



Before Operation

Before Operation Safety

General Safety

- Never allow children or untrained people to operate the machine. Local regulations may restrict the age of the operator. The owner is responsible for training all operators and mechanics.
- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- Inspect the area where you will use the machine and remove all objects that could interfere with the operation of the machine.
- Know and mark the locations of all utility lines.
- Check that the operator's presence controls, safety switches, and shields are attached and functioning properly. Do not operate the machine unless they are functioning properly.
- Locate the pinch point areas marked on the machine and keep your hands and feet away from these areas.
- Do not carry passengers on the machine.
- Keep bystanders, especially children, out of the operating area. Ensure that the area is clear of bystanders before operating the machine. Shut off the machine if a bystander enters the area.
- Park the machine on a level surface, engage the parking brake, and shut off the engine. Wait for all movement to stop and allow the machine to cool before adjusting, servicing, cleaning, or storing the machine.

Fuel Safety

Use extreme care in handling fuel. It is flammable and its vapors are explosive.

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only an approved container.
- Do not remove the fuel cap or fill the fuel tank while the engine is running or hot.
- Do not add or drain fuel in an enclosed space.
- Do not store the machine or fuel container where there is an open flame, spark, or pilot light, such as on a water heater or other appliance.

Before Operation Safety (continued)

- If you spill fuel, do not attempt to start the engine; avoid creating any source of ignition until the fuel vapors have dissipated.
- Do not fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground, away from your vehicle before filling.
- Remove the equipment from the truck or trailer and refuel it while it is on the ground. If this is not possible, then refuel from a portable container rather than a fuel-dispenser nozzle.
- Keep the fuel-dispenser nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle-lock-open device.
- Do not operate the machine without the entire exhaust system in place and working properly.
- Fuel is harmful or fatal if swallowed. Long-term exposure to vapors can cause serious injury and illness.
 - Avoid prolonged breathing of vapors.
 - Keep your face away from the nozzle and fuel tank or conditioner opening.
 - Keep fuel away from your eyes and skin.

Fuel

Fuel Specifications

Capacity	21.6 L (5.7 US gallons)
Type	Unleaded gasoline
Minimum octane rating	87 (US) or 91 (research octane; outside the US)
Ethanol	No more than 10% by volume
Methanol	None
MTBE (methyl tertiary butyl ether)	Less than 15% by volume
Oil	Do not add to the fuel

Use only clean, fresh (no more than 30 days old), fuel from a reputable source.

IMPORTANT

To reduce starting problems, add fuel stabilizer/conditioner to fresh fuel as directed by the fuel-stabilizer/conditioner manufacturer.

Fuel (continued)

Filling the Fuel Tank

1. Park the machine on a level surface, shut off the engine, and allow it to cool.
2. Clean around the fuel tank cap and remove it.
3. Add fuel to the fuel tank until the level is just below the bottom of the filler neck.

Note: This space in the tank allows fuel to expand. Do not fill the fuel tank completely full.

4. Install the fuel tank cap securely, turning it until it clicks.
5. Wipe up any fuel that may have spilled.

Performing Daily Maintenance

Before starting the machine each day, perform the Each Use/Daily procedures listed in the Maintenance Schedule.

During Operation

During Operation Safety

General Safety

- The owner/user can prevent and is responsible for accidents that may cause personal injury or property damage.
- Do not exceed the rated operating capacity, as the machine may become unstable, which may result in loss of control.
- Wear appropriate clothing including eye protection, long pants, substantial slip-resistant footwear, and hearing protection. Tie back long hair and do not wear loose clothing or loose jewelry.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Do not operate the machine while ill, tired, or under the influence of alcohol or drugs.
- Operate the machine only in good light, keeping away from holes and hidden hazards.
- Ensure that all drives are in the NEUTRAL position before starting the engine. Start the engine only from the operating position.
- Keep your hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Never jerk the controls; use a steady motion.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.
- Slow down and use caution when making turns and crossing roads and sidewalks with the machine. Always yield the right-of-way.

