8800 TerrainCut™ Rough Mower

Machine Optimization Document

TC_8800_TCut_L3_EN

John Deere Turf Care

This manual serves as a quick reference for adjustments and controls of the machine for operators who are familiar with the machine and controls.
In no case does it replace the Operation Manual.

To prevent injury to persons or machines, the Operation Manual **must** be read carefully
before the machine is used.

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The 8800 TerrainCut™ Rough Mower has five independent 21 inch (53.3 cm) rotary decks. Height of cut (HOC) range is 1-4 inches (25-102 mm) in 0.25 inch (6.3 mm) increments. The rotary deck motors are hydraulic.

The 8800 TerrainCut™ Rough Mower is versatile and can be used in a variety of turf mowing applications not limited to golf courses. Four wheel stance and rear wheel steering offers stability advantages over three wheel mowers. Turf tires provide excellent weight distribution for less tracking, less marking, and less compaction.

The 8800 TerrainCut™ Rough Mower is equipped with the factory installed Four Wheel Drive GRIP system as standard.

Rear Roller Scraper, Canopy, Mulch Kit, Mulch and Low Lift Blades are available options.

The working lights are standard. Cruise control is a field installed option.

The 8800 TerrainCut™ Rough Mower is powered by a turbocharged Yanmar™ Diesel engine.

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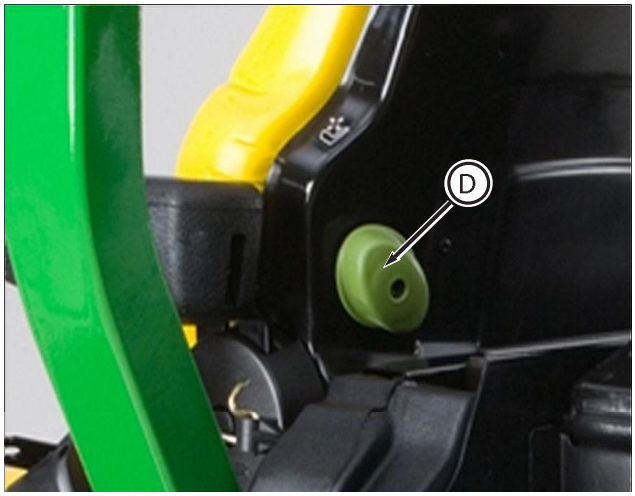
Seat Adjustment

A deluxe Grammer™ seat is provided as standard equipment to provide maximum operator comfort across a wide range of operator traits. The operator command arm attaches to the seat base. Therefore, controls move with the operator as height and weight adjustments are performed.

1. Adjust seat position based on the operator's height:
   - Lever (A) located under seat on left side.
2. Adjust internal spring force for correct operator ride and suspension:
   - Knob (B) located under seat in the center.
3. Tilt Adjustment for back portion of seat:
   - Lever (C) located under left armrest.



4. Lumber adjustment for proper back support:
   - Knob (D) located behind left armrest.

Steering Column Adjustment

A steering column adjustment is available to give additional room for the operator if needed.

1. Adjust the steering column by depressing the brown tab (A) at the bottom left of the steering column with your foot. When the desired steering column position is achieved, simply release the tab, and the column locks into place.

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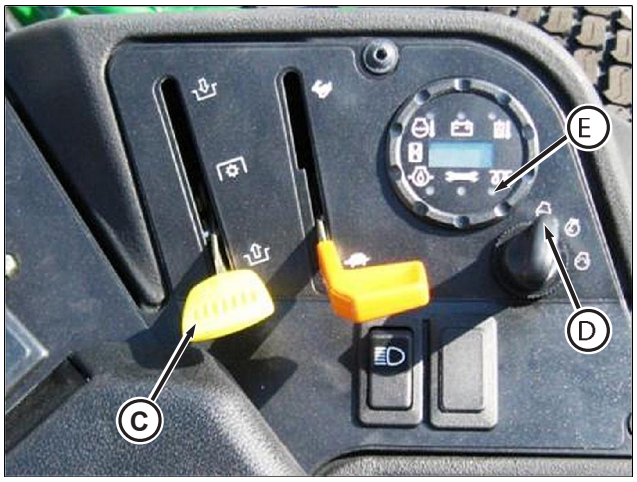
Machine Starting Tips

