

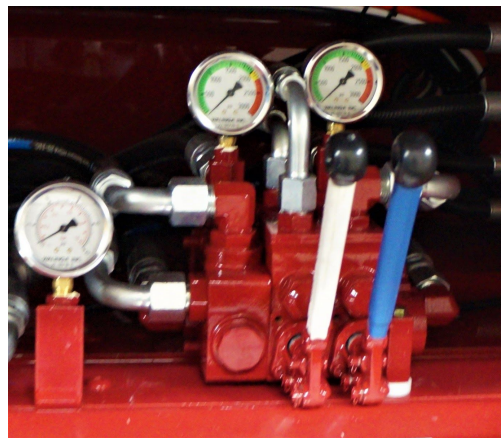
Walinga HOAG Hopper Air (HB) Unloading Procedure - V20 Controls

Before operating a WALINGA bulk feed trailer, please read and understand all operating instructions and safety warnings.

Never leave the controls unattended while unloading!

Prior to Start Up

1. Operation of the equipment should only take place in daylight or in areas with good artificial lighting.
2. Be familiarized with the location and function of all controls.
3. On semi units, position the tractor and trailer in a straight line and on a firm, level surface to provide maximum stability when swinging the boom and unloading.
4. Ensure that the unit parking brakes are applied.
5. Ensure that all safety guards and covers are properly installed and all auger access doors are closed and remain closed while operating the equipment.
6. Ensure that all hydraulic controls are in their neutral position.
7. Make sure that the area around the PTO drive shaft (if equipped) and each of the augers are clear of bystanders or other objects which have the potential to get caught or may pose a safety hazard with the start-up of the hydraulic system.
8. Verify that the hydraulic oil reservoir is filled to the proper level.
9. Inspect the unit for hydraulic leaks, damaged components and hoses with weather cracks or abrasions which may be deep enough to expose the steel braids. Complete any required repairs before operating the unit.
10. Ensure that the wet line couplers are tight. The female coupler should be turned down until the edge of the coupler reaches the marked line on the male twist couplers.

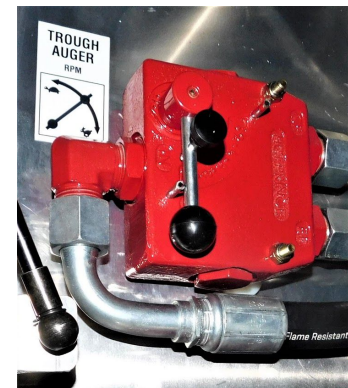


PTO Engagement / Hydraulic System Start-Up

1. Disengage the clutch by depressing the clutch pedal and wait for the transmission or PTO gears to stop rotating.
2. Set the parking brake.
3. Shift the transmission into Neutral.
4. Shift the PTO into gear.
5. Slowly release the clutch pedal to re-engage the clutch.

Air Unloading:

1. Before beginning to unload product, particularly in temperatures below 32° F / 0° C, ensure that the oil has been adequately warmed at idle speed. Cold oil will result in higher start-up pressures and may cause damage to hydraulic components; particularly the hydraulic cooler elements.
2. Never leave the controls unattended while unloading! If a problem occurs and the system is allowed to operate at a pressure higher than the relief valve pressure setting for an extended period of time, severe damage may be done to the hydraulic pump(s) and pressure relief valve(s).
3. Position the trailer in close proximity to the bin that needs to be filled. The shorter the distance and the straighter that the hoses can be laid out; the more efficient the system will operate.
4. Connect the required delivery hoses from the airlock discharge to the desired bin fill pipe. **Note: To prevent electrostatic discharge and risk of explosion, only use properly grounded hoses and piping when conveying product.**
5. If the unit is fitted with a bypass ball valve, open this valve to direct excess oil flow directly back to the tank, in order to reduce the amount of heat generated in the hydraulic system.
6. Engage the hydraulic pump and the blower PTO's.
7. Increase the engine speed to the required unloading speed.
8. Start the airlock and then the trough auger with the manual control handles.
9. Open the gate for the first compartment to be unloaded. In order to achieve maximum efficiency with minimum wear on the system, units should be unloaded starting from the rear and working towards the front when blowing.
10. It is the Operator's responsibility to monitor the auger and blower system pressures and to operate the unit within the desired pressure ranges. The auger and airlock speeds should be set in a manner which allows the blower line pressure to remain relatively stable between 8-12 PSI with minimal pulsation in the delivery lines and the view window less than 50% covered with product. If the pressure in the blower line is too high or too low, or if the view window is becoming full, the Trough Auger speed control can be adjusted to bring the unit back within the target range. In order to reduce pulsations in the delivery lines, the Airlock speed control can be adjusted until the pulsations settle out. On runs with multiple elbows or when conveying over longer distances, a lower target pressure of 8 PSI is recommended in order to prevent the delivery lines from plugging up. Operating the unit at higher target blower line pressures over shorter, straighter distances will improve efficiency and decrease the unloading time.