During Operation Safety (continued)

- Operate the engine only in well-ventilated areas. Exhaust gasses contain carbon monoxide, which is lethal if inhaled.
- Never leave a running machine unattended.
- Operate the machine only in good visibility and appropriate weather conditions. Do not operate the machine when there is the risk of lightning.
- Be aware of obstacles in close proximity to you. Failure to maintain adequate distance from trees, walls, and other barriers may result in injury as the machine backs up during operation if you are not attentive to the surroundings.
- Check for overhead clearance (i.e., electrical wires, branches, and doorways) before driving under any objects and do not contact them.
- Do not overload the hopper and always keep the load level when operating the machine.
- Keep the hopper lowered and straight (if applicable) when moving, storing, loading, transporting, and cleaning the machine.
- Do not modify the machine.
- Use care and slow down when you are operating the machine on a slippery surface.
- Always look down and behind you before moving the machine in reverse.
- If you feel uneasy operating the machine because the terrain is rough, slippery, or unfamiliar, do not do it.
- Distribute loads evenly to improve the stability and control of the machine.
- Liquid loads shift, which can cause the machine to tip over.

Slope Safety

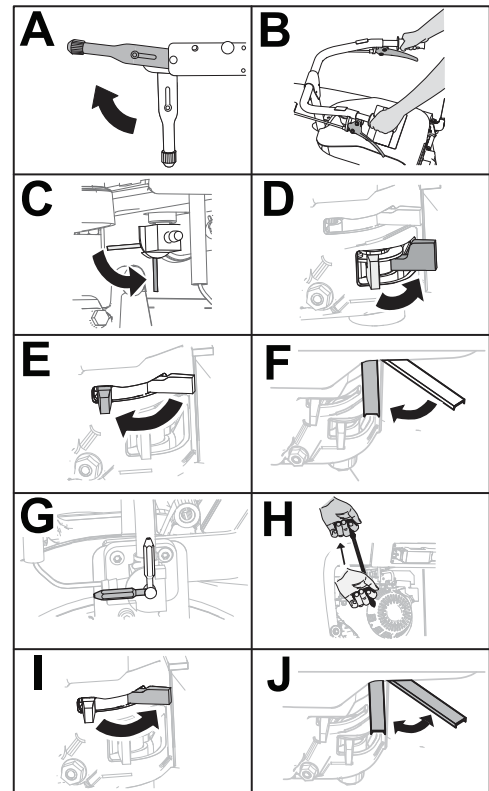
- Slopes are a major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death. You are responsible for safe slope operation. Operating the machine on any slope requires extra caution. Before using the machine on a slope, do the following:
 - Review and understand the slope instructions in the manual and on the machine.
 - Evaluate the site conditions of the day to determine if the slope is safe for machine operation. Always use common sense and good judgment when performing this evaluation. Changes in the terrain, such as moisture, can quickly affect the operation of the machine on a slope.
- Do not raise the hopper on a slope. Raising the hopper on a slope affects the stability of the machine. Keep the hopper in the lowered and straight position when on slopes.
- When operating on a slope, fold the platform up and walk behind the machine until it is on flat ground.
- **Operate up and down slopes with the heavy end of the machine uphill.** Weight distribution changes with a full hopper. A full hopper makes the front of the machine the heavy end, so walk behind the machine with the full hopper uphill.
- Identify hazards at the base of the slope. Do not operate the machine near drop-offs, ditches, embankments, water or other hazards. The machine could suddenly roll over if a wheel or track goes over the edge or the edge collapses. Keep a safe distance (twice the width of the machine) between the machine and any hazard.

During Operation Safety (continued)

- Avoid starting, stopping, or turning the machine on a slope. Avoid making sudden changes in speed or direction; turn slowly and gradually.
- Keep all movements on slopes slow and gradual. Do not make sudden changes in speed or direction.
- Do not operate the machine under any conditions where traction, steering, or stability is in question. Be aware that operating the machine on wet grass, across slopes or downhill may cause the machine to lose traction. Loss of traction to the wheels or tracks may result in sliding and a loss of braking and steering. The machine can slide even if the wheels or tracks are stopped.
- Remove or mark obstacles such as ditches, holes, ruts, bumps, rocks or other hidden hazards. Tall grass can hide obstacles. Uneven terrain could overturn the machine.
- If you lose control of the machine, step off and away from the direction of travel of the machine.