1. Park Brake (A) engaged.
2. Hydrostat pedals (B) in neutral position.



3. Mow/Transport lever (C) in Transport position (lever pulled towards operator).
4. Turn key (D) to run position. Engine air pre-heater LED on instrument cluster (E) will illuminate 3-15 seconds and then go out. Engine can be started afterwards.
5. Run engine half throttle 2-3 minutes for warm-up. Avoid unnecessary idling.).

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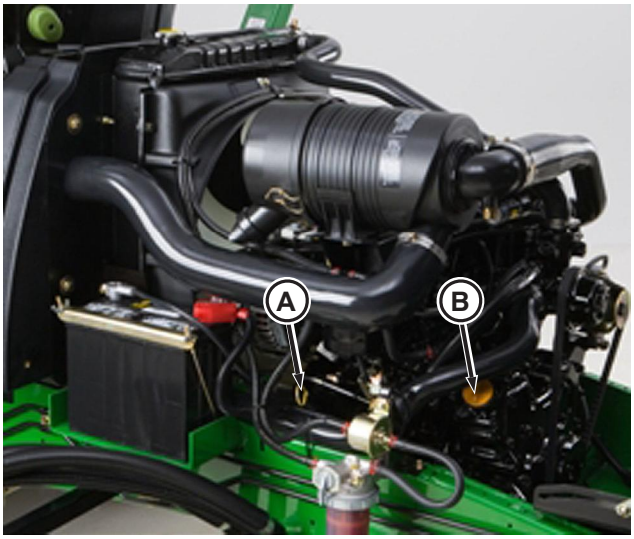
Key Setup and Adjustments – Machine

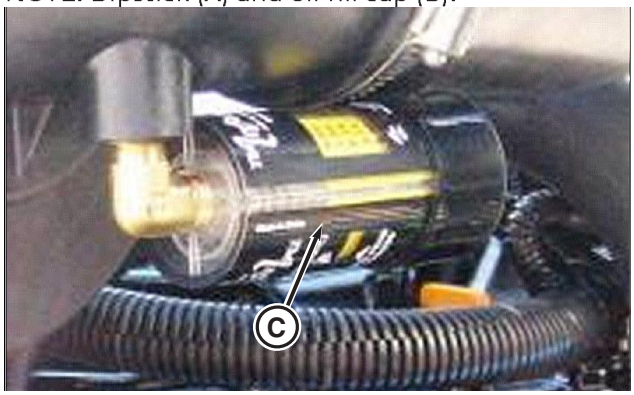
1. Inspect tires for proper inflation and wear. Use a pressure gauge accurate at lower pressures. Adjust pressure as necessary.
   - Inflate tires to 18 psi (124 kPa)

NOTE: Operating tires below recommended pressure can cause premature tire failure.

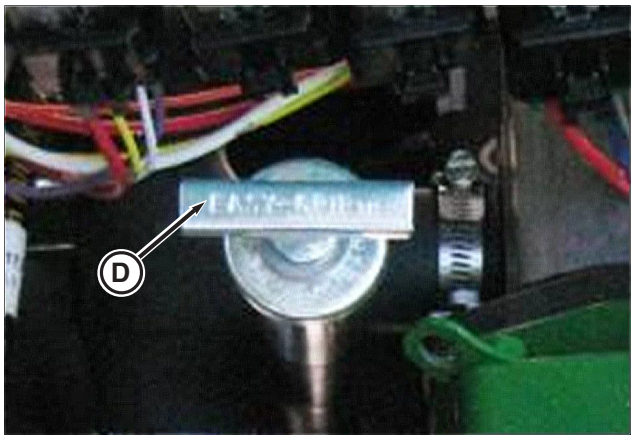
2. Check engine oil level. Add or remove oil as needed.



NOTE: Dipstick (A) and oil fill cap (B).



