The people that are hurt are the consumers whom the agency is serving. The opportunity to have their homes made more energy affordable and more comfortable is lost. By not getting the best job possible, these customers are being deprived of a chance to improve their lives. The OEE Residential staff, as well as the OWTC training staff, are ready to work with any agency that wants to improve the quality of their work, while maintaining production levels. Call your technical field representative or the OWTC for this valuable T&TA opportunity.

**GENERAL MAINTENANCE**
**KRENDL MODEL #1000/2000**

Equipment maintenance is very important in day-to-day weatherization operations. So of course, one of your main concerns should be the proper installation of the product without a lot of down time. This means you have to think about periodic preventive maintenance that will add years of life to your equipment and maintain production levels. Make sure you maintain a maintenance log.

**Tips for Easy Operation**

**KEEP CLEAN:** During operation, keep material from accumulating on the blower filter. Always keep the filter in place while operating the machine. After each use, remove fiber from hopper and blow out hose. (Use BLOWER mode at the main control panel or hand pendant).

Clean air from the insulation hose can then be used to blow fiber from the agitator motor and blower fiber area. The blower filter door cover attached to this unit reduces filter maintenance.

**ROTOR BLADES:**

Unidirectional Rotation is preferred as an all-around setting for a combination of materials and applications. This setting provides for the greatest coverage and best control of fibers in wall cavity spray.

Center-Down Rotation force-feeds the fiber into the airlock at a faster rate. This direction is preferred for the greatest production of various fibers in an open attic blow application, although coverage may decrease.

Center-Up Rotation is preferred for extended coverage on rock wool. For this application, an upgrade kit containing an idler sprocket and chain will be needed.

**Note:** KEEP rotor blades CLEAN and CLEAR of other equipment.

**Tips on Maintenance**

Ok, let's start with the hopper for easy maintenance.

Flip the hopper up for easy maintenance of the base unit. Remove the side screen guard from the machine. Loosen the idler sprocket and remove the drive chain. Remember to make sure the crank handle is in the downward position. Release the hold down bolts at the airlock end of the machine, and lift the hopper back gently until it rests safely on the floor.

**CHAIN:**

A smooth operating chain drive should have slight sag on the idler side of the chain. New chains should be installed under slight tension, as they will elongate a small amount due to the seating of the pins and bushings during the first few days of operation. The chain should be kept in good condition by proper lubrication (i.e., dry film lubrication Dow 321 or an alternative) and occasional cleaning.

Soaking the chain in a container of 10-weight oil will provide for internal lubrication of the pins and bushings. However, excess oil must be drained and wiped away as excessive lubrication will cause fiber accumulation on the chain. A worn out chain should be replaced. When the chain is replaced, worn sprockets should also be replaced to prevent further damage to the new chain.

**SPROCKETS:**

Check sprockets for wear. Misalignment and/or loose sprockets and improper chain tension causes the premature wearing of the chain sprockets. All sprockets, except the speed reducer and idler sprockets, have been secured with a medium grade locktite (general purpose thread locker) to prevent gradual movement. The set screws and key are also inserted with a medium grade locktite. KEEP LUBRICATED.

**BEARINGS:**

**AGITATOR BEARINGS** in the hopper are prelubricated, double-sealed, self-aligning ball bearings. No lubrication is necessary.

(continued on page 5)
If the bearings produce noise or heat (too hot to touch), the bearing should be replaced.

AGITATOR BEARING REPLACE-MENT. Spray the area with a rust penetrant product such as WD-40 or CRC. Remove sprocket (see sprocket section above). Remove the two bolts from the bearing flange and outer flange from the bearing insert. Loosen the set screws on the bearing hub at each end of the agitator shaft.

Since all the set screws are installed with a medium grade Locktite, a propane hand torch may be used to assist in removing them. Do not overheat the unit; this will cause the shaft to expand. Using a rubber mallet, drive the agitator shaft an inch in one direction, creating a space between the hopper and the bearing unit. A bearing puller can then be used to remove the bearing. Eliminate any metal burrs from the shaft with a file and install the new bearings with felt seals. Use a medium grade Locktite on the set screws before you secure the bearing to the shaft. (Check shaft diameter before ordering bearings: ¾” or 1”).

AIRLOCK AND SHREDDER BEARINGS are prelubricated, double sealed, self-aligning ball bearings. Lubrication is required at three month intervals of normal running time, or sooner if bearings produce a noise or become too hot to touch. Relubrication at the grease fittings is done with lithium base grease conforming to a NLGI GRADE TWO consistency. The grease should be pumped in slowly until a slight bead forms around the seals.

This bead, in addition to acting as an indicator of adequate lubrication, provides additional protection against the entry of foreign matter. Important: If a slight bead does not form, this could be an indication of a plugged fitting, or lubrication failure. If so, or if the bearings show signs of wear, contact the Krendl Machine Company.

SPEED REDUCER:
LUBRICATION. Periodically check oil level in reducer. Do not lay the machine on its side, as lubricant from the unit will drain from the vent plug.

If the speed reducer malfunctions because of improper oil level or type used, the Warranty is voided. Oil seals at input and output drives are considered to be replaceable maintenance items and can affect oil level.

AGITATOR MOTOR:
If agitator motor runs hot, activate the manual reset on the motor. If the unit still does not run properly, refer to the troubleshooting sections of the manual. The agitator motor should start quickly and run smoothly; if not, shut motor off immediately and check the cause. The problem could be low voltage, incorrect power supply, bad bearing, or disconnected wiring. These conditions void the motor warranty. Overload conditions can be detected by checking the electrical current (amperage) compared with the nameplate current (amperage) located on the body of the motor.

BLOWER MOTOR:
Periodically remove blower filter and vacuum any material that has accumulated inside the blower box and around blower motor.

Blow out any remaining debris around the motor and intake orifice of the fan with compressed air. This will extend the life of the blower significantly. Occasional removing and blowing through with compressed air can extend the blower filter’s life. The filter should be replaced periodically depending on use. If the blower produces noise or heat, refer to the troubleshooting section of the manual or contact the Krendl Machine Company.

Note: KEEP rotor blades CLEAN and CLEAR of other equipment.

Now that you have this well maintained machine, let’s talk about how to use it properly when you want to obtain that elusive dense pack in your exterior sidewalks.

Make sure you keep a log book to record machine maintenance, to list problems with your machine or any repairs that need to be made or have been made.

Stay turned...this article will be continued in the next Residential Update, to be set-up for different applications.

Information for this article was obtained from the Krendl Machine Company (www.krendlmachine.com).

RE-ORGANIZE YOUR WPS

Sometimes trying to find something in the WPS can be difficult; even if you’ve flipped through the pages for years. It’s a huge book and consequently, locating what you need can be a challenge.

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