LT133, LT155, and LT166 Lawn Tractors (Serial No. 045,001-)

JOHN DEERE

OPERATORS MANUAL

LT133, LT155, and LT166 Lawn Tractors (Serial No. 045,001-)

OMM138782 L8 English

jdservicemanual.com

John Deere
Worldwide Commercial and Consumer Equipment Division

OMM138782 L8

North American Version

LITHO IN U.S.A.
ENGLISH

D C Y

O M M 1 3 8 7 8 2 L 8

INTRODUCTION

THANK YOU for purchasing a John Deere product.

Read this manual and your attachment manuals thoroughly. Failure to do so could result in personal injury or equipment damage.

WARNING: The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

CALIFORNIA Proposition 65 Warning

This manual should be considered a permanent part of your machine and should remain with the machine when you sell it.

Measurements in this manual are metric units and their U.S. customary equivalents. RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the machine will travel when going forward. When you see a broken line arrow (--------->) it indicates the part it is pointing to is hidden.

Record identification numbers below. Be sure to record all the numbers to help in tracing the machine if it is stolen. You also need to give these numbers to your dealer when you order parts.

Date of Purchase:	Dealer Name: Phone:
_____	_____

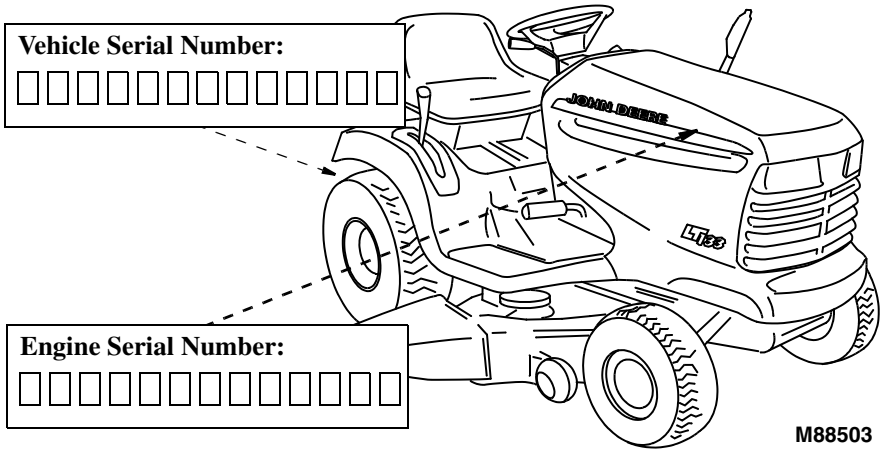


TABLE OF CONTENTS

	Page
Safety	1
Controls	5
Operating the Machine	7
Operating the Mower	29
Lawn Care	42
Replacement Parts	50
Service Machine Safely	52
Service Intervals	54
Service-Engine	56
Service-Transmission	67
Service-Steering and Brakes	68
Service-Mower	70
Service-Electrical	87
Service-Miscellaneous	97
Removing Mower	105
Installing Mower	108
Troubleshooting	111
Storing Vehicle	119

TABLE OF CONTENTS

Page

Assembly 123

Specifications 126

Warranty 132

Index 139

John Deere Service Literature 147

All information, illustrations and specifications in this manual are based on the latest information at the time of publication. The right is reserved to make changes at any time without notice.

COPYRIGHT© 1998
Deere & Co.
John Deere Worldwide Commercial and Consumer Equipment Division
Horicon, WI
All rights reserved
Previous Edition
COPYRIGHT© 1997

NOTES

NOTES

SAFETY SIGNS

Safety-Alert Symbol

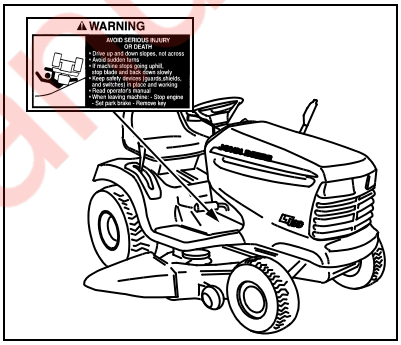
Read and recognize safety information. Be alert to the potential for personal injury when you see this safety-alert symbol.

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.

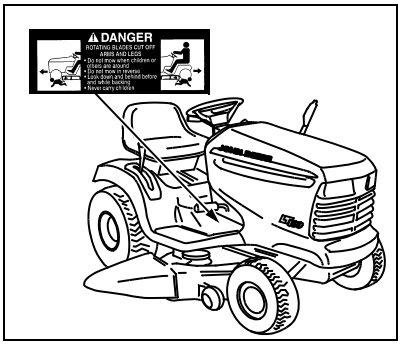
Machine Safety Labels

WARNING: AVOID SERIOUS INJURY OR DEATH



• 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.
• Read Operator's Manual.
• When leaving machine: Stop engine, Set park brake, Remove key.

DANGER: ROTATING BLADES CUT OFF ARMS AND LEGS



• Do not mow when children or others are around.
• Do not mow in reverse.
• Look down and behind before and while backing.
• Never carry children.

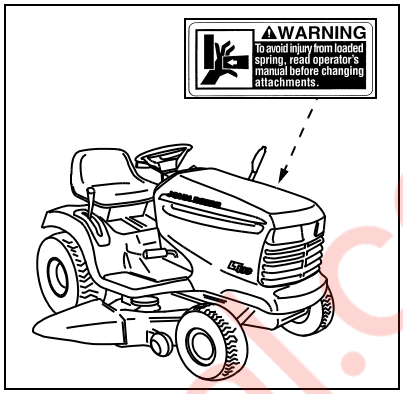
jdservicemanual.com

SAFETY SIGNS

WARNING

To avoid injury from loaded spring, read Operator's Manual before changing attachment.

- **Located on Left-Hand Side of Tractor Frame with 46-Inch Deck and when Optional Lift Assist Kit is installed on 38-Inch or Freedom42 Deck**

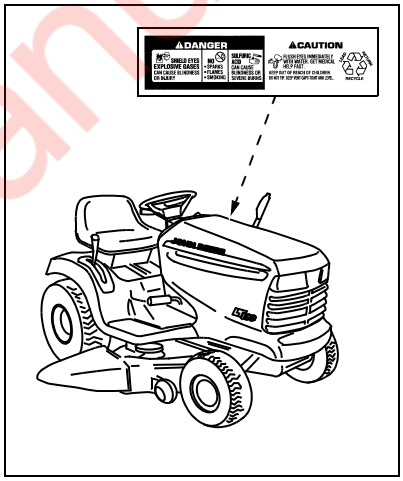


DANGER: SHIELD EYES-
EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY

NO SPARKS, FLAMES, SMOKING

SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS

- **Located on Battery**



CAUTION: FLUSH EYES IMMEDIATELY WITH WATER. GET MEDICAL HELP FAST.

KEEP OUT OF REACH OF CHILDREN.
DO NOT TIP.
KEEP VENT CAPS TIGHT AND LEVEL.

- **Located on Battery**

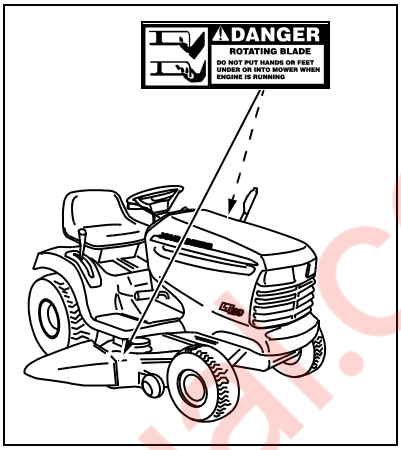
jdservicemanual.com

SAFETY SIGNS

DANGER: ROTATING BLADE

• DO NOT PUT HANDS OR FEET UNDER OR INTO MOWER WHEN ENGINE IS RUNNING

- **38-Inch Deck used for Illustration. Decals are located on: Left-Hand Side of ALL Decks (and) Right-Hand Side of 42-Inch Deck**



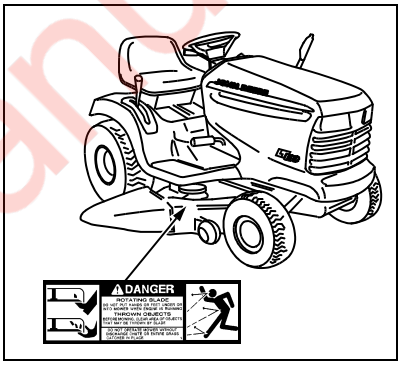
DANGER: ROTATING BLADE

DO NOT PUT HANDS OR FEET UNDER OR INTO MOWER WHEN ENGINE IS RUNNING

THROWN OBJECTS

BEFORE MOWING, CLEAR AREA OF OBJECTS THAT MAY BE THROWN BY BLADE

DO NOT OPERATE MOWER WITHOUT DISCHARGE CHUTE OR ENTIRE GRASS CATCHER IN PLACE



- **Located on Right-Hand Side of 38-Inch and 46-Inch Deck**

jdservicemanual.com

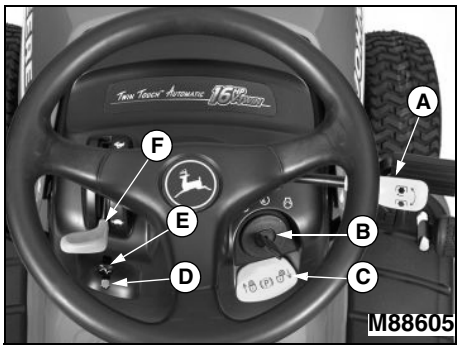
Certification Label

This OPEI label on your mower indicates that this model has been certified by an independent laboratory for compliance with American National Standard B-71.1-1996, “Safety Specifications” for Power Lawn Mowers, Lawn and Garden Tractors, and Lawn Tractors.

CONTROLS

Console Controls

A - Mower Blade Engagement Lever
B - Key Switch
C - Park Brake Lever
D - RIO Switch
E - Choke Knob (LT166 Only)
F - Throttle Lever
G - Mower Height Control Knob
H - Mower Lift Lever

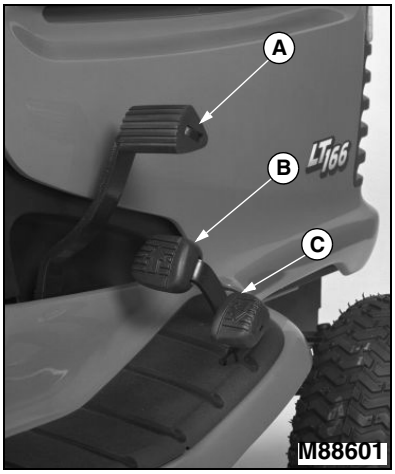


Foot/Platform Controls (LT133)

A - Brake/Clutch Pedal
B - Transmission Shift Lever

Foot Controls (LT155 and LT166)

A - Brake Pedal
B - Forward Travel Pedal
C - Reverse Travel Pedal



OPERATING THE MACHINE

SAFETY

Operate Safely

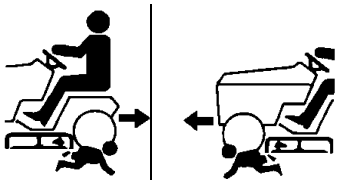
- Check brake action before you operate. Adjust or service brakes as necessary.
- Inspect machine before you operate. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure guards and shields are in good condition and fastened in place. Make any necessary adjustments before you operate.
- Clear work area of objects that might be thrown. Keep people and pets out of the work area. Stop machine if anyone enters the area.
- If you hit an object, stop the machine and inspect it. Make repairs before you operate. Keep machine and attachments properly maintained and in good working order.
- DO NOT leave machine unattended when it is running.
- Only operate during daylight or with good artificial light.
- Be careful of traffic when operating near or crossing roadways.
- Do not wear radio or music headphones while operating the machine. Safe operation requires your full attention.

Park Safely

- Stop machine on a level surface, not on a slope.
- Disengage mower blades.
- Lower attachments to the ground.
- Engage park brake.
- STOP engine.
- Remove key.
- Before you leave the operator's seat, wait for engine and all moving parts to STOP.

OPERATING THE MACHINE

Rotating Blades are Dangerous - Protect Children and Prevent Accidents



PROTECT CHILDREN:

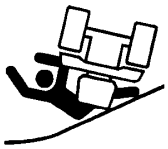
- Never assume that children will remain where you last saw them. Children are attracted to mowing activity, stay alert to the presence of children.
- Keep children in the house when you are operating the machine.
- Turn machine off if a child enters the mowing area.
- Use extra care when you come to blind corners, shrubs, trees, or other objects that may block your vision.
- DO NOT let children or an untrained person operate the machine.
- DO NOT carry or let children ride on machine or any attachment. DO NOT tow children in a cart or trailer.

HELP PREVENT SERIOUS OR FATAL ACCIDENTS:

- Be alert at all times, drive forward carefully. People, especially children can move quickly into the mowing area before you know it.
- Back carefully. Shut off PTO and look behind the machine carefully, especially for children, before you back up.
- DO NOT mow in reverse.
- Shut off PTO when you are not mowing.
- DO NOT operate machine if you are under the influence of drugs or alcohol.

OPERATING THE MACHINE

Avoid Tipping



- DO NOT drive where machine could slip or tip.
- Stay alert for holes and other hidden hazards in the terrain.
- Keep away from drop-offs.
- Slow down before you make a sharp turn or operate on a slope.
- When pulling loads or using heavy equipment, use only approved hitches, limit loads to those you can safely control, and use counterweights or wheel weights when required per this manual or your attachment manual.
- Drive up and down a hill - not across. Be careful when you change direction on a slope.
- DO NOT stop when going up hill or down hill. If machine stops going up hill, DISENGAGE mower blades and back down slowly.
- Be careful when mowing wet grass. Reduced traction could cause sliding.
- DO NOT try to stabilize the machine by putting your foot on the ground.