3. Check air filter restriction indicator (C):
   - Push reset button.
   - Run engine at full throttle.
   - Replace primary air filter if red plunger visible in window.
4. Check hydraulic oil level with dipstick located under seat:



   - Turn T-Handle (D) counterclockwise until dipstick can be removed from tube.
   - Level on dipstick should not exceed the "H" (hot) or be below the "C" (cold) at average temperature.
   - Reinstall dipstick and rotate T-Handle clockwise to secure.
5. Verify travel speed for mowing is set to a maximum of 7.5 mph (12.1 kph). Equivalent speed is 11 feet per second (3.4 m/s).
   - Measure travel speed for mowing at full engine throttle with Mow/Transport lever in Mow position and cutting units in fully raised position.

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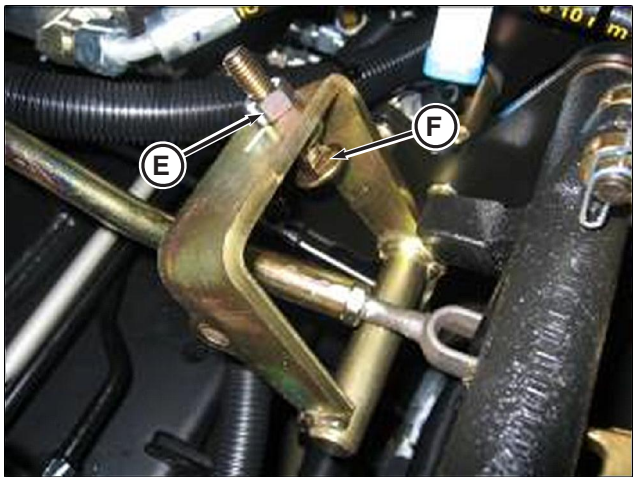
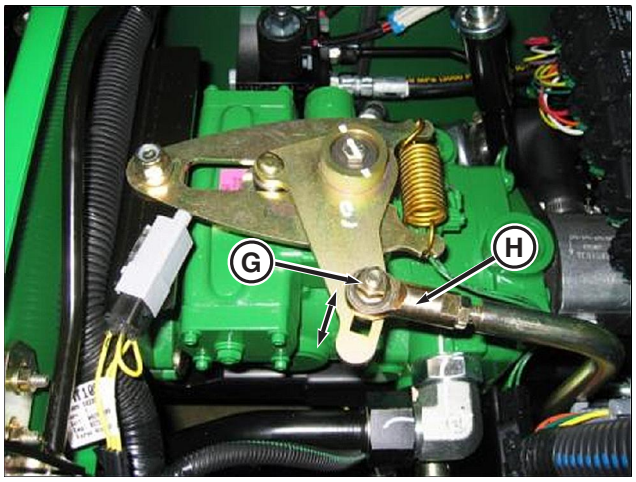


6. Adjust mow stop if necessary to correct ground speed for mowing conditions. Move Mow/Transport lever to the Transport position and remove operator foot platform. Loosen jam nut (E) and adjust position of bolt (F) on bracket. Tighten jam nut afterwards.
   - Lengthening bolt towards inside of bracket will decrease mow speed.
   - Shortening bolt will increase mow speed.
7. Verify travel speed for transport is set to a maximum of12.5 mph (20.1 kph), equivalent to 18 feet per second (5.5 m/s).
   - Measure travel speed for transport at full engine throttle with Mow/Transport lever in transport position and cutting units in fully raised position.



8. Adjust linkage if necessary to achieve desired ground speed for transport. Raise seat platform, loosen nut (G) and adjust position of turnbuckle (H) within slot on bracket. Tighten nut afterwards.
   - Moving turnbuckle away from transmission will decrease transport speed.
   - Moving turnbuckle towards transmission will increase transport speed.

CAUTION: Avoid injury. Only remove radiator cap when engine and radiator are cool. Open cap slowly, and carefully remove.

