work.

Stabilize long workpieces by using an assistant, or

roller stands set level with the outfeed or infeed

table surface.

The fence should be adjusted to create minimum

exposure to the cutterhead during the jointing

operation.

Check the following before operating the jointer:

􀂉Outfeed table must be set level with the high

point of the knives. This is a one-time

calibration and described in *Outfeed Table*

*Height Adjustment* on page 16.

􀂉Fence adjusted for minimum exposure of

cutterhead, and locked at desired angle.

􀂉The cutterhead guard must be in place and

operating properly (except when rabbeting).

􀂉Infeed table set for desired depth of cut. Refer

to *Infeed Table Height Adjustment* on page 15.

*Controls - Front View*

*Figure 32*

*Controls – Rear View*

*Figure 33*

􀂉Stand away from the cutterhead and turn the

machine on for a few moments. Listen for any

odd noises, rubbings, vibrations, etc. Correct

such problems before attempting operations on

the jointer.

􀂉Carefully check your workpiece for knots, holes,

staples or any foreign material that might

damage knives or pose a risk of kickback. Also

check the workpiece for grain orientation.

23

**Basic Operations**

Before making any cuts on the stock, make a

few practice cuts by raising the infeed table to

"0" and with the power disconnected. In this

manner you will acquaint yourself with the feel of

jointer operations.

**Hand Placement**

**Never pass hands directly**

**over the cutterhead.**

At the start of the cut, the left hand holds the

workpiece firmly against the infeed table and

fence while the right hand pushes the workpiece

in a smooth, even motion toward the cutterhead

(Figure 34). After the cut is under way, the new

surface rests firmly on the outfeed table. The left

hand is transferred to the outfeed side and

presses down on this part of the workpiece, at

the same time maintaining flat contact with the

fence. The right hand presses the workpiece

forward and before the right hand reaches the

cutterhead it should be moved to the work on

the outfeed table.

**Direction of Grain**

Avoid feeding work into the jointer against the

grain. This may result in chipped and splintered

edges. See Figure 35. Feed *with* the grain to

obtain a smooth surface, as shown in Figure 36.

*Figure 34*

*Figure 35*

*Figure 36*

24

**Surfacing**

The purpose of planing on a jointer is to produce

one flat surface. The other side can then be

milled to precise, final dimensions on a

thickness planer resulting in a board that is

smooth and flat on both sides and each side

parallel to the other.

􀂉If the wood to be jointed is cupped or

bowed, place the concave side down, and

take light cuts until the surface is flat.

􀂉Use push blocks to help insure against

hands coming in contact with cutterhead in

the event of a kickback.

􀂉Never surface pieces shorter than 12 inches

or thinner than 3/8 inch without the use of a

special work holding fixture.

􀂉Never surface pieces thinner than 3 inches

without the use of a push block.

􀂉On stock longer than 12 inches use two

push blocks (Figure 37).

*Figure 37*

􀂉With narrow stock use the type push block

shown in Figure 38.

**When the stock is longer**

**than twice the length of the infeed and**

**outfeed tables, another helper or support**

**table must be used to support the stock.**

*Figure 38*

**Jointing**

Jointing (or edging) is the process of creating a

finished, flat *edge surface* that is suitable for

joinery or finishing. It is also a necessary step

prior to ripping stock to width on a table saw.

􀂉Never edge a board that is less than 3

inches wide, less than 1/4 inch thick, or 12

inches long, without using a push block.

􀂉When edging wood wider than 3 inches, lap

the fingers over the top of the wood,

extending them back over the fence such

that they will act as a stop for the hands in

the event of a kickback.

􀂉Position the fence (move forward) to expose

only the amount of cutterhead required.

**When workpiece is twice the**

**length of the jointer infeed or outfeed table**

**use an infeed or outfeed support.**

To edge:

1. Make sure the fence is set to 90°. Double

check it with a square.

2. Inspect stock for soundness and grain

direction (Refer to *Direction of Grain* on

page 23).

3. If the board is bowed (curved), place the

*concave edge down* on the infeed table.

4. Set the infeed table for a cut of

approximately 1/16 inch.

5. Hold the stock firmly against the fence and

table, feed the stock slowly and evenly over

the cutterhead.

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**Beveling**

Beveling an edge is the same operation as edge

jointing, except that the fence is tilted to a

specified angle.

