

Safety Information



This safety alert symbol indicates important safety messages. This symbol is used in the safety information below, in our manuals, and safety decals on machines. When you see this symbol, carefully read and understand the corresponding message and be alert to the possibility of serious personal injury or death.

Safety information below, in our manuals, and safety decals on machines use the signal words: “DANGER”, “WARNING”, and “CAUTION”.

DANGER: Indicates imminent hazards which, if not avoided, will result in serious personal injury or death.

WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in a serious personal injury or death.

CAUTION: Indicates potentially hazardous situations or unsafe practices which, if not avoided, could result in serious personal injury or in product or property damage.



Read this manual, all safety messages, and all machine decals before operating or maintaining this machine.



Only allow authorized and properly trained personnel to operate and to perform maintenance on this machine.

DO NOT allow machine to run unattended.



Inspect machine before operating. Machine must be in good operating condition with all safety shields and components installed and functioning properly.

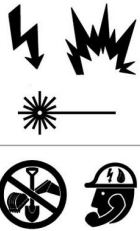


Wear personal protective equipment. Dress properly. See “Operator - Personal Protective Equipment” on page 40.



DO NOT excavate or vacuum chemicals or flammable, hazardous, or toxic materials.

WARNING



A damaged electrical cable can cause electric shock and result in serious injury or death.

A ruptured gas line can cause an explosion and/or fire resulting in serious injury or death.

Laser light from a cut fiber optic line can result in eye damage.

Locate utilities before digging. Call 811 (U.S.A. only) or 1-888-258-0808 (U.S. or Canada), local utility companies, or national regulating authority.

WARNING



Use the Shutdown Procedure before servicing, cleaning, repairing, refueling, or transporting the machine. See “Section 5: Shutdown Procedures” on page 27. A variation of this procedure can be used if instructed to do so in this manual or if an emergency requires it.

WARNING



Fuel and fumes can explode and burn, resulting in serious injury or death.

Shutdown engine before refueling. Extinguish flames and DO NOT smoke. Take precautions to eliminate static discharges.

WARNING

Do not use fluid or aerosol starting aids such as ether, which can result in an explosion causing serious injury or death.

DANGER!

DO NOT operate machine with pressure in collection tank greater than 5 psi (0.34 bar). Collection tank can explode, resulting in serious injury or death.

DANGER!



A pressurized collection tank (if equipped) can cause serious injury or death.

If collection tank is pressurized, baghouse lid or primary shutoff lid can blow off by loosening wing nuts. Also, spoil can be ejected rapidly from bag house drain valve or tank suction valve if opened under pressure.



Relieve collection tank pressure *before* opening lids by setting the pressure/vacuum selector valve (if equipped) to neutral and opening the bag house drain valve and collection tank suction valve.

CAUTION

Spoil can be ejected rapidly from collection tank during pressurized unloading (if equipped), resulting in serious injury or property damage. Stay clear of dump valve.

DANGER!



Vacuum can suffocate or damage vision or hearing.

Keep vacuum hose end away from face and ears.

⚠ CAUTION

DO NOT operate machine with vacuum in collection tank greater than 14" of mercury. Blower damage will occur.

⚠ WARNING



Electrical shock can result in serious injury or death.
Pressurized water from any high-pressure water tool can damage electrical cables. The water tool will conduct electricity. Contact with damaged electrical cables can result in electrical shock.

Wear electrically insulated gloves and boots. DO NOT allow any part of your body to come into contact with the digging tool except for your insulated-gloved hands.

⚠ WARNING

Improper operation can result in serious injury or death or damage to the machine. DO NOT raise collection tank while it is under vacuum or with rear door closed.

⚠ WARNING



Hydraulic or mechanical failure can cause a raised rear door to fall, which can result in serious injury or death. DO NOT work under an opened door until the door is securely supported in the raised position.

⚠ WARNING



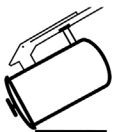
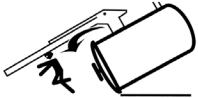
Hydraulic or mechanical failure can cause a raised collection tank to fall, which can result in serious injury or death. DO NOT work under a raised collection tank until the tank is securely supported in the raised position.

⚠ WARNING



Confined space can cause suffocation. Use proper confined space procedures before entering collection tank or STAY OUT. Ensure door is securely supported in the raised position before entering tank.

⚠ WARNING



Unsecured boom (if equipped) can swing and cause serious injury or death.

