

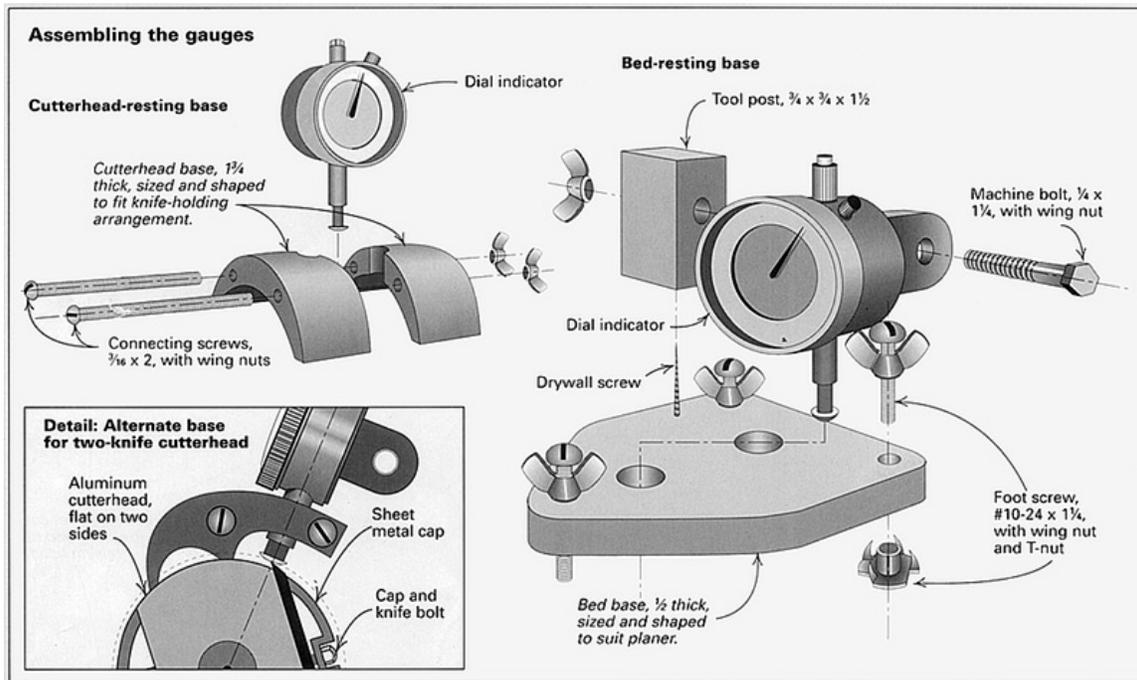
Finally got the scanner going again!!  
I'd been planing to do this for a while.  
This is how I setup my thicknesser & others for EXCELLENT results.

Paraphrased from an article by Richard Vaughan, Contributing Editor, Fine Woodworking Magazine. (Issue: #107 Aug 1994)

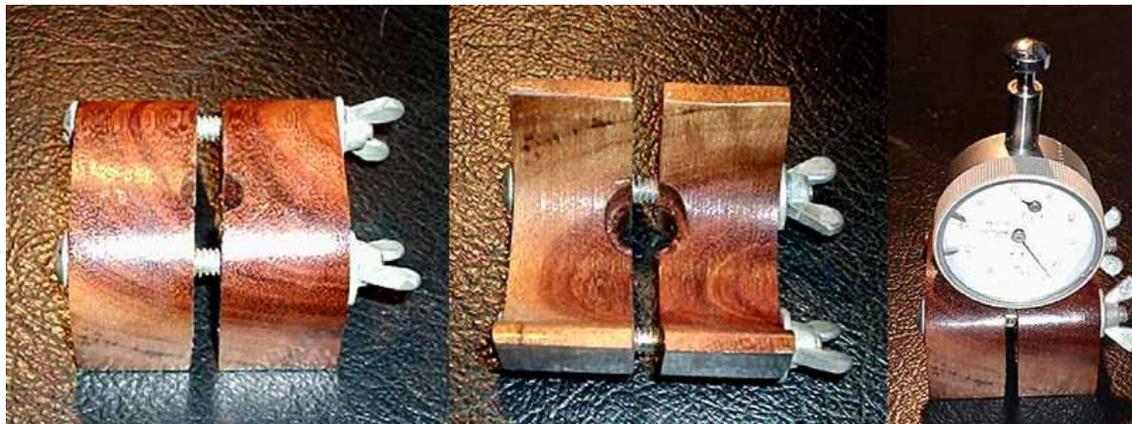
### HOW TO SETUP A THICKNESSER

Using simple tools, an inexpensive gauge & some planing.  
All you need is an inexpensive dial indicator (mine is 0-5mm), two (2) workshop made gauge bases, a hammer, an awl and a piece of timber 19mm X 19mm X about 200mm. Also required are the usual spanners and screwdrivers for your thicknesser.

