

## I. General Safety Practices



Read manual before installing or using product. Failure to follow instructions and safety precautions in manual can result in death or serious injury. Keep manual in a safe location for future reference.



On safety decals, this symbol and the signal words Danger, Warning, Caution and Notice draw your attention to important instructions regarding safety.

They indicate potential hazards and levels of intensity.



RED - **DANGER** indicates an imminently hazardous

situation which, if not avoided, will result in death or serious injury.



ORANGE - **WARNING** indicates a potentially

hazardous situation which, if not avoided, could result in death or serious injury.



YELLOW - **CAUTION** indicates a potentially

hazardous situation which, if not avoided, may result in minor or moderate injury.



BLUE - **NOTICE** alerts you to practices unrelated to personal

injury, such as messages related to property damage.

**IMPORTANT:** To prevent death or serious injury to you or your family, it is essential that safety decals are clearly visible, in good condition, and applied to the appropriate equipment.

### FOLLOW MACHINE SAFETY DECAL MESSAGES

Carefully read this manual and all safety decals on your equipment. Safety decals must be kept in good condition.

Replace missing or damaged safety decals free of charge by contacting Sukup Manufacturing Co. by mail at PO Box 677, Sheffield, Iowa 50475; by phone at 641-892-4222; or by e-mail at [info@sukup.com](mailto:info@sukup.com).



It is the responsibility of the owner/operator to know what specific requirements, precautions, and work hazards exist. It is also the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of hazards and safety precautions that need to be taken to avoid personal injury or death. Always keep children away from bins and vehicles with flowing grain.

Make no unauthorized modifications to machine. Modifications may endanger function and/or safety of unit. Keep unit in good working condition. Keep shields in place. Replace worn or missing shields free of charge by contacting Sukup Manufacturing Co.

### GRAIN BIN SAFETY

Owners/operators are responsible for developing site-specific confined space entry procedures. OSHA's confined space entry procedures (29CFR 1910.146) can be found at [www.osha.gov](http://www.osha.gov).

#### If you must enter bin for repair or maintenance:

- Use a safety harness, safety line and respirator
- Station another person outside of bin
- Avoid the center of the bin
- Wear appropriate personal protective equipment
- Keep clear of all augers and moving parts



**DANGER!** Never enter bin unless all power is locked off and another person is present.

Rotating augers can dismember or kill!

Flowing grain may trap and suffocate. If you enter a bin of flowing grain you can be completely submerged in grain in about 8 seconds.



Failure to heed these warnings could result in death or serious injury.

#### NEVER clean out bin with augers running!

When bin is nearly empty, sweep (floor) augers will travel at an increasing speed; just turning around can give augers enough time to trap you. Keep away from sweep and sump augers to avoid entanglement.



Failure to heed this warning could result in death or serious injury.

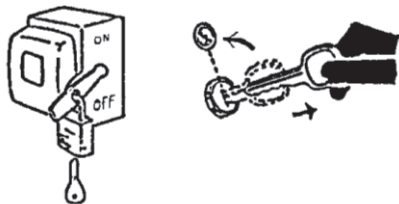
**I. General Safety Practices (continued)**

To avoid electrocution, all equipment must be properly wired and grounded according to electrical codes. Have unit wired by qualified electrician.



Have an electrician install a main power disconnect switch capable of being locked only in OFF position. Mark disconnect clearly as to equipment it operates.

**Service Disconnect**



Always lock out main power disconnect switch whenever equipment is not in use.

**WARNING:** When servicing equipment, never enter bin unless all power is locked out and another person is present. Always LOCK OUT all power and always check with voltage meter before servicing. To avoid personal injury, frequently inspect all mechanical and electrical components. Repair and/or replace worn parts. Be sure all electrical wires are in good condition.

Failure to do so could result in death or serious injury.

Owners/operators are responsible for developing site-specific Lockout/Tagout procedures based on equipment at their work site. See OSHA's typical minimal lockout procedures (29CFR 1910.147 App A) at [www.osha.gov](http://www.osha.gov).

**WARNING: KEEP CLEAR OF ALL MOVING PARTS.**

Keep people (ESPECIALLY YOUTH) away from equipment, particularly during operation.



Keep away from all moving parts. Keep all shields in place. **SHUT OFF AND LOCK OUT** all power before servicing.

