THE MEAT LOCKER

BY AMERICAN MEAT SCIENCE ASSOCIATION

Meat Grinder Operation and Maintenance

Ideally, your equipment supplier should be able to assist you with maintenance schedules for your grinders, or you can follow the instructions in the manual. However, here is a discussion of some maintenance activities that are important to ensure product quality. These activities include maintenance of sharp cutting components, routine inspection of bearings and gaskets, and drive components.

Lubrication and Sharpening

Most critical to the performance of a grinder is a sharp interface between knife and hole plate during grinding. **During start-up, there is no lubrication provided by the meat, so you should lubricate the knife blades with edible grease during assembly.** This will prevent unncessary wear and overheating.The grinder head must then be tightened to "set" the knife, loosened again, tightened to a hand-tight assembly. Meat should be brought forward to the knife-set by carefully start-stopping the machine. The grinder should then be reversed briefly to take the compression pressure off the knife set, and the head tightened for production.

When sharpening knives and hole plates it is important that the sharpening equipment is capable of achieving maximum tolerances across a 16" hole plate of 3 – 5/1000" to ensure proper contact between knife and plate across the cutting surface. Maintaining a sharp knife requires using matched sets of knives and hole plates. NEVER put a worn part with one that is new or freshly sharpened, as the two pieces quickly will wear into each other.

Alignment and Slippage

In order to maintain this optimum cutting contact it is important the auger and knife-pin alignment is maintained by keeping bearings holding both the front and rear end of the auger and knife-pin in good repair in order to maintain proper alignment. Inspection of the square drive output shaft and seals should be carried out on a weekly basis. Inspect for lubricant seepage around the sealing surface and also around the seal holder. If seal leakage is found, carry out the necessary repairs. Inspection of the drive system should be carried out on a monthly basic. Replace worn or damaged parts of the drive systems and correct any alignment problems.

In addition, over time the tolerances between the grinder auger and barrel, or internally in pumps on pump grinders, will increase causing increased slippage. This will result in loss of capacity and altered final product appearance. **It is important to have a set schedule to inspect these tolerances and repair or replace parts that are out of tolerance.**

Key Takeaways:

- **Lubricate the knife blades with edible grease during assembly.**
- **When sharpening, ensure a maximum tolerance of 3-5/1000" across a 16" hole plate.**
- **Ensure proper alignment and condition of the auger and knife-pin.**
- **Set a regular schedule to inspect, repair, and replace parts.**

Doc # E1

THE MEAT LOCKER

American Meat Science Association