

Japanese Smoothing Plane #156450

Please don't be intimidated by these instructions. At the end of the day, the plane is made from wood and only a few minor adjustments may need to be made.

The first time user should be aware that Kanna/Planes do not arrive from the maker ready for use. All the best quality Japanese plane bodies (Dai) are made from select, air-dried Japanese Red Oak (Akagashi) or Japanese White Oak (Shirogashi). When the planes come from Japan to the drier U.S. climate some shrinkage occurs. Actually, shrinkage also occurs in Japan, and the Japanese woodworker expects to adjust or "condition" his plane.

The first step is to flatten the sole. There are several ways to do this. However, the easiest for the first time user is to use sandpaper on a flat surface, such as a table saw top. With the plane iron and chip breaker inserted tightly into the plane, rub the sole a few times across #220 grit sandpaper placed on the flat surface. Inspect the sole and observe the sanding marks. Take a sharp chisel or plane iron and scrape the areas showing sanding marks. Again, rub on the sandpaper and repeat scraping until the sole is flat. This will be obvious because there will be even sanding marks the length and width of the sole. GO SLOWLY!



An easier way to scrape the sole is to use a card scraper. If you want the full experience, use a Japanese Scraping Plane (Dainaoshi Ganna), our #156402 or Japanese Scraper #159537. (these are available from Japanwoodworker.com) The Dainaoshi Ganna is used across the grain of the sole. It is worked from the blade slot to the front of the body, and from the blade slot to the back of the plane body. Flatness can be tested either with a straight edge or with sandpaper on a flat surface.



Now remove the iron and chip breaker by striking the back of the Dai with a wood-mallet. Place the plane iron hollow side down on a flat coarse (#1000 or #1200 grit) water stone and hone with even pressure directly above the bevel until the area immediately behind the edge is flat from one side to the other. Now rub on a #6000 or #8000 grit finish stone until well-polished. Next hone the bevel side on a coarse water stone until the "wire edge" is obtained. Then alternately hone the hollow and bevel sides on the finish stone until well-polished. Use about 5 strokes on the bevel for each stroke on the back.

To fit the chip breaker, place it in position on the iron. Be sure it does not rock on the iron. Any adjustment is made by tapping down one tab (found at the top of the chip breaker) or the other until the chip breaker sits evenly on the iron. Now hone the chip breaker hollow side down on a coarse grit water stone until a flat area is established directly behind the edge. Next polish this area on a finish stone. Turn the chip



breaker over and sharpen at an angle of 20° on a coarse water stone until the edge is sharp, then polish the bevel and hollow side on a finish stone. Finally, hold the chip breaker at an 85° angle to the finish stone and make a dozen or so strokes. This will add a secondary or "micro bevel" on the chip breaker. The ideal chip breaker breaks the shaving without offering any further resistance.



Because of the shrinkage of the plane body, initially it is unlikely the plane iron will protrude through the sole.

So, first push the iron into the Dai by hand as far as possible. There should be some sideways (lateral) movement of the iron. If not, remove the iron and with a narrow chisel pare a slight amount from each side of the opening for the iron. This will allow lateral movement for the plane iron and will eliminate the chance of cracking the Dai as the iron is driven in.



Replace the iron and push it by hand into the Dai as far as possible. Inspect the opening at the sole . If the iron is within 1/16" of the opening, it should be possible to tap the top of the iron with a mallet or small hammer until the edge protrudes through the sole. If the edge is greater than 1/16" from the opening, remove the iron and rub a soft lead pencil on the sides and back of the iron. Now push the iron by hand as far as possible into the body.



Remove and carefully pare, scrape or rasp the area of the Dai marked with the pencil lead until it is removed. Replace the iron, and check if it is now within 1/16" of the opening. If not, repeat the above procedure. Normally two or three times will suffice. Check the sole from time to time to ensure it has remained flat.

When the iron is finally fitted and in place, inspect the width of the edge of the iron at the opening. The edge should NOT be wider than the width of the throat. It will generally be necessary to grind or hone away additional material from the corners of the iron's edges. Inspection of the iron will show that the corners have been partially removed by the maker. The user must make final adjustments. If the corners are not fitted, it is possible for a chip to lodge between in the iron and the slot in the Dai. If this happens, the good cutting effect

will be lost until the chip is removed. At this time, check the chip breaker to ensure that it can slide easily into the Dai. If the Dai is too narrow, pare off a bit of the sides so the chip breaker can be easily inserted into place.

To complete adjustment, place a pair of winding sticks on the 1/2" area in front of the throat and the 1/2" area at the front end of the Dai. Check to see if the sticks are parallel. This will ensure the plane makes a true cut. If the sticks are not parallel, scrape sufficient material at the front of the sole until the wind sticks are parallel. Once the wind sticks are parallel, use a straight edge or the sandpaper method to ensure the sole is touching only at the 1/2" area in front of the throat and the 1/2" area at the front of the Dai. If any other area of the Dai is touching, slightly scrape it down. The plane is now conditioned for use.



It is a good idea at this time to seal the Dai. This is easily accomplished by covering the throat opening with masking tape and filling the throat area with a good quality Tung oil finish. Set aside until the oil begins to seep from the ends of the Dai. Allow to dry overnight and repeat the process.