Starting the Engine

1. Stand on the platform.
2. Engage the parking brake (A).
3. Ensure that the forward/reverse speed levers (B) are in the neutral (released) position.
4. Turn the fuel tank shutoff valve (C) to the ON position.
5. Move the engine fuel-shutoff valve (D) to the ON position.
6. Move the choke lever (E) to the ON position when starting a cold engine.
Note: The choke may not be required when starting a warm engine.
7. Move the throttle lever (F) away from the SLOW position, about 1/3 of the way toward the FAST position.
8. Turn the engine On/Off switch (G) to the ON position.
9. Pull the recoil starter handle (H) out until positive engagement results, then pull it vigorously to start the engine.



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IMPORTANT

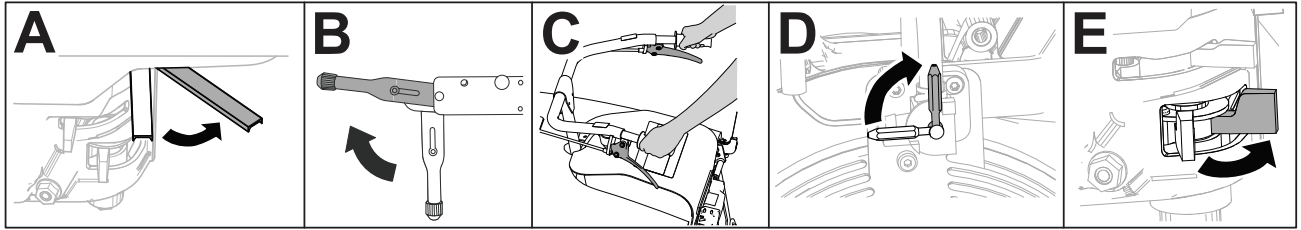
Do not pull the recoil rope to its limit or let go of the starter handle when the rope is pulled out; the rope may break or the recoil assembly may be damaged.

10. When the engine has started and warms up, push the choke lever (I) to the OFF position.

Starting the Engine (continued)

11. Move the throttle lever **J** to the desired setting.

Shutting Off the Engine



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1. Move the throttle lever **A** to the MIN position.
2. Engage the parking brake **B**.
3. Ensure that the forward/reverse speed levers are in the NEUTRAL position **C**.
4. Turn the engine On/Off switch to the OFF position **D**.
5. When the engine stops running, turn the fuel-shutoff valve on the engine to the OFF position **E**.

Operating the Machine

1. Step onto the machine.

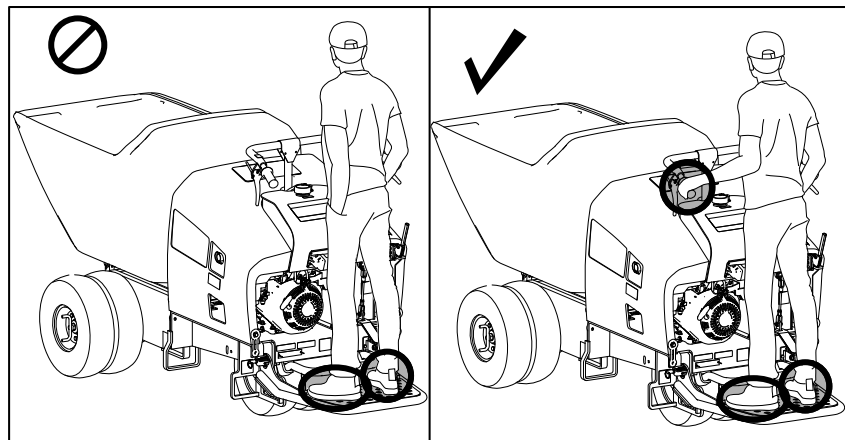


CAUTION



When mounting the machine, slippery or uneven ground may cause you to fall.

Always have 3 out of 4 arms/legs in contact with the machine when you mount or dismount the machine.



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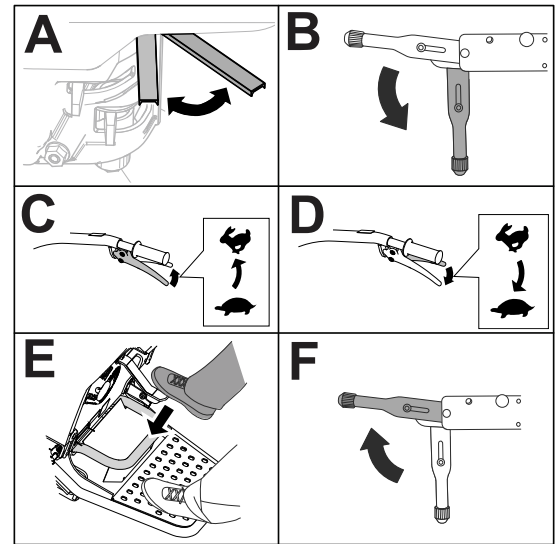
2. Start the engine.