􀂉Make certain that the material being beveled

is over 12 inches long, more than 1/4 inch

thick and 1 inch wide.

􀂉Although the fence may be tilted in or out, it

is recommended that the fence be tilted *in*

toward the operator (as shown in Figure 39)

for safety reasons.

*Figure 39*

To bevel:

1. Use a bevel gauge to determine the desired

angle. Then set the fence to the same angle.

2. Inspect stock for soundness and grain

direction (Refer to *Direction of Grain* on

page 23).

3. Set the infeed table for a cut of approximately

1/16.

4. If the board is bowed (curved), place the

*concave edge down* on the infeed table.

5. Feed the stock through the cutterhead,

making sure the face of the stock is

completely flat against the fence and the

edge is making solid contact on the infeed

and outfeed tables (Figure 39).

*For wood wider than 3 inches –* hold with

fingers close together near the top of the

stock, lapping over the board and extending

over the fence.

*For wood less than 3 inches wide* – use

beveled push blocks and apply pressure

toward the fence. Keep fingers near top of

push block (Figure 40).

Several passes may be required to achieve the

full bevel.

*Figure 40*

When beveling short material use one bevel

hold down and apply pressure toward the fence.

Keep thumb above the ledge on hold down

block (Figure 41).

*Figure 41*

**Skewing (Shear Cutting)**

When edging or facing burl or birds-eye maple, it

is not unusual to deface or mar the surface

being finished. This is caused by the cutterhead

blades at times cutting against the grain. In

order to prevent the defacing or marring of this

type wood, it is necessary to skew, or angle

finish, the material being worked (see Figure

42).

1. Release the fence locking handle and

remove the two hex nuts and flat washer

holding the fence to the fence support (see

Figure 3 on page 10). Remove the fence.

2. Remove the key from the fence slide base.

3. Replace the fence assembly at the desired

angle across the cutterhead. Secure the

fence to the support with the two hex nuts

and flat washer, then tighten the fence

locking handle.

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*Figure 42*

**Rabbet Cuts** (Straight Knife only)

***IMPORTANT:*** *Rabbeting can be done with the*

*straight knife cutterhead only; it is not applicable*

*with the helical cutterhead model.*

A rabbet is a groove cut along the edge of a

board (Figure 43). It is usually made to accept

another board to form a strong, simple joint.

**Note:** The maximum rabbet depth is 1/2".

1. Unplug the jointer and remove the

cutterhead guard.

2. Loosen the fence and slide it to the

rabbeting edge. Set the fence to the desired

width of the rabbet and lock down.

3. Inspect stock for soundness and grain

direction.

4. Place stock on the infeed table and rabbet

table with the edge to be rabbeted firmly

against the fence.

5. Slowly and evenly feed stock through the

cutterhead.

6. Lower the infeed table 1/16" at a time and

make successive cuts until the desired

depth of rabbet is obtained.

7. Re-install the cutterhead guard when

finished with rabbeting operations.

*Figure 43*

**Push Blocks**

Push blocks are simple yet necessary tools to

assist the operator, especially when jointing thin

or short stock. Illustrated in Figure 44 are three

types of push blocks commonly used in jointing.

Push blocks may be obtained commercially or

easily constructed.

**Note**: The 54A Jointer is supplied with two push

blocks for feeding stock.

*Figure 44*

**Maintenance**

**Blade Care**

**Blades are extremely sharp! Use caution**

**when cleaning or changing. Failure to**

**comply may cause serious injury!**

When gum and pitch collect on the blades,

carefully remove with a strong solvent. Failure to

remove gum and pitch build up may result in

excessive friction, blade wear and overheating.

When blades become dull, turn them to the new

edge, or replace them.

**Lubrication**

􀂉Use a good grade of light grease on the

steel adjusting screws located in the raising

and lowering mechanisms of the work

tables.

􀂉Occasionally, apply a few drops of light

machine oil to the infeed/outfeed gibs. This

permits the tables to slide freely.

The cutterhead ball bearings are lifetime

lubricated and need no further care.

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**Cutterhead Removal**

The entire cutterhead assembly may be removed

for cleaning or for bearing and blade replacement.

Some woodworkers keep a spare cutterhead with

replacement blades should the original cutterhead

have to be repaired.

