Operating

Daily Operating Checklist

o Test safety systems.

o Check tire pressure.

o Check fuel level.

o Check engine oil level.

o Check transaxle oil level.

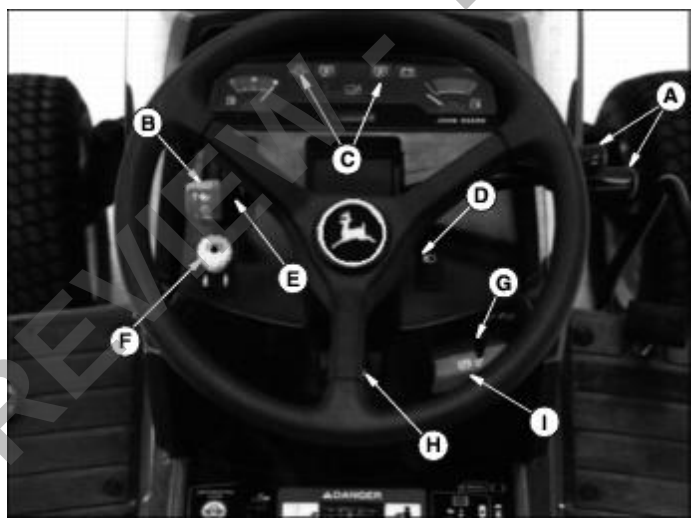
o Check coolanat level.

o Check Air Restriction Indicator (if so equipped).

o Clean air intake screens.

o Remove grass and debris from machine.

Dash Controls



M71462

A - Hydraulic Control Levers

B - Throttle Lever

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Safety

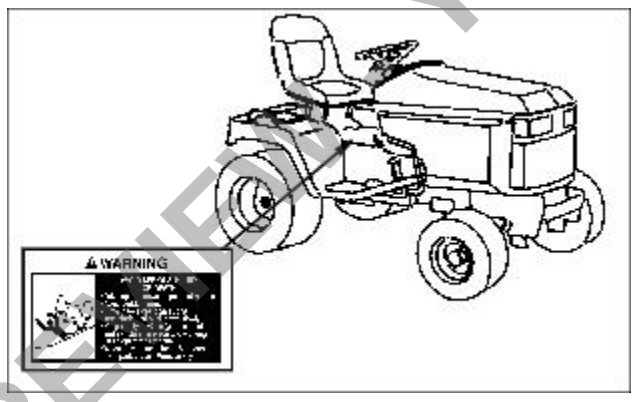
Safety-Alert Symbol



Read and recognize safety information. Be alert to the potential for personal injury when you see this safety-alert symbol.

On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards. In this manual, the word CAUTION and this symbol call attention to safety messages.

WARNING: AVOID SERIOUS INJURY OR DEATH



m40180A

· Drive up and down slopes, not across.

· Avoid sudden turns.

· If machine stops going uphill, stop blade and back down slowly.

· Keep safety devices (guards, shields, and switches) in place and working.

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2. Slide seat forward or backward to desired position.

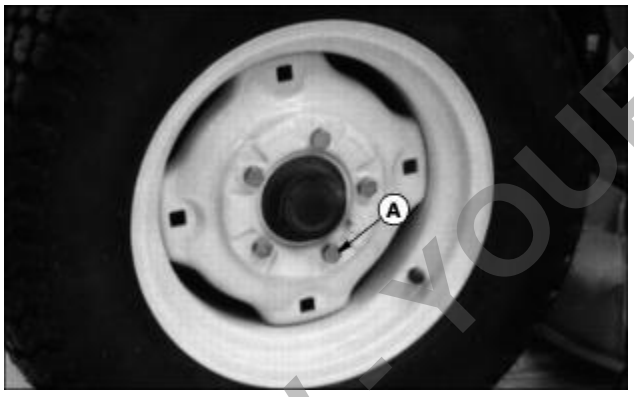
3. Release lever.

Rear Wheel Spacing (Two Wheel Steer Models With 23 x 10.50-12 Tires)

IMPORTANT: Avoid damage! On 26 x 12.00-12 tire option, wheels should always be in the wide position.

c CAUTION: Avoid injury! Do not work under a raised tractor unless it is safely supported. A tractor that slips and falls off a jack could cause serious injury or death.

