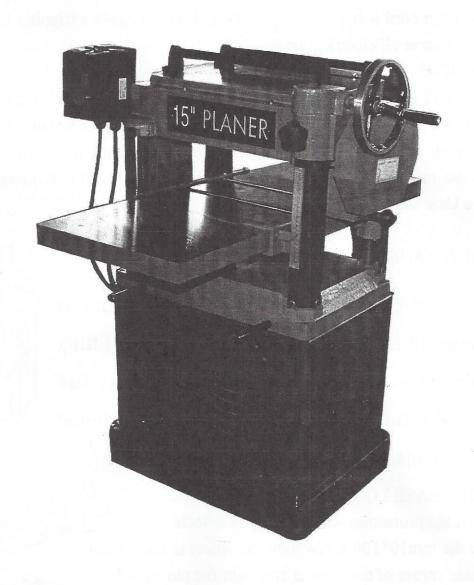
## WOOD PLANER INSTRUCTION MANUAL



#### SECTION ASSEMBLY

Before beginning assembly, take note of the following precautions and suggestions.

#### WORKING CLEARANCES

Take into consideration the size of the material to be processed, space for auxiliary stands, work benches etc, before setting up this machine. Make sure that you allow enough space for your machine to operate freely.

#### **OUTLET PLACEMENT**

Outlet should be located close enough to the machine so that the power cord or extension cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes.

#### WARNING

- 1). DO NOT assembly the planer until you are sure the tool is not plugged in.
- 2). DO NOT assembly the planer until you are sure the power switch is in the OFF position.
- 3). For your own safety, DO NOT connects the machine to the power source until the machine is completely assembled and you read and understand the entire User Manual.

#### LIFTING HANDLES

This planer is a very heavy piece of equipment. It contains lifting handles. Screw the four lifting handles into the holes on the casting base, Use hoist to lift the planer off the pallet. Straps should always be placed under the four lifting handle

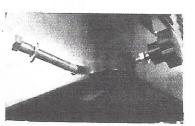
# LIFTING

#### MOBILE BASE LOCK KNOBS

- 1, Insert the protection washer into the wheels
- 2, Use the mm10\*100 screw joint the wheel in the holder on inside corner of the cabinet and tight the nut to lock
- 3. Thread the lock knobs into the holes.

NOTE: To lock the mobile base, tighten the lock knobs

To unlock, loosen the lock knobs so that the wheels move freely



#### HANDWHEEL

The purpose of the handwheel is for raising and lowering the planer table.

- 1. Locate the hand wheel shaft at the front right corner of the planer.
- 2. Insert the spacer bush on the shaft
- 3. Insert the key into the keyway on the handle shaft.
- 4. Line up the notch in the hand wheel with the key and slide the hand wheel on the shaft.
- 5. Screw handle into the threaded hole on the hand wheel.

#### **DUST CHUTE**

The planer features a 4 inch DUST PORT for use with a dust collection system. If this is planer is not to be hooked up to a dust collection system, DO NOT attach the dust port.

- Assembly the dust chute on to the left hinge bracket which assembled on the back of left side of cutter head casting.
- 2, Assembly the right hinge bracket on the right side of dust port
- 3, Line up the 3 holes on the top of the dust port with the 3 holes on the upper cover and fasten with three nut and flat washer.
- 4, Assembly the either side of both front/rear roller Bracket and don't securing the screws
- 5, Assembly both rollers on the roller bracket and tight all screws
- 6, Spin rollers by hand to insure tht they move freely

#### SWITCH BRACKET ASSEMBLY

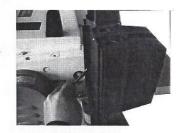
Find the screws and washer assembly the switch bracket on the left side of cutter head casting







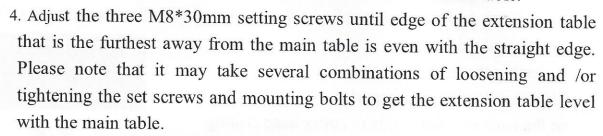




#### **EXTENSION TABLE**

The extension tables support the work piece as it enters and exits the planer.

- To mount the extension tables, thread three M10\*30mm locking screws into the bottom holes of the extension table.
   Only screw them in about 1/3 of the way for now
- 2. Using three M10\*30mm hex head mounting bolts, mount one extension table to the main table
- 3. Place a straight edge on the main table so that it lies flat one the table and extends out over the extension table.



5. Repeat steps 1-4 to attach the other extension table to the other side of the main table.

#### **SECTION 3: ADJUSTMENTS**

Some of the adjustments covered in this section have already been made at the factory. It is still a good idea to familiarize yourself with all of following procedures so that you have a solid understanding of the planer operation.