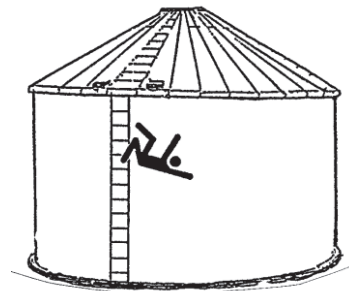
Failure to follow precautions above could result in death or serious injury.

**CAUTION:** Metal edges are sharp. To avoid injury, wear protective clothing and handle equipment and parts with care.

Failure to do so may result in minor or moderate injury.

**WARNING!** If a ladder is to be placed against crosstube for installation or maintenance, securely wire outside drive end of crosstube to track to avoid movement of unit. (Be sure to remove wire when work is completed.) Failure to do so could result in death or serious injury.

**WARNING!** Metal is slippery when wet. To avoid falls, never carry items while climbing on bin. Maintain secure hand and foothold if climbing on bin. Failure to do so could result in death or serious injury.



**PERSONAL PROTECTIVE EQUIPMENT**

Refer to OSHA 1910.132 (Personal Prot. Equip.)

Owners/Operators are responsible for developing site-specific personal protective equipment standards. OSHA's personal protective equipment standards (29CFR 1910.132) can be found at [www.osha.gov](http://www.osha.gov).

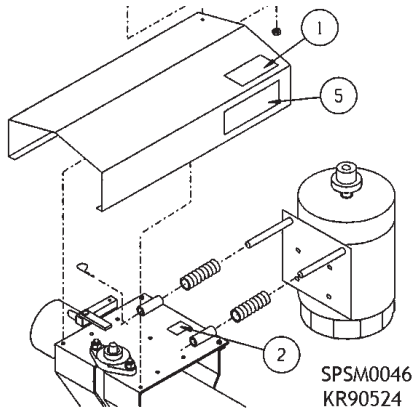
**EMERGENCIES – KNOW WHAT TO DO**

Have emergency numbers and written directions to work site readily available in case of emergency. An area for emergency phone numbers to be recorded is provided below and at end of this manual.

<p><b>Ambulance • Fire • Police: 9-1-1</b></p> <p>Bin rescue team: _____</p> <p>Emergency medical squad: _____</p> <p>Address of work site: _____</p> <p>Directions to work site: _____</p>
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## II. Placement of Fastir Safety Decals

Yearly and prior to equipment use, ensure that all decals and shields are in legible condition and in place according to these drawings. Replace missing or damaged safety decals or shields free of charge by contacting Sukup Manufacturing Co. by mail at Box 677, Sheffield, Iowa 50475; by phone at 641-892-4222; or by e-mail at info@sukup.com.



**Figure 1 - Placement of Safety Decals on Carriages**  
Decals #1, #2, and #5 are factory-mounted. If their replacement is necessary, follow steps below.

- 1 Before replacing Decals #1, #2, and #5:
  - 1.1 Disconnect electricity.
  - 1.2 Wire end of crosstube to track.
  - 1.3 Ensure hairpin clips are through holes in motor mount.
- 2 Ensure areas of placement for decals are free from grease, oil and dirt.
- 3 Mount decals without standing under machine.



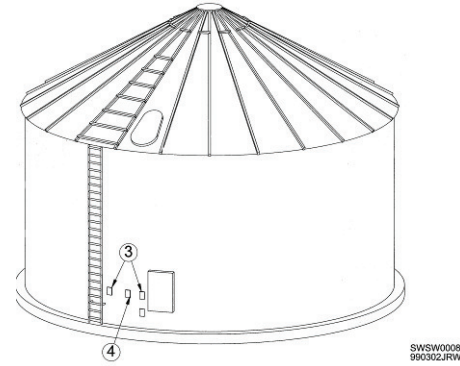
**Decal #1-L0284**



**Decal #2-L0271**



**Decal #5-L0260**



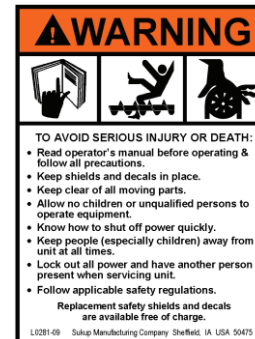
**Figure 2 - Placement of Safety Decals on Outside of Bin**

Decals #3 and #4 must be mounted on-site:

- 1 Ensure areas of placement for decals are free from grease, oil, and dirt.
- 2 During machine installation, mount decal #3 on bin sheet near door handle and at all other entry points or by ladder going up to roof so everyone entering bin will see it. See above.
  - 2.1 *Note:* If suggested areas of placement for decals are not clearly visible, place safety decals in a more suitable area. Never cover up any existing safety decals.
- 3 Mount decal #4 on bin sheet near door handle. See above.