Keep Riders Off

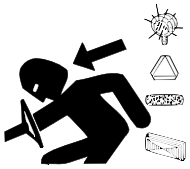
- Only allow the operator on the machine. Keep riders off.
- Riders on the machine or attachment may be struck by foreign objects or thrown off the machine causing serious injury.
- Riders obstruct the operator's view resulting in the machine being operated in an unsafe manner.

OPERATING THE MACHINE

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.

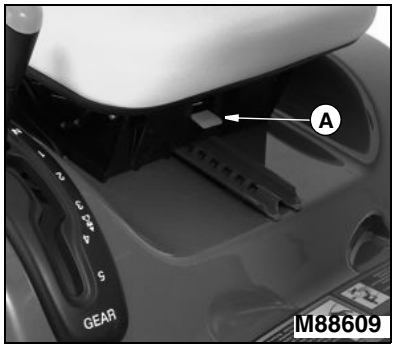
Transport Safely



- Use safety lights and devices. Slow moving machines when driven on public roads are hard to see, especially at night. Avoid personal injury or death resulting from a collision with a vehicle.
- Whenever driving on public roads, use flashing warning lights and turn signals according to local regulations. Extra flashing warning lights may need to be installed.

Adjusting Seat

1. Pull bracket (A) up, out of locked position.
2. Slide seat forward or rearward to desired position.
3. Release bracket.



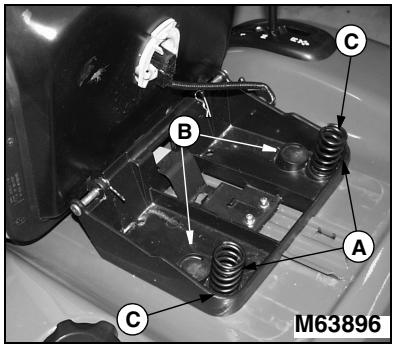
Adjusting Seat Suspension

Tip seat forward and move springs (A) for softer or tighter suspension.

For SOFTER suspension:
Move springs forward to position (B).

For TIGHTER suspension: Springs should be in rearward position (C).

NOTE: An additional set of springs, for a total of four springs, can be installed for even stiffer suspension. (See your John Deere dealer.)



Using Park Brake

CAUTION: To avoid injury, always LOCK park brake before getting off machine or leaving machine unattended.

NOTE: LT155 Model Shown

LOCKING PARK BRAKE:

1. Depress brake pedal (A) and hold.
2. Move park brake lever (B) UP to LOCK park brake.
3. Release brake pedal. Pedal should stay down and park brake lever should stay locked.

UNLOCKING PARK BRAKE:

1. Depress brake pedal (A) and hold.
2. Move park brake lever (B) DOWN to UNLOCK park brake.
3. Release brake pedal.

OPERATING THE MACHINE

Starting Engine

CAUTION: Start engine ONLY outdoors or in a well ventilated place. Exhaust fumes are dangerous.

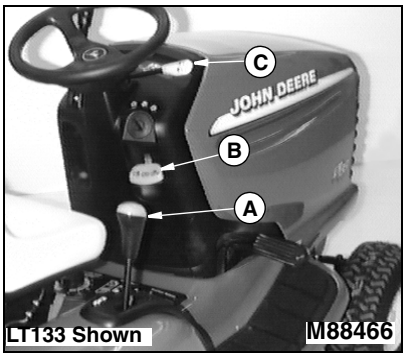
IMPORTANT: Do not operate starter more than 20 seconds at a time, or you may damage it.
If engine does not start:
- **Wait two minutes before you try again.**
- **See Troubleshooting section.**

NOTE: Engine will not start unless; mower blade engagement lever is DISENGAGED, park brake is LOCKED or brake pedal pushed down.
On LT133 model: The transmission shift lever should be in N (NEUTRAL) position.

1. On LT133 Gear Model: Move transmission shift lever (A) to N (NEUTRAL) position.

2. LOCK the park brake (B).

3. Pull mower blade engagement lever (C) rearward to DISENGAGE.



4. Check starting conditions:
- **If engine is COLD**:
  ON LT133 AND LT155: Move throttle lever (D) all the way up to the choke ( ) position.
  ON LT166: Move throttle lever (D) to the HALF-SPEED ( ) position, pull choke knob (E) out to the ON ( ) position and gradually return the choke to the OFF position after the engine starts and warms up.

- **If engine is WARM:**
  ON LT133 AND LT155:
  Move throttle lever (D) to the HALF-SPEED (⏲) position.
  ON LT166: Pull choke knob (E) out to the ON (⚠) position and return choke to the OFF position as soon as the engine starts.

IMPORTANT:	**Headlights will be ON when the tractor is running. To avoid overcharging the battery, DO NOT disconnect or unplug headlights.**

5. Turn key (F) to START position.

If engine is COLD:
- Crank engine 5 seconds.
- If engine does not start, wait 10 seconds.
- Crank engine again 5 seconds.
- Repeat this procedure if necessary.

NOTE: This crank procedure will improve starting and will reduce the chance of flooding and muffler backfire.

6. When engine starts, release key to RUN position.

7. Move throttle lever to HALF-SPEED (⏲) position.

8. Let engine run for a couple of minutes to warm-up before operating machine.

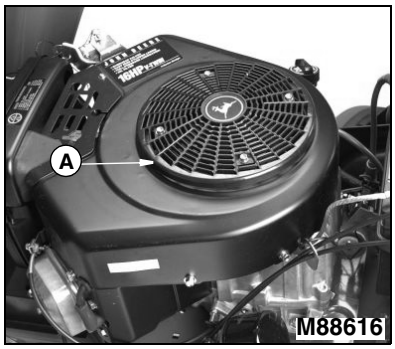
Warming and Idling Engine

WARMING ENGINE:

- Run Engine at half speed for 2–3 minutes.

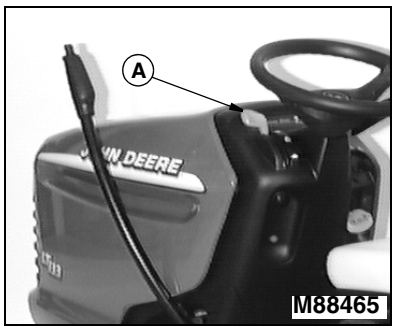
IDLING ENGINE:

- Engine is air cooled and needs a large volume of air to keep cool. Keep air intake screen (A) on top of engine clean.
- Avoid unnecessary engine idling.

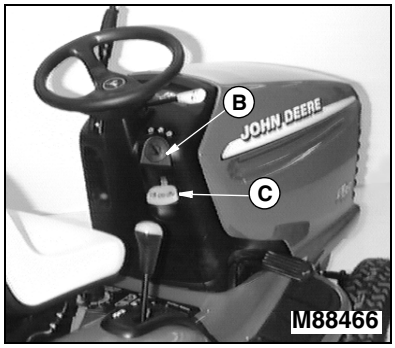


Stopping Engine

1. Move throttle lever (A) to SLOW (🐢) position. Let engine run at low throttle a few seconds.



2. Turn key (B) to OFF position.
3. Remove key.
4. LOCK the park brake (C).



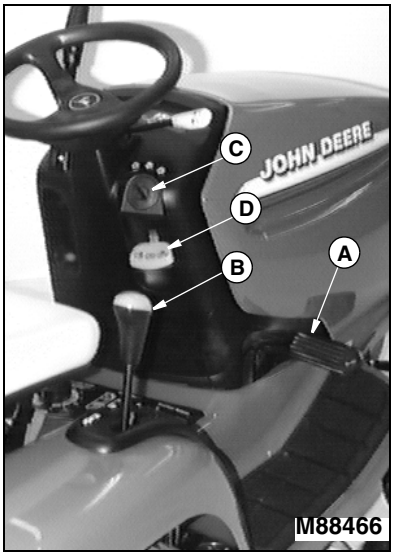
Using and Stopping Gear Transmission (LT133)

CAUTION: TO AVOID INJURY:
- **Before moving forward or rearward, make sure area is clear of bystanders, especially children.**
- **Disengage mower before backing up.**

IMPORTANT: To prevent transmission damage: STOP machine movement before shifting between REVERSE and FORWARD.

TO TRAVEL FORWARD:

1. Push clutch/brake pedal (A) all the way down to stop machine.
2. Move shift lever (B) to desired forward ( ) position.
3. Release clutch/brake pedal slowly.



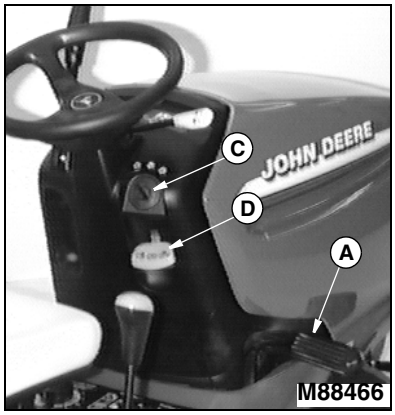
TO TRAVEL IN REVERSE:

NOTE: The engine and any operating attachment will stop as the gear shift lever is moved to R (REVERSE) position with attachment engaged.

1. Push clutch/brake pedal (A) all the way down to stop machine.
2. Return mower engagement lever to the OFF position.
3. Look behind the vehicle to be sure there are no bystanders nearby.
4. Move shift lever (B) to R (REVERSE) ( ) position.
5. Release clutch/brake pedal slowly.

FOR EMERGENCY STOPPING:

1. Push down clutch/brake pedal (A).
2. Turn ignition key switch (C) to the OFF position.
3. LOCK the park brake (D).



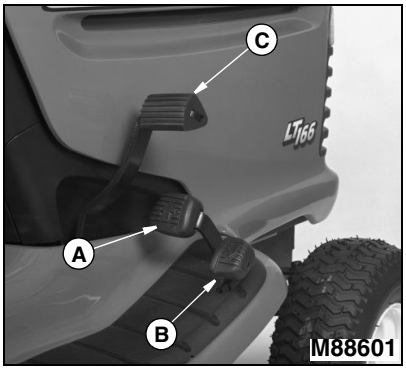
Using and Stopping Automatic Transmission (LT155 and LT166)

CAUTION: TO AVOID INJURY:
- **Before moving forward or rearward, make sure area is clear of bystanders, especially children.**
- **Disengage mower before backing up.**

TO TRAVEL FORWARD:
Push down FORWARD pedal (A).

TO TRAVEL IN REVERSE:

1. Bring the vehicle to a stop.
2. Return mower engagement lever to the OFF position.
3. Look behind the vehicle to be sure there are no bystanders nearby.
4. Push down REVERSE pedal (B).



FOR EMERGENCY STOPPING:
Push brake pedal (C). Travel pedals (A and B) will return to N (NEUTRAL) position.

Using The Reverse Implement Option

CAUTION: TO AVOID INJURY: Before moving forward or rearward, make sure area is clear of bystanders, especially children.

NOTE: Operating the mower while backing up is strongly discouraged. The Reverse Implement Option should be used ONLY when operating another attachment or when the operator deems it necessary to reposition the machine with the mower engaged.

1. Stop the machine FORWARD travel with attachment engaged.

2. Look behind the vehicle to be sure there are **no bystanders**.

3. Push and hold in the reverse implement switch (A) while:

- depressing REVERSE foot pedal slightly for Hydrostatic Transmission

OR

- moving the gear shift lever to the R (REVERSE) position for Gear Transmission.

NOTE: If the engine and attachment stop while repositioning the machine, return mower engagement lever to the OFF position and restart the machine. (See Starting The Engine in this section.) Begin again with Step 2.

4. As the machine begins to move rearward, release the reverse implement switch and reposition the machine.

5. Resume FORWARD travel. The attachment should continue operating.

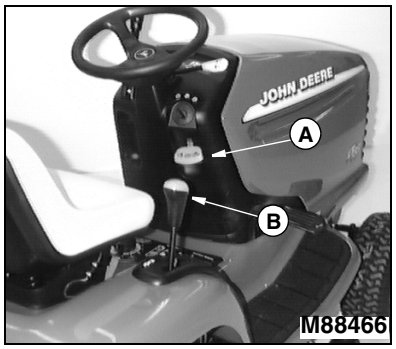
6. Repeat Steps 1 through 5 to reposition the machine again.

Pushing Machine

IMPORTANT: Avoid transmission damage, DO NOT tow machine.

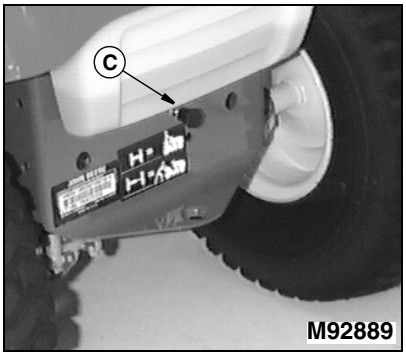
To move machine when engine is STOPPED:

- Unlock the park brake (A).
- LT133: Put transmission shift lever (B) in N (Neutral).



IMPORTANT: On LT155 and LT166: Do Not operate tractor or start engine with the free-wheeling lever (C) out or transmission damage may occur.

- LT155 and LT166: Pull out on free-wheeling lever (C).
- Push machine to desired location.
- LT155 and LT166: Push free-wheeling lever (C) back into rear of tractor.