#### TABLE PARALLELISM ADJUSTMENT

To make adjustments to the table, it is necessary to make a gauge block. When constructing this block, be sure to use a hardwood such as oak or maple.

1. Having the table parallel to the cutterhead is essential for planning stock perfectly square. Check this by placing the gauge block that you have constructed under the left end of the cutterhead.

- 2. Turn the hand wheel to raise the table so that the block barely touches the left side of the body of the cuterhead. **NOTE:** Make sure that the block is actually touching the body of the cutterhead and not the knives.
- 3. Slide the block to the right taking note of any gaps between the top of the block and the bottom of the cutterhead body. Measure any of these gaps with a feeler gauge.
- 4. When moving the block from left to right, if the block wedges tightly between the cutterhead and the table, repeat steps 2 and 3, but start from the right side of the cutterhead body and slide block to the left.
- 5. Referring back to your measurements with the feeler gauge, if the gap difference from one side to the other is 0.004" or less, no adjustment will be necessary. If the gap is greater that 0.004", adjusting as following step
- 6. Determine which side of the table needs to be raised to fix the gap.
- 7. Locate the two cap screws in the table casting for each of the columns.
- 8. Loose sets of nuts on the cap screws that needs adjusted.
- 9. Screw the cap screw to up or down the table in the direction that it needs to be adjusted until the variance is 0.004 " or less.
- 10, hold in position and retighten the screws.

#### CHAIN TENSION

To adjust Chain Tension

- 1. Remove the access panel on the stand.
- 2. Loosen the two hex head bolts that fasten the idler sprocket to the base and Move the idler sprocket until excess slack in the chain has been eliminated.
- 3. Retighten the two hex head bolts.
- 4. Replace access panel.

#### KNIFE INSPECTION

The planer knives are set at the factory using jack screws.

These springs are installed beneath the knives.

If you prefer to use the spring adjustment method, you will need to remove each knife, remove the jack screw, leave the two springs under each knife and replace the knife.

Follow the steps below if using the spring adjustment method.



#### WARNING

### MAKE CERTAIN THE MACHING IS DISCONNECTED FROM THE POWER SOURCE

- 1. Remove the dust port and upper cover and cutterhead guard to expose the top of the cutterhead.
- 2. Remove the belt guard.

  Turn the cutterhead (using the pulley) until
  the first knife is top dead center.



3. Using the knife setting gauge, check the knife height. The jig should set with both feet on the cutterhead. If the knife is properly adjusted, the contact point at the center of the gauge should just touch the tip of the knife. If the knife does not make contact or if the knife is high enough the cause the legs of the jig not to set on the cutterhead, the knives will need adjusted. Be sure to inspect all 4 knives in the same manner.

The planer knives will need to be adjusted periodically and ultimately will need to be removed to be sharpened. Adjustments should be as precise as possible with tolerances within 0.002'' -0.003''. This will help prolong the sharpness of the knife edges. Improperly adjusted knives can cause an imbalance condition in the cutterhead and shorten bearing life, as well as produce substandard results.

- 4, Loosen the gib bolts by turning them clockwise until the knife is loose in the slot
- 5. Carefully remove the knife
- 6. Unscrew the jack screws completely from the thread hole and remove
- 7. Be sure that there is one spring in each of the two holes in the bottom of the knife slot

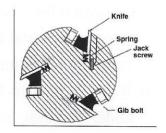
#### KNIFE ADJUSTMENT

The knives are locked in the cutterhead with wedge type gibs and gib bolts. Springs located under the knives assist in setting the knife height. Jack screws under the knives allow fine tuning to help out in the setting process.

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

- 2. Remove the upper cover to expose the cutterhead.
- 3. Loosen the gib bolts until the knife is loose in the slot.

The gib bolts turn clockwise to loosen and counterclockwise to tighten.



- 3. Place the knife setting jig over the knife on the cutterhead.
- 4. The feet of the jig should be securely planted on the cutterhead, making sure the gauge rod remains parallel to the cutterhead.
- 5. Lower the jack screws as low as possible.
- 6. Maintain a steady pressure on the knife setting jig while retightening the jib bolts.

The springs in the cutterhead will push up on the knife allowing for proper alignment of the knives.

7. Once gib bolts are tightened, raise jack screws until they just touch the bottom of the knife.

You should feel resistance when the jack screw touches the bottom of the knife.

**NOTICE:** When making adjustments to the planer knives, all knives must be adjusted the same.

**DO NOT** adjust one knife without adjusting the others as this can result in knife damage, poor performance and possible injury to the operator.