11. If unloading multiple compartments, do so one compartment at a time. Monitor the trough auger pressure. As the compartment empties the trough pressure will drop and the next compartment can be opened.
12. Leave the gates in the empty compartments open to reduce the pressure at the trough auger motor. **NOTE:** Unloading product below closed gates will result in higher than necessary trough auger motor pressures, leading to increased motor wear as well as potential damage and wear to the trough liner. This will also put outward pressure on the gates; eventually reducing their ability to achieve a tight seal.
13. When unloading is completed, turn off the trough auger and then the airlock with the manual control handles.
14. Lower the engine speed to an idle.
15. Shut down the pump and blower PTO's.
16. Close and secure all of the gates in order to ensure that the unit is not reloaded with open gates. The trough should be empty at start-up to avoid feed type cross-contamination and to minimize start-up damage to the auger motors.
17. Disassemble and properly store all delivery lines.

Pit Dumping

1. Before beginning to unload product, particularly in temperatures below 32° F / 0° C, ensure that the oil has been adequately warmed at idle speed. Cold oil will result in higher start-up pressures and may cause damage to hydraulic components; particularly the hydraulic cooler elements.
2. Do not leave the controls unattended while unloading! If not shut down immediately, severe damage may be done to the hydraulic pump(s) and pressure relief valve(s) if the system is allowed to operate over the relief pressure setting for an extended period of time.
3. The trough speed is controlled manually by adjusting the trough auger speed control.
4. With the augers off, open the pit dump door at the rear of the unit.
5. Start the Trough Auger using the manual control handle.
6. Open the gate for the first compartment to be unloaded. In order to achieve maximum efficiency with minimum wear on the system, units should be unloaded starting from the rear and working towards the front when pit dumping.
7. It is the Operator's responsibility to monitor the auger and system pressures and to operate the unit within the desired pressure ranges. It is recommended that the unit operates within a pressure range between 1800 psi and 2200 psi on the auger so long as the pit is able to keep up with the unloading speed of the unit. If any of the auger or system pressures climb beyond 2200 psi, the trough auger speed should be decreased by adjusting the trough auger speed control until the pressures are operating back within the desired range.
8. If unloading multiple compartments, do so one compartment at a time. Monitor the trough auger pressure. As each compartment empties the trough pressure will drop and the the next compartment can be opened.
9. Leave the gates in the empty compartments open to reduce the pressure at the trough auger motor. **NOTE:** Unloading product below closed gates will result in higher than necessary trough auger motor pressures, leading to increased motor wear as well as potential damage and wear to the trough liner. This will also put outward pressure on the gates; eventually reducing their ability to achieve a tight seal.
10. When unloading is completed, turn off the Trough Auger with the manual control handle.
11. Lower the engine speed to an idle.
12. Shut down the pump PTO.
13. Ensure that the augers are not running, then close and secure the pit dump door.
14. Close and secure all of the gates in order to ensure that the unit is not reloaded with open gates. The trough should be empty at start-up to avoid feed type cross-contamination and to minimize start-up damage to the auger motors.