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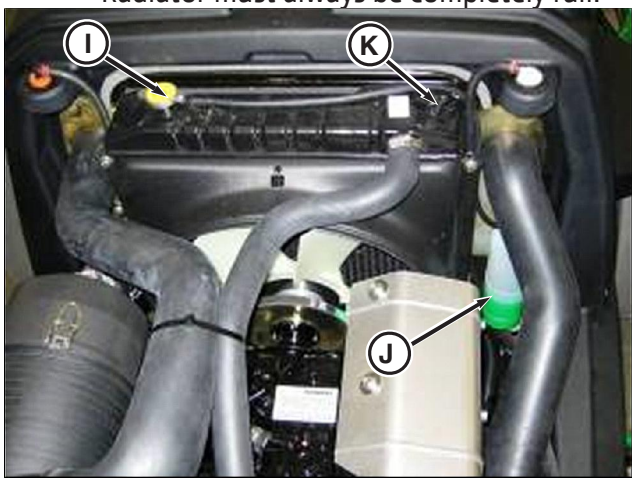
9. Check engine coolant levels inside radiator and overflow bottle.
   - Radiator must always be completely full.



   - Check level under fill cap (I).
   - Coolant in overflow bottle (J) should be approx. 1/3 full when cool.
10. Add coolant as required to achieve proper levels.
   - Open valve (K) at top corner of radiator to allow air to vent from top of radiator as coolant is being added. Close valve when radiator is full.
   - Only use approved coolant (such as John Deere Cool-Gard™ II).
11. Check condition and routing of hose between radiator and overflow bottle. If hose not routed properly, coolant recovery process will not be effective. Correct hose routing as necessary.
   - Hose must be firmly attached to overflow bottle.
   - Hose must not be kinked or pinched.

IMPORTANT: After filling a new or flushed radiator, check coolant levels more frequently until level within radiator stabilizes to full. This will ensure that all air has been purged from the cooling system.

Key Setup and Adjustments – Rotary Decks

CAUTION: Avoid injury. Wear protective gloves when servicing rotary decks and blades.

Blades

Following rotary blades are available for the 8800 TerrainCut™ Rough Mower:

- High-lift blade (GC00175) is the standard blade that is shipped with the mower from the factory. This blade is the optimum blade for lift and maximizes cut quality by standing the grass up for cutting.
- Mulch blade (GC00344) is used in combination with the mulch kit bundle for customers who want to minimize clippings and produce a cleaner appearance and are not removing more than one-third of the grass blade. In some conditions, the height of cut may need to be raised for better dispersal. This blade can also be used for mulching leaves.
- Low-lift blade (GX22190) can be used for customers who wish to minimize the lifting of the grass. This may be desired with warm season grasses.

1. Verify rotary blades are properly installed:
   - Threads in motor shaft are clean and dry.

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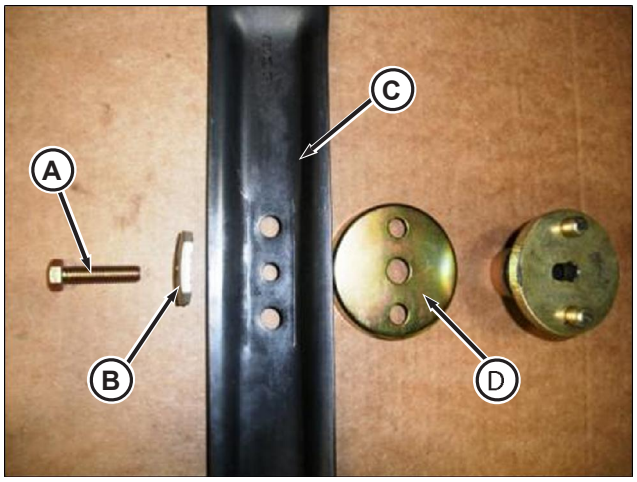
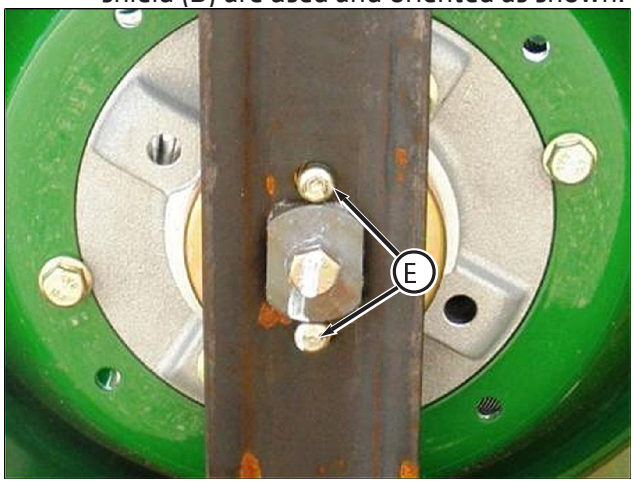


