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Safety Article

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Operating Bark/Mulch Blowers

Key Points

- With spring around the corner, you'll likely be freshening customers' properties soon with a
 new layer of mulch or another garden-bed material. Mulch and bark blowers, either as
 truck-mounted or tow-behind units, are a labor- and time-saving alternative to wheel
 barrows and shovels and allow crews to mulch difficult-to-access areas.
- If your company uses this equipment, however, it should address safety risks unique to
 these machines. In recent years, three people in Washington state alone have been killed
 after climbing or falling into the hoppers of bark or mulch blowers. A fourth worker was
 seriously injured. Read the <u>report and recommendations</u> the Washington State Department
 of Labor and Industries released late last year about a 19-year-old landscape laborer who
 died after becoming entangled in an auger inside the hopper of a bark blower truck.
- Accidents like this one and other involving systems used to blow mulch, bark, aggregate
 and other landscape materials can be avoided when managers properly train workers and
 maintain equipment and when workers understand and adhere to training.

Management Checklist

- ✓ Read the owner/operator's manual for every bark or mulch blower your company operates, paying special attention to safety instructions and prohibitions so you can develop worker safety training and procedures for potentially hazardous tasks, such as clearing jams.
- ✓ Always keep a copy of the operator's manual with each machine. Provide copies of manuals to workers to read in addition to the safety training they receive.
- ✓ Develop, implement and enforce written operating procedures, including safety precautions and hazard-mitigation techniques, that are specific to each bark/mulch blower your company operates. Make this writing part of your company's comprehensive <u>safety and health program</u>. Train and supervise employees in these procedures.
- ✓ Establish written lockout/tag-out procedures (in accordance with federal OSHA 29 CFR 1910.147 and any other applicable federal, state or local regulations) for each bark/mulch blower your company operates and train crew members in these procedures. Make these guidelines part of your company's overall lockout/tag-out program.
- ✓ Develop, implement and enforce written procedures for safe entry into or work in permitrequired confined spaces, including bark/mulch blower hoppers. Make this part of your company's safety and health program as well.
- ✓ Create and share with employees a written list of PPE required for crew members operating
 or working near mulch or bark blowers. This PPE typically includes pants and a longsleeved shirt; goggles; slip-resistant, steel-toed boots; hearing protection; gloves (without
 gauntlets); a hard hat; and dust mask or respirator.
- ✓ Train workers to remove rings, other jewelry, watches, etc., tie back long hair and avoid

- loose clothing.
- ✓ Teach employees that a mulch/bark blower's hopper interior is a <u>permit-required confined</u> <u>space</u>. Make sure they know entry exposes them to hazards including moving belts, shafts and augers that can crush and kill them or amputate body parts.
- ✓ Only allow a crew member to enter a hopper when absolutely necessary and when all safety procedures are followed. Ensure employees know and adhere to permit-required confined space entry procedures that address lockout/tag-out of mechanical and hydraulic stored energy and any possible engulfment hazards from material inside the hopper. Also train workers to select, properly set up and use appropriate pushing tools, ladders, scaffolds and/or fall protection.
- ✓ Maintain bark/mulch blower trucks, tow-behind units and related parts/equipment in safe operating condition. Remove malfunctioning machinery and equipment from service and repair or replace it.
- ✓ Ensure crews and/or crew leaders conduct a daily jobsite hazard assessment, including machinery inspection, to identify and mitigate potential hazards.
- ✓ Attach equipment labels with graphics illustrating hazard warnings and providing safeoperation instructions.

Crew members' dos and don'ts

Do:

- Read the operator's manual for each bark or mulch blower machine you operate or work near, in addition to receiving training from your employer on these machines.
- Ask for clarification if you do not understand any portion of the training or manual.
- Know the bark/mulch blower's hopper interior is a <u>permit-required confined space</u>. Entry
 exposes you to hazards including moving belts, shafts and augers that can crush and kill
 them or amputate body parts.
- If the blower can be controlled via remote control, always keep the power switch on the remote receiver in the "off" position when the remote control is not being used.

Before operating:

- Put on all PPE required by your employer and the bark/mulch blower manufacturer. This
 typically includes pants and a long-sleeved shirt; goggles; slip-resistant, steel-toed boots;
 hearing protection; gloves (without gauntlets); a hard hat; and dust mask or respirator.
 Remove rings, other jewelry, watches, etc., tie back long hair and do not wear loose
 clothing.
- Ensure all guards are in place.
- Using all necessary safety precautions (including lockout/tag-out) and equipment (such as fall protection), carefully look into the blower hopper, inspect for and remove any foreign objects.
- Inspect all hydraulic hoses and tubes for cracks, bulges or damage. If present, notify a crew leader or supervisor immediately and do not allow the machine to be operated.
- Because diesel fuel or hydraulic fluid under pressure can penetrate the skin or eyes, causing injury, blindness or death, check for these leaks using a piece of cardboard or wood instead of your hand.
- Inspect the material discharge hose and connections for cracks, damage or excessive wear. If found, notify a crew leader or supervisor immediately and do not allow the machine to be operated.
- Make sure no one is working in or on the machine.
- Ensure the area around the machine and the discharge space is clear of animals and

bystanders and unauthorized personnel before starting the machine and at all times during operation.

Signal "all clear" before starting the engine.

During operation:

- Establish and maintain good footing and hold the hose firmly. High pressure can be exerted at the end of the hose.
- If needed, ask for extra crew members to help direct and hold the hose, especially when you are working on slopes.

When leaving the blower unattended:

- Shut off the conveyor drive, vehicle engine and blower engine.
- Place vehicle transmission in "park."
- Firmly set the parking brake.
- Lock the ignition and take the keys with you.
- Lock the vehicle cab.
- If on a steep grade, block the wheels.

Before servicing the machine:

 Turn off the engine and allow all moving parts to stop. Disconnect battery cables to prevent accidental starting of the machine. Tag the operating area to show the machine is being serviced and use all other lockout/tag-out procedures.

Don't:

Modify the machine or remove any part.

During operation:

- Use hands or any part of your body to clear jams or move materials. Even slow-moving mechanical parts such as rotating shafts and augers have killed or maimed workers.
- Override or tamper with safety shutdown switches.
- Operate the machine without all guards in place.
- Attempt to connect or disconnect the discharge hose while the engine is running.
- Hold the hose so it is positioned between your legs.
- Aim the discharge hose at people, animals, etc. The blower discharges material at velocities that can cause severe injury.
- Place your hand or any part of your body in the discharge stream.
- Open any doors or access panels while the machine is in operation.
- Enter or attempt to pull anything out of the blower hopper when the machine is in operation.
 Shut down the engine, use lockout/tag-out procedures and <u>permit-required confined space</u>
 entry procedures for the particular machine, before entering the hopper or removing any
 objects. Signal "all clear" before restarting the machine.
- Read, eat, use electronic devices or otherwise lessen attention while operating the machine.

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Prepared by Olivia Grider for:



Olivia Grider has written regular health and safety articles for the landscaping and construction industries for more than 10 years. Since 2009, she has been a member of NALP's Safety and Risk Management Committee and served as the NALP safety research writer.