

Trailer Unloading Procedures

Anhydrous Ammonia

Stay with the truck while unloading. In the event of an accidental release, operator should immediately engage the remote control shut off device. Shut off power/PTO. Refer to emergency instructions.

1. Spot trailer so hoses will reach main bulk head "liquid and vapor connections" Set tractor trailer breaks, chock trailer wheels.
2. Put on proper safety gear. Goggles; gloves; long sleeve cotton shirt & pants; chemical resistant footwear; if required additionally; hardhat; chemical resistant jacket/pants.
3. Locate emergency water, ensure water is available; check wind direction.
4. Walk the customer's liquid and ammonia lines ensuring the liquid and vapor lines are contained.
5. Identify the customer's cylinders data plate. Determine the total water capacity of the cylinder
6. Check storage tank gauge to determine if your load will fit. "do the math"
7. Ensure transport & the customer's bulk head liquid and vapor valves & internals are closed.
8. Before removing any end caps from the liquid & vapor lines on the truck and the customer's bulk head, first bleed off any excessive pressure that may have built up between the end caps and valves.
9. Remove Acme caps on the
10. Ensure O-Rings or Gaskets are in place on the liquid and vapor hose adapters prior to connecting.
11. Hook up liquid and vapor hoses to the transport cylinder then to the customer's liquid and vapor globe valves at their bulk head.
 1. Compressor Pumps, Liquid to liquid, vapor line from customer's cylinder to the suction side of the compressor transport vapor line from the discharge side of compressor to transport vapor valve. *(to unload you must suck the vapors from the customer's tank to maintain a higher psi pressure to push the liquid out of the transport cylinder to the customer's cylinder.*
 2. Liquid pumps; liquid to liquid and vapor to vapor.
12. Open the transport liquid and vapor internals.
13. Open slowly both the transport's liquid and vapor globe valves.
14. Open the customer's inline internals; slowly open customer's bulkhead liquid and vapor globe valves.
15. Check transport vapor pressure, then storage tank vapor pressure - equalize before starting pump.
16. IF vapor compressor is on the truck Put PTO in gear and let it idle. PTO speed should be set at 650 RPM (**no higher**), once you start pumping check your transport and customer's cylinder pressure often. The Transport cylinder pressure should always be 20-30bls higher than the customer's cylinder. Any higher than that your liquid internal has closed and no liquid is transferring.
17. You must stay within an arms reach of emergency shut off device while pumping with the exception to check on other vital and necessary procedures of unloading.
18. You must remain in visual contact with all hoses associated with unloading procedure at all times.
19. Upon completion of unloading, check gauge to verify trailer is empty.
20. Return engine to idle and shut off PTO.

Unhooking Trailer

1. Close internal vapor and liquid valves on the transport cylinder and customer cylinder
2. Before bleeding ensure 100% line isolation & all valves are closed.
3. Bleed off liquid and vapor hoses into water only. Do not bleed to atmosphere, especially in populated areas. This could take several minutes. Be careful!!
4. Unhook hoses.
5. Be careful, Drain all liquid from both hoses and put them into rack.
6. Put Acme caps on; Close bleed off valves; Take tank gauge reading and fill out paper work
7. Visually inspect area to ensure all safety equipment is stored correctly and there are no visual signs of ammonia leakage; Remove chocks call dispatch and inform them of completion.