- Correct bolt (A), washer (B), blade (C), and shield (D) are used and oriented as shown.



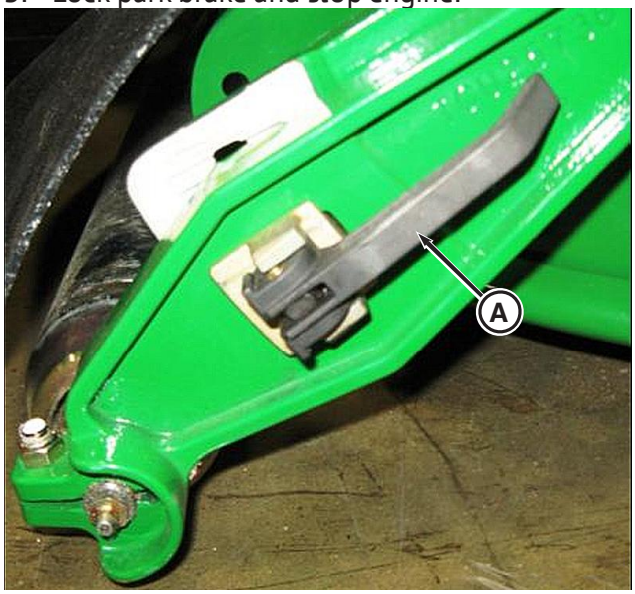
- Blade properly seated on adapter with both locating pins (E) visible as shown.
- Blade bolt tightened to 40 lb-ft (54 Nm).

2. Verify blade condition for best cut quality.
   - Cutting edges sharp. No gouges on cutting edges or damage to other areas of blades.
   - Replace a blade if necessary.

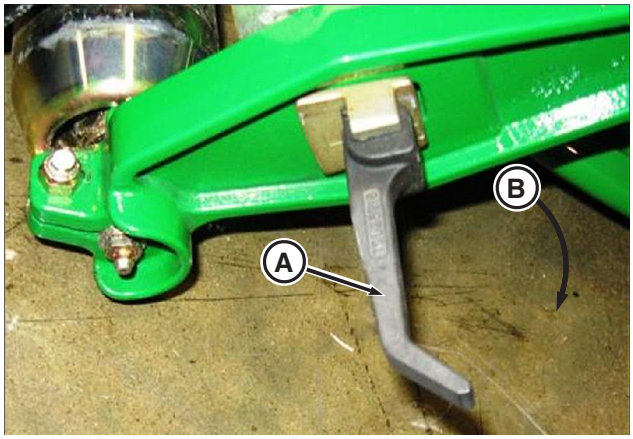
Height of Cut (HOC) Verification

Verify all five decks are set to exact same HOC. To set height.

1. Park unit safely.
2. Start engine and raise decks off of ground.
3. Lock park brake and stop engine.



4. Pull lever (A) out from locked position on both sides of the deck.



5. Disengage locking teeth using lever (A) by pulling outward (B) from both sides of deck.

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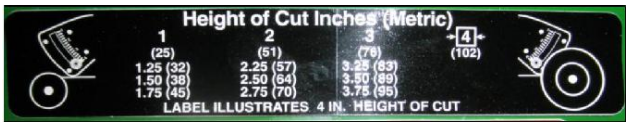
6. Once both sides of the deck are disengaged, set to preferred height by indexing the height indicator (C) up or down while moving roller.
7. Reengage locking lever (A) when deck is set to preferred height.