1. Park tractor on level surface. STOP engine. LOCK park brake. Put blocks in front and back of front wheels.



M71459

2. Loosen five rear wheel bolts (A). Lift rear wheels off the ground with floor jack or hoist.

3. Remove wheel bolts.

4. Install wheels as follows:

· Turf tires: Install wheel on same side of tractor with valve stem inside.

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Checking Air Restriction Indicator (Optional Equipment)

1. STOP engine.

2. Raise hood.

NOTE: Indicator will not signal correctly if indicator case has a break.



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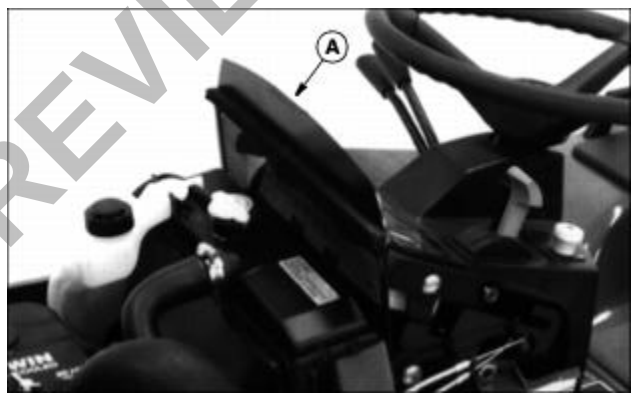
3. Check air restriction indicator: When yellow plunger (B) inside indicator reaches red line (A), air cleaner requires immediate service.

4. Lower hood.

NOTE: Under normal operating conditions, it is not unusual to operate tractor for several hundred hours before indicator will show any restriction.

Cleaning Radiator Screen and Fins

1. Raise hood.

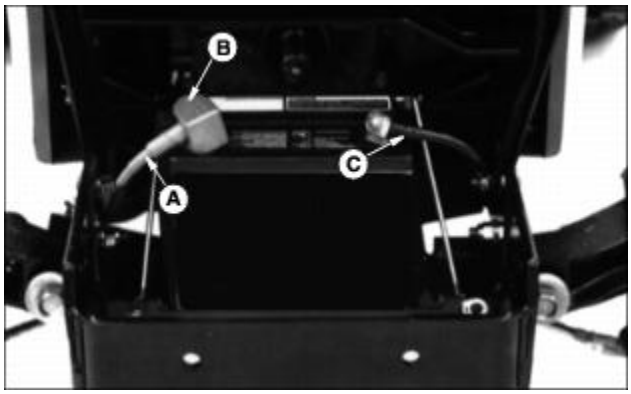


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2. Remove screen (A).

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· Connect red positive (+) cable (A) behind battery. Connect cable. Apply petroleum jelly or silicone spray to terminal to prevent corrosion. Make sure connection is tight. Push red positive cover (B) over positive terminal.

· Connect black negative (-) cable (C) to battery. Apply petroleum jelly or silicone spray to terminal to prevent corrosion. Make sure connection is tight.

· Install grille.

Checking Battery Electrolyte Level

c CAUTION: Avoid injury! Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

· Wear eye protection and avoid spilling or dripping electrolyte.

1. Remove grille.

IMPORTANT: Avoid damage! DO NOT fill cells to the bottom of the filler neck (B). Electrolyte can overflow when battery is charged and cause damage.

2. Remove battery manifold cap(s).

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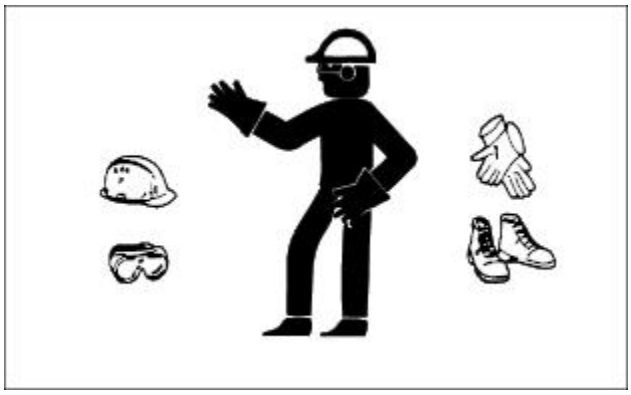
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broken parts. Remove any buildup of grease, oil, or debris.

· Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on tractor.

· Unauthorized modifications to the tractor may impair its function and safety.

Wear Appropriate Clothing



· Wear close fitting clothing and safety equipment appropriate for the job.

· Loud noise can cause impairment or loss of hearing, wear a suitable protective device such as earplugs.

· Do not wear radio or music headphones while servicing the machine. Safe service requires your full attention.

Stay Clear of Rotating Drivelines



Entanglement in rotating driveline can cause serious injury or death:

· STOP the engine and be sure PTO driveline is stopped before getting near it.

Handling Waste Product and Chemicals

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A - Fuel Gauge - indicates fuel level.

B - Oil Pressure Indicator Light - will come on when engine oil pressure is too low. If indicator comes on during operation, stop engine and perform appropriate service. This is an indication that the engine is low on oil.

C and D - PTO Indicator Lights - will come on when mid/front or rear PTO is engaged.

E - Battery Discharge Indicator Light - will come on when output is too low. If indicator comes on during operation, stop engine and perform appropriate service.

F - Coolant Temperature Gauge - indicates temperature of the cooling system.

G - Hour Meter - shows the number of hours the engine has run. Check the hour meter daily to see what services from the **Service Interval Chart** in Service section need to be done.



M71629

H - Injection System Failure indicator (Model 445 Only) - will come on for a few seconds when you turn key to the RUN position.

The injection system failure indicator serves as an injection system diagnostic tool. When there is a problem with one of the fuel injection sensors, the indicator will blink. This light has two signals, a

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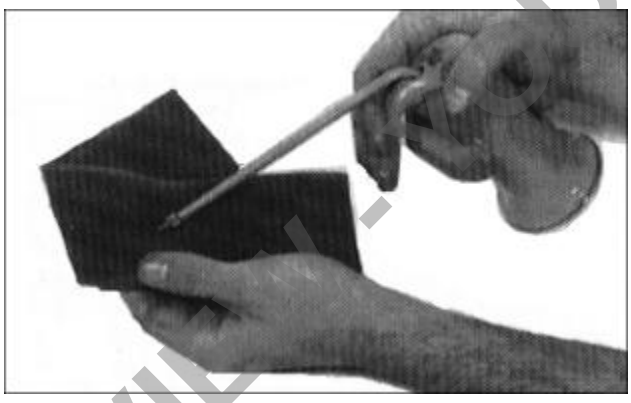
· Wash precleaner in warm, soapy water.

· Rinse precleaner in clean water.

· Squeeze precleaner to remove most of the water.

· Let precleaner air dry.

· Apply 30 mL (1 oz) of clean engine oil to precleaner.



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· Squeeze precleaner to distribute oil evenly and to remove excess oil.

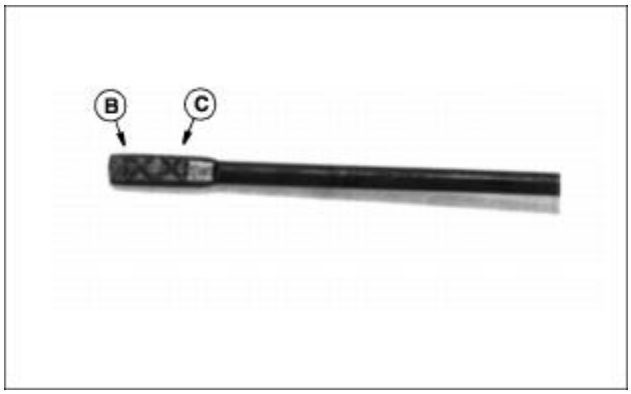
5. Install precleaner on new element and install air cleaner.

6. Install air cleaner cover and wing nuts.

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Tractor is filled with John Deere Low Viscosity HY-GARD® (J20D) fluid at the factory.



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5. Remove dipstick. Oil level should be between marks (B) and (C).