**Blades in the cutterhead are**

**sharp! Use extreme caution**

**when handling the removal of the cutterhead.**

**Failure to comply may cause serious injury!**

To remove the cutterhead (including bearings,

studs, and housing) from the base casting:

Referring to Figure 45:

1. Disconnect the machine from the power

source.

2. Remove the front *blade guard* (A) and

*screw* (B).

**Lock the *fence tilt lock handle***

**(D) to avoid injury from moving parts when**

**moving this assembly.**

3. Remove the two *lock nuts* (G) and *washer* (F)

securing the *fence assembly* (C) to the *fence*

*base casting* (E).

4. Lift the *fence assembly* (C) from the table and

set aside.

5. From the left side of the stand, remove the

*dust chute*. From the back of the machine

remove the *cabinet access door*.

Referring to Figure 46:

6. Using an 8mm hex wrench, loosen two hex

cap screws underneath *fence base casting* (E)

that secure the casting to the *table* (F).

Remove the *fence base casting* and set aside.

7. Remove four *screws* and *washers* (A) securing

the *belt guard* (B). Remove the *belt guard*.

8. Using a 14mm wrench, remove two *screws*

(A, Fig. 47) and *lock washers* that secure the

cutterhead bearing housings to the base.

**Note:** These screws and lock washers are

more easily accessible through the dust chute.

9. Using a 3mm hex wrench, loosen two set

screws that secure the cutterhead pulley (D) to

the cutterhead shaft. Do not attempt to remove

pulley with belt at this time.

10. Slide the pulley from the shaft of the

cutterhead along with the V-belt. Set the

pulley, shaft key and V-belt aside.

*Figure 45*

*Figure 46*

*Figure 47*

28

11. Carefully remove the cutterhead (A, Fig. 48).

12. Before placing the new cutterhead back into

the casting, thoroughly clean the "saddle" and

the bearing housings of saw dust and grease

so that they seat properly.

13. To re-install the cutterhead, reverse the above

steps.

**Note:** When securing the *fence base casting*,

make sure it is level with the *outfeed table*.

*Figure 48*

**Troubleshooting Operating Problems**

**Trouble Probable Cause Remedy**

Finished stock is

concave on back

end.

Knife is higher than outfeed

table.

Raise outfeed table until it aligns with tip of

knife. See *Outfeed Table Height Adjustment*.

Finished stock is

concave on front end.

Outfeed table is higher than

knife.

Lower outfeed table until it aligns with tip of

knife. See *Outfeed Table Height Adjustment*.

Chip out.

Cutting against the grain. Cut with the grain whenever possible.

Dull knives. Sharpen or replace knives.

Feeding workpiece too fast. Use slower rate of feed.

Cutting too deeply. Make shallower cuts.

Knots, imperfections in wood. Inspect wood closely for imperfections; use

different stock if necessary.

Fuzzy grain.

Wood has high moisture

content. Allow wood to dry or use different stock.

Dull knives. Sharpen or replace knives/inserts.

Cutterhead slows

while operating.

Feeding workpiece too

quickly, or applying too much

pressure to workpiece.

Feed more slowly, or apply less pressure to

workpiece.

“Chatter” marks on

workpiece.

Knives incorrectly set.

Set knives properly as described in the

*Setting Cutterhead Knives* section. Check that

knife slots are clean and free of dust or

debris.

Feeding workpiece too fast. Feed workpiece slowly and consistently.

Uneven knife marks

on workpiece.

Knives are nicked, or out of

alignment.

Align knives per the *Setting Cutterhead*

*Knives* section. Replace nicked knives or

correct for small nicks – see *Setting Knives*

*for Rabbeting and Nicks*.

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**Troubleshooting Mechanical and Electrical Problems**

**Trouble Probable Cause Remedy**

Machine will not

start/restart or

repeatedly trips

circuit breaker or

blows fuses.

No incoming power.

Verify unit is connected to power, on-button is

pushed in completely, and stop-button is

disengaged.

Building circuit breaker trips

or fuse blows.

Verify that jointer is on a circuit of correct size.

If circuit size is correct, there is probably a

loose electrical lead. Check amp setting on

motor starter.

Switch or motor failure (how

to distinguish).