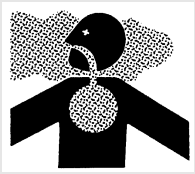
OPERATING THE MACHINE

DAILY OPERATING CHECKLIST

- ✓ Test safety systems.
- ✓Check tire pressure.
- ✓ Check fuel level.
- ✓ Check engine oil level.
- ✓ Remove grass and debris from machine.

TESTING SAFETY SYSTEMS

CAUTION: Engine exhaust fumes can cause sickness or death.



- **If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.**
- **If you do not have an exhaust pipe extension, open the doors and get outside air into the area.**

Use the following checkout procedure to check for normal operation of machine.

If there is a malfunction during one of these procedures, DO NOT operate machine. (See your John Deere dealer for service.)

Perform these tests in a clear open area. Keep bystanders away .

OPERATING THE MACHINE

NOTE: Your Lawn Tractor is equipped with a ELECTRONIC SAFETY INTERLOCK. Engine will not start unless:

Mower blade engagement lever is DISENGAGED.

Brake pedal is depressed <u>OR</u> parking brake is set.

Test 1

1. Operator on seat.

1. Unlock the park brake.

2. Pull mower blade engagement lever (A) back to DISENGAGE.

3. Try to start engine.

4. Engine MUST NOT start. If engine starts, there is a problem with your safety interlock circuit. (See your John Deere Dealer.)

Test 2

1. Operator on seat.

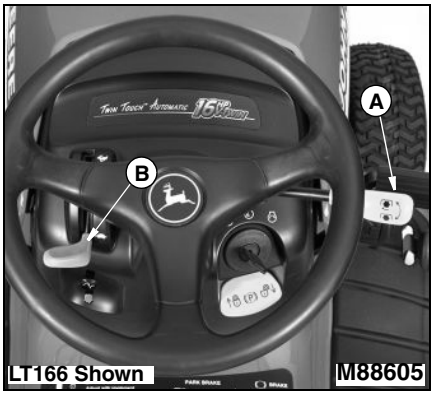
1. Lock the park brake.

2. Push mower blade engagement lever (A) forward to ENGAGE.

3. Try to start engine.

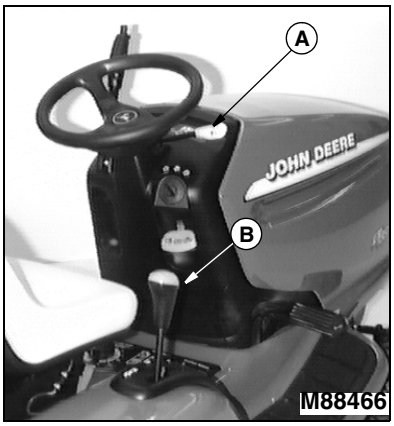
4. Engine MUST NOT start. If engine starts, there is a problem with your safety interlock circuit. (See your John Deere Dealer.)

Test 3



1. Operator on seat.
2. Lock the park brake.
3. Pull mower blade engagement lever (A) back to DISENGAGE.
4. Start engine and move throttle lever (B) to HALF-SPEED ( ) position.
5. Push mower blade engagement lever (A) forward to ENGAGE.
6. Move throttle lever to FAST ( ) speed position.
7. Raise up off of seat. DO NOT get off tractor.
8. Engine will begin to stop. If engine does not begin to stop, there is a problem with your safety interlock circuit. (See your John Deere Dealer.)

Test 4



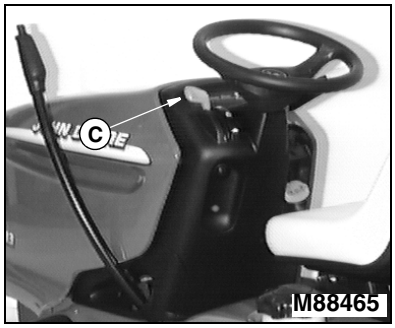
1. Operator on seat.
2. Push brake pedal down.
3. Pull mower blade engagement lever (A) back to DISENGAGE.
4. On LT133: Put transmission shift lever (B) in N (NEUTRAL) position.

5. Start engine and move throttle lever (C) to FAST (🐇) speed position.

6. Release brake slowly.

7. Raise up off of seat. DO NOT get off tractor.

8. Engine will begin to stop. If engine does not begin to stop, there is a problem with your safety interlock circuit. (See your John Deere Dealer.)



Test 5

1. Operator on seat.

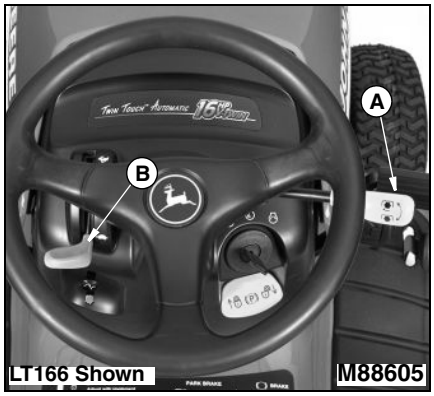
2. Lock the park brake.

3. Pull mower blade engagement lever (A) back to DISENGAGE.

4. Start engine and move throttle lever (B) to FAST (🐇) speed position.

5. Raise up off of seat. DO NOT get off tractor.

6. Engine MUST remain running. If engine does stop, there is a problem with your safety interlock circuit. (See your John Deere Dealer.)



Test 6

IMPORTANT:	**On LT155 and LT166: Do Not operate tractor or start engine with the free-wheeling lever (C) out or transmission damage may occur.**

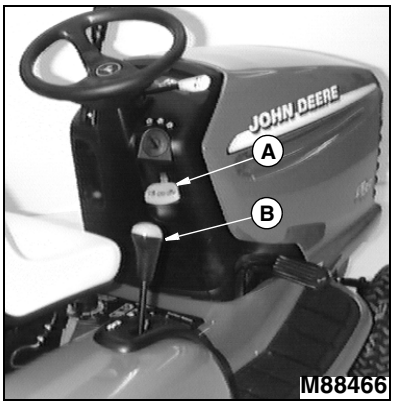
1. Lock the park brake (A).

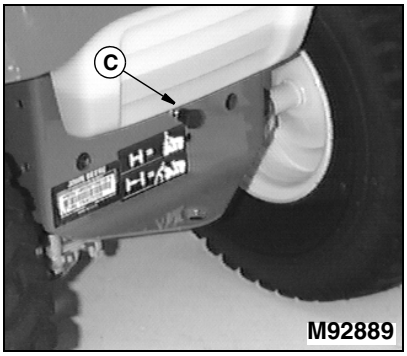
2. LT133: Put transmission shift lever (B) in N (Neutral).
LT155 and LT166: Pull out free-wheeling lever (C) to unlock.

3. Try to push machine manually.

4. Park brake MUST prevent machine from moving. If machine moves, parking brake needs to be adjusted. (See your John Deere Dealer.)

5. On LT155 and LT166: Push free-wheeling lever back in.





Test 7

CAUTION: TO AVOID INJURY: Before moving rearward, make sure area is clear of bystanders, especially children.

Test Reverse Implement Option:

1. Start engine.

2. Engage attachment.

3. Look behind the vehicle to be sure there are no bystanders.

4. Begin REVERSE travel by depressing REVERSE foot pedal for Hydrostatic transmission or moving gear shift lever to R (REVERSE) position for Gear transmission.

Attachment and engine should stop operation. If attachment or engine continues to operate as tractor begins travel in REVERSE, do not continue to operate attachment. See your John Deere dealer for service.

Using Front Weights

CAUTION: Tractor front wheel weights improve stability in most slope operation. To avoid injury, add front wheel weights for better front-end stability and steering when using a rear mounted attachment.

NOTE: Before installing wheel weights on your machine, MAKE SURE that the tire valve stems are facing to the inside.

Install front wheel weights for better stability and steering control when you use equipment such as the rear-mounted grass bagger.

Remove front wheel weights when not required.

Using Rear Weights

To use rear wheel weights, see your John Deere dealer.

The rear weights are recommended when a front blade is used.

Using Tire Chains

Tire chains are recommended for use with the front blade. (See your John Deere dealer for tire chains.)

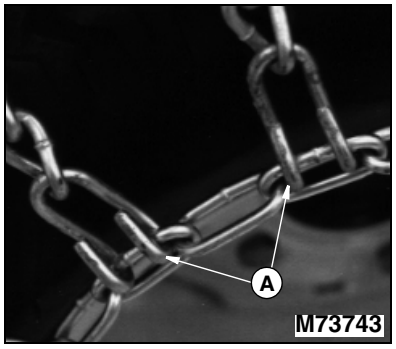
Preparing Tractor for Installing Chains on Tires

Park the machine on a level surface. Lock the park brake.

STOP the engine. Remove the key.

Installing the Chains

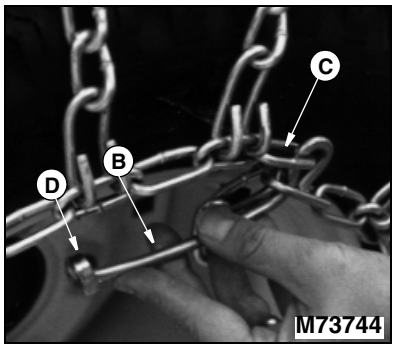
1. Remove chains from bag and lay out flat with the cross chain hook ends facing downward. Remove any twists and tangles from cross chain and rim chain.



2. Drive machine onto chains.

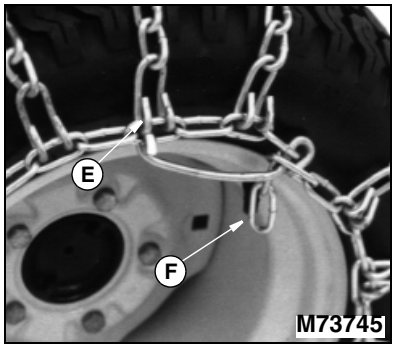
3. Drape chain over tire with the lever fastener on outside of tire and cross link hooks (A) facing upward and away from tire.

4. Adjust chain for straightness and an even amount of cross chain links on each side of tire.

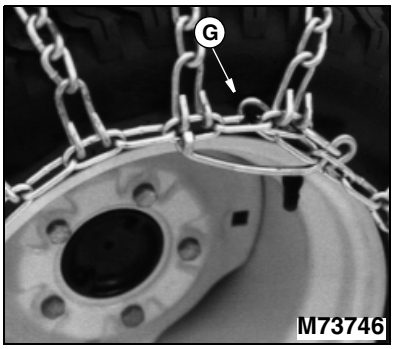


5. Place the first cross chain (opposite the end with fastener and inside hook) under tire.

6. Pull the inside rim chain tight and hook the inside hook. Pull the outside rim chain tight and hook the outside lever fastener (B) by running the end through a free link (C). Close the fastener by rotating it back 180 degrees and engaging the hook (D) on the end of the fastener into a rim chain link (E). Make sure the chain is centered on the tire with approximately the same number of free rim links (F) on the inside and outside.



7. Tie excess rim chain links (G) back to the rim chain.



8. The chain should be as tight as possible by hand. Unhook the fastener and repeat Step 5 if the chain is loose.

9. Drive forward on chains 30'-40' and recheck for tightness. Adjust as necessary.

IMPORTANT:
- **Periodically check chains for looseness and adjust when necessary.**
- **Maintain proper air pressure in tires.**

Transporting

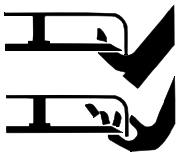
- DO NOT TOW lawn tractor.
- Use a heavy-duty trailer to transport your lawn tractor.
- Drive forward onto trailer.
- Lower mower to trailer deck. LOCK park brake.
- Be sure trailer has all the necessary lights and signs required by law.
- Fasten lawn tractor to trailer with heavy-duty straps, chains, or cables. Both front and rear straps must be directed down and outward from tractor.

OPERATING THE MOWER

SAFETY

Check Ground Conditions

- Clear mowing area of objects that might be thrown. Keep people and pets out of mowing area.
- Study mowing area. Set up safe mowing pattern. Do not mow under conditions where traction or stability is doubtful.
- First, test drive area with mower blade engagement lever DISENGAGED and mower lowered. Slow down when you travel over rough ground.



Avoid Injury From Contacting Blades

Before you dismount to unplug or adjust mower:

- DISENGAGE mower blade engagement lever to stop mower blades.
- STOP the engine.
- LOCK the park brake.
- Remove key.
- Wait for mower blades to STOP.
- Keep hands, feet and clothing away from mower deck when engine is running.
- DISENGAGE mower blade engagement lever to stop mower blades when you are not using mower.

Using Lift Lever to Raise and Lower Mower (Tractors with 38-Inch or Freedom42 Mower)

Check out the TWO different lift lever positions before operation:

- TRANSPORT (UPPER) POSITION: Raises mower for transport.
- MOWING (LOWER) POSITION: Maintains cutting height set by mower height control yet allows deck to float over uneven terrain.

To take mower out of TRANSPORT (upper) position:

- Pull lift lever (A) back slightly.
- Push in button (B).
- Push lever forward until it latches down.

To take mower out of MOWING (lower) position:

- Push forward on lift lever (A) slightly.
- Push in button (B).
- Pull lever back towards you.

Using Lift Lever to Raise and Lower Mower (Tractors with 46-Inch Mower)

Check out the THREE different lift lever positions before operation:

- TRANSPORT (UPPER) POSITION: Raises mower for transport.
- FLOAT (MIDDLE) POSITION: Mower should drop to desired cutting height by itself. UNDER NORMAL CONDITIONS, MOW WITH LEVER IN FLOAT (MIDDLE) POSITION.
- LOCK-OUT (LOWER) POSITION: Locks out lift assist spring. Use when mowing in rough terrain to prevent mower from latching into TRANSPORT (upper) position.

