Adjust the Wheels

Note: To adjust the carriage wheels, all references are made with you standing on the front (needle) side of the table to look at the carriage adjusting cams.

Very Important—please read through this entire section carefully before proceeding!!!

- The adjusting cams for the carriage are located on the front carriage axle. It is crucial that these wheels are set properly for the smoothest operation. When you adjust the front carriage wheels, you are also adjusting the back wheels at the same time.

Wheel adjustment is accomplished by rotating the carriage wheel adjustment cams into the correct position. Remember, these cams are located on the front carriage axle.

Take note of the sample adjusting cam pictured above. Notice the offset hole drilled into the top of the cam. Pay attention to the edge of the cam to which the hole is the closest. You will notice a small reference line etched into the top of the cam at the factory to help you locate the narrow spot. (Note: Sometimes the narrow side will aim toward a flat edge of the cam, but on some cams it may aim toward a “point” on the edge of the cam. It merely depends on how the cam was drilled by the vendor and both scenarios are acceptable.)

IMPORTANT KEY: The position of the narrow side of the cam determines the wheel’s tightness on the table rails. The closer the narrow side of the cam is to the aluminum rail, the tighter the wheel will be.
The cams should both be in the same position in relation to each other.

When the cam’s narrow part is closest to the rail, the wheel is as tight as it can be.

When the cam’s narrow part is farthest from the rail, the wheel is as loose as it can be.

This cam setting has the wheels at the “midpoint” between loose and tight.

This cam setting also has the wheels at the “midpoint” between loose and tight.
You can set the “feel” of your carriage by making the wheels looser or tighter. If the machine feels tight when moving it left to right, loosen the wheels slightly, but set each cam to the same position. If the machine feels loose or sloppy, tighten the wheels slightly. Use the illustrations above for reference.

Begin by setting the two cams for a “midway” setting between loose and tight. Use a 9/16-inch wrench to turn the cam on each side of the front carriage axle into position. To keep the cam from shifting after you adjust it, hold the cam in place with the 9/16-inch wrench, and tighten the gold bolt on the underside of each wheel with a 7/16-inch wrench. Be sure to position both cams the same way.

This is approximately the correct setting for the carriage wheels on the carriage. However, you can make the wheels tighter or looser simply by turning the cam with the 9/16-inch wrench. If the wheels are turned too loose, the carriage may feel sloppy or the machine may tend to “fish tail”. Turn the cams clockwise and use the illustrations on the previous page to help you determine a setting you like for the machine’s movement.

Each cam should be difficult to turn with the wrench. If it moves easily, be sure to position it and then tighten the gold bolt from the underside with the 7/16-inch wrench.

Adjusting the Sewing Head Wheels

To adjust the sewing head wheels, stand on the rear or “pantograph” side of the table. The adjusting cams will be located on the right side of the sewing head, on top of the sewing head axles. The “factory setting” for the sewing head wheels has the narrow portion of the cam pointing at “5:00” when viewed from the pantograph side of the machine. Turning the cam so the narrow portion is closer to the carriage rail makes the wheel tighter, and turning it so the narrow part is farther away from the carriage wheel makes the wheel looser. Use the same technique described above for adjusting the carriage wheels to adjust and tighten the sewing head wheels.