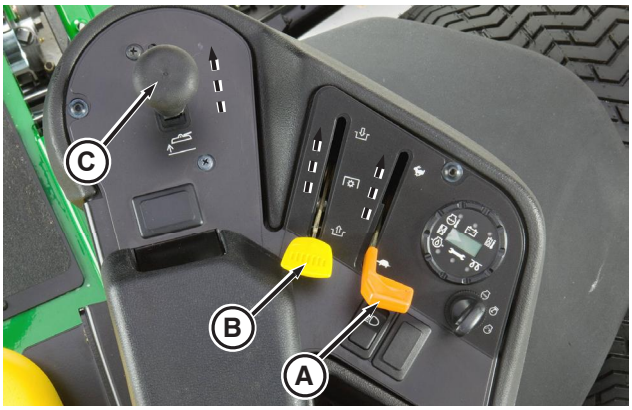


- Height of Cut (HOC) index chart is shown above and is located on top rear of each deck.

NOTE: In some extreme conditions, it may be necessary to raise the HOC of all rear rollers one notch compared to the front. This will allow increased air and material flow to be exited out the rear of the deck.

Operating Tips - Mowing

Park brake unlocked and operator in seat.



To engage Mow function:

1. Increase engine speed (A) to full throttle.
2. Move Mow/Transport lever (B) from Transport position to Mow position (away from operator).
3. Move Raise/Lower lever (C) to Lower position (away from operator). Rotary deck blades will begin spinning.

Note: Mow can also be engaged by first lowering rotary decks and then moving Mow/Transport lever to Mow position. However, if rotary decks are already in lowered position when engine is started, Raise/Lower lever will need to be cycled first..

To disengage Mow function:

1. Decrease engine speed.
2. Move Mow/Transport lever to Transport position.
3. Move Raise/Lower lever to Raise position.

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Important: Do not attempt to engage or disengage Mow/Transport lever when hydrostat pedal fully depressed. Mow linkage provides stop for pedal linkage to set reduced speed during mowing. Damage to Mow cable, pedal linkages, front wing cylinders or cylinder stop may result and may cause the front wing units to raise past their intended design.

NOTE: Machine can leave trail of uncut grass in certain conditions on level ground as well as on slopes. Rear tires may lose traction when machine is traveling across a slope or if mow speed is too high in turns. Consequently, front and rear cutting units may unlap (lose available overlap). Traction is influenced by slope angle, turf conditions, moisture levels, tire pressure and mow speed. Reduce speed on slopes and when making turns.

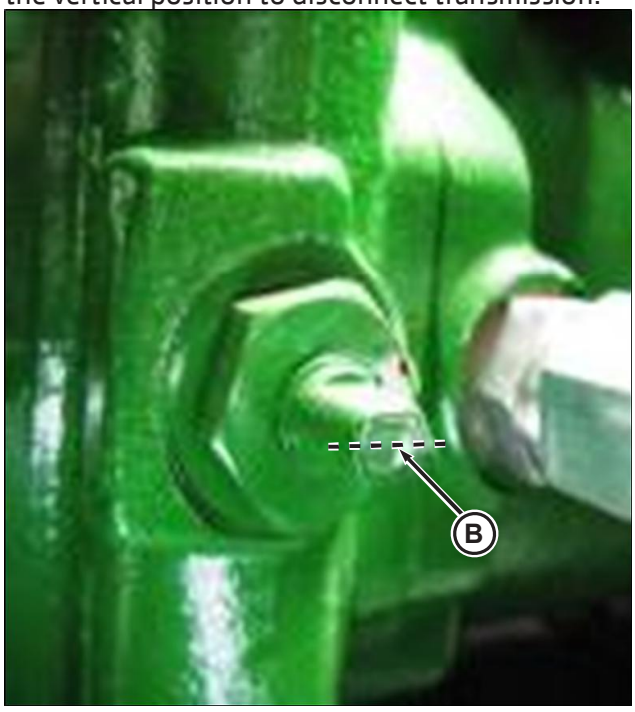
Operating Tips - Moving Machine Manually

When mower needs to be moved when the engine is not running.

NOTE: Never tow mower or push long distances. Transport mower on trailer if possible.