When lever (A) is in FLOAT (middle) position:

- To lift mower to TRANSPORT (upper) position: Pull lever all the way back until it clicks.
- To lower mower to LOCK-OUT (lower) position: Push lever forward until it clicks.

To take mower out of TRANSPORT (upper) position:

- Pull lever (A) back slightly.
- Push in button (B).
- Push lever forward.

To take mower out of LOCK-OUT (lower) position:

- Push forward on lever (A) slightly.
- Push in button (B).
- Pull lever back towards you.

Adjusting Cutting Height

IMPORTANT: Lift lever should be in TRANSPORT (upper) position before turning cutting height knob.

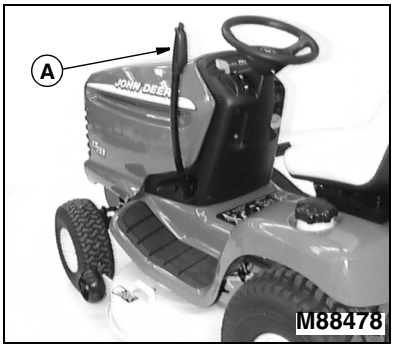
NOTE: For additional cutting information refer to Mowing Tips in the Lawn Care section.

Cutting height can be adjusted from approximately 25–100 mm (1–4 in).

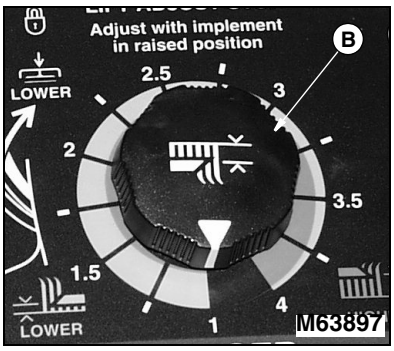
When lift lever is in TRANSPORT (upper) position (lift lever all the way back), cutting height is approximately 100 mm (4 in).

To change or attain desired cutting height:

- Pull lift lever (A) all the way back to TRANSPORT (upper) position.



- Turn cutting height knob (B) to desired cutting height position. Mower will be at this cutting height each time you lower it.



NOTE: Adjust mower wheels after you change cutting height. (See Adjusting Mower Leveling Wheels in this section.)

Adjusting Mower Leveling Wheels

CAUTION: To avoid injury, before you adjust wheels:
- **STOP engine**
- **Remove key.**
- **Wait for blades to STOP.**

IMPORTANT: Mower wheels must not ride on ground to support mower weight.
Check wheels each time you change cutting height.

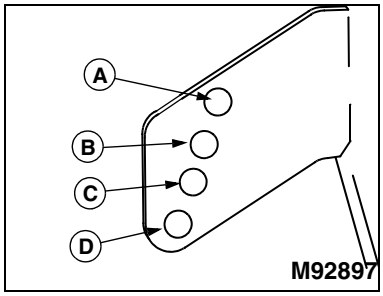
1. Check machine tire pressure. Inflate tires to the correct pressure. (See Checking Tire Pressure in Service-Miscellaneous section.)

2. Raise mower lift lever to TRANSPORT (upper) position and adjust cutting height. (See Adjusting Cutting Height in this section.)

3. Move lift lever forward to MOWING (lower) position.

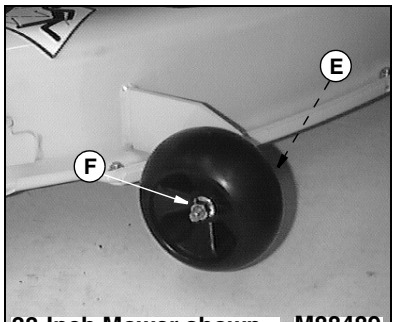
4. Check mower wheel position:
38 and 46-INCH MOWER: Bottom of wheels should be approximately 3-13 mm (1/8-1/2 in) from the ground. When cutting above 2 1/2 Inches, bolt should be installed in bottom hole (D).
FREEDOM42 MULCHING MOWER: Bottom of wheels should be approximately 3-13 mm (1/8-1/2 in) from the ground. When cutting 3 Inches and above, bolt should be installed in bottom hole (D).

	38 & 46-Inch Deck	Freedom42 Deck
A	1-Inch	1.5-Inch
B	1.5-Inch	2-Inch
C	2-Inch	2.5-Inch
D	2.5-Inch	3-Inch



5. If wheel position is not correct, remove bolt (E) and nut (F). Move mower wheels, one on each side, to hole for desired position.

6. Install bolt and nut and tighten:
38-INCH: 47 N•m (35 lb-ft)
Freedom42: 34 N•m (25 lb-ft)
46-INCH: 47 N•m (35 lb-ft)



38-Inch Mower shown M88489

Adjusting Mower Level (Side-to-Side)

CAUTION: To avoid injury, before you adjust mower: STOP engine, remove key, wait for blades to STOP.
Be careful, sharp edges on mower blades. Always wear gloves when handling mower blades.

1. Park machine on a hard, level surface.

2. Stop engine and remove key.

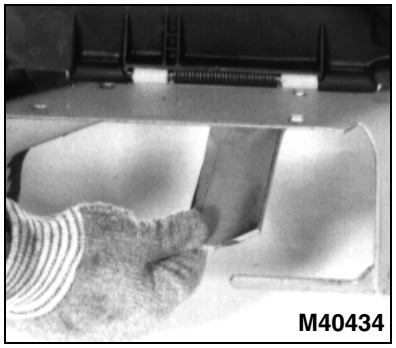
3. CHECK: Tire pressure must be correct. (See Checking Tire Pressure in Service – Miscellaneous section.)

4. Adjust cutting height to 50 mm (2 in). (See Adjusting Cutting Height in this section.)

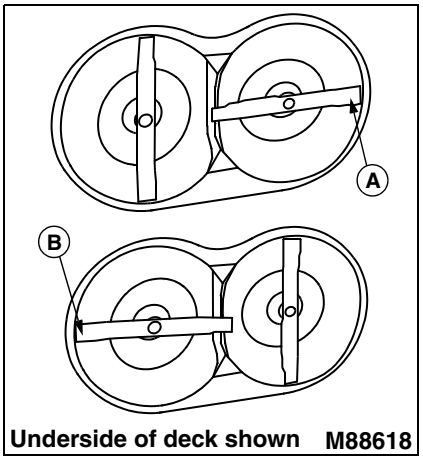
5. Put mower lift lever in MOWING (lower) position.

NOTE: Mower wheels should not contact the ground.

6. Position mower blades:
ON 38 and 46-INCH MOWERS:
Turn left blade parallel to machine axle. Hold drive belt and turn right blade parallel to axle.


M40434

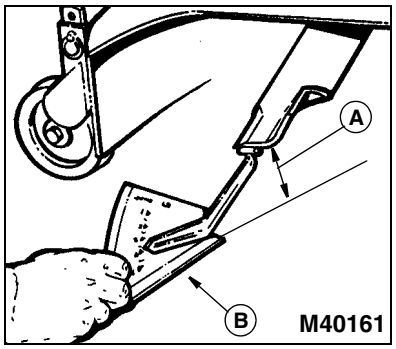
ON Freedom42 MULCHING MOWER: Turn left blade parallel to axle to measure left outside blade tip (A). Rotate blades 90° so that right blade is parallel to machine axle and then measure right outer blade tip (B).



Underside of deck shown M88618

NOTE: A convenient leveling gauge (B) is available from your John Deere dealer.

7. Measure from each outside blade tip (A) to the level surface. The difference between measurements must not be more than 3 mm (1/8 in).



M40161

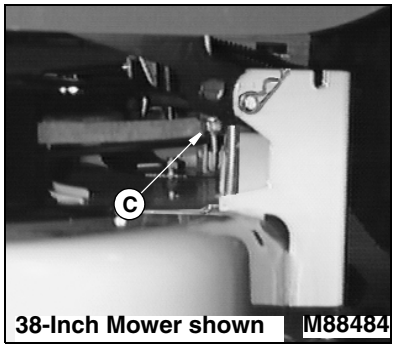
NOTE: Adjustable lift links are on both sides of mower.

Cutting Height can closely match knob setting by using adjustment on both sides.

DO NOT adjust deck too high or it will not lock in transport (Upper) position.

8. Turn nut (C), (left side shown):

- Clockwise to raise left side of mower.
- Counterclockwise to lower left side of mower.

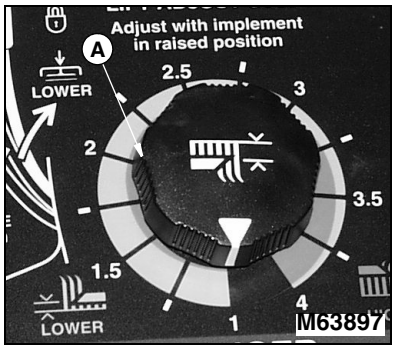


Adjusting Mower Level (Front-to-Rear)

CAUTION: To avoid injury, before you adjust mower: STOP engine, remove key, wait for blades to STOP.
Be careful, sharp edges on mower blades. Always wear gloves when handling mower blades.

1. Park machine on a hard, level surface.
2. Stop engine and remove key.
3. CHECK: Tire pressure must be correct. (See Checking Tire Pressure in Service – Miscellaneous section.)
4. Pull lift lever all the way back to TRANSPORT (upper) position.

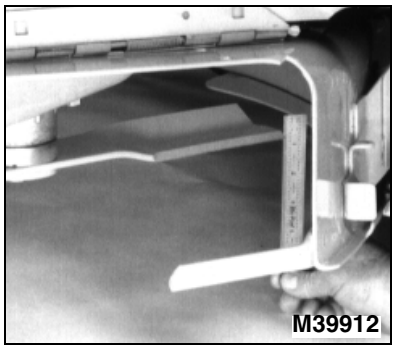
5. Turn mower depth control knob (A) to adjust cutting height to 50 mm (2 in).



6. Move lift lever forward to MOWING (lower) position.

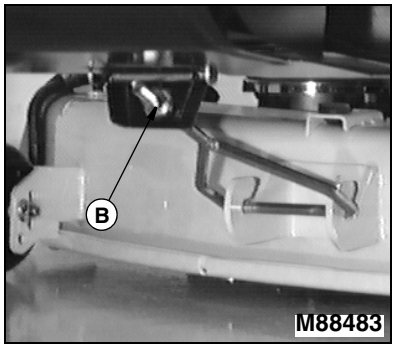
NOTE: Mower wheels should not contact the ground during leveling.

7. Turn right blade so blade tip points straight forward.



8. Measure from the front of blade tip to the level surface.
<u>38 AND 46-INCH DECK</u>: The front blade tip must be **6–9 mm (1/4–3/8 in.)** lower than rear blade tip or blades will cut grass twice and cause tips to turn brown.
<u>FREEDOM42 MULCHING MOWER</u>: The difference between front and rear measurements must not be more than **3 mm (1/8 in)**.

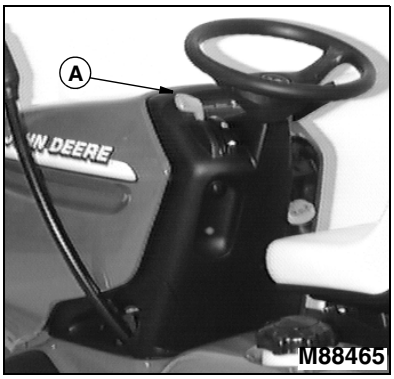
9. Turn front adjuster nut (B) clockwise to raise front of mower deck or counterclockwise to lower front of mower deck.



Engaging Mower

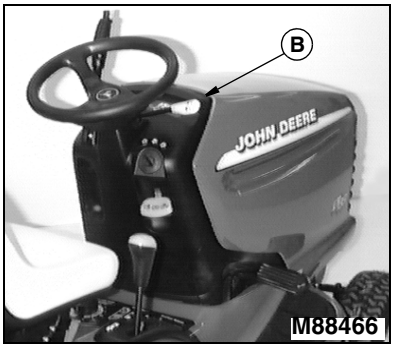
IMPORTANT: For best engine performance and cut quality, always operate engine at FULL THROTTLE (🐇) when mowing.

1. START engine.
2. Move throttle lever (A) to the FAST (🐇) position.



IMPORTANT: Machine may require 2–3 minutes warm-up period before engaging the mower deck.

3. Lower mower to cutting height.
4. Push mower blade engagement lever (B) forward to ENGAGE mower.



NOTE: The engine and any operating attachment will stop as the REVERSE foot pedal is depressed (Automatic transmission) or the gear shift lever is moved to the R (REVERSE) position (Gear transmission) with attachment engaged.

5. Return the mower engagement lever to the OFF position before shifting to REVERSE.

Disengaging Mower

IMPORTANT:	**DO NOT allow the mower blade engagement lever to snap back when disengaging.**

Pull mower blade engagement lever (A) back to DISENGAGE mower.

If you hit an object with mower while mowing, STOP mower and engine immediately.
Inspect mower for damage.

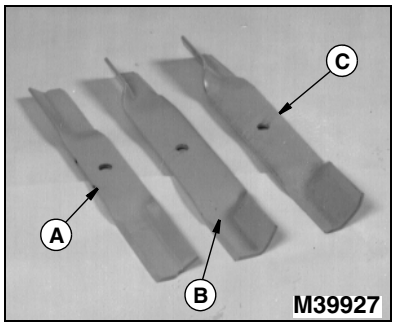
Using Correct Blades (38-Inch Mower)

LOW-LIFT BLADE (A):

- For cutting thin stands of grass.
- For dusty or dirty conditions.
- Do not use for bagging.

