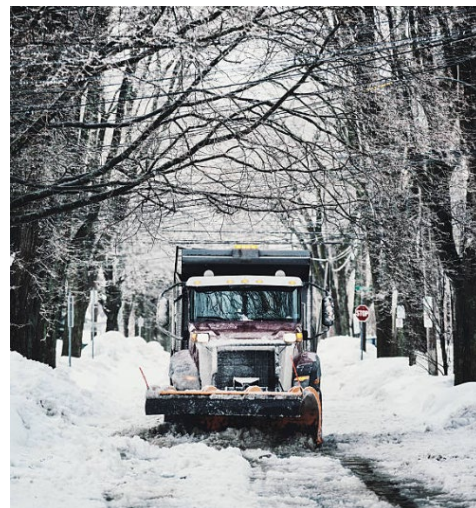




WINTER AND HEAVY EQUIPMENT

Equipment operators need to be aware of some additional information or precautions while they perform their daily pre-use checks. Make sure you pay particular attention when inspecting the following:

- **Filters.** Dirty or clogged air, fuel, and hydraulic filters can make equipment harder to start and can cause power loss during operation.
- **Battery.** Cold weather causes batteries to discharge more quickly and charge more slowly. Workers should not charge or jump-start a frozen battery; wait until the battery warms up to 40° Fahrenheit first.
- **Fluids, hoses, and seals.** Freezing temperatures can cause fluids, including hydraulic fluids, to thicken, which increases the pressure on hoses and seals. Check carefully for signs of leakage that could indicate a failed line or seal.
- **Tires.** Pneumatic tires may need a little more air to maintain the correct pressure in cold temperatures, and both solid and pneumatic tires should be checked to ensure that the tread is sufficient for winter conditions.
- **Lights and wipers.** In winter, light levels are lower and precipitation and condensation can affect visibility. Make sure lights and wipers are working properly and the headlights are clean.
- **Heater and defroster.** Make sure both are operating correctly before leaving for a job.
- **Lubricate moving parts.** Moving parts can freeze and seize, so make sure that everything is well-oiled in the winter, and keep your coolant—which also functions as a lubricant—topped off.
- **Warm up on start-up.** Hydraulics especially need a chance to warm up, so let the equipment idle for a few minutes and then operate each hydraulic function to circulate the oil.



While operating heavy equipment, operators should keep in mind:

- Heavy equipment can lose traction, the same as an automobile. Check that the route of travel is clear. Snow can hide ditches edges, and other terrain that may not support the heavier vehicle's weight.
- Be careful on ramps, bridges, and other elevated surfaces which can freeze before other surfaces
- Use 3 points of contact when entering and exiting the vehicle.
- Move the vehicle slowly and deliberately. Move slowly and deliberately when out of the vehicle.

At the end of the day, workers should take precautions to ensure that their equipment will be ready to go the next morning:

- **Clean it.** Salt can damage your equipment, so clean it off at the end of your shift.
- **Raise it.** Equipment that sits outdoors overnight or in severe winter weather can freeze to the ground, whether it's on tires or tracks; when workers go to move it, they can damage it. Park equipment on raised planks, old tires, or some other surface besides bare ground. Raise attachments off the ground, too.