Operating the Machine (continued)

- Adjust the throttle lever to the desired engine rpm (A).
- Disengage the parking brake lever (B).
- Move the machine in the desired direction:
 - forward—squeeze the speed-control-lever on the right handle bar (C).
 - rearward—squeeze the speed-control-lever on the left handle bar (D).

Note: The more you squeeze the handle, the faster the machine travels.

- Release the speed control handle and press the brake pedal to stop the machine (E).
- Engage the parking brake (F) and shut off the engine.



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Operator Platform

You can use the machine with the platform in the up or down position.



WARNING



The operator platform is heavy and may cause injury when you raise or lower it. Carefully lower or raise the operator platform, as suddenly dropping it could injure you.

- Do not put your hands or fingers in the platform-pivot area when lowering or raising the operator platform.
- Make sure that the platform is supported when you pull the latch pin out.
- Make sure that the latch secures the platform when folding it up. Push it tight against the cushion for the latch pin to lock into place.
- Keep bystanders away from the machine when raising or lowering the platform.

Operate the machine with the platform up for the following conditions:

- Using the machine near drop-offs
- Using the machine in small areas where the machine is too large
- Areas with low-hanging branches or obstacles
- When loading or unloading the machine from a trailer for transport
- Driving up slopes

Operate the machine with the platform down for the following conditions:

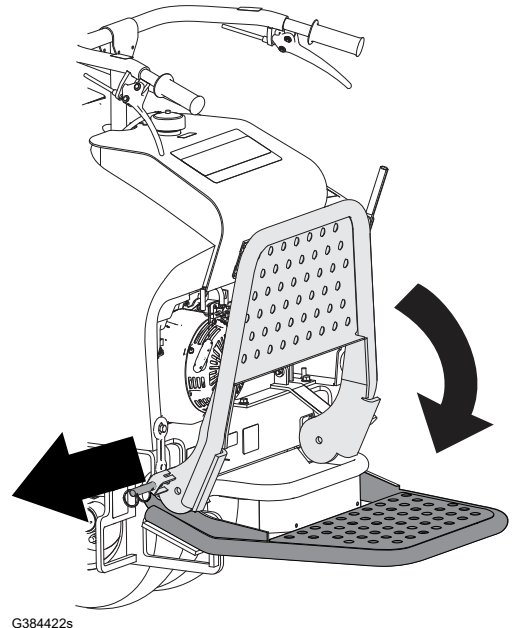
- Using the machine in most areas
- Driving across slopes

Operator Platform (continued)

- Driving down slopes

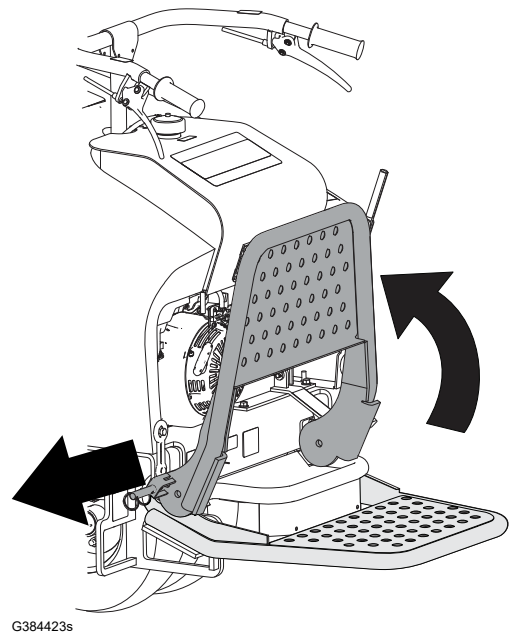
Lowering the Platform

1. Push the platform against the cushion to release pressure on the latch pin.
2. Pull the latch pin out and lower the platform.