MEDIUM-LIFT BLADE (B):

- Standard on mower.
- For bagging an average stand of grass regularly.
- For cutting thicker grass without bagger attached.



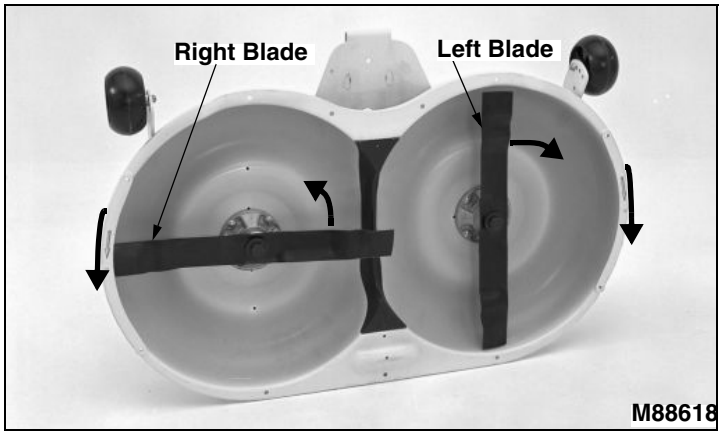
HIGH-LIFT BLADE (C):

- For cutting and bagging thick, tall grass and/or leaves.

Using Correct Blades (Freedom42 Mower)

Mulch Blades are standard on the Freedom42 Mower.

NOTE: The Freedom42 Mulching Mower Deck uses two different blades that must be installed on proper spindle. The left and right blades are identified on bottom surface and arrows are located on outside edge of the mower as well as the respective blade showing rotation.



Using Correct Blades (46-Inch Mower)

There is only one general purpose mower blade for the 46-Inch mower.

Dismounting to Inspect or Unplug Mower or Optional Bagger

CAUTION: To help prevent personal injury, do the following steps before you dismount to inspect or unplug mower or bagger.

1. STOP machine.
2. Pull mower blade engagement lever back to DISENGAGE mower.
3. Move throttle lever to SLOW (🐢) position.
4. Lower mower to the ground.
5. LOCK park brake.
6. STOP engine.
7. Remove key.
8. Wait for all moving parts to STOP.

Mowing Tips

Before mowing, be sure deck is leveled and mower wheels are in the proper position.

When you mow an area for the first time, travel SLOW and cut HIGH so you can:

- Learn the terrain.
- Learn the best mowing pattern.
- Help prevent hitting objects hidden in the grass.

Wet grass may plug mower and leave a trail of grass clumps. Wet cutting conditions do not adversely affect cutting performance when using the **Freedom42 Mulching Mower**. However, for best lawn health it is still better to mow when dry.

Mow grass often: Short grass clippings will decay quickly.

Mow at full throttle for best performance.

Use travel speed that fits conditions:

- Travel SLOW when you mow thick, tall grass.
- FAST travel or sharp turns may produce stripes or uneven cut–slow down.
- Travel at MODERATE speed when you mow a thin stand of grass.

It is always best to remove only 1/3 of the grass when mowing. Cutting grass too short may kill grass and let weeds grow easily.

See your John Deere dealer for blades that will best fit your mowing conditions.

Aerate lawn to help stimulate soil organisms and root growth.

LAWN CARE

In most grasses and cutting conditions, a suggested finished cut height range is 1 3/4 Inches to 2 3/4 Inches when using the **Freedom42 Mulching Mower**.

A good approach to cut height selection when mowing with the **Freedom42 Mulching Mower** is to start by raising your mower deck to the highest position, then use the Mower Height Control Knob to lower the mower deck by 1/4 Inch increments in order to "fine tune" the cut to match your specific lawn conditions.

Many factors other than cut height can have dramatic affects on the final lawn appearance. These include variables such as:

- Tractor ground speed
- Amount of grass being removed
- Type of grass
- Grass density
- Moisture level

When using the **Freedom42 Mulching Mower**: Shorter cut heights will provide better cut quality (levelness of cut), but may not hide all the clippings.
Higher cut heights will improve clipping dispersion, but cut quality may decline.

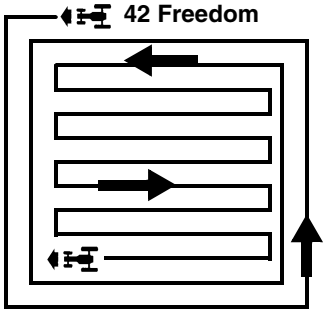
To avoid a strip of poorly cut grass down the center when mowing with the **Freedom42 Mulching Mower**:

- Avoid mowing Tall Grass; Mow more frequently and do not let grass grow beyond 6 Inches.
- When mowing Tall, Sparse Grass; Cut at lower heights (less than 3 Inches) to encourage dense growth and cut at slower ground speed.
- SLOW DOWN your ground speed and maintain FAST (🐇) THROTTLE.

Trimming Tips

- When using 38 or 46-Inch mowers, turn to left around trees, bushes, etc. When using the **Freedom42**, you can trim on either side with equal results.
- Drive slowly. Avoid hitting trees, bushes, etc.
- If ground slopes up to a tree or bush, you may have to approach the tree or bush straight-on to avoid scalping.
- Mow parallel to pavement extending deck 2 Inches off lawn when MULCHING. This will allow clippings to dispense over grass and not onto pavement.

- When using the **Freedom42** deck: Mow around perimeter twice, then mow infield in straight passes. Best cut is achieved when mowing straight.



LAWN CARE

To Avoid Scalping:

- Pay attention to the way you drive–you can eliminate scalping.
- If mower scalps easily, cutting height may be too low for ground conditions–especially on lawns with many small mounds and ridges.
- Front mower wheels must be adjusted correctly.
- Drive over ridges and through shallow ditches straight-on, not at an angle.

Keep blades sharp. Dull blades will tear grass; tips of grass will then turn brown.

Check lawn regularly for uneven cut. If cut is uneven:

- LOOK: Mower may not be level.
- Slow down before you make a turn.
- Sharpen blades often.

Use thatcher (available from your John Deere dealer) in late spring or summer to pull up dead grass and aerate ground.

For bagging information, see your Bagger Operator's Manual.

After Mowing:

- Let engine cool to prevent fire when you store mower.
- Clean top of deck, engine, and chute with compressed air, if possible–to help prevent buildup and fire.
- Clean under deck with water under pressure–to prevent buildup and remove corrosive lawn chemicals.

Bagging Tips

For best performance, bagger needs good airflow. To help increase airflow:

- Keep underside of deck and chute clean.
- Cut grass high.
- Mow at full (🐢) throttle.
- Clean bag(s) often with water from garden hose, from outside to inside of bag. Let bag(s) dry before use.

IMPORTANT:	**Don't leave clippings in bag(s):** **• Moisture may damage bag(s).** **• Damp clippings are a fire hazard.**

LOOK: Check level of clippings in bags often. When bag(s) are full:
- Mower may leave a trail of clippings.
- Clippings may blow to side.

Bagging and Composting:

Many communities will no longer haul lawn clippings and leaves to landfills. Bagging and composting clippings and leaves is one way to solve this problem.

Clippings from grass bag may also be used as mulch, or sheet compost, between garden rows and around trees and shrubs.

This mulch will:
- Keep weeds from growing.
- Help soil keep moisture.
- Add nutrients to soil as it decays.
- Help keep soil temperature down during hot weather.

You may compost clippings and leaves in various ways. See garden magazines or clubs for information, or go to your local library for help.

Finished compost is crumbly. It is rich in soil nutrients, and can be spread on your lawn. Compost may also be worked into soil. It adds humus to soil and improves soil texture, making soil looser and easier to work.

Mulching Tips

Advantages:

- You do not have to rake or bag grass or leaves.
- Lawn holds moisture better during dry weather.
- Soil temperatures stay down during hot weather.
- Mulch adds nutrients to soil, and reduces need for fertilizer.

Mulching does not make thatch. Frequent shallow watering and fertilizer application produce thatch from roots that grow close to surface.

Be careful when you mulch leaves in Fall. Grass needs sunlight in Fall to help store food for Winter. A thick layer of mulched leaves can prevent sunlight from getting to grass and smother it. Taller cut heights allow clippings to dispense easier in lawn. Mulch leaves several times if needed to expose the grass. You may have to mow with a grass bagger to remove this layer.

Mulching wet or damp grass or leaves may cause problems:

- Clippings and leaves may build up on the underside of the mower deck.
- Cut grass and leaves may form clumps.
- Clippings and leaves may not be cut into small bits.
- Engine may work harder and use more fuel.

Cut only top 1/3 of grass at a time.

Use a different mowing pattern each time you mow. Overlap mowing paths 50-100 mm (2-4 in).

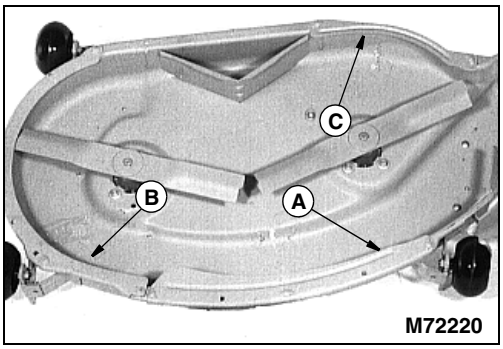
Slow down. Mulching takes more processing time.

Keep blades sharp. Check them often.

Clean underside of deck after each use.

Bagging With Optional Bolt-On Lip Sections (38-Inch Mower)

A - Front Lip Section
B - Side Lip Section
C - Rear Lip Section



(A) Front Lip Section (38-Inch Mower)	
Features	• Reduces material blown out from right front of deck. • Helps keep engine, mower deck, and operator clean. • Prevents leaves from blowing away from deck. • Increase airflow from mower to bags.
Recommended	• Leave in place at all times.
Not Recommended	• When mowing long, lush or thick grass where poor cut quality is a problem. • Not required with low lift blades.

(B) Side Lip Section (38-Inch Mower)	
Features	• Reduces material blown out from left front corner of deck. • Helps keep engine and operator clean. • Eliminates material blown out on left side of deck when mowing along sidewalks and roadsides.
Recommended	• Used with medium or high lift blades when bagging in dry, dusty conditions.
Not Recommended	• When mowing long, lush or thick grass where poor cut quality is a problem. • Not required when side discharging.

(C) Rear Lip Section (38-Inch Mower)	
Features	• Creates vacuum effect that sweeps lawn clean.
Recommended	• When bagging leaves, pine cones, needles, sticks, loose bark, after thatching or when bagging very heavy grass.

REPLACEMENT PARTS

WE RECOMMEND JOHN DEERE quality parts and lubricants, available at your John Deere dealer.

PART NUMBERS MAY CHANGE, use part numbers listed below when you order. If a number changes, your dealer will have the latest number.

WHEN YOU ORDER PARTS, your John Deere dealer needs your machine serial number and engine serial number. These are the numbers that you have recorded on the inside front cover of this manual.

Parts for Lawn Tractor and Mower Deck

ITEM	PART NUMBER
Air Cleaner Element (Foam): LT133 and LT155 LT166	 M92360 LG272490
Air Cleaner Element (Paper): LT133 and LT155 LT166	 AM123553 LG394018
Fuel Filter: LT133 and LT155 LT166	 AM107314 LG493629
Oil Filter: LT133 and LT155 LT166	 AM125424 LG808516

REPLACEMENT PARTS

Battery Replacement	TY6191
Spark Plug	M78543
Belts: 38-Inch Deck Freedom42 Deck (Primary-V-Belt) Freedom42 Deck (Secondary-Timed) 46-Inch Deck	 M126536 M128733 M127926 M123281
Blades for 38-Inch Deck: Low-Lift Blade Med-Lift Blade High-Lift Blade Mulch Blade	 M82408 M84472 M83459 M112991
Blades for Freedom42 Deck (Set): Right-Hand Blade Left-Hand Blade	 M128004 M128005
Blade 46-Inch Deck	M41967

(Part numbers are subject to change without notice. Part Numbers may be different outside the U.S.A.)

If you would like a copy of the Parts Catalog for this machine, please use the **Order Form** in the JOHN DEERE SERVICE LITERATURE section.

SERVICE MACHINE SAFELY

Practice Safe Maintenance

- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate, service, or adjust machine while it is moving. Keep safety devices in place and in working condition. Keep hardware tight.
- To prevent them from getting caught, keep hands, feet, clothing, jewelry, and long hair away from any moving parts.
- Before servicing machine, lower attachments to the ground. Disengage all power and stop the engine. Lock park brake and remove the key. Let machine cool.
- Securely support any machine elements that must be raised for service work.
- Never run engine unless park brake is locked.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.
- Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.
- Unauthorized modifications to the machine may impair its function and safety.

SERVICE MACHINE SAFELY

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.

Handling Waste Product and Chemicals

- Waste products, such as, used oil, fuel, coolant, brake fluid, and batteries, can harm the environment and people.
- DO NOT use beverage containers for waste fluids - someone may drink from them.
- See your local Recycling Center or John Deere dealer to learn how to recycle or get rid of waste products.
- A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques. See your John Deere dealer for the MSDS on chemical products used with your machine.