If you have access to a voltmeter, you can

separate a switch failure from a motor failure

by first, verifying incoming voltage at

110/220+/-10% and second, checking the

voltage between switch and motor at

110/220+/-10%. If incoming voltage is

incorrect, you have a power supply problem. If

voltage between switch and motor is incorrect,

you have a switch problem. If voltage between

switch and motor is correct, you have a motor

problem.

Motor overheated.

Clean motor of dust or debris to allow proper

air circulation. Allow motor to cool down

before restarting.

Motor failure.

If electric motor is suspect, you have two

options: Have a qualified electrician test the

motor for function or remove the motor and

take it to a qualified electric motor repair shop

and have it tested.

Unit incorrectly wired.

Double check to confirm all electrical

connections are correct. Refer to the *Wiring*

*Diagram* section to make any needed

corrections.

On/off switch failure.

If the on/off switch is suspect, you have two

options: Have a qualified electrician test the

switch for function, or purchase a new on/off

switch and establish if that was the problem

on change out.

**Optional Accessories**

2004017...........Dust Collector Adaptor

2042374...........Mobile Base

708801DX ........Knives (set of 3)

1791212...........Knife Inserts (set of 10)

6285991...........Tool Kit

**Replacement Parts**

To order parts or reach our service department,

call 1-800-274-6848, Monday through Friday

(see our website for business hours;

www.powermatic.com). Having the Model

Number and Serial Number of your machine

available when you call will allow us to serve you

quickly and accurately.

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**Stand – Parts List (All Models)**

**Index No. Part No. Description Size Qty.**

................ 6296131 ..................Stand Assembly ................................................................................. 1

1 .............. 6296121 ..................Stand ................................................................................................. 1

2 .............. 6285974 ..................Door .................................................................................................. 1

3 .............. 6285822 ..................Lock Bolt ............................................................................................ 3

4 .............. 6285852 ..................Spring Washer..................................................3/8 x 5/8 ..................... 3

5 .............. 6296122 ..................Screw ..............................................................1/8-40 x 3/8 ................ 4

6 .............. 6296123 ..................Flat Washer......................................................1/8 x 3/8 x 1/32 ........... 4

7 .............. 6285975 ..................Screw Knob........................................................................................ 1

8 .............. 6285976 ..................Door Lock .......................................................................................... 1

9 .............. 6285977 ..................Hex Nut............................................................3/8-16 ........................ 1

10 ............ 6285980 ..................Hex Screw .......................................................5/16-18 x 3/4 .............. 4

11 ............ 6285805 ..................Flat Washer......................................................5/16 x 3/4 x 1/16 ......... 8

12 ............ 6296124 ..................V-Belt................................................................................................. 1

13 ............ 6296125 ..................Motor Pulley ....................................................................................... 1

14 ............ 6285865 ..................Set Screw ........................................................1/4-20 x 1/4 ................ 2

15 ............ 6296126 ..................Motor ...............................................................1 HP, 1PH, 115V ........ 1

16 ............ 6285988 ..................Spring Washer..................................................5/16 x 5/8 ................... 4

17 ............ 6285966 ..................Hex Nut............................................................5/16-18 ...................... 1

18 ............ 6296127 ..................Motor Cord ......................................................................................... 1

19 ............ 6296128 ..................Switch ................................................................................................ 1

20 ............ 6285963 ..................Strain Relief .....................................................SB7R-1 ...................... 1

21 ............ 6285962 ..................Power Cord ........................................................................................ 1

22 ............ 6296129 ..................Belt Guard.......................................................................................... 1

23 ............ 6285909 ..................Flat Washer......................................................1/4-20 UNC x 1/2 ........ 8

24 ............ 6285910 ..................Handle Screw ...................................................1/4-20 x 1/2 ................ 8

25 ............ 2004017 ..................Dust Chute ......................................................................................... 1

26 ............ 6285978 ..................Key ..................................................................5 x 5 x 30 ................... 1

27 ............ 6296133 ..................Switch Pushbutton .............................................................................. 1

28 ............ 6296134 ..................Switch Cover ...................................................................................... 1

29 ............ 6296135 ..................Switch Box ......................................................................................... 1

30 ............ 6296136 ..................Pan Head Screw...............................................#10-24 x 1/2 ............... 2

31 ............ 6296137 ..................Washer ............................................................3/16 x 1/2 x 1/32 ......... 2

32 ............ 6296138 ..................Machine Screw .................................................M4 x 1.59P x 38mm .... 2

