

# Maintenance

Your Shopsmith Professional Planer is designed to deliver years of reliable service with a minimum of maintenance. Like any other power tool, however, it will perform better and safer if you occasionally give it a few minutes of "tender loving care."

## WARNING

Unplug the planer from its power source and the motors from the control box before attempting any alignment, adjustment, maintenance or service procedure.

## Knife Mounting System

### NOTE

The planer knives are preset at the factory and should not require any alignment. However, you should periodically check and re-check the condition and alignment of the knives.

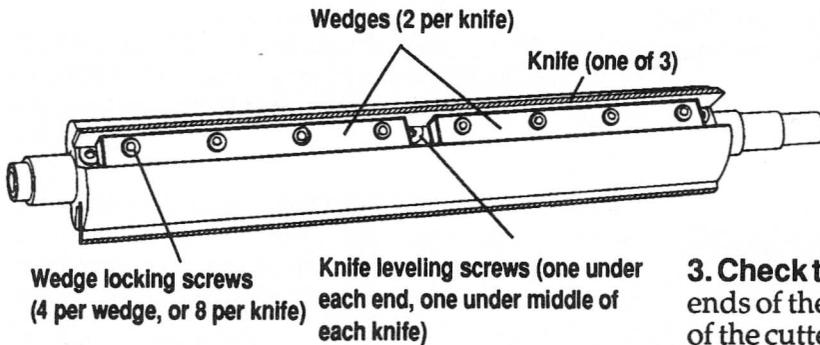


Fig. 62

The planer cutterhead holds three knives. Each knife is held in the cutterhead by two metal wedges with four locking screws through each wedge. In all, eight locking screws hold each knife in place, as illustrated in Fig. 62.

## WARNING

Use only Shopsmith Planer Knives. Other brands of knives will not seat properly in the cutterhead. USING OFF-BRAND KNIVES IS EXTREMELY DANGEROUS.

### NOTE

Check the wedge locking screws immediately if unusual noise, vibration, or uneven cuts develop and after every 10 hours of use - as a general practice.

There are also three knife leveling screws— one under each end and one under the middle of each knife, as seen in Fig. 62. These screws allow you to adjust all three knives to precisely the same height without the need for costly and time-consuming match grinding.

## Checking Knife Positions

### NOTE

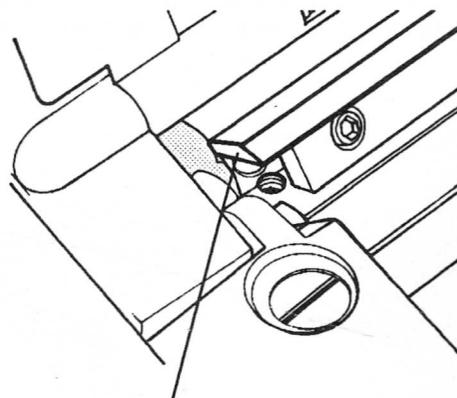
The planer knives are preset at the factory and should not require any alignment. However, you should periodically check and re-check the condition and alignment of the knives.

Knife position is the most critical adjustment on the planer. All knives must be positioned identically both side-to-side and top-to-bottom. To check knife positions, follow this procedure:

**1. Disconnect the power** - Unplug the control box from your power source.

**2. Raise the outfeed shield** - Turn the two hold-down latches that lock the outfeed shield in place 1/2 revolution down. Swing the shield up and out of the way.

**3. Check the side-to-side knife positions** - The ends of the knives should be flush with the sides of the cutterhead, as shown in Fig. 63. Place your fingertips on one side of the cutterhead and slowly rotate it one full revolution. Check, by feeling, that each knife is even with the side of the cutterhead.



End of knife must be flush with side of cutterhead

Fig. 63

**4. Check the height of one knife** - Use the knife setting gauge supplied with the planer to check the height of the knives. Use an awl to scribe a line, on both sides of the gauge, perpendicular to the ramp angle of the gauge, 7/16" from the lower corner of the ramp. This is the zero setting line, as shown in Fig. 64. Place the square slotted end of the gauge over the right end of the outfeed tie bar, and let the tip of the gauge rest on the cutterhead. The knife will be positioned between the tip and the angled ramp. Turn the cutterhead to position a knife under the angled ramp of the gauge, as in Fig. 64.