You will need to know how to build the bases so here is some drawings.



This is the cutterhead base I made for myself. I use the cutterhead base for all settings by just inverting the dial indicator, as shown.

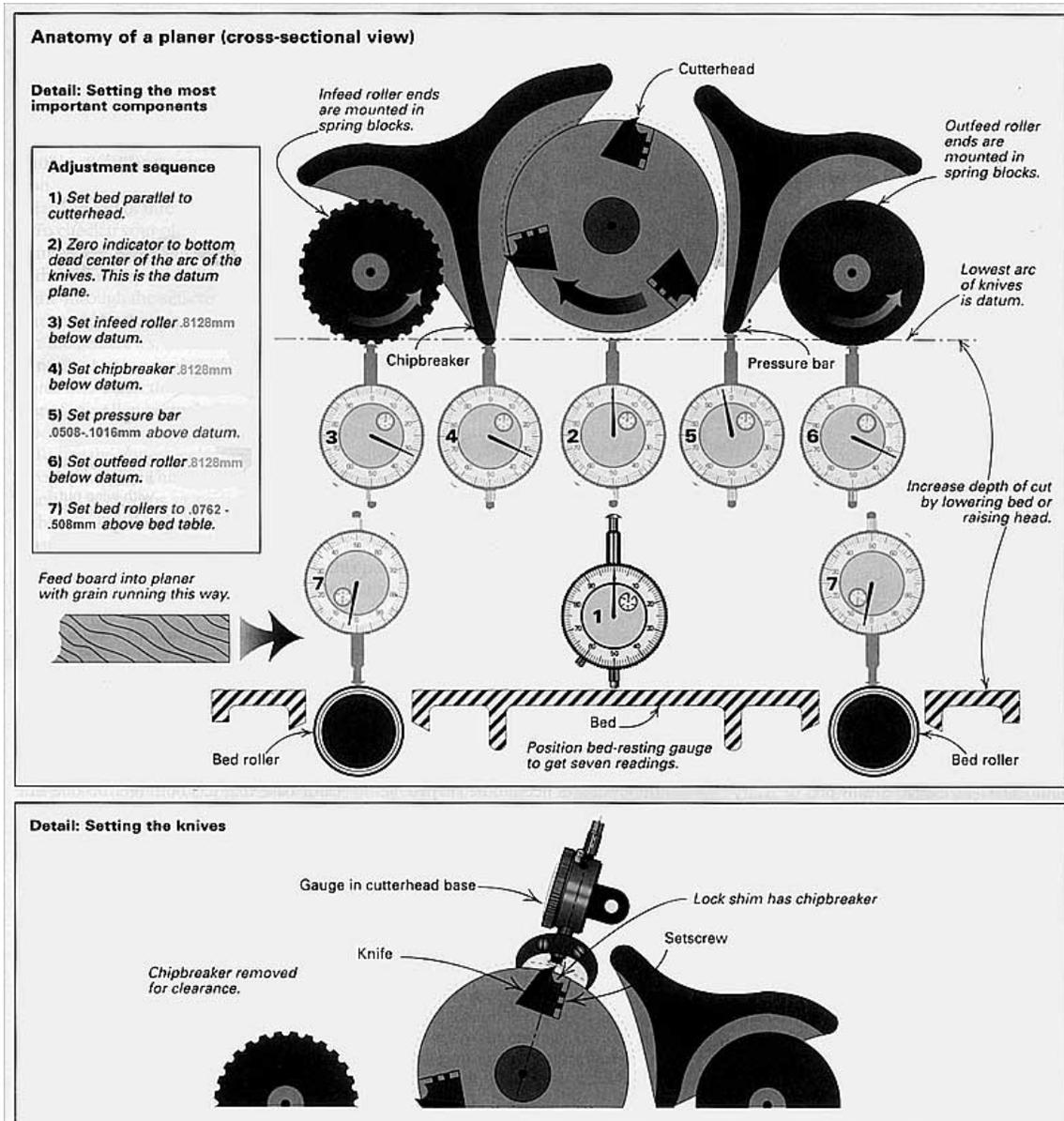


The end photo shows the stand set for adjusting in feed & out feed rollers also for the chip breaker. To adjust planer knives just invert the gauge in the holder.



I also made this bed-resting base but don't use it very often. Simple to make using 1/4" screws, wing nuts and 'T' nuts so the height is adjustable.

Here are the settings that I use



**Safety First; UNPLUG the MACHINE!**

I always start with setting the knives so that the tip is a 3mm projection from the cutterhead. Zero the dial indicator on the cutterhead and then move it over the blade at one end. Adjust the height of the blade to about 3mm & **lightly** lock it off. You don't need to be too fussy YET! Move to the other end and repeat the process. Now go back & check the first end – see -- it has moved! Repeat the process until both ends read the same.

Now check the middle, it should be a fraction higher. Mine are always higher in the middle so I use the 19 X 19mm stick and hammer to tap it down. If it is a bit low I use the awl to lever it up a fraction. Once you have one blade set move on to the next making sure that it ends up at the same height as the first. When all the blades are in, I go around the cutter head and check that all are set the same. What I mean by the same is a tolerance of +/- .005mm.

Now for the under-head measurements and adjustments;

Install your dial gauge on the bed-resting base and make adjustments so that the gauge is zeroed when measuring Bottom Dead Centre of the cutter head in the MIDDLE. Make sure that the gauge is not reading from one of the knives. Now check cutter head is parallel to the table. If it is out by more than 0.20mm, you will need to adjust the cutter head in relation to the table. Consult the manual that came with the machine. It is **IMPORTANT** that this be done before you proceed. If and when the cutter head is parallel to the bed, zero the gauge at Bottom Dead Centre of the knife arc. This is the **DATUM**. It is from this measurement that all the other adjustments are made.

Move the base & gauge to the in-feed end and check that the in-feed roller is 0.812mm **LOWER** than the knife measurement. Check the measurement at each end of the in-feed roller. Adjust if necessary.

Next, check the chip breaker, and adjust it to the same measurement, 0.812mm below BDC (bottom dead centre) of the knife arc.

I then adjust the out-feed roller. It is set to the same measurement as the in-feed and chip breaker and you don't have rearrange the gauge/base combination.

The last of the upward measurements is for the pressure bar which is past the cutter head. This is set to 0.0508 – 0.1016mm **ABOVE** the **DATUM**. The generic 15" and 16" Taiwanese planers don't usually have a pressure bar so just ignore this step if yours doesn't have one.

We're almost finished!

Invert the gauge in the bed-resting base so we can adjust the bed rollers. Now zero the gauge against the bed of the planer.

Again, start at one end and adjust the roller to 0.076 – 0.508mm. Move to the other end and repeat the adjustment until the roller is the same measurement.

I've found that a setting of about 0.20mm works for most of my planing needs.

The last thing to check and adjust is the spring tension on the in-feed and out feed rollers. This is usually done from the top of the planer. Look for 4 circular Allen keyed screws directly above the ends of the in/out feed rollers. As a rough guide I set all the screws to the same depth, about 3mm below the top surface of the planer.

The rest of the adjustment is a bit of trial and error. Put a board about  $\frac{2}{3}$  as wide as your planer can handle through the machine planing off a minimal amount. Ensure you feed the board square to the cutter head.

Take note if the board skewed while going through. Did it skew as soon as the in-feed roller grabbed it? Or did it skew on the way out of the planer's out-feed roller?

If it skewed, say to the left, it means that the pressure on the rollers on the left is too great. Back out the screw on the left  $\frac{1}{2}$  a turn on the in-feed roller, if it skewed the board on the way in to the

cutter head. Or, if it skewed on the way out of the planer, back out the out-feed roller tension screw on the left. Plane the board again to check your adjustments.

A planed board should have only minimal out-feed roller marks and NO in-feed roller indentations. If planed boards show any of the adverse signs adjust the tension on the screws by the same amount.

The very last thing I do is go around the planer and ensure the tightness of all the screws, nuts and Allen head bolts. These tend to work themselves loose if you have done a fair amount of heavy planing or planing hard timber.

Now, go on.... You know you want to.... Put a piece through and check it with a vernier, it should come out of the planer; flat, parallel and a uniform thickness across its width and require minimal sanding to get rid of machine marks.

Cheers

Major Panic