33 ............ 6296139 ..................Pan Head Screw...............................................#8-32 x 5/8 ................. 2

34 ............ 6296140 ..................Flat Washer......................................................5/32 x 3/8 x 1/32 ......... 2

35 ............ 6296141 ..................Star Washer .....................................................BW-4 (5/32 x 3/8) ....... 2

36 ............ 6296142 ..................Nut ..................................................................#8-32 ......................... 1

37 ............ 3520B-140 ..............Powermatic Nameplate ....................................................................... 1

38 ............ 6296150 ..................Warning Label .................................................................................... 1

39 ............ PM2700-440............Wide Stripe (not shown) ............................................................... per ft.

40 ............ PM2700-441............Narrow Stripe (not shown) ............................................................ per ft.

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**Stand –Assembly (All Models)**

***POWERMATIC***

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**Bed – Parts List (All Models)**

**Index No. Part No. Description Size Qty.**

1 .............. 6296086 ..................Base Slide.......................................................................................... 1

2 .............. 6296087 ..................Washer ...................................................3/8 x 1 x 5/32....................... 4

3 .............. 6296088 ..................Spring Pin ...............................................4mm dia. x 14mm Lg ........... 1

4 .............. 6296089 ..................Key .........................................................9.5mm x 273 mm ................. 1

5 .............. 6285931 ..................Cap Screw ..............................................3/8-16 x 1-1/2 ..................... 2

6 .............. 6285910 ..................Handle Screw ..........................................1/4-20 x 1/2 ....................... 10

7 .............. TS-0680021 ............Washer ...................................................1/4 ...................................... 2

8 .............. 6296091 ..................Hex Screw ..............................................1/4-20 x 3/4 ......................... 1

9 .............. 6296092 ..................Socket Head Cap Screw ..........................1/4-20 x 1/2 ......................... 5

10 ............ TS-0208041 ............Socket Head Cap Screw ..........................5/16-18 x 3/4 ....................... 1

11 ............ TS-0208101 ............Socket Head Cap Screw ..........................5/16-18 x 2 .......................... 2

12 ............ 6296094 ..................Key .........................................................5mm x 5mm x 20mm ........... 1

13 ............ 6285907 ..................Set Screw ...............................................1/4-20 x 3/8 ......................... 4

14 ............ 6285902 ..................Hex Nut...................................................1/4-20 ................................. 5

15 ............ 6296144 ..................Flat Washer.............................................1/4 x 1/2 x 1/32 .................... 3

16 ............ 6296066 ..................Flat Washer.............................................13mm x 28mm x 3mm.......... 1

17 ............ 6296095 ..................Spring Washer.........................................6.5mm x 12.8mm ................. 3

18 ............ 6285911 ..................Spring Washer.........................................8.2mm x 15.4mm ................. 2

19 ............ 6296096 ..................Wavy Washer ..........................................12.6mm x 16.8mm ............... 1

20 ............ 6296015 ..................Retaining Ring .........................................ETW-6 ................................ 3

21 ............ 6296022 ..................Retaining Ring .........................................ETW-12 .............................. 2

22 ............ 6285901 ..................Set Screw ...............................................1/4-20 NC x 1 ...................... 5

23 ............ 6285906 ..................Collar ................................................................................................. 1

24 ............ 6285904 ..................Washer .............................................................................................. 1

25 ............ 6285905 ..................Bracket .............................................................................................. 1

26 ............ 6285903 ..................Adjusting Screw .................................................................................. 1

27 ............ 6296097 ..................Shaft .................................................................................................. 1

28 ............ 6296098 ..................Lock Bracket ...................................................................................... 1

29 ............ 6296099 ..................Bolt .................................................................................................... 1

30 ............ 6296100 ..................Bracket .............................................................................................. 1

31 ............ 6296101 ..................Base .................................................................................................. 1

32 ............ 6296102 ..................Front Table......................................................................................... 1

33 ............ 6296103 ..................Rear Table ......................................................................................... 1

34 ............ 6296104 ..................Plate .................................................................................................. 1

35 ............ 6296105 ..................Gib .................................................................................................... 2

36 ............ 6296106 ..................Shaft .................................................................................................. 1

37 ............ 6296107 ..................Plate .................................................................................................. 1

38 ............ 6296108 ..................Lock Plate .......................................................................................... 1