**Decal #3-L0258A**



**Decal #4-L0281**

# FASTIR OPERATION GUIDELINES

Sukup Fastir machines benefit in-bin drying by:

- **Eliminating overdried grain layers.** Stirring mixes grain throughout bins.
- **Drying faster.** Stirring allows the use of higher drying temperatures.
- **Increasing drying capacity.** Stirring loosens grain and allows increased airflow through it.

As the machine mixes and loosens bottom layers of grain that are easily overdried, grain may be heated to higher temperatures to achieve faster drying rates without any of the typical effects of overdrying.

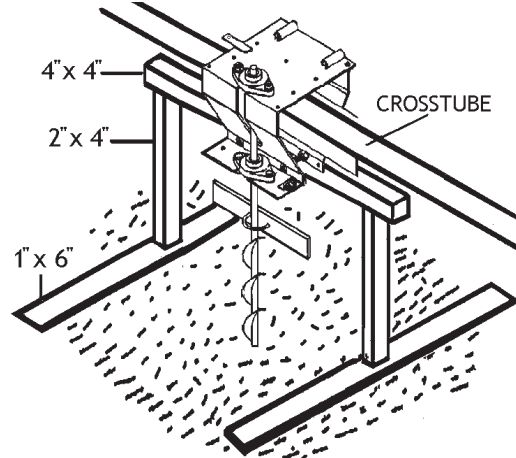
## I. Operation Procedures

- 1 Start machine when grain is about 30", or one ring, deep.
  - 1.1 **Note: Do NOT wait to start machine when grain bin is nearly or completely full.**
  - 1.2 **Note: When drying grain, center roof opening should be open to release additional moisture from bin.**
- 2 **Never turn off machine while drying grain or when continued filling will take place.** In natural air drying or low temperature drying, do not shut machine off until grain is dry.
- 3 In situations where a multiple-auger machine is used and drying of one bin of grain will take longer than four weeks, operate stirring machine intermittently to reduce grain damage.
  - 3.1 **Note:** The amount of time for which machine should be operated can be determined using the number of augers and size of bin. Contact Sukup Manufacturing Co. customer service for suggestions.
- 4 **Do not overfill bin.** Filling must be stopped when distance between top of grain mound and crosstube reaches 18" to prevent belt and motor failure. **Filling above this point voids equipment warranty.**
- 5 Use probe to determine moisture content of crop. When grain first tests dry on the top, grain throughout entire bin may **not** necessarily be dry. Remember, the Sukup stirring machine was designed to move dry grain off the bottom and bring it to the top.
- 6 **After grain has dried, shut off heater. Cool grain and continue stirring.** Ensure grain is thoroughly cooled before shutting off fan. Continue stirring for an additional 48 hours.
  - 6.1 **Note:** Sukup Manufacturing Co. also recommends periodically running stirring machine during winter months if grain is not frozen.

## II. Restarting Fastir Machine

*Note:* Shutting off machine allows grain to "set up" around augers during inactivity. If machine has been idle for more than two days, take care when restarting it by using the following steps:

- 1 Support carriages and prevent distortion of crosstube by setting boards on top of grain as shown in **Figure 41**.



**Figure 41** - Carriage Support Setup During Machine Restart

- 2 Before power is applied, loosen down augers by turning clockwise.
- 3 For 230V Units Only: Unplug all motors and start each individually beginning with motor nearest to center of bin.
- 4 Remove boards below carriages before restarting.

## III. Fastir Maintenance

Check the following items at the beginning of each drying season:

- Belts aligned and in good condition
- Shields securely in place
- Electrical connections tight and insulated
- Gearmotor and shear pins in good condition
- Down augers not bent, worn out, or otherwise in need of replacement
- Locking collars tight on bearings
- Electrical cords secured out of way of all moving parts
- All bolts and nuts tight
- Hairpin clips inserted through holes on ends of motor mount rods.
- All safety decals in place and in good condition. See **page 7**.