

CRANKANDSTEIN

The base:

The bolts mount the frames to a platform that will attach to a bench or sit on a bucket, hold a hopper, and allow the grain to pass from the hopper into the roller gap and out the bottom. The mill can be above or below the platform. Provide clearance in the mounting holes by drilling with a 3/8" drill bit. This will allow room for adjustment. THE CRANK MUST TURN CLOCKWISE WHEN MILLING. Adjust the frames while tightening the mounting bolts.

The idler roller should turn freely and move side to side slightly. The cranked roller will be snug when new but not so tight that it can't be turned by hand. There should be a slight gap between the roller ends and the frames.

The hopper:

Some kind of box or funnel can be fastened over the mill to channel the grain to the input hole. Leave room to get to the frame mounting bolts and bushings to expedite maintenance.

Maintenance:

Before using your mill the first time, run a couple of handfuls of malt through it a few times to clean the rollers. Brush the grain dust off the rollers with a dry brush. Do not use water. If the rollers show signs of rust, they can be cleaned with steel wool. The nearly maintenance-free bushings are impregnated with SAE-30 oil. An occasional drop wouldn't hurt. Most of the dust can be blown out. Disassemble and wipe with a paper towel if the idler roller quits turning freely. Clean out and oil the inside of the bushings while you're at it. The bushings should have a slight offset to the inside of the frames. If they don't, drive the bushings back in slightly leaving about .015" sticking out to the inside to act as a thrust bearing and prevent the outer diameter of the roller from dragging against the frame. A suitable method is described in the next paragraph.

Setting the gap:

2S: This mill is designed with a gap that can be changed from or reset to the factory setting of .045" by rotating the idler roller's eccentric bushings in the frames. Remove the rollers from the frames, loosen the setscrews, pencil in match marks on the bushings and frames, and drive out the bushings with a hammer and a socket or rod that's just smaller than 1/2" in diameter, into a 5/8"+ hole in a piece of wood. Rotate the bushings from the match mark to make the gap wider or narrower. Partially press them back in and check the gap with feeler gauges. Readjust as necessary. Drive in the bushings and adjust for offset as described in the maintenance section. Tighten the setscrews, re-assemble and mount the mill back on its base and hopper.

2A & 3E: The crossbar that connects the adjusters can be repositioned by loosening the bolts with the 1/2" heads, positioning it, and then tightening the bolts. To change the gap, loosen the setscrews with the 7/16" heads or thumbscrews, move the adjusters by means of the crossbar, and moderately tighten the setscrews. Feeler gauges help to measure and repeat the setting, but are not necessary as the crossbar provides a visual reference for positioning the adjusters and limits movement to the most commonly used range. The factory setting is .045". Raising the bar increases the gap. Lowering it reduces the gap.

2D & 3D: The center position puts the pin parallel to the gap and sets it at .045". The four positions in either direction change the gap .005" with each click. Turning the long end of the pin toward the drive roller tightens the gap, away loosens it. Loosen the thumbscrew before turning and tighten it after.

Use:

Once you've set the mill up with a base and a hopper, fastened it to something sturdy, and checked to see that it's safe, attach your drill to the crank such that the chuck jaws clamp to the flats on the shaft. THE CRANK RUNS CLOCKWISE. The recommended speed is 200 rpms. For factory-direct support, contact Don Obenauer at dr_crankandstein@bellsouth.net or call 404-355-1870.