Secure boom in transport position before raising tank or moving machine.

⚠ CAUTION

Dump spoil only in accordance with Local, State, and Federal Regulations. Special permit(s) or license(s) may be required.

⚠ WARNING



Keep spectators away from machine and worksite.

⚠ WARNING

When operating near a street or road, take measures to warn and divert motor and pedestrian traffic. Use all necessary cones, flag persons, lighting devices, or signs necessary for the work situation.

⚠ WARNING

Clear pathway and warn others to stay away before backing. Serious injury or death could result if a person is struck or run over by the machine. Use a spotter to direct driver when moving the machine.

⚠ WARNING

Reduced or loss of steering or braking can result in serious injury or death. Use only transport or towing vehicles rated for the load being towed.

⚠ WARNING

Safety towing chains help control machine if accidental separation from towing vehicle occurs. Chains, hooks, and hook latches must not be damaged or missing. **DO NOT** tow machine unless towing chains are used.

⚠ WARNING

Sudden machine movement can result in serious injury or death. Machine weight can cause ground to give way.

Machine can roll downhill or roll over or fall into excavation. Park or position machine only on stable, level surfaces, well away from edges of embankments or areas of excavation.

Securely chock tires before detaching machine from towing vehicle.

⚠ WARNING



Entanglement with power driven parts can result in serious injury or death. Keep hands, feet, clothing, and hair, away from power driven parts. Keep shields in place and properly secured.

⚠ WARNING



Pinch points can result in serious crushing injuries. Keep hands and feet away from all pinch points.

⚠ WARNING



Engine exhaust can asphyxiate. Operate machine outdoors. Whenever the engine must be run in an enclosed environment, take all necessary precautions to ensure an adequate supply of fresh air. Use a suitable hose or pipe to vent exhaust fumes outdoors. Use an approved respirator as needed to protect respiratory tract.

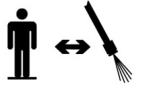
WARNING



Hot fluid under pressure can scald.

Allow engine to cool before opening radiator cap (if equipped).

WARNING



Avoid high-pressure water. Pressurized water from any water tool can penetrate body tissue and result in serious injury or death. **DO NOT** point any high-pressure water tool at yourself or any other person.

Wear appropriate eye protection. Keep nozzles away from the body. **DO NOT** use pressurized water to clean body parts or clothing. Water injected under the skin must be removed immediately by a surgeon familiar with this type of injury.

CAUTION

Power washing can damage or destroy electronic seals or components. **DO NOT** allow pressurized water to come into contact with electronic components.

WARNING



Pressurized hydraulic fluid can penetrate body tissue and result in serious injury or death. Leaks can be invisible. Keep away from suspected leaks. Relieve pressure in the hydraulic system before searching for leaks, disconnecting hoses, or before performing any other work on the system.

If you must pressurize the system to find a leak, use an object such as a block of wood or a piece of cardboard held next to the suspected leak location, rather than using your hands. When loosening a fitting where residual pressure may exist, slowly loosen the fitting until fluid begins to leak. Wait for leaking to stop before disconnecting the fitting.

Fluid injected under the skin must be removed immediately by a surgeon familiar with this type of injury.

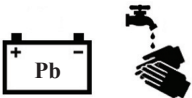
WARNING



Battery fumes are flammable and can explode resulting in serious injury or death. Battery explosion and acid can blind or burn. Keep all burning materials away from battery. Tools and cable clamps can make sparks.

Read instructions. **DO NOT** smoke. Shield eyes and face.

WARNING



Battery post terminals and related accessories contain lead and lead compounds, which are known to the state of California to cause cancer and reproductive harm.

Wash hands after handling.

WARNING



Exploding tire can cause serious injury or death. To help prevent tire explosion:

Maintain proper tire pressure. Inflating a tire above or below the recommended pressure can cause tire damage.

Replace any tire with cuts or bubbles. Replace tires before excessive wear occurs. Replace any damaged rims.

DO NOT weld or heat wheel assembly. Heating increases tire pressure.

WARNING

A raised trailer frame can fall and result in serious injury or death. Work only on a level surface and support raised trailer frame, axle, and suspension system with suitable blocking

WARNING

Failure to follow any of the preceding safety messages; safety information or instructions following in this manual; or safety decals on the machine could result in serious injury or death.

This machine is to be used only for the purposes for which it is intended, as explained in this manual.