Table Saw Alignment.

1. POWER OFF? Disconnect POWER to the saw, pull plug/fuse or shut off and tag the circuit breaker.

2. Align saw tabletop extensions with tabletop. Use true flat bar/surface to judge extension wings in relation to main table. Normally, two or three bolts under table support each wing; loosen and adjust, shim if necessary, especially if outer edge of extensions are high. Use paper shims above or below bolts to adjust extensions height up or down. Retighten wing bolts gradually and alternately/frequently rechecking that wings remain flush and flat with table.

3. Remove and clean the saw blade. Insure arbor washer (between nut and saw blade) bearing surface is flat and true against saw blade. Check visually for wear/bearing markings and sand washer as required to true the surface that bears against the blade. Check arbor for nicks or burs, which would prevent blade from mating flat against arbor face.

4. Align tabletop perpendicular to the blade. Use a flat steel surface mounted on saw arbor. It is possible to use a steel disc sander without the sandpaper or Velcro/adhesive coating. If using a saw blade, insure it is perpendicular to saw table surface without touching a blade tooth. Raise blade to its full height. Crank blade angle to the zero/vertical stop. Adjust locknut and stop nut feature on the saw's trunnion (angular adjusting stops) to achieve blade perpendicular to the saw table when adjust wheel is at the zero mark. Adjust as required by backing off angular adjusting stops. If blade is not true/perpendicular to table, using a known true engineer's square to sight for gaps, move crank off zero mark, reset stop on trunnion, and return crank to zero and re-measure with square. When true, lock trunnion nut with stop nut. Perform same measurement with blade cranked to the 45 degree stop, using known true (drafting) triangle, and similarly adjust the other lock nut and adjusting nut to achieve 45 degrees with saw stop so set.

5. Measure saw blade parallel to miter gauge slot. If a dial gauge is not available, check to insure blade is parallel to miter gauge slot using a steel rod locked in the miter gauge face, or with an adjustable square. In both cases, measuring the distance from miter slot to the same saw tooth (marked with magic marker) rotated to front and then back of saw table. If slot is not parallel, loosen saw table top from base, usually one bolt at each table corner, and tap table top at corner(s) with mallet to align /parallel table's miter gage slot to blade. Make this measurement and adjustment from the miter gage slot that you most frequently use. Recheck blade parallel to the other miter gage slot and retighten table hold down bolts. Again, alternately tighten and in gradual steps. Frequently recheck settings to insure tabletop did not move during tightening sequence. **A note of CAUTION!** If your saw has a splitter/anti-kickback attachment (recommended for safety) be sure you do not move the table too far to one side such that the blade-to-splitter alignment is thrown out of kilter. This will either bind your stock between the fence and splitter or prevent the stock from being feed properly and smoothly thru the saw.

6. Align fence to blade and to the miter gauge slot. This can be done with a variety of screws and/or bolts -peculiar to the particular saw fence in use. Insure the front and rear bars/rails on which the fence rides are solid/firm to the table edge. The out feed end of the fence is normally adjusted to provide approximately an extra 0.003 (3 thousands) of an inch clearance away from the blade to prevent the stock from binding at the completion of a rip cut. This clearance should be readjusted each time the fence is moved from the right of the blade to the left of the blade. Perform a rip cut on a piece of scrap to determine if blade teeth are dragging. Perform precise width measurement on a piece at least 16 inches long.

7. Clean miter slots. Use flat blade, putty knife, or similar tool to insure the entire trough of the miter gage slot is clear of any build up. A little sandpaper scrap or Scotch scrub pad used on the bottom and sides of the trough will insure a clean surface.

8. Miter gage adjustment. The miter gage should be checked for any side play in the travel of the bar in it's slot. There are various correction kits available thru woodworking mail-order catalogs that call for drilling and taping the bar in several places along its length, and inserting Allen screws and Teflon bushings or spring loaded ball bearings which can be adjusted to provide a true and firm miter gage ride. Inquire to confirm that these kits provide instructions, the proper drill bit, and if necessary, the threading tap to do the job without additional resources. Once the miter gage side play is removed, adjust your 90-degree crosscut setting by again using an engineer's square to set your miter stop lock. Place one edge of square on saw blade, (not on teeth) or use your flat steel plate/clean steel sander disc, and the other face against the miter gage fence. Square up and tighten lock handle, adjust stop to setting. Loosen lock handle and reset miter gage up to stop, lock handle and recheck to confirm setting. Similarly, set 45-degree stops on miter gauge with an accurate triangle.

I hope the above information will help you align your table saw and get the quality saw cuts your projects deserve.

Bob Fred, Member TWWWG