

# Operating Portable Augers Meeting Kit

## PURPOSE AND USE OF AUGERS

A grain auger is a tube containing a solid shaft in the center with flighting on it. Flighting is a spiral of flat steel that is welded onto the center shaft. As the center shaft turns in a clockwise direction, the flighting pulls the grain in and pushes it up the shaft.

Augers of various sizes, lengths and rotational speeds are used with a variety of farm implements. Several augers may be used to move harvested, threshed grain from the grain pans of the combine up and into the grain-holding tank. When the tank is full, an unloading auger with a spout may be used to move the grain from the tank into a grain cart for transport to a truck. The grain cart also has an unloading auger for unloading grain from the cart into the truck or, in some cases, the grain may be directly unloaded from the combine into a truck.

## AUGER CONVEYOR HAZARDS AND SAFETY

Electrocution and entanglement are among the most common injuries associated with auger conveyors.

**Electrocution:** When transporting augers, the auger needs to be lowered to prevent the possibility of coming into contact with overhead power lines.

- Ensure all warning labels are in place, visible, and being followed.
- Check wires between circuit breaker and auger motor, and internal motor wiring for wear and repair if needed
- Use Ground-Fault Circuit Interrupters (GFCIs) to mitigate unintentional grounding.
- Over-current protection such as circuit breakers and fuses

can prevent overheating and fires.

- Ensure there are no exposed (e.g., bare, unsheathed, etc.) wires anywhere when checking your electric system including power line, circuit breaker, and equipment wiring
- Lockout/Tagout equipment before servicing.
- Identify and map out the safest route before transporting

**Entanglement:** Entanglements are severely traumatic life-threatening injuries.

- Guards should be free of holes, dents, or deformations which can decrease effectiveness.
- Keeps hands, feet, hair, and clothing away from moving parts of machinery.
- Avoid wearing loose clothing and jewelry.
- Lockout /Tagout equipment before servicing equipment or entering a bin.
- Shutdown the equipment prior to doing any type of maintenance.

**Entrapment/Engulfment:** Grain entrapment and engulfment may also occur when using augers. When an auger is powered on, the grain in the bin begins flowing down the channel and escapes from underfoot, pulling the individual further into the grain.

- Ensure all warning labels are present and visible.
- Use a lifeline, full-body safety harness, and have someone observe activity inside the bin from outside the bin.
- Lockout/Tagout all power sources before entering the bin.
- Never enter a bin while an auger is running.
- Never enter a grain bin alone.

## **TRAINING TO STAY SAFE IN AUGER OPERATIONS**

- Training on safe operating procedures is a must.
- New and returning workers require orientation and training on the safe operations of augers.
- If an auger hasn't been used in a few months, take the time

to review how to safely use the machine before starting it up.

- A new auger or a new-to-you auger also requires some pre-operational learning.
- When purchasing an auger, ask for training.
- It's better for both efficiency and safety to understand the intricacies of the machine.

## **FINAL WORD**

Portable grain augers are used on the farm as a fast and simple way to move grain. However, using the auger improperly or without the guards can lead to serious injury. The simplicity of augers often leads users to disregard the hazards. The primary danger in using an auger is getting caught in moving parts.