JOB SAFETY ANALYSIS



Ditch Witch® Vacuum Excavators

JOBSITE LOCATION:	DATE:
JOBSITE SUPERVISOR:	COMPLETED BY:
LOCATE TICKET #:	CUSTOMER:

EMERGENCY PHONE #S:

Jobsite Classification:		
Electric		
Natural Gas		
Crystalline Silica Dust		
Other		

Recommended Personal Protective Equipment (PPE):

Safety glasses / face shield Hard hat & gloves Hearing protection Breathing protection (cleaning filters) Electrically insulated boots & gloves High visibility vest/clothing

TASK:	POTENTIAL HAZARD:	RECOMMENDED ACTION/PROCEDURE:
Maintenance	Fluid injection while checking for leaks.	Check for leaks with engine off and operate all controls to relieve pressure.
		If system is pressurized, use cardboard- not your hand-to check for leaks. Wear PPE such as gloves and eye protection.
	Falling hazard	Always use proper access systems provided when climbing onto equipment. Maintain three points of contact.
		Ensure all mud and debris is cleared on all access systems.
	Rotating or moving parts	Perform all maintenance and repairs with engine off.
	Combustion	Refuel and refill any liquids with engine off.
	Crushing	While working under tank or tank door, ensure cylinder locks are in place. On equipment with an over center tank door, ensure door is fully raised with lift arms locked.
Cleaning air filters	Inhaling particles	Use water spray and other means to control dust. Wear proper breathing protection.
		Follow OSHA guidelines.
Confined space in the tank	Suffocation	Follow U.S. Department of Labor guidelines for entering confined spaces or stay away.
Preparing jobsite	Working near traffic	Arrange for traffic control.
		Wear proper PPE, such as high visibility clothing.
	Striking existing utility while excavating	White line proposed excavation area. Then, call your local One-Call to have underground utilities located before digging.



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TASK:	POTENTIAL HAZARD:	RECOMMENDED ACTION/PROCEDURE:
Transporting vacuum	Trailer disconnect	Ensure all trailer connections are secure to avoid disconnect or damage.
	Trailer visibility to motorist	Ensure trailer light connections are safely secure.
		Verify that all trailer lights from the front to the rear are working and clearly visible.
		Remove any dirt, mud, or any other obstruction that may appear on the lens of the lights.
	Transporting vacuum Loss of trailer control	Verify that all tires are inflated in accordance with the proper rating located on the tire.
		Check for any cuts or abrasions that may compromise the integrity of the tire.
Transporting vacuum		Ensure tow vehicle is rated for the weight of the trailer and equipment. Consider any additional weight such as the weight of spoils.
		Check that the proper towing hitch is being utilized with the trailer level and parallel to the ground. This will ensure that there is no load shift that could result in additional axle wear.
		Make sure the tow vehicle is rated for the weight of the vehicle and spoils. Know the GVWR of the truck or trailer as well as the density of the material being excavated to avoid overloading.
		Refer to the operator's manual for allowable fill levels of various materials.
	Loose parts / equipment	Ensure all components are secure and stowed away in proper locations.
		Park on stable, level ground.
Setting up the vacuum excavator	Runaway trailer	Ensure that unit is hitched to vehicle prior to lifting tank. Do not lift tank when trailer is unhitched from tow vehicle.
		Chock trailer wheels anytime trailer is unhitched.
Potholing near or around existing utilities	Striking existing utility	Verify utilities locates.
		Wear proper PPE, such as electrically insulated boots and gloves, when within 10 foot of an electric line.
		Use proper rotating nozzle and pressure for the type of utility that will be exposed. Maintain adequate distance from existing utility.
		Keep water lance in motion while excavating.
		Know emergency procedures.



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TASK:	POTENTIAL HAZARD:	RECOMMENDED ACTION/PROCEDURE:
Potholing near or around existing utilities	Striking gas line	Immediately shut off engine and remove any ignition sources if can be done safe and quickly. Know emergency procedures. In the event of a gas line strike: Immediately shut off engine and remove any ignition sources (if can be done safe and quickly.) Warn others that a gas line has been cut and that they should leave the area. This may include nearby homes or buildings. If jobsite is along a street, stop traffic. Leave jobsite as quickly as possible. Immediately call your local emergency phone number and utility company. Do not return until given permission by emergency personnel and utility company.
	Striking existing electric line	Wear electrically insulated boots and gloves whenever exposing an electric line. Know emergency procedures. In the event of an electric line strike: Release trigger control to break contact. Utilize small shuffle steps to leave the area. Warn others nearby that an electric strike has occurred and vacate the area. Contact the utility company Do not resume work or allow anyone into area until given permission by the electric company.
	Striking existing fiber optic cable	Know emergency procedures. In the event of a fiber optic cable strike: Do not look at cut ends. Contact utility company immediately
Operating the vacuum excavator	Crushing injury	Keep all bystanders away. Before operating the vacuum excavator, make sure to be familiar with all controls and functions. Maintain in line of sight to any moving components such as the debris tank door, debris tank, and boom. Follow proper procedures in the operator's manual.
	Chemical reaction	Know what you are vacuuming and what may already be in the tank.
	Suction injury	Keep suction hose away from face and body parts.
	Struck by debris when clearing hose	Shut off the engine to correct the clogged hose.



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TASK:	POTENTIAL HAZARD:	RECOMMENDED ACTION/PROCEDURE:
Reverse flow	Flying debris	Never open any component when the unit is operating in reverse flow.
		Switch to vacuum or shut off engine before opening any system component.
		Keep unit in "vacuum" mode unless pressure is needed.
		Restrain hose prior to pressurization.
		Do not use pressure to clear clogs in vacuum hose.
	Electrocution - Striking overhead energized lines	Always identify all overhead power lines prior to the start of excavation.
Raising tank		Always stay away from overhead electric lines while operating raised equipment or boom.
Boom operation		Follow OHSA regulations for working around overhead power lines. If voltage is unknown, equipment must be kept at least 20 feet away from energized powerlines. Assume all electrical lines are energized and uninsulated.
		If you must work near overhead energized lines: De-energize lines if possible. Make sure required distance is maintained. Have a spotter to ensure required distance is maintained. Meet with all required personnel at the jobsite and ensure to review the
		location of the powerlines and precautions to take as well as the areas to avoid.
	Struck by – Boom in use	Know how to operate controls.
		Wear hard hat.
	Hose whip / Injection	Check air tool manufacturing information for air flow requirements as most air tools require the low air setting on Ditch Witch vacuums.
		The Ditch Witch air saber can operate either on high or low air setting.
Air system		Make sure the hose reel valve is closed when starting the air system.
		Ditch Witch air excavation systems are equipped with a velocity fuse, also known as an OSHA valve, to prevent hose whip if a hose or fitting fails.
	Flying debris	Consider the surroundings to decide if any shielding is required.
		Wear proper PPE such as a face shield.
Disposal	Disposal of spoils	Regulations for disposal of spoil tank contents vary from state to state.
		Some states do not allow excavated soil to be placed back into the excavation if it has been mixed with water.
		Only dispose contents in approved locations.
	Struck by	Do not attempt to lift a full tank.
		Do not drive with the tank or door in the raised position.

