

9. Grounds - Power Lawnmowers

WAC 296-807-160

1.0 General Requirements

Proper hearing protection, eye and footwear protection must be worn where there is a hazard from excessive noise (above 85 dBA) or from projected objects.

Walk-behind, riding-rotary, and reel power lawnmowers designed for use by employees must meet the design specifications in “American National Standard Safety Specifications for Power Lawnmowers” ANSI B71.1-1998 and B71.41999. These specifications do not apply to sulky-type mowers, flail mowers, sickle-bar mowers, or mowers designed for commercial use.

All power-driven chains, shafts, belts, gears, nip / pinch points and any exposed components hot enough to cause burns must be positioned or otherwise guarded to prevent the operator’s accidental contact, during normal starting, mounting, and operation of the machine.

A shutoff device must be provided to stop operation of the motor or engine. This device must require manual and intentional reactivation to restart the motor or engine.

All positions of the operating controls must be clearly identified. Warning and caution labels or decals must be readable and replaced as necessary. The words, “Caution – Be sure the operating control(s) is in neutral before starting the engine,” or similar wording must be clearly visible at an engine starting control point on self-propelled mowers.

Operator: wearing personal protective equipment (footwear, eye, hand and hearing protection), is thoroughly familiar with equipment operating instructions, controls and proper guards, plates, grass catcher or other safety devices are in place prior to starting the mower.

2.0 Walk-Behind and Riding Rotary Mowers

The mower blade must be enclosed except on the bottom and the enclosure must extend to or below the lowest cutting point of the blade in the lowest blade position.

Guards that must be removed to install a catcher assembly must meet the following requirements:

- Warning instructions must be affixed to the mower near the opening stating that the mower must not be used without either the catcher assembly or the guard in place.
- The catcher assembly or the guard must be installed on newly purchased mowers before they are put into use.
- The instruction manual must state that the mower must not be used without either the catcher assembly or the guard in place.
- The catcher assembly, when properly and completely installed, must not create a condition that violates the limits given for the guarded opening.

Modifications to openings in the blade enclosure must meet WAC 296-807-16020 safety standards, which says, “Openings in the blade enclosure, intended for the discharge of grass, shall be limited to a maximum vertical angle of the opening of 30 degrees. Measurements shall be taken from the lowest blade position.”

Operators must mow across the face of the slope.

The word “caution” or stronger wording must be placed on the mower at or near each discharge opening. Blade(s) must stop rotating from the manufacturer’s specified maximum speed within 15 seconds after declutching, or shutting off power.

In a multipiece blade, the means of fastening the cutting members to the body of the blade or disc must be designed so that they will not become worn enough to create a hazardous condition.

The maximum tip speed of any blade must be 19,000 feet per minute.

3.0 Walk-Behind Rotary Mowers

The horizontal angle of the opening(s) in the blade enclosure that are intended for the discharge of grass must not contact the operator area.

There must be one of the following at all openings in the blade enclosure intended for the discharge of grass:

- A minimum unobstructed horizontal distance of 3 inches from the end of the discharge chute to the blade tip circle; or
- A rigid bar fastened across the discharge opening, secured to prevent removal without the use of tools. The bottom of the bar must be no higher than the bottom edge of the blade enclosure.

The highest point(s) on the front of the blade enclosure, except discharge openings, must be such that any line extending a maximum of 15° downward from the horizontal toward the blade shaft axis (axes) must not intersect the horizontal plane within the blade tip circle. The highest point(s) on the blade enclosure front, except discharge-openings, must not exceed 1¼ inches above the lowest cutting point of the blade in the lowest blade position. Mowers with a swing over handle are to be considered as having no front in the blade enclosure and therefore must have an enclosure that extends to or below the cutting point of the blade (see WAC 296-807-16020).

The mower handle must be fastened to the mower to prevent loss of control by unintentional uncoupling while in operation.

A positive upstop or latch must be provided for the mower handle in the normal operating position(s). The upstop must not be subject to unintentional disengagement during normal operation of the mower. The upstop or latch must not allow the center or the handle grips to come closer than 17 inches horizontally behind the closest path of the mower blade(s) unless manually disengaged.

A swing-over handle, which complies with the above requirements, is permitted.

Wheel drive-disengaging controls, except deadman controls, must move opposite to the direction of the vehicle motion in order to disengage the drive. Deadman controls must comply with WAC 296-807-16020) and may operate in any direction to disengage the drive.

4.0 Riding Rotary Mowers

Passengers are not permitted on riding mowers.

Operator looks down and behind before and while moving backwards.

The highest point(s) of all openings in the blade enclosure, front must be limited by a vertical angle of opening of 15° and a maximum distance of 1¼ inches above the lowest cutting point of the blade in the lowest blade position.

Opening(s) must be placed so that grass or debris will not discharge directly toward any part of an operator seated in a normal operator position.

There must be one of the following at all openings in the blade enclosure intended for the discharge of grass:

- A minimum unobstructed horizontal distance of 6 inches from the end of the discharge chute to the blade tip circle.
- A rigid bar fastened across the discharge opening, secured to prevent removal without the use of tools. The bottom of the bar must be no higher than the bottom edge of the blade enclosure.

Mowers must be provided with stops to prevent jackknifing or locking of the steering mechanism. Vehicle stopping means must be provided.

Hand-operated wheel drive disengaging controls must move opposite to the direction of vehicle motion in order to disengage the drive. Foot-operated wheel drive disengaging controls must be depressed to disengage the drive. Deadman controls, both hand and foot operated, must comply with WAC 296-24-66501(11) and may operate in any direction to disengage the drive.

5.0 Protection from fuel and exhaust

Gas cap is on whenever engine is running and engine is shut off before and during refueling. Equipment must not be refueled in doors. Do not run engine in a closed area.

6.0 Definition of Terms

Blade tip circle- The path described by the outermost point of the blade as it is rotated about its shaft axis.

Catcher assemblies- Parts or combinations of parts that provide a means for collecting grass clippings or debris.

Deadman control- A control designed so that it will automatically interrupt power to a drive when the operator's actuating force is removed.

Guards- A part or an assembly provided for shielding a hazardous area of a machine.

Lowest blade position- The lowest blade position under static conditions.

Operator area-walk-behind mowers. For discharge interference purposes, that area confined within a circle no smaller than 30 inches in diameter, the center of which is located to the rear of the mower on its longitudinal centerline 30 inches behind the nearest blade tip circle.

Power reel mower- A lawn-cutting machine utilizing a power source to rotate one or more helically formed blades about a horizontal axis to provide a shearing action with a stationary cutter bar or bed knife.

Power rotary mower- A lawn-cutting machine utilizing a power source to rotate one or more cutting blades about a vertical axis.

Riding mower- A powered, self-propelled lawn-cutting vehicle on which the operator rides and controls the machine.

Sulky type mower- Normally, a walk-behind mower that has been converted to a riding mower by the addition of a sulky.

Walk-behind mower- A mower either pushed or self-propelled and normally guided by the operator walking behind the unit.