Service Intervals

Before Each Use	• Check fuel level. • Check engine oil level. • Clean air intake screen.
Break-in (After First 5 Hours Of Operation)	• Change engine oil and filter. • Check for loose hardware.
10 Hours	• Lubricate front wheel spindles.
25 Hours	• Check tire pressure. • Check safety systems. • Check and clean air cleaner element. • Check battery electrolyte level.
50 Hours (Change engine oil after 50 hours or first year, whichever is less.)	• Change engine oil (When operating tractor in extremely dusty or dirty conditions, change engine oil every 25 hours.) • Freedom42 Mulching Mower Only: Lubricate mower spindles.
100 Hours (Change engine oil and filter after 100 hours or yearly, whichever is less.)	• Change engine oil and filter. • Change fuel filter. • Change air cleaner element. • Clean battery. • Check spark plug. • Freedom42 Mulching Mower Only: Inspect blade timing and adjust timing belt tension. • Clean engine cooling fins.
Yearly/As Required	• Sharpen mower blades. • Inspect belts/replace.

Service Record

DATE	SERVICE PERFORMED

Engine Warranty Maintenance Statement

Maintenance, repair, or replacement of the emission control devices and systems on this engine, which are being done at the customers expense, may be performed by any nonroad engine repair establishment or individual. Warranty repairs must be performed by an authorized John Deere dealer.

Adjusting Carburetor

NOTE: Carburetor is calibrated by the engine manufacturer and should not require any adjustments.

If engine is operated at altitudes above 1829 m (6,000 ft), some carburetors may require a special high altitude main jet. See your John Deere dealer.

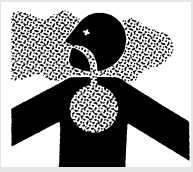
Possible engine surging will occur at high rpm with no load (with transmission in "N" neutral and mower blade engagement lever disengaged). This is a normal condition due to the emission control system.

If engine is hard to start or runs rough, check the troubleshooting section of this manual.

After performing the checks in the troubleshooting section and your engine is still not performing correctly, contact your John Deere dealer.

Avoid Fumes

CAUTION: Engine exhaust fumes can cause sickness or death:



- **If it is necessary to run an engine in an enclosed area, use an exhaust pipe extension to remove the fumes.**
- **Always try to work in a well ventilated area.**

Engine Oil

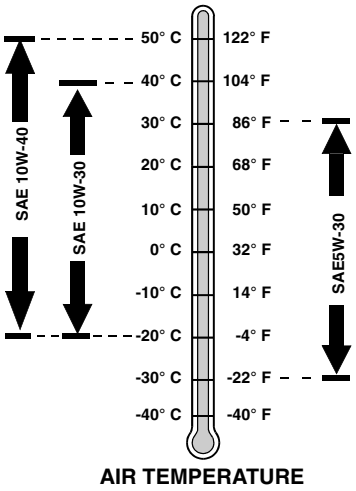
Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following John Deere oils are preferred:

- TURF-GARD® (SAE 10W-30)
- PLUS-4® (SAE 10W-40)
- PLUS-4® (SAE 10W-30)

The following John Deere oils are also recommended, based on their specified temperature range:

- TORQ-GARD SUPREME® (SAE 5W-30)



Other oils may be used if above John Deere oils are not available, provided they meet one of the following specifications:

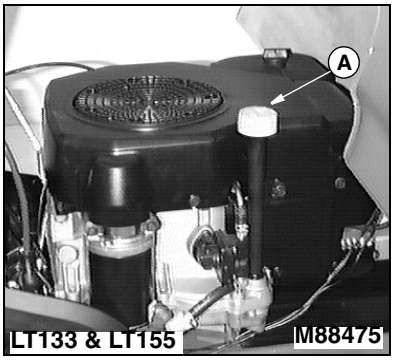
- SAE 10W-40–API Service Classification SG or higher
- SAE 10W-30–API Service Classification SG or higher
- SAE 5W-30–API Service Classification SC or higher

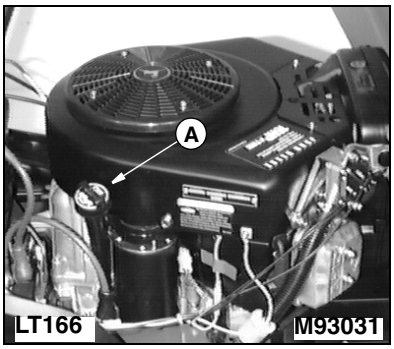
Checking Engine Oil Level

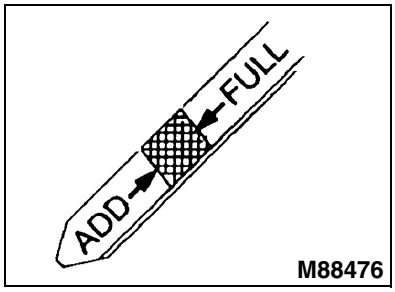
IMPORTANT: If oil level is below ADD mark, DO NOT run engine.

NOTE: Check oil twice a day if you run engine over 4 hours in a day.
- **Engine must not be running.**
- **Make sure engine is cold when checking engine oil level.**

1. Park machine on a level surface.
2. STOP engine.
3. Lift hood.
4. Remove dipstick (A). Wipe with clean cloth.
5. LT133 and LT155: Install dipstick in tube, but DO NOT tighten it. Let dipstick threads rest on top of tube, rotate cap counterclockwise until it “clicks” or drops into the thread lead.
6. LT166: Install dipstick in tube and tighten dipstick.
7. Remove dipstick. Check oil level on dipstick.
8. Oil must be between ADD and FULL marks.
9. If oil level is low, add oil to bring oil level no higher than FULL mark on dipstick. (See Engine Oil in this section.)
10. Install and tighten dipstick. Lower hood.



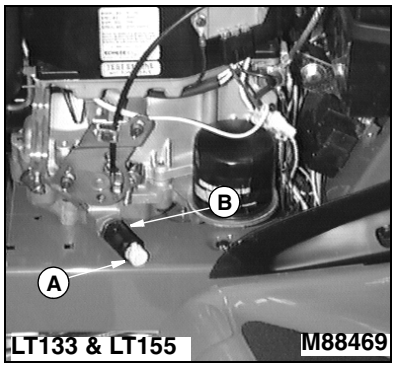


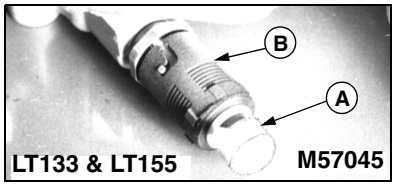


Changing Engine Oil

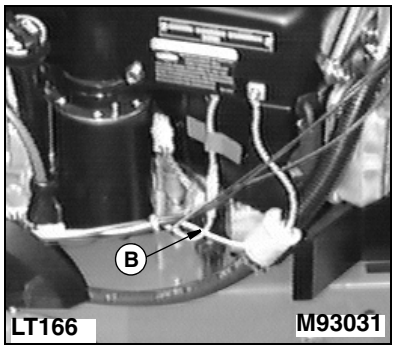
IMPORTANT: Change engine oil and filter after the first 5 hours of break-in operation.
When operating machine in extremely dusty or dirty conditions, change engine oil every 25 hours.

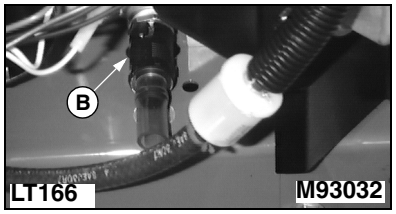
1. Run engine to warm oil.
2. Park machine on level surface.
3. STOP engine and remove key.
4. LT133 AND LT155: Remove drain cap (A).



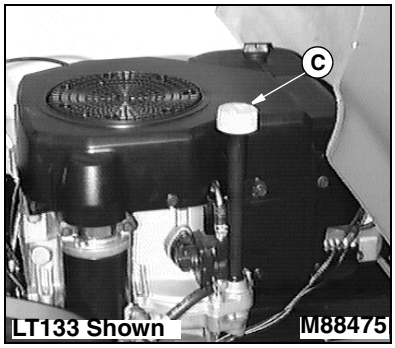


5. Put drain pan under drain valve.
6. Push drain valve (B) in, turn to the left, and pull drain valve out to open valve.
7. Drain oil into oil drain pan.
8. Close drain valve by pushing in and turning valve to the right.
9. LT133 AND LT155: Install drain cap (A).





10. Remove dipstick (C).



11. Add oil. (See Engine Oil in this section.) Approximate crankcase capacities:

LT133 and LT155:

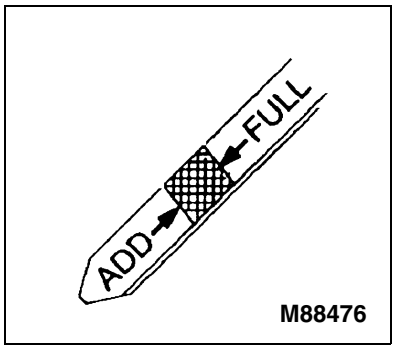
- 1.4 L (1.5 qt) (48 oz): Without oil filter.
- 1.8 L (1.9 qt) (60 oz): With oil filter.

LT166:

- 1.4 L (1.5 qt) (48 oz): Without oil filter.
- 1.5 L (1.6 qt) (52 oz): With oil filter.

12. LT133 AND LT155: Install dipstick, but DO NOT tighten. Let dipstick threads rest on top of tube, rotate cap counterclockwise until it “clicks” or drops into the thread lead.

LT166:Install dipstick in tube and tighten dipstick.

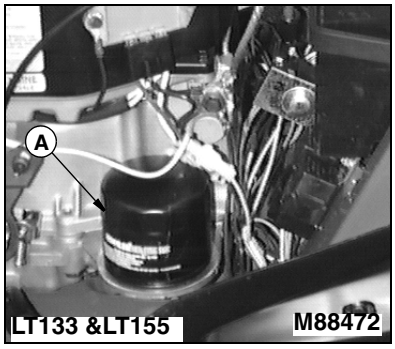


13. Remove dipstick. Check oil level. Add oil to bring oil level to FULL mark on dipstick, if required. Oil level must be between ADD and FULL marks. Do not overfill.

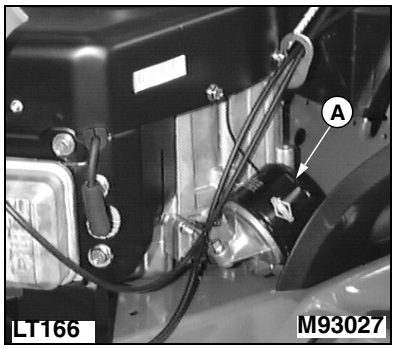
14. Install and tighten dipstick.

15. Start engine and check for oil leaks. Correct any leaks before operating.

Changing Engine Oil Filter



1. STOP engine and remove key.
2. Drain engine oil and replace with fresh oil. (See Changing Engine Oil in this section.)
3. Wipe debris and dirt from around oil filter.
4. Place a funnel under filter tray.
5. Remove old filter (A) and wipe off filter tray, with a clean cloth.

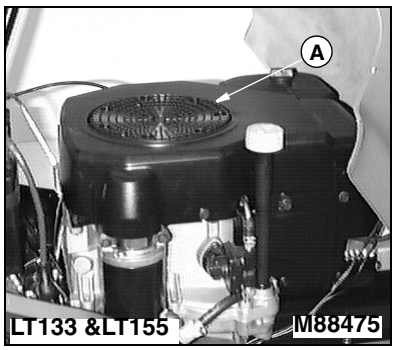


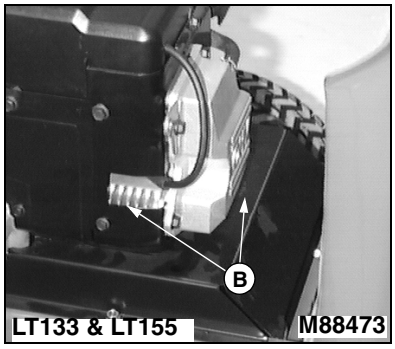
6. Lightly oil filter gasket with fresh, clean oil.
7. Install replacement oil filter. Turn oil filter to the right (clockwise) until rubber gasket contacts filter adapter. Tighten filter an additional one-half turn.
8. Start and run engine at idle to check for leaks. Stop engine.
9. Check oil level. (See Checking Engine Oil Level in this section.)
10. Add oil if required. (See Engine Oil in this section.)

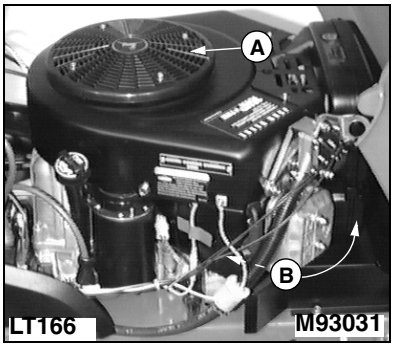
Cleaning Air Intake Screen and Engine Fins

IMPORTANT: To avoid overheating and damage to engine:
- Keep air intake screen free of dust.
- Keep cooling fins free of dust.
- Keep cooling shrouds in place.

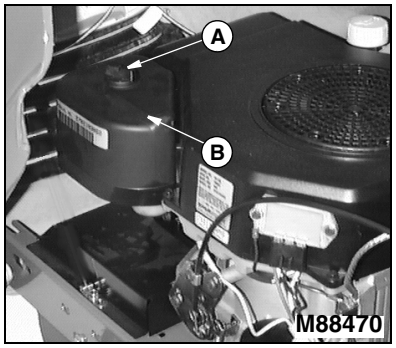
1. STOP engine. Remove key.
2. Lift hood.
3. Clean air intake screen (A), cooling fins and external surfaces (B), with rag, brush, vacuum or compressed air.
4. Lower hood.