1. Raise operator seat to service position. Unlock pin is located on left side of transmission.

2. Turn transmission unlock pin (A) so flats are in the vertical position to disconnect transmission.



3. Turn transmission unlock pin so flats are in the horizontal position to reconnect transmission, (position shown (B)).

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Operating Tips - Cruise Control

- Cruise control function applies a magnet to forward hydro pedal to hold pedal position.
- Cruise control can be used when mowing or transporting machine.

To Operate Cruise Control:

1. Press forward hydro pedal to select desired speed.
2. If mowing, engage cutting units and begin mowing.

3. Press cruise control toggle switch on command arm fully forward (A) to activate cruise control. Toggle switch will return to center position (B).
4. Remove foot from hydro pedal.

To disengage cruise control:

1. Press parking brake, or
2. Press cruise control switch to OFF position (C).

IMPORTANT: Only consider using cruise control when mowing in open areas with no sharp turns. Disengage cruise control before making any turns. Do not use cruise control on hills.

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Operating Tips – Safe Operation on Slopes

Operate machine with extreme caution on hills, slopes, and rough terrain to avoid losing traction and minimize rollover risk. Mowing sites should be carefully surveyed to assure slopes are safe for machine operation. Consider moisture and turf conditions. Wet slopes present significantly higher risk even though they may have been mowed successfully before. Look for dips and holes along the slope that could change the angle of vehicle operation.

Determining Safe Slope Angles:

1. Lay straight piece of sturdy lumber 4 ft (1.2 m) long on slope.
2. Measure slope angle with angle indicator or protractor level.

3. Repeat procedure at several points on same slope.

- Never mow or operate machine on slope angles greater than 25°.
- Exceeding the maximum recommended slope angle of 25° increases the risk of rollover accidents that can result in serious injury or death.
- Always consider potential turf conditions and slope angles when determining the risk of loss-of-control and tip-over accidents.
- On slope angles of 15° or less the risk of rollover is low, but as the slope angle increases to the John Deere recommended maximum of 25° the risk increases to a moderate level.

When Operating on Slope

- Carefully review all cautions included in machine Operators Manual.
- Always wear seat belt when operating machine, regardless of slope condition.
- Make sure that tires are properly inflated. Too low or too high tire pressure will cause the tires to lose traction.
- Whenever possible, mow up and down the slope rather than across it.
- Use lower speeds when mowing and operating on slopes.
- Use caution when making turns or changing directions on slopes.
- Decrease speed as the slope angle increases.
- Do not mow near drop-offs, ditches, embankments, or bodies of water. Machine could suddenly roll over if wheel goes over edge or edge caves in. Leave a safe margin between the machine and any hazard.
- Avoid areas where turf is wet or loose.
- Leave cutting units lowered on slopes to maximize stability. Never lift cutting units on steep slopes. Raising cutting units on a slope can cause the machine to become unstable.
- Use caution when operating machine on wet or loose turf. Tires may lose traction. If it begins to rain, discontinue operation on slope.

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Operation Checklist

Vehicle

- ☐ Check tire pressure.
- ☐ Check engine oil and hydraulic oil levels.
- ☐ Check engine coolant levels inside radiator and in recovery tank.
- ☐ Check fuel tank level. Add fuel as required. Capacity is 16.0 gallons (61.7 L).
- ☐ Lubricate all grease fittings on machine and rotary decks. Wipe excess grease from fittings.

Rotary Decks

- ☐ Verify rotary deck shells and rotary blades are clean.
- ☐ Verify all rotary blades are sharp and in good condition to ensure best cut quality.
- ☐ Verify rotary blades are installed correctly and blade bolts tightened to 40 lb-ft (54 Nm).
- ☐ Verify all rotary decks are set to same HOC.

Operation

- ☐ Always wear seat belt when operating machine.
- ☐ Read Operator's Manual and become familiar with all controls and operating procedures.
- ☐ Check safety circuits when starting engine and engaging cutting units.
  Perform repairs if engine can be started or mow can be engaged with any safety switch out of position.
- ☐ Check travel speed. Travel speed when mowing must not exceed 8 mph (13 kph),
  or should not exceed 5 mph (8 kph) if mowing hilly areas.