Insert the 5/32" Allen wrench in the right knife leveling screw. (The Allen wrench and the knife setting gauge should be close together, but they must not interfere with each other.)

Using the wrench as a lever, slowly rock the cutterhead back and forth so that the knife passes under the ramp of the gauge. If the knife height is correct, the cutting edge will touch the ramp at the mark without lifting the tip of the gauge from the cutterhead. See Figs. 64 and 65.

If the knife doesn't touch the mark, lifts the tip of the gauge, or does not contact the gauge, the knife height is incorrect.

Repeat this procedure at the middle and left end of each knife. Be certain the knife height is correct and exactly the same from one end of the knife to the other, and knife-to-knife.

## Removing, Installing and Adjusting Knives

### NOTE

The planer knives are preset at the factory and should not require any alignment. However, you should periodically check and re-check the condition and alignment of the knives, as described below.

### CAUTION

It is important that you return the knives, wedges and screws to their original position in the cutterhead.

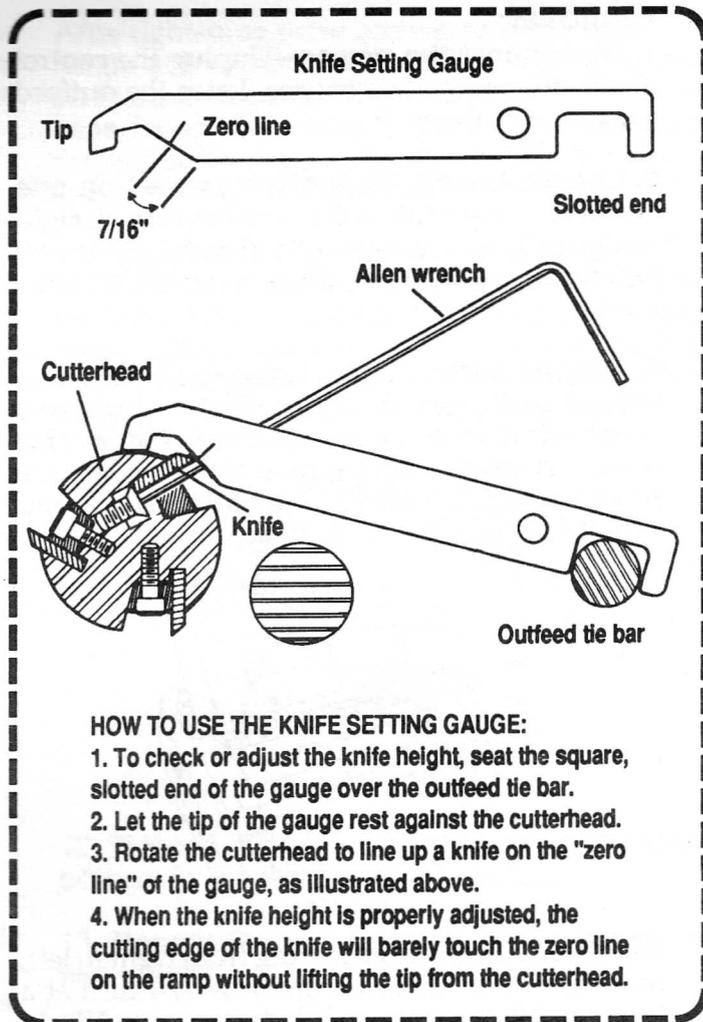


Fig. 64

Use an Allen wrench as a lever to slowly rotate the cutterhead while checking the height of the knife.

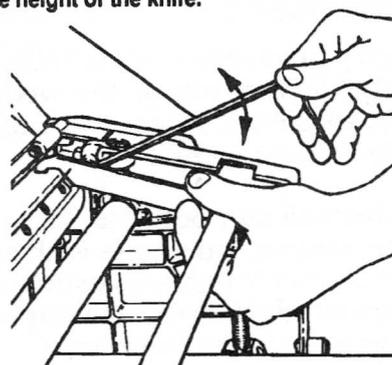


Fig. 65