#### CHIP BREAKER

The chip breaker is located on the top side of the planer and it extends down around the front of the cutterhead. The purpose of the chip breaker is to prevent deep gouging, also known as tear-out, as the knives do their job. It works by breaking up the woodchips as they are being cut by the knives. The chip breaker also deflects the woodchips away from the surface of the board and out the rear of the planer.

- 1. Remove the upper cover and dust hood, and lower the table.
- 2. Make sure that the knives are properly adjusted.
- 3. Place the gauge block on the table directly under cutterhead.
- 4. Rotate the cutterhead until one of the knives are at its lowest point.

- 5. Using a 0.04" feeler gauge between the gauge block and the cutterhead, raise the table until the knife just touches the feeler gauge.
- 6. Remove your feeler gauge and slide the gauge block under one side of the chip breaker. The chip breaker should just touch the top of the gauge block.
- 7. Slide the gauge block to the opposite side off the chip breaker, checking it the same way.
- 8. If any adjustment is necessary, loosen the locknuts and turn the setscrews. Stop turning when the chip breaker just touches the top of the gauge block.
- 9. Retighten both locknuts and replace cover and dust hood.

#### FEED ROLLER HEIGHT

The infeed and outfeed rollers are responsible for moving the workpiece through the machine and pressing the workpiece flat against the main table.

- 1. Lower the table so the gauge block fits less than one side of the infeed roller.
- 2. Raise the table until the gauge blocks just barely touches one side of the infeed roller.
- 3. Push the gauge block through so that it is under the edge of one of the knives.
- 4. Turn the cutterhead by hand until one of the knives is in its lowest position.
- 5. Using a feeler gauge, check the clearance between the top of the gauge block and the edge of the knife. Clearance should be  $0.040\,^{\prime\prime}$ .
- 6. Repeat steps 1-5 for the opposite side of the roller.
- 7. Repeat this same process for the outfeed roller. If any adjustment is necessary continue on to step 8.
- 8. Remove the drive chain cover to access the roller adjustments on the drive chain side of the planer. One socket head cap screw holds the drive chain cover in place.
- 9. Loosen the roller adjustment check nuts and turn the roller height set screws to change the height of the roller.
- 10. When the roller is set in the correct position, retighten the check nuts from step 9.
- 11. Recheck roller height and repeat step 8-10 if necessary.

#### FEED ROLLER PRESSURE

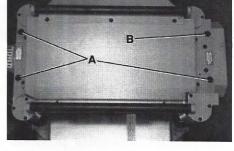
Infeed and outfeed roller pressure is an important aspect of any planer. When the workpiece is fed through the planer, the correct amount of pressure will help ensure that the board does not slip (too little pressure) or does not jam (too much pressure).

**NOTICE:** Excessive pressure may damage workpiece. It is important to note that different lumber will require varying amounts of pressure, so you may have to experiment with different settings. While some rough cut lumber will go through the planer with little trouble at one pressure setting, other pieces may have some more difficulty.

**NOTICE:** Adjusting the roller pressure does not affect height.

- 1. Before adjusting roller pressure, ensure that the knives and feed rollers are set correctly.
- 2. Unscrew the four large pressure set screws on the top of the planer body.
- 3. Remove the springs that are in the holes left by the set screws and check for any dirt or grit. Cleaning off any dirt and replace springs.
- 4. Screw the three regular pressure set screws(A) back in until they are flush with the top of the head casting.
- 5, Screw in the light pressure set screw(B) until it is about 1/4" above the head casting.

  The reason this screw is not tightened as much as the other three is that the feed chain helps apply the needed tension to this side of the outfeed roller.



6. Tightening the set screws down further will **INCREASE** roller pressure, while backing them off will **DECREASE** roller pressure.

#### BED ROLLER

The bed rollers aid the movement of the workpiece through the planer. The height of these rollers will vary depending on the types of wood being processed. For rough stock, the rollers should be set slightly higher to keep the lumber from dragging along the bed. For smooth lumber, the rollers should be set just above the surface of the table.

1. Lay a straight edge across both of the table rollers.

- 2. Using a feeler gauge, measure the clearance between the bottom of the straight edge and the table .Make sure to measure in several places.
- 3. If measurement between  $0.002\,''$  and  $0.005\,''$ , the clearance is acceptable . If you do not have a measurement of  $0.002\,''$  to  $0.005\,''$  go to step 4.
- 4. Loosen the set screw(A) locates on the back side of table
- 5. Using a wrench, turn the bolt (B) adjust the roller height up or down as show photo
- 6. Repeat steps 1-5 until clearance is 0.002 " to 0.005 "
- 7. Retighten screws (A).
- 8. Spin rollers by hand to ensure that they move freely.