39 ............ 6296109 ..................Handle ............................................................................................... 1

40 ............ 6296110 ..................Adjusting Base ................................................................................... 1

41 ............ 6296111 ..................Worm Shaft ........................................................................................ 1

42 ............ 6296112 ..................Worm ................................................................................................. 1

43 ............ 6296113 ..................Nut .................................................................................................... 1

44 ............ 6285900 ..................Screw ................................................................................................ 2

45 ............ 6296060 ..................Set Screw ...............................................5/16-18 x 3/4 ....................... 2

46 ............ 6285966 ..................Hex Nut...................................................5/16-18 ............................... 3

47 ............ 6296114 ..................Set Block............................................................................................ 1

48 ............ 6296014 ..................Cap Screw .............................................. 5/16-18 x 3/4 ...................... 2

49 ............ 6296115 ..................Stud ................................................................................................... 1

50 ............ 6296116 ..................Pointer ............................................................................................... 1

51 ............ 6296117 ..................Pan Head Screw......................................5/32-32 x 1/4 ....................... 1

52 ............ 6285917 ..................Push Block ......................................................................................... 2

53 ............ 6285908 ..................Wheel Handle..................................................................................... 1

54 ............ 6296145 ..................Cutterhead Guard ............................................................................... 1

55 ............ TS-1533032 ............Phillips Pan Head Machine Screw.............M5 x 10mm ......................... 1

57 ............ 6285892 ..................Guard Post ......................................................................................... 1

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**Bed – Parts List (All Models)**

**Index No. Part No. Description Size Qty.**

58 ............ 6285893 ..................Washer .............................................................................................. 1

59 ............ 6285894 ..................Spring ................................................................................................ 1

60 ............ 6285895 ..................Knob .................................................................................................. 1

61 ............ 6285896 ..................Retainer ............................................................................................. 1

62 ............ 6285897 ..................Screw .....................................................5/32-32 x 5/8 ....................... 3

63 ............ 6296147 ..................Depth Scale ....................................................................................... 1

64 ............ 6296148 ..................Rivet .................................................................................................. 2

65 ............ 6296151 ..................Collar ................................................................................................. 1

66 ............ 6296152 ..................Set Screw ...............................................1/4-20 UNC x 1/4 ................. 2

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**Fence – Parts List and Assembly (All Models)**

**Index No. Part No. Description Size Qty.**

................ 6296130 ..................Fence Assembly ....................................... ......................................... 1

1 .............. 6296143 ..................Locking Bolt ............................................. ......................................... 1

2 .............. 6296066 ..................Flat Washer..................................................13mm x 28mm x 3mm ........ 2

3 .............. 6296067 ..................Stop Block................................................ ......................................... 1

4 .............. 6296068 ..................Fence Bracket .......................................... ......................................... 1

5 .............. 6285945 ..................Knob ........................................................ ......................................... 2

6 .............. 6296069 ..................Locking Shaft ........................................... ......................................... 1

7 .............. 6296070 ..................Pin ........................................................... Ø5mm x 50mm .................. 1

8 .............. 6296071 ..................Cap Screw ............................................... 1/4-20 x 1-1/4..................... 2

9 .............. 6296072 ..................Hex Nut.................................................... 1/4-20................................ 2

10 ............ 6296073 ..................Screw ...................................................... ......................................... 1

11 ............ TS-0561052 ............Hex Nut.................................................... 1/2-20UNF ......................... 2

12 ............ 6296075 ..................Fence Body .............................................. ......................................... 1

13 ............ 6285940 ..................Pivot Stud ................................................ ......................................... 2

14 ............ 6285966 ..................Hex Nut.................................................... 5/16-18 .............................. 1

15 ............ 6296077 ..................Hex Screw ............................................... 5/16-18 x 1-1/4................... 1

16 ............ 6296078 ..................Hex Screw ............................................... 5/16-18 x 1-1/2................... 1

18 ............ 6296080 ..................Locking Link ............................................. ......................................... 1

19 ............ 6296081 ..................Nut .......................................................... ......................................... 1

20 ............ 6285947 ..................Fixed Block .............................................. ......................................... 1

21 ............ 6296082 ..................Fence Link ............................................... ......................................... 1

22 ............ 6285942 ..................Cone Point Screw ..................................... ......................................... 4