Raising the Platform

1. Pull out the latch pin and raise the platform.
2. Release the latch pin to lock the platform in place.

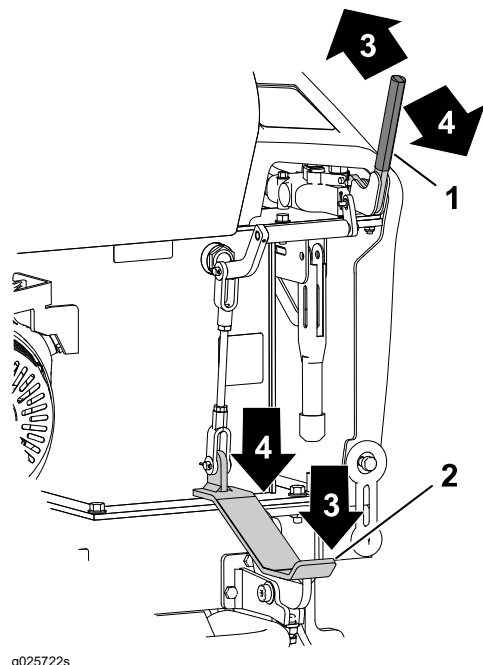


Operating the Hopper

The machine is normally operated on uneven, unpaved, bumpy, and/or inclined surfaces. Know the load capacities of your machine and adjust your load accordingly.

Operating the Hopper (continued)

1. Position the machine in the area where you intend to dump the load.
2. Dump the hopper (4) by either of the following:
 - Pull the dump handle (1) down.
 - Press down on the forward part of the dump pedal (2).
3. Move the hopper to the upright position (3) by either of the following:
 - Push the dump handle (1) up.
 - Press down on the rear part of the dump pedal (2).



After Operation

After Operation Safety

General Safety

- Engage the parking brake, shut off the engine, remove the key (if applicable), and wait for all movement to stop before adjusting, cleaning, or repairing the machine.
- Do not touch parts that may be hot from operation. Allow them to cool before attempting to maintain, adjust, or service the machine.
- Clean debris from drives, mufflers, and the engine to help prevent fires. Clean up oil or fuel spills.
- Use care when loading or unloading the machine into a trailer or truck.

Haul the Machine

Use a heavy-duty trailer or truck to haul the machine. Use a full-width ramp. Ensure that the trailer or truck has all the necessary brakes, lighting, and marking as required by law. Please carefully read all the safety instructions. Knowing this information could help you or bystanders avoid injury. Refer to your local ordinances for trailer and tie-down requirements.

Haul the Machine (continued)



WARNING



Driving on the street or roadway without turn signals, lights, reflective markings, or a slow-moving-vehicle emblem is dangerous and can lead to accidents causing personal injury.

Do not drive the machine on a public street or roadway.

Selecting a Trailer

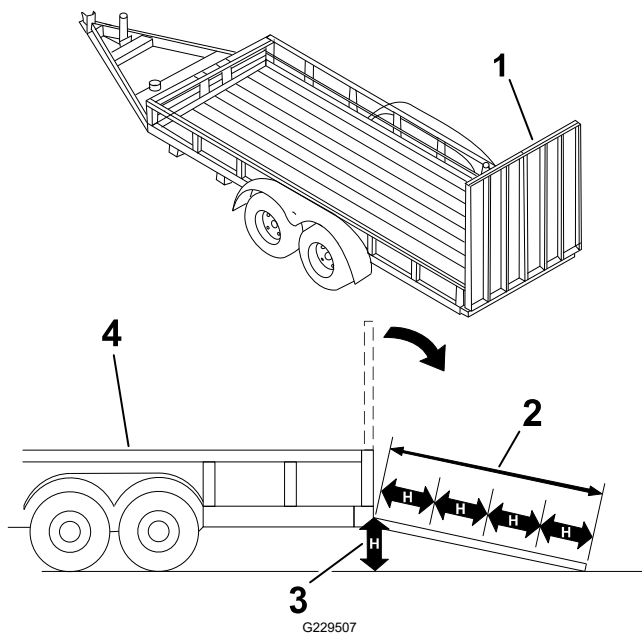


WARNING



Loading a machine onto a trailer or truck increases the possibility of tip-over and could cause serious injury or death.

- Use only full-width ramps.
- Ensure that the length of ramp is at least 4 times as long as the height of the trailer or truck bed to the ground. This ensures that ramp angle does not exceed 15 degrees on flat ground.