#### ANTI-KICKBACK FINGERS

Anti-kickback fingers are an added safety feature on this planer. They are suspended from a rod that hangs across the front of the cutterhead casting. These fingers should be inspected regulary, ensuring that they swing freely and easily.

#### **PULLEYS**

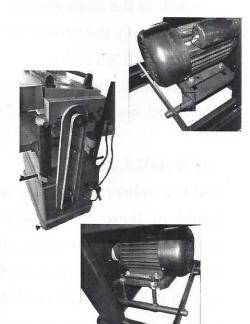
- 1. To inspect pulleys , places a steel ruler or other type of straight edge across the pulleys to check the alignment. If the ruler crosses them evenly, the pulleys are aligned correctly.
- 2. If pulleys are out of alignment, loosen the bolts that hold the motor to the motor mount bracket.
- 3. Adjust the motor position until the pulleys are aligned.
- 4. Retighten all bolts.

#### BELTS

- 1. If the belt is too loose, removethe belt guard
- 2. To check belt tension, squeeze the Belts at their midpoint with moderate finger pressure.

You should be able to deflect each belt no more than 3/4".

3. Remove the panel at the back of the machine stand to access the motor assembly.



4. The motor pivots on a platform suspended at one end by two threaded adjustment bolts.

Adjust the locknuts up or down the shafts until the desired belt deflection is achieved.

#### ELECTRONIC DIGITAL READOUT (OPTIONAL)

For proper adjustment and calibration of the Electronic Digital Readout, refer to the supplied Wixey Instruction Manual.

#### **GEAR BOX**

The gear box is located just behind the handwheel on the right side of the planer. The gearbox transfers power from the belt driven cutterhead to the power feed rollers. It has a two speed transmission that is controlled by a lever on the right side of the planer .When it is engaged, the power feed rollers will move the workpiece through the planer at either 16 ft/min or 20 ft/min. The center position on the lever is neutral.

- 1. To inspect gearbox, loosen the socket head cap screw on the gearbox.
- 2. Pull the cover off the roll pins that hold it in place.
- 3. Inspect the bolts that hold the sprockets in place.
- 4. Check the drive chains to make sure that the retaining clips are in place.

#### **SECTION 4: OPERATIONS**

#### PLANER SUMMARY

- 1. Examine all lumber carefully for defects such as twisting, warping, knots, splits, cross grain, and foreign objects such as nails, staples, etc before running it through the planer.
- 2. Use the full width of the planer. Alternate between the left, right, and center when feeding lumber through the planer. Doing so will help extend the life of your blades.
- 3. Be sure to clean off all glue of joined boards before planning.
- 4. This planer is designed for natural wood only. **DO NOT** uses any composites, laminates, particleboard, plywood, or plastics in the planer.
- 5. **ALWAYS** plane with the grain of the wood. **NEVER** feed end grained lumber through the planer.
- 6. When making multiple passes through the planer on long stock, use the stock return rollers located on top of the machine to move the work piece over to the infeed side of the table.

- 7. Wood that has a high moisture content (greater than 20%) or wood exposed to rain or snow will plane poorly and cause excessive wear to the knives, and accelerate rust and corrosion.
- 8. This manual does not cover every aspect of planning wood. You should research alternative publications for more specific requirements. This type of follow up will help provide with a better understanding of the planning process as well as alert you to other precautions to take that may or may not be listed in this manual.

#### **POWER FEED**

The power feed feature two different feed rates, 16 FPM (feet per minute) and 20 FPM. Adjust only WHILE THE MACHINE IS RUNNING, moving the knob one direction

produces the 20 EPM setting, There is also a central position for the knob, which is neutral.

#### HANDWHEEL

Unclock the knob, before turn the handwheel. Turning the handwheel clockwise will raise the main table while turning it clockwise will lower the table. Crank the handwheel to raise or lower the table according to the desired workpiece thickness.



#### TABLE LOCKS

Before attempting to adjust the table height, loosen the black knobs on the front. Once the table height is adjusted correctly, retighten the knobs.

#### TRIAL RUN

Once all the assembly is complete and the adjustments are complete, it is time for a test run.

- 1. Turn on the power supply
- 2. Press the start button. Keep your hand near the switch, ready to shut the machine down quickly in case anything does not sound right or if there appears to be a problem.
- 3. The planer should run smoothly with little to no vibration or rubbing noise. If any strange noise is noticed, shut down machine and recheck all adjustments