6. If oil is low, add John Deere Low Viscosity HY-GARD® or an equivalent J20D transmission oil.

7. Install dipstick.

8. Run engine for a few minutes. Stop engine and check transaxle oil level. Add oil as necessary.

9. Install and tighten dipstick.

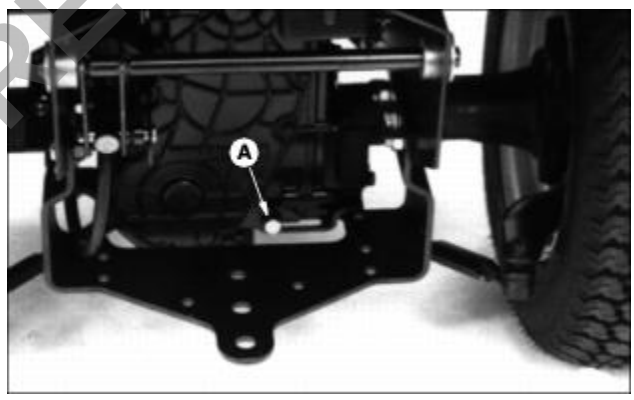
10. Return seat to operating position.

Changing Transaxle Oil and Filter

NOTE: Change transaxle oil filter after first 50 hours of break-in operation.

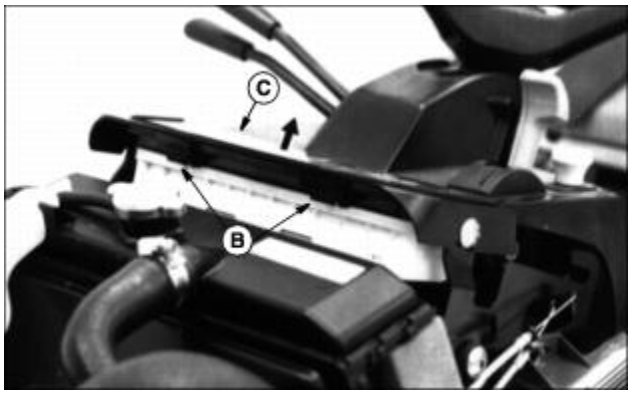
1. STOP engine and engage park brake.

NOTE: While oil is draining, change the filter. Some oil may come out of the filter and filter base when you remove the filter. Be sure drain pan is under filter also.



m71513

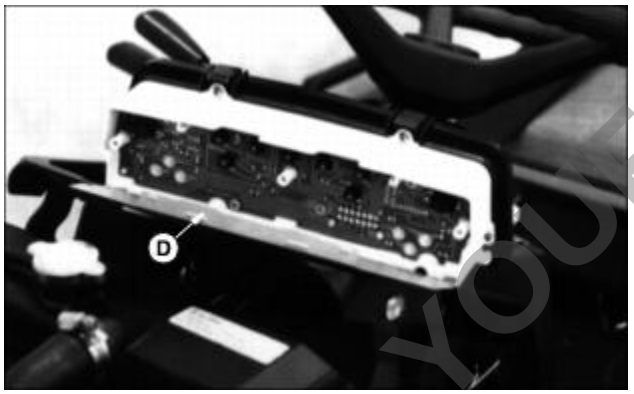
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3. Push in on clips (B) to lift out indicator light panel (C).

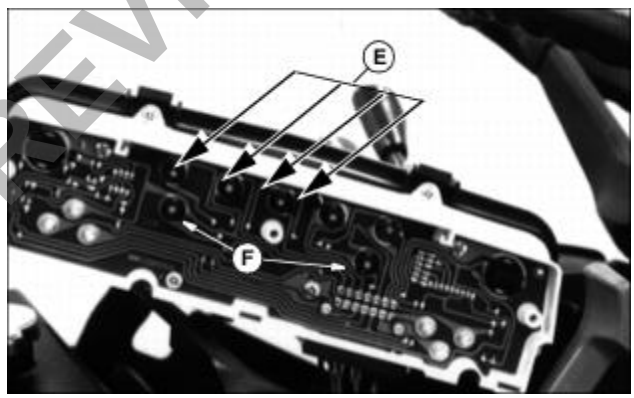
NOTE: You do not need to disconnect panel wires.



M71523

4. Push down on tabs and pull out panel back (D).

5. Turn bad bulb socket to the left to remove it.



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6. Bulbs and sockets (E) can be replaced with bulbs and sockets (F). Remove and install good bulb

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