Checking and Cleaning Air Cleaner Elements (LT133 and LT155)



1. Raise hood.

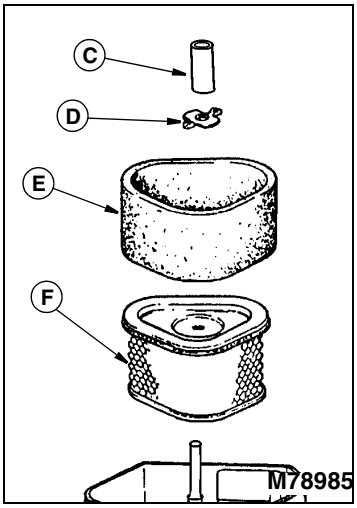
2. Loosen knob (A) to remove air cleaner cover (B).

3. Remove rubber tube sleeve (C) and wing nut (D).

4. Remove air filter assembly.

5. If foam precleaner element (E) is dirty, remove it from paper element (F).

- Wash foam precleaner element (E) in warm water detergent solution.
- Rinse precleaner element. Let it dry.
- Put 10–15 drops of clean engine oil on foam element (E). Squeeze element to distribute oil and remove any excess oil.



6. If paper element (F) is dirty, tap gently on your hand to remove dust. If element is extremely dirty or oily, REPLACE with new element. DO NOT wash paper element.

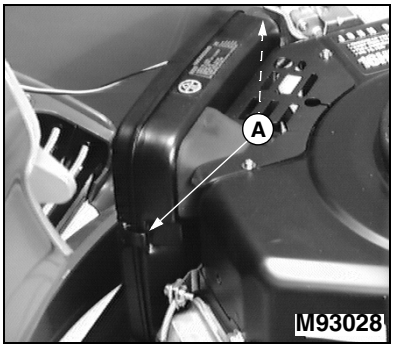
7. Install precleaner and paper element onto post in air cleaner base.

8. Install and tighten wing nut (D).

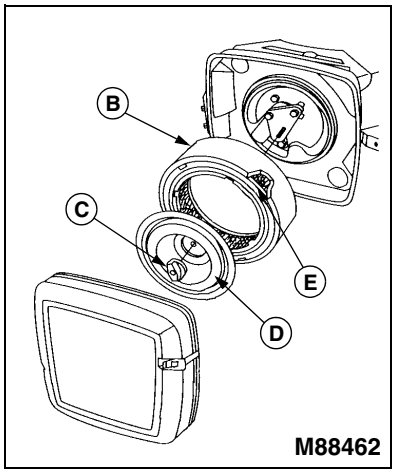
9. Install rubber tube sleeve on post. Then push it down tight against wing nut.

10. Install air cleaner cover (B) and tighten knob (A). DO NOT overtighten.

Checking and Cleaning Air Cleaner Elements (LT166)



1. Lift hood.
2. Unhook clips (A) on both sides of cover and remove cover.
3. Carefully slide pre-cleaner (B) off cartridge.
4. Remove knob (C) and plate (D). Carefully remove cartridge (E) to prevent debris from entering carburetor.



5. Wash pre-cleaner in liquid detergent and water. Squeeze dry in a clean cloth. Saturate in engine oil. Squeeze in clean, absorbent cloth to remove all excess oil. Replace if very dirty or damaged.
6. Clean cartridge by tapping gently on a flat surface. Replace if very dirty or damaged.
7. Reinstall cartridge, plate and knob.
8. Reassemble pre-cleaner on cartridge.
9. Replace cover and reattach clips to body.

Checking Spark Plug

CAUTION: Before you remove spark plug:
• STOP engine.
• Wait until engine is cool.

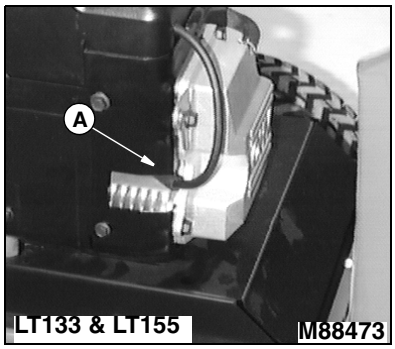
1. Lift hood.

2. Disconnect spark plug wire(s) (A).

3. Remove spark plug(s).

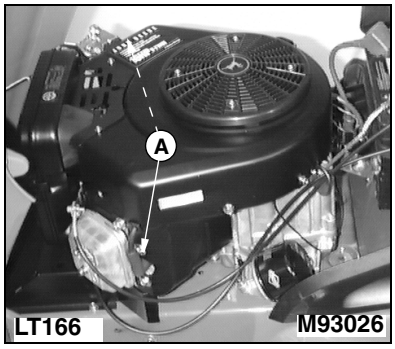
4. Clean spark plug carefully with a wire brush.

5. Inspect spark plug for:
• Cracked porcelain.
• Pitted or damaged electrodes.
• Other wear or damage.



NOTE: In Canada, replace spark plug with resistor plug only.

6. Replace spark plug as necessary.



7. Check plug gap with a wire feeler gauge.
• Gap must be 1 mm (0.040 in).

8. To change gap, move the outer electrode.

9. Install and tighten spark plug.
• If you have a torque wrench, tighten plug to:
LT133 and LT155: 40 N•m (30 lb-ft)
LT166: 20 N•m (15 lb-ft)

10. Connect spark plug wire.

11. Lower hood.

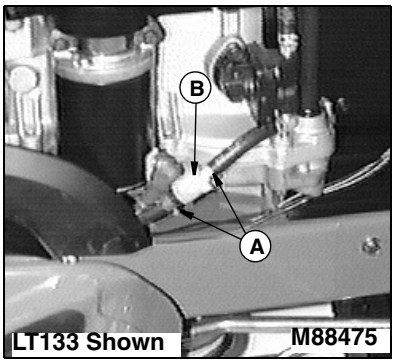
Replacing Fuel Filter

CAUTION: Keep cigarettes, sparks, and flames away from the fuel system. Make sure engine is cool to the touch.

IMPORTANT: When installing a new fuel filter, the filter arrow must be pointed in the direction of the fuel flow.

NOTE: Change filter when fuel is low in fuel tank.

1. Park machine on a level surface.
2. Lift hood.
3. Let engine cool.
4. Put a drain pan under fuel filter.
5. Using a pliers, slide hose clamps (A) away from fuel filter (B).
6. Disconnect hoses from filter.
7. Connect hoses to new filter making sure the filter arrow is pointed in the direction of the fuel flow.
8. Install clamps and check for leaks.
9. Lower hood.



SERVICE - TRANSMISSION

Checking Gear Transmission

The gear transmission is a sealed component. No maintenance is required on this transmission. If you suspect any transmission problems, please contact your John Deere dealer.

Grease

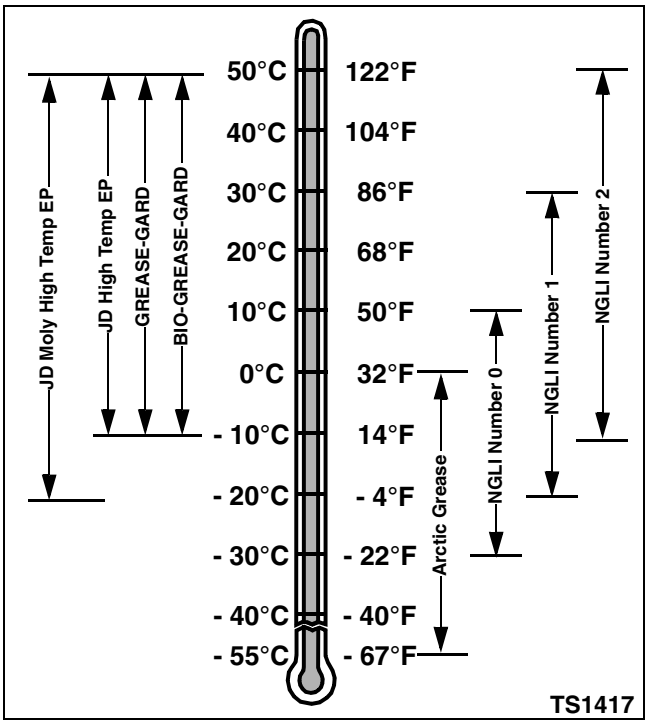
Use grease based on the expected air temperature range during the service interval.

The following greases are preferred:

- John Deere Moly High Temperature EP Grease.
- John Deere High Temperature EP Grease.
- John Deere GREASE-GARD™.

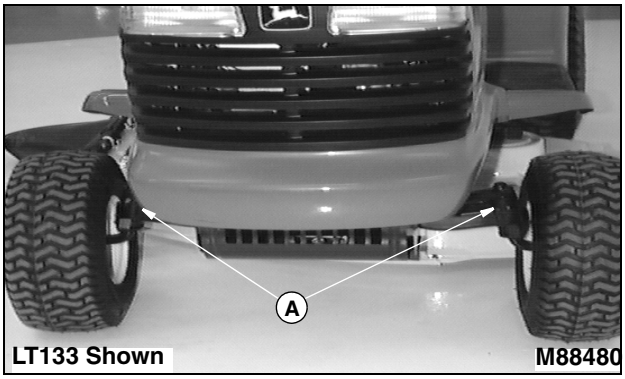
Other greases may be used are:

- SAE Multipurpose EP Grease with 3–5 percent molybdenum disulfide.
- SAE Multipurpose EP Grease.
- Greases meeting Military Specification MIL-G-10924C may be used as arctic grease.



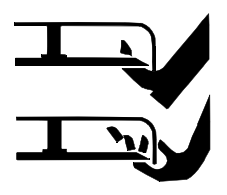
Lubricating Front Wheel Spindles

- Lubricate fittings (A) on spindles (one on each side of tractor) with one or two shots of John Deere Extreme Pressure Grease or an equivalent.
- Turn wheels to distribute grease on spindles.



Avoid Injury from Contacting Blades

CAUTION: **Before you dismount to unplug or adjust mower:**



- **STOP the engine.**
- **LOCK the park brake.**
- **DISENGAGE mower blade engagement lever to stop mower blades.**
- **Remove key.**
- **Wait for mower blades to STOP.**
- **Keep hands, feet and clothing away from mower deck when engine is running.**
- **Disconnect spark plug wire from spark plug.**

Grease

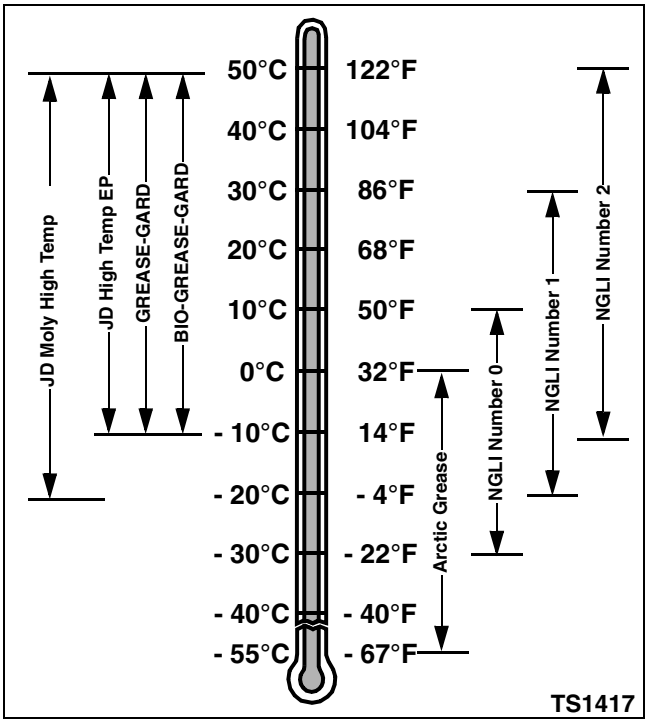
Use grease based on the expected air temperature range during the service interval.

The following greases are preferred:

- John Deere Moly High Temperature EP Grease.
- John Deere High Temperature EP Grease.
- John Deere GREASE-GARD™.

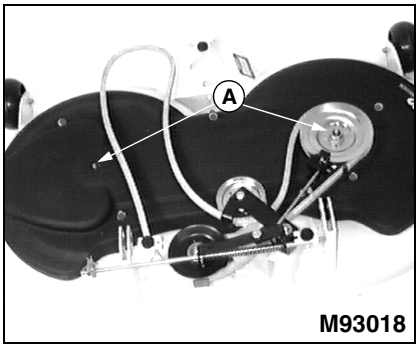
Other greases may be used are:

- SAE Multipurpose EP Grease with 3 to 5 percent molybdenum disulfide.
- SAE Multipurpose EP Grease.
- Greases meeting Military Specification MIL-G-10924C may be used as arctic grease.



Lubricate Mower Spindles (Freedom42 Deck Only)

Freedom42 Mulching Mower: Lubricate two mower spindles grease fittings (A) with TWO pumps of John Deere Moly High Temperature EP grease or an equivalent.



Replacing Mower Drive Belt (38-Inch Deck)

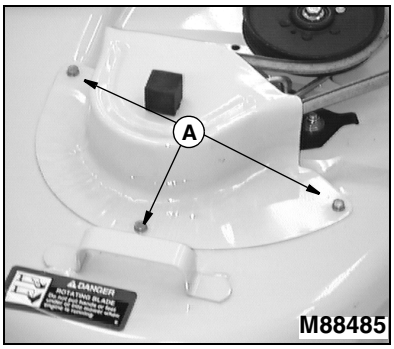
CAUTION: Before replacing mower drive belt:
- **STOP engine.**
- **Remove key.**
- **Wait for all moving parts to STOP.**
- **Wear gloves when replacing belt.**

NOTE: In this procedure the mower deck is removed for easier access. However, it is NOT necessary to remove deck when replacing belt.