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Consequences of Improper Setup and/or Operation

Symptoms	Possible Causes
Tire sidewalls bubbled or failed	☐ Tires run at too low pressure
Poor cut quality	☐ Rotary blade is dull, unbalanced, bent, or excessively worn ☐ Incorrect blade for turf conditions ☐ Engine speed not set to max throttle when mowing ☐ HOC set too low for turf height and conditions; not following "1/3" rule ☐ HOC not set equally on all cutting units ☐ HOC lever tension not set properly ☐ Abnormal wear of rollers from contact with cart paths or similar ☐ Travel speed too fast for turf conditions and amount of grass being removed ☐ Debris not removed from underside of deck ☐ Hydraulic oil level is low; pump not supplying sufficient oil volume to rotary deck motors
Rotary decks leave uncut grass	☐ Rotary decks not setup correctly ☐ Incorrect blade for turf conditions ☐ Rotary blade is dull ☐ Rotary blade or blade bolt not installed correctly ☐ HOC set too low for turf height and conditions ☐ Mow speed too fast for turf conditions ☐ Machine losing traction when steering or mowing across a slope, causing front rotary decks to unlap (lose overlap) from rear rotary decks ☐ Front and/or rear rotary deck lift arms may be bent due to impact ☐ Lift arms and/or bushings may be worn ☐ Rotary deck yoke and attaching components may be worn
Grass buildup on roller affecting HOC	☐ Roller scraper missing or out of adjustment
Grass buildup between rear roller ends and HOC casting	☐ HOC set too low for turf height and conditions; not following "1/3" rule
Turf scuffing	☐ Travel speed too fast in turns or on slopes; tires skidding or slipping
Loss of traction while mowing or traveling across slope	☐ Tires not inflated to correct pressure ☐ Ground/Mow speed too fast for turf conditions ☐ Slope angle too steep for turf conditions ☐ Rotary decks in raised position, affecting machine stability

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Service Intervals

Before Each Use

- ☐ Check engine oil
- ☐ Check hydraulic oil
- ☐ Check coolant
- ☐ Check for leaks
- ☐ Inspect tires and check air pressure
- ☐ Check safety interlock system
- ☐ Check brake system
- ☐ Check air filtration system
- ☐ Check for loose, missing, or damaged parts
- ☐ Check all safety guards and shields
- ☐ Check fuel/water separator
- ☐ Check pedals and/or steering control
- ☐ Check seat belt

After Each Use

- ☐ Check/fill fuel
- ☐ Clean debris from machine
- ☐ Clean debris from cooling system
- ☐ Clean debris from cutting units and attachments
- ☐ Lubricate machine after washing

Storage Tips

Preparing Machine for Long Term Storage

Note: Filling the fuel tank reduces the amount of air in the fuel tank and helps reduce deterioration of fuel.

- ☐ If you have been using "Stabilized Fuel," add stabilized fuel to tank until the tank is full. (See your Operator Manual for specific procedure.)
- ☐ If you have NOT been using "Stabilized Fuel," run engine until it runs out of fuel. (See your Operator Manual for specific procedure.)
- ☐ Service air cleaner.
- ☐ Clean debris from engine air intake screen, oil cooler coils and radiator cooling fins (if equipped).
- ☐ Check engine coolant level and freeze point.
- ☐ Check belts for damage and proper tension.
- ☐ Remove, charge, and store battery in a cool, dry place.
- ☐ Close fuel shut-off (if your machine is equipped).
- ☐ Store machine in a dry, protected place. If outside, put a waterproof cover over it.

Preparing Machine to Resume Operation

- ☐ Check tire pressure.
- ☐ Wipe grease off cutting units.
- ☐ Install cutting units (if removed).
- ☐ Be sure all shields, guards, or deflectors are in place.
- ☐ Check engine oil level.
- ☐ Check hydraulic oil in reservoir.
- ☐ Check all hoses, clamps, and connections.
- ☐ Check, charge and install battery.
- ☐ Lubricate all grease points.
- ☐ Open fuel shut-off, if your machine is equipped.

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