

## Rotaries #01-04



# **Product Performance When Cutting Turf**

Product: Groundsmaster® 7200 Series June 26, 2009

Affected Units: Models: Serial Numbers:

Groundsmaster 7200 & 7210 series All All

#### Information:

The Groundsmaster 7200 series mowers are high performance, versatile commercial duty products. In an effort to provide the best after-cut appearance (ACA) in the widest variety of different turf types, the cutting decks have been designed to perform best when cutting grass that is no higher than 9" (23 cm) in pre-cut height. This would be within normal and accepted agronomic mowing practices.

Normal and accepted agronomic mowing practices recommended by turf experts are described as a cutting event that removes no more than 1/3 of the grass blade per event. This is referred to as the "1/3 rule" and is the maximum amount of grass blade material that should be removed (per event) while still providing the plant enough tissue left to properly photosynthesize for regeneration. Removing more blade material than this can adversely affect the plant's ability to recover after mowing.

Using the normal and accepted agronomic mowing parameters (1/3 rule) as design criteria, the cutting decks are designed to process this amount of cut grass material produced at the desired height-of-cut and to disperse it properly to provide an acceptable after-cut appearance. Keep in mind that as the desired height-of-cut (HOC) gets shorter, the turf tends to become more dense. The actual volume of cut grass then increases (per cutting event) at lower HOC's. If the 1/3 rule is not followed, after-cut appearance issues can become more prevalent.



In summary, if the 1/3 rule is not followed, turf regeneration, after cut appearance and safety are all compromised. Attempting to cut long grass down to short heights (in wet or dry conditions) will accelerate component wear, inhibit the turf grasses' ability to recover and produce excessive chaff discharge that can accumulate in the engine compartment and contact hot components which can ignite a fire.

#### **Optional Blade Configurations and Their Intended Use:**

Since cutting conditions vary, Toro offers two additional blade options for these decks to increase the machine's adaptability and safety and enhance the performance and/or operator comfort. Each style of Toro blade is designed to meet our safety standards and provide specific characteristics dependent on conditions:

<u>Atomic Blades:</u> These blades have serrated sail edges that are designed to finely chop dry leaf material during the fall season. Dried leaves impact the additional serrations at high velocity and break apart into small pieces. The small dried material is then redistributed into the turf canopy, providing nutrients and minimizing clean-up. It should be noted that these blades are designed to mulch dried material and not fresh cut turf grasses.

<u>Flat Sail Blades:</u> These blades have no sail on them and, therefore, do not generate lift (suction) or promote under deck air flow. These blades are designed to be utilized in dry, sparse cutting conditions where dust and airborne debris is a concern at the higher HOC settings.

The use of the flat sail blades dramatically reduces chaff and airborne debris, which increases operator comfort and minimizes safety hazards created by engine compartment dry material accumulation. Since these blades have no sail (and develop no lift) they generate very little noise, but ACA is compromised.

It should also be noted that the 1/3 rule should still be adhered to with any blade option.

#### **Summary:**

This bulletin is a result of safety and agronomic concerns influenced by equipment operation that exceeds the normal, accepted agronomic cutting practices and design intent. Fires have occurred due to excessive accumulation of chaff material in engine compartments. Due to these issues, The Toro Company requests that all owners/operators of the Groundsmaster 7200 series mowers read the attached Operator's Manual Addendum and print out a copy for their records.

Proper and safe use of equipment is Toro's main concern. If you have any additional questions or concerns regarding the operation or options of the Groundsmaster 7200, please contact your local authorized Toro Commercial Equipment Distributor and they will be glad to assist.



### Groundsmaster®7200 and 7210 Mower

Model No. 30360—Serial No. 270000001 and Up Model No. 30360TE—Serial No. 270000001 and Up Model No. 30361—Serial No. 270000001 and Up Model No. 30362—Serial No. 270000001 and Up Model No. 30363—Serial No. 270000001 and Up Model No. 30363TC—Serial No. 270000001 and Up Model No. 30363TE—Serial No. 270000001 and Up Model No. 30364—Serial No. 270000001 and Up Model No. 30364TC—Serial No. 270000001 and Up Model No. 30365—Serial No. 270000001 and Up Model No. 30461—Serial No. 280000001 and Up Model No. 30462—Serial No. 280000001 and Up Model No. 30464—Serial No. 280000001 and Up Model No. 30464TC—Serial No. 280000001 and Up Model No. 30465—Serial No. 280000001 and Up Model No. 30467—Serial No. 280000001 and Up Model No. 30468—Serial No. 280000001 and Up

**Addendum** 

## Select the Proper Height-of-Cut Setting to Suit Conditions

Remove approximately 1 inch (25 mm) or no more than 1/3 of the grass blade when cutting. In exceptionally lush and dense grass, you may have to slow down the forward speed and/or raise the height-of-cut to the next higher setting.

**Important:** If cutting more that 1/3 of the grass blade off, or in sparse long grass or dry conditions, the use of flat sail blades is recommended to reduce air-borne chaff, debris, and deck drive component strain.

### **Keep the Mower Clean**

Clean clippings and dirt from the underside of the mower after each use. If grass and dirt build up inside the mower, cutting quality will eventually become unsatisfactory.

To reduce the risk of fire hazard, keep the engine, muffler, battery compartment, parking brake, cutting units, and fuel storage compartment free of grass, leaves, or excessive grease. Clean up any spilled oil or fuel.