- ① Full-width ramp in stowed position
- ② Ramp is at least 4 times as long as the height of the trailer or truck bed to the ground
- ③ H = height of the trailer or truck bed to the ground
- ④ Trailer

Haul the Machine (continued)

Loading the Machine



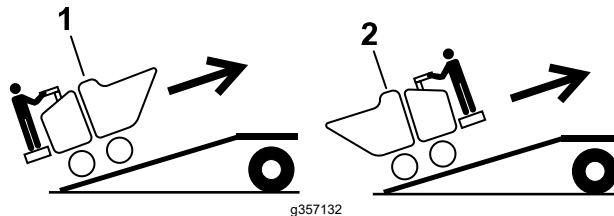
WARNING



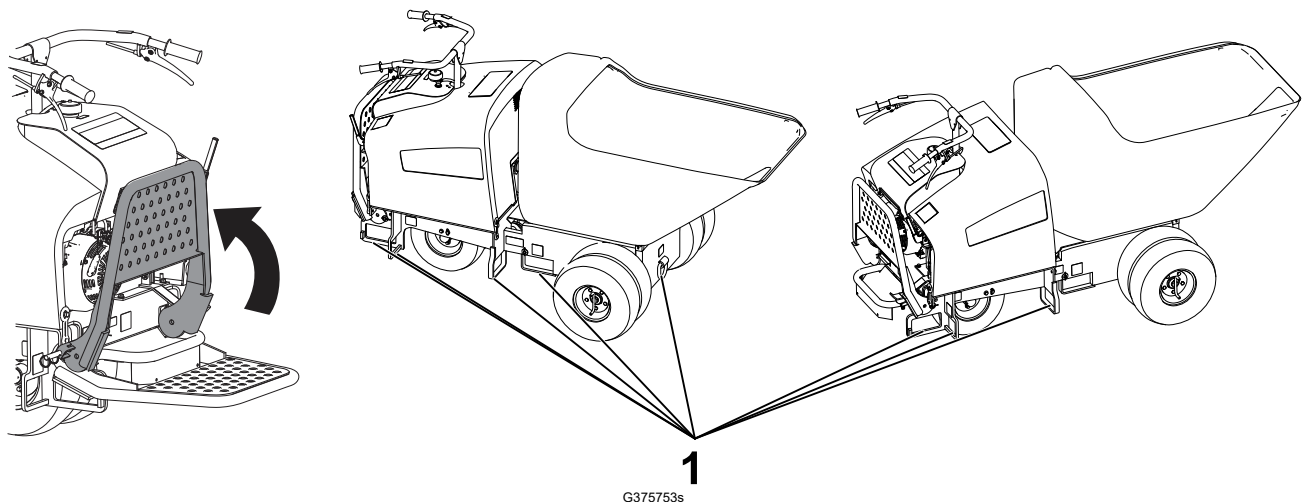
Loading a machine onto a trailer or truck increases the possibility of tip-over and could cause serious injury or death.

- Use extreme caution when operating a machine on a ramp.
- Load and unload the machine with the heavy end up the ramp.
- Avoid sudden acceleration or deceleration while driving the machine on a ramp as this could cause a loss of control or a tip-over situation.

1. If using a trailer, connect it to the towing vehicle and connect the safety chains.
2. If applicable, connect the trailer brakes.
3. Lower the ramp(s).
4. Load the machine onto the trailer with the heavy end up the ramp, carrying loads low.
 - If the machine has a **full** hopper, drive the machine forward up the ramp ①.
 - If the machine has an **empty** hopper, back the machine up the ramp ②.



5. Engage the parking brake and shut off the engine.
6. Raise the operator platform.



Haul the Machine (continued)

7. Use the metal tie-down loops ① to securely fasten the machine to the trailer or truck with straps, chains, cable, or ropes . Refer to local regulations for tie-down requirements.

IMPORTANT

Do not use the tie-down loops to lift the machine.

Unloading the Machine

1. Lower the ramp(s).
2. Lower the operator platform.
3. Unload the machine from the trailer with the heavy end up the ramp, carrying loads low.
 - If the machine has a **full** hopper, back it down the ramp ①.
 - If the machine has an **empty** hopper, drive it forward down the ramp ②.

