

Organic Farm School Seed Trailer

Operating Guide



Our hope is that the Organic Farm School Seed Trailer will be a valuable tool for your seed processing endeavors. Please read through the following operating guide to become familiar with the proper use and maintenance of all equipment.

Overview

The equipment provided in the Organic Farm School Seed Trailer is designed to help the plant breeder and small-scale seed producer efficiently thresh and clean their seed crops. While simple in design and operation, these pieces of equipment do require attention to detail and subtle adjustments to operate properly. Please remember these key points:

- Read all the information provided on proper use before beginning.
- Please make safety a priority in the use of these machines as injury can result from careless use.
- Please return all equipment extremely clean. As seed people, we must use great care to prevent seed lot contamination, and thorough cleaning of equipment is a key component of this. Cleaning charges will be assessed for any cleaning required.
- We are here to help. If you have any questions, please contact us!

Trailer

- The trailer weighs approximately 3000# and should be pulled only by vehicles that have a manufacturer's stated towing capacity of at least 3000#.
- The tow vehicle must be equipped to match the trailer's 2" tongue coupler and a 4-prong light connector.
- The trailer is not equipped with separate brakes so the tow vehicle must have good brakes and the driver should use caution when stopping and slowing down and allow additional distance to stop.
- Before driving, ensure that:
 - The coupler is locked onto to the hitch ball
 - The 4-way plug is connected
 - The tongue chains are secured to the vehicle
 - Check that all lights are functioning (brake, signal, tail)
 - The tongue stand is horizontal
 - The rear supports are fully retracted
 - All equipment is secured and cannot shift during transport
 - All trailer doors are closed and secured
- When using or unloading the trailer, park on firm, level ground. The trailer must be level and fully supported for the seed cleaner to work properly. To level and support the trailer, drop and adjust the built-in rear trailer stands and place and adjust the

additional two jacks in the front corners of the trailer. A bubble level placed on the seed cleaner will show any needed adjustments.

- Thoroughly clean the inside of trailer using only the broom, air compressor and/or vacuum before returning trailer.

Belt thresher

The Almaco BT-14 belt thresher is designed to thresh and (preliminarily) air-clean small lots of seed crops through the abrasive action of two belts (moving at different speeds) rubbing the seeds free from other plant material and then passing the material through an air current to remove the lighter material.

- The belt thresher is prevented from shifting in the seed trailer during transport by both applying the thresher-wheel brake and by securing the chain from the rear of the thresher to the floor of the trailer. These **must** both be engaged before moving or towing the trailer!
- To unload the thresher, follow these steps:
 - Attach the tongue eyebolt to the hook on the hand-winch cable.
 - Unhook the security chain from the trailer floor
 - Release the brake from the thresher wheel
 - Turn the hand winch to slowly roll the thresher backwards out of the trailer. You may need to push on the thresher handle to get the rear thresher wheels onto the trailer ramp.
 - Loading the thresher is exactly the reverse process. Remember to attach the security chain and apply the brake before moving the trailer!
- Before operating the belt thresher, read all instructions provided in the manufacturer's operating manual (attached to this guide)
- Thoroughly clean the belt thresher using only the air compressor and/or vacuum before returning. Please be meticulous in your cleaning!

Air-screen cleaner

The Clipper AGM-224 air-screen cleaner is designed to clean seeds through a 2-screen, scalp-sift process followed by air cleaning. Adjustments include seed flow rate, screen perforations, and fan air volume.

- The seed cleaner is bolted to the trailer floor and is not to be removed from the trailer.
- The cleaner blows chaff to the outside through the right-hand door of the trailer, place the trailer in a location where this is acceptable. Tarps (included) can be used to catch this discharge if desired.
- Before operating the seed cleaner, read all instructions provided in the manufacturer's operating manual (attached to this guide)
- Air-screen cleaners are designed for final cleaning of relatively "clean" seed, generally meaning the seeds have been rough screened and/or winnowed at least

once after threshing. Too much chaff and plant material will clog the seed cleaner as well as reduce its effectiveness.

- Thoroughly clean the screen cleaner using the only air compressor and/or vacuum before returning. Areas requiring special attention include the hopper brushes, screens, screen cavity, and discharge areas. Please be meticulous in your cleaning!

Miscellaneous accessories

- Air compressor
 - Before use, close air release valve on tank. Open and drain compressed air when done to prevent rust.
 - This compressor is small and works best when used with short bursts instead of constant use. Constant use will drop the operating pressure to a minimally effective 25-30psi.
- Hand screens
 - These hand screens can be used for either seed cleaning or assessing which screens to use in the seed cleaner. Most of the hand screens have a matching, larger seed cleaner screen.
 - When using the hand screens, you can screen small amounts into the provided nesting bottom-pan or screen larger amounts directly into a tote.
 - All hand screens must be thoroughly cleaned after use.
- Box fans, totes, and tarps
 - These are provided as sometimes a preliminary winnowing is required before using the seed cleaner.
- Scales
 - Please use the scales to log the amounts (and types) of seed cleaned using the equipment as it will help us to better understand your needs as we look to expand our offerings in the future.
 - Please treat the scales gently and place them on top of the folded tarps when packing away in the totes so as to absorb travel vibrations.