23 ............ 6285944 ..................Handle Stud ............................................. ......................................... 2

24 ............ 6285943 ..................Hex Nut.................................................... 3/8-16................................ 4

25 ............ 6296083 ..................Hex Nut.................................................... 1/2-12NC ........................... 2

26 ............ 6296084 ..................Bolt .......................................................... ......................................... 1

27 ............ 6296085 ..................Cap Screw ............................................... 1/4-20 x 1/2 ....................... 1

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**Cutterhead – Parts and Assembly (model 54A only)**

**Index No. Part No. Description Size Qty.**

................ JJ6CSDX-CA...........Cutterhead Assembly (Index #s 1-15) .................................................. 1

1 .............. JJ6CSDX-101..........Special Button Head Socket Screw .................................................... 12

2 .............. TS-0720091 ............Lock Washer ....................................................3/8” ............................ 2

3 .............. JEA-B01..................Bolt .................................................................................................... 2

4 .............. 3H-C02 ...................Bearing Housing ................................................................................. 1

5 .............. BB-6202ZZ ..............Ball Bearing......................................................6202ZZ ...................... 1

6 .............. JJ6CSDX-106..........Cutterhead ......................................................................................... 1

7 .............. 5F-G108..................Key ..................................................................5 x 5 x 25 ................... 1

8 .............. BB-6203ZZ ..............Ball Bearing......................................................6203ZZ ...................... 1

9 .............. JH-C04 ...................Bearing Housing ................................................................................. 1

10 ............ JH-C07 ...................Cutterhead Pulley ............................................................................... 1

11 ............ TS-0267041 ............Socket Set Screw .............................................1/4”-20 x 3/8” .............. 2

12 ............ 708801DX ...............Knife for JJ-6CSDX (set of 3)............................................................... 1

13 ............ TS-1501021 ............Socket Head Cap Screw ...................................M4 x 8........................ 6

14 ............ JJ6CSDX-114..........Knife Lock Bar .................................................................................... 3

15 ............ JJ6CSDX-115..........Adjustment Nut ................................................................................... 6

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**Cutterhead – Parts and Assembly (model 54HH only)**

**Index No. Part No. Description Size Qty.**

................ PM54HH-CA ...........Cutterhead Assembly (Index # 1-12) .................................................... 1

1 .............. TS-0267041 ............Socket Set Screw .............................................1/4”-20 x 3/8 ............... 2

2 .............. JH-C07 ...................Cutterhead Pulley ............................................................................... 1

3 .............. JH-C04 ...................Bearing Housing ................................................................................. 1

4 .............. BB-6203VV .............Ball Bearing......................................................6203VV ...................... 1

5 .............. 5F-G108..................Key ..................................................................5 x 5 x 25 ................... 1

................ 1791221-6 ...............Helical Cutterhead Unit (Index # 6 thru 8) ............................................. 1

6 .............. 1791212 ..................Knife Insert (set of 10) ................................................................total 40

7 .............. JWP208HH-111.......Knife Insert Screw.............................................#10-32 x 1/2 ............. 40

8 .............. PM54HH-108...........Helical Cutterhead .............................................................................. 1

9 .............. BB-6202VV .............Ball Bearing......................................................6202VV ...................... 1

10 ............ 3H-C02 ...................Bearing Housing ................................................................................. 1

11 ............ TS-0720091 ............Lock Washer ....................................................3/8” ............................ 2

12 ............ JEA-B01..................Hex Cap Bolt ....................................................3/8”-24 x 3-1/2” ........... 2

13 ............ JJ6HH-113 ..............Star Point Screwdriver (not shown) ...................................................... 2

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**Wiring Diagrams**

**Wiring Diagram – Serial # 05060540312 and lower**

WHITE

BLACK BLACK

WHITE

GREEN GREEN

GROUND

Serial # 05060540312 and lower

300MFD 125 VAC

ELECTRICAL SCHEMATIC - 115V

1

3

4

8

BLACK

WHITE

GREEN

GREEN

ELECTRICAL SCHEMATIC - 230V

GROUND

BLACK

WHITE

GREEN

BLACK

WHITE

GREEN

4

BLACK

WHITE

1

2

3

300MFD 125 VAC

START

STOP

STOP

START

5

2

5

8

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**Wiring Diagram – Serial # 05060540313 and higher**

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