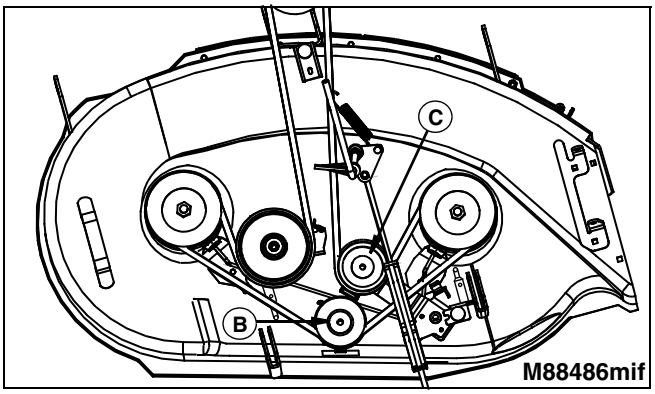
1. STOP engine, LOCK park brake, pull mower blade engagement lever rearward to DISENGAGE, turn key to the OFF position, and remove key.

2. Remove mower deck. (See Removing Mower in Removing Mower section.)

3. Remove three cap screws (A) and belt shield.



4. Loosen rear idler (B) and tensioning sheave (C).



5. Remove mower belt.

6. Clean upper mower deck and sheaves.

7. Inspect belt for wear or damage; replace as necessary.

8. Install belt on mower deck as shown above.

9. Tighten rear idler (B) and tensioning sheave (C).

10. Install belt shield and fasten with three cap screws.

11. Install mower deck, (See Installing Mower in Installing Mower section), and adjust mower engagement rod, if necessary, (See Adjusting Mower Engagement Rod in this section).

Replacing Mower Drive Belt (Freedom42 Mower)

CAUTION: Before replacing mower drive belt:
- **STOP engine.**
- **Remove key.**
- **Wait for all moving parts to STOP.**
- **Wear gloves when replacing belt.**

1. STOP engine, LOCK park brake, pull mower blade engagement lever rearward to DISENGAGE, turn key to the OFF position, and remove key.

2. Remove mower deck. (See Removing Mower in Removing Mower section.)

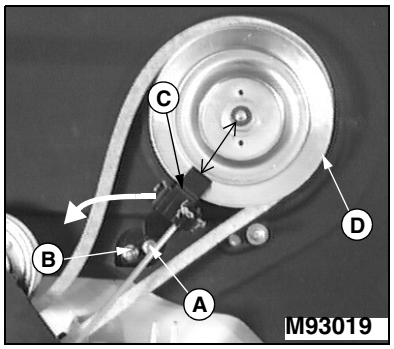
3. Remove cap screw (A) and lock nut (B).

4. Move brake assembly (C) away from sheave (D).

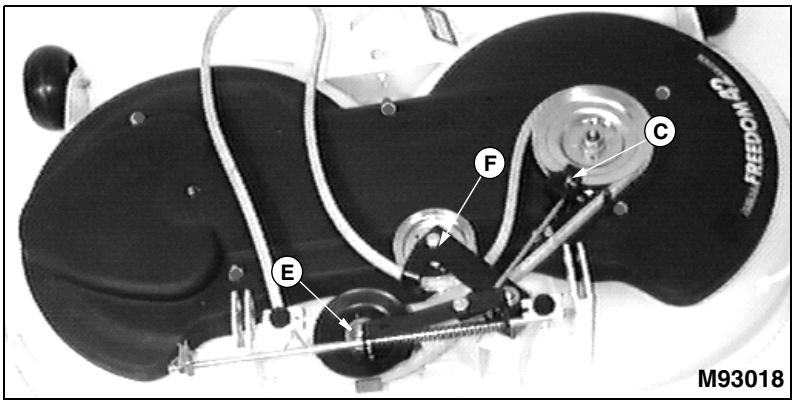
5. Loosen idler sheave (E) and tensioning sheave (F).

6. Remove mower belt.

7. Inspect belt for wear or damage; replace as necessary.



8. Install belt on mower deck as shown.



9. Tighten idler sheave (E) and tensioning sheave (F).

10. Align brake assembly (C) with sheave (D) and tighten with cap screw (A) and lock nut (B). Brake pad must seat against sheave face.

11. Install mower deck, (See Installing Mower in Installing Mower section), and adjust mower engagement rod, if necessary, (See Adjusting Mower Engagement Rod in this section).

Replacing and Adjusting Mower Deck Timing Belt (Freedom42 Mulching Mower)

CAUTION: Before replacing mower drive belt:
- **STOP engine.**
- **Remove key.**
- **Wait for all moving parts to STOP.**
- **Wear gloves when replacing belt.**

IMPORTANT: Tension on the timing belt should be adjusted after a major blade impact to avoid belt or blade damage.

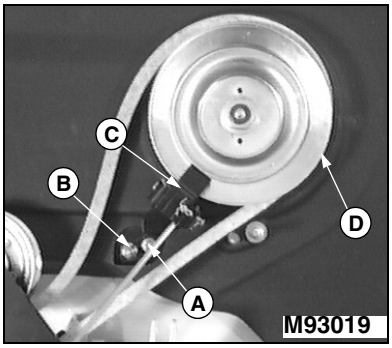
1. STOP engine, LOCK park brake, pull mower blade engagement lever rearward to DISENGAGE, turn key to the OFF position, and remove key.

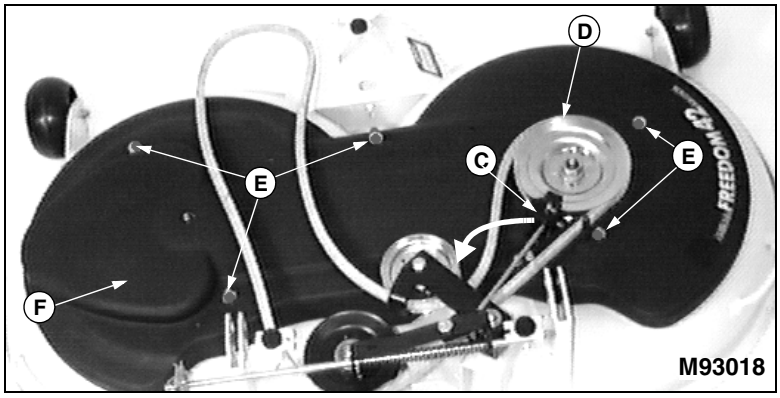
2. Remove mower deck. (See Removing Mower in Removing Mower section.)

3. Remove cap screw (A) and lock nut (B).

4. Move brake assembly (C) away from sheave (D).

5. Remove five cap screws and washers (E) and cover (F).



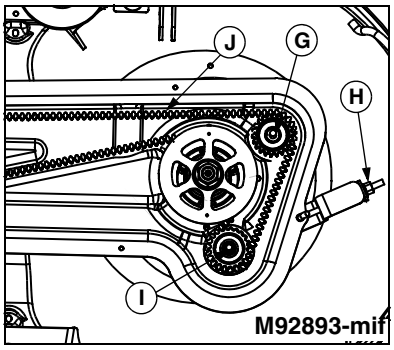


IMPORTANT: **• DO NOT loosen fixed idler (G).**
• Loosening tensioning idler (I) less than one full turn or more than one full turn will effect final belt tension.

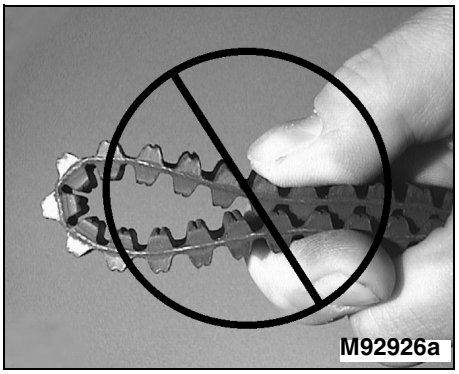
6. Turn adjusting nut (H) counterclockwise to END of threads to remove tension from timing belt.

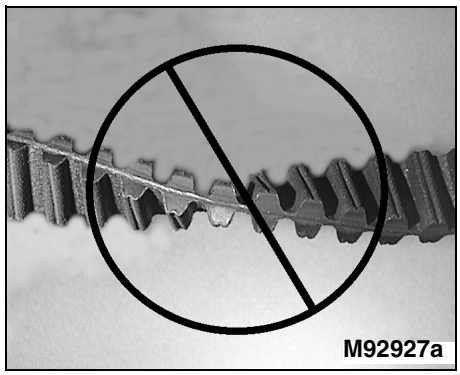
7. Turn nut (I) on idler ONE FULL TURN counterclockwise to loosen.

8. Remove mower deck timing belt (J).



IMPORTANT: **HANDLE TIMING BELTS WITH CARE. To avoid belt damage, DO NOT Crimp, Fold, or Twist.**

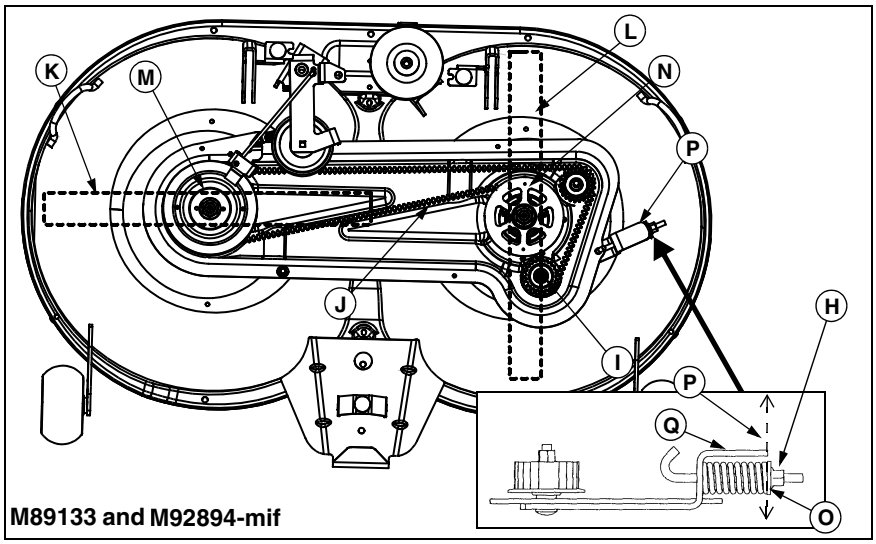




9. Position mower blades (K) and (L) 90° from each other.

NOTE: The position of the drain holes in the spindle sheave (M) and the indentations in the timing sprocket (N) are in alignment with the mower blades (K) and (L).

10. Install new mower deck timing belt (J) as shown below.



11. Check that blades are still timed (90° from each other).

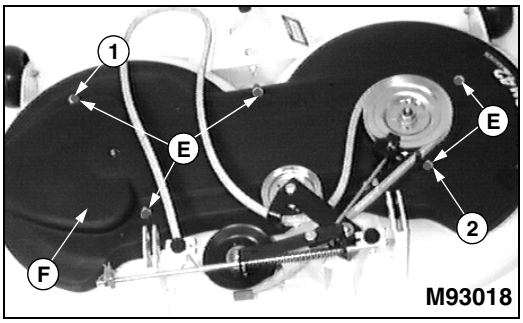
12. Rotate adjusting nut (H) clockwise until washer (O) is aligned (P) with END of pretensioner assembly (Q).

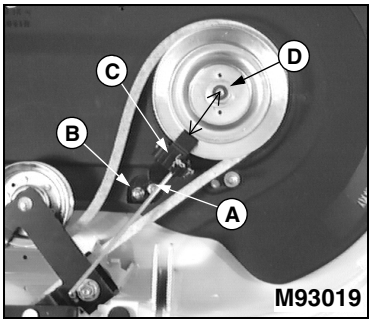
13. Tighten nut (I) to 20 N•m (15 lb-ft).

14. Turn blades several rotations and observe that belt is riding properly in sprockets and idlers.

15. Install cover (F) using five cap screws and washers (E). Tighten cap screws (1) and (2) FIRST.

16. Align brake assembly (C) with sheave (D) and tighten with cap screw (A) and lock nut (B). Brake pad must seat against sheave face.





17. Install mower deck, (See Installing Mower in Installing Mower section), and adjust mower engagement rod, if necessary, (See Adjusting Mower Engagement Rod in this section).

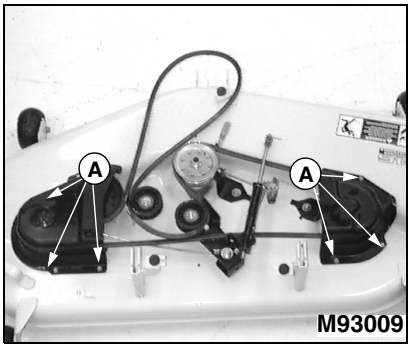
Replacing Mower Drive Belt (46-Inch Deck)

CAUTION: Before replacing mower drive belt:
- **STOP engine.**
- **Remove key.**
- **Wait for all moving parts to STOP.**
- **Wear gloves when replacing belt.**

NOTE: In this procedure the mower deck is removed for easier access, however, it is NOT necessary to remove deck when replacing belt.

1. STOP engine, LOCK park brake, pull mower blade engagement lever rearward to DISENGAGE