Table Saw Alignment
And
Maintenance
Two Table Saws

• Primary saw is a Delta Contractor Saw with 32” Unifence
• Secondary saw is a Delta Unisaw with a 52” Unifence
• Leveling and aligning the saws to each other was an EXTREMELY frustrating task! I probably won’t do again!
Alignment Tools (Deluxe Set)

• A-Line-It Deluxe kit
• 12” Plastic drafting triangles (45/90 degree)
• Toothless alignment blade
• Wixey digital angle gauge
Alignment with the A-Line-It Deluxe Kit

- Dial indicator and tips
- Mounting bars
- Instructions for drill press, table saw and router alignment
- From In-Line Industries - $144.95
Alternative Alignment Tool

• Dial indicator clamped to the miter gauge
Overview

• Step 1 - Get the saw ready - clean & safe
• Step 2 - Set the blade stops at 45 & 90 degrees
• Step 3 - Align the blade to the miter slot at 90 degrees
• Step 4 - Align the blade to the miter slot at 45 degrees
• Step 5 - Align the rip fence to the miter slot
• Step 6 - Align the miter gauge at 45 & 90 degrees to the blade
• Step 7 - Table saw maintenance
SAFETY FIRST - Before you start the alignment!

- Unplug the power cord and test the start button
- Remove the belts (if possible) – it makes rotating the blade easier
- Make sure the arbor washer is clean and mount the blade
Step Two

Setting the 90 and 45 degree stops

• I use the Wixey digital gauge to adjust the blade angle
• You can also use a drafting triangle
• I don’t rely on the built-in stops (sawdust can cause an error)
• I adjust my stops slightly past the 90 and 45 degree settings
• First set the Wixey gauge to ‘zero’ on the saw table
Step Two

Setting the 90 and 45 degree stops

• Attach the gauge to the left side of the blade (if you have a ‘right tilt’ saw)
• Adjust the blade to 90 degrees and adjust the stop
Step Two

Setting the 90 and 45 degree stops

• Attach the gauge to the left side of the blade (if you have a ‘right tilt’ saw)
• Adjust the blade to 45 degrees and adjust the stop
Step Three

Alignment of the blade to the miter slots

• Set up and measure from the left side if it’s a ‘right tilt’ saw
• Make a small mark on the blade at the front of the saw
• Set dial indicator to ‘zero’
Step Three

Alignment of the blade to the miter slots

- Rotate the blade to make measurement at the back of the saw
- Move the dial indicator to the marked spot
- If it doesn’t read ‘zero’, recheck the measurement
- Adjust the trunnion as necessary
Trunnion adjustment on a ‘contractor’ saw

• The trunnion is mounted to the table with 4 bolts (this saw has adjustment ‘pals’ installed)
• Loosen three bolts and leave the fourth bolt ‘snug’
• Adjust by rotating the trunnion (use the ‘pals’ if you have them)
• Tighten the bolts and recheck the alignment until the difference is ‘zero’
Step Three

**Trunnion adjustment on a ‘cabinet’ saw**

- The trunnion is mounted to the cabinet frame and the top is attached to the cabinet with four bolts
- Loosen three bolts and leave the fourth bolt ‘snug’
- Adjust by rotating the top
- Tighten the bolts and recheck the alignment until the difference is ‘zero’
Step Four

Alignment of the blade (at 45 degrees) to the miter slots

• Set up and measure from the left side if it’s a ‘right tilt’ saw
• Make a small mark on the blade at he front of the saw
• Set dial indicator to ‘zero’
Step Four

Alignment of the blade (at 45 degrees) to the miter slots

- Rotate the blade to make measurement at the back of the saw
- Move the dial indicator to the marked spot
- If it doesn't read ‘zero’, recheck the measurement
- Adjust the trunnion as necessary
Step Four

Trunnion adjustment on a ‘contractor’ saw

• The trunnion is mounted to the table with 4 bolts
• The adjustment is made by adding shims between the trunnion and table on the high side
• Tighten the bolts and recheck the alignment until the difference is ‘zero’
Step Four

**Trunnion adjustment on a ‘cabinet’ saw**

- The trunnion is mounted to the cabinet frame and the top is attached to the cabinet with four bolts
- The adjustment is made by adding shims between the top and cabinet on the high side
- Tighten the bolts and recheck the alignment until the difference is ‘zero’
Step Five

Setting the rip fence to the miter slot

• Put the gauge in the right miter slot
• Set the gauge to ‘zero’ at the front of the table
Step Five

**Setting the rip fence to the miter slot**

- Move the gauge to the back of the table and measure the difference.
- I like to set my fence to +.005” (away from the miter slot) to allow extra clearance at the back of the blade. This reduces burning and chances of a ‘kickback’.
Step Five

Setting the rip fence to the miter slot
- If you have a 'unifence', use the adjusting knobs to align the fence
- Other 'T-square' type fences have similar adjustments
- Older fences usually clamp at both ends and are difficult to adjust
Step Six

Adjusting the miter gauge at 90 degrees

- Adjust the miter gauge bar for a snug fit in the miter slot
- The Incra miter gauge has adjustable inserts in the bar
- The standard gauge can be adjusted by using a center punch and hammer to widen the bar
Step Six

Adjusting the miter gauge at 45 degrees

• The Incra miter gauge has adjustment screws in the head
Step Six

Setting the stops on the standard miter gauge

• The standard Delta miter gauge has adjustable stops at 90 degrees and left and right 45 degrees
• Use an Allen wrench to make the adjustments
Step Seven

Routine Maintenance

• Clean the worm gears with a fiber or brass brush and lube with a dry lube product (#1)
• Use light machine oil sparingly on the adjustment shaft bearings (#2)
• Too much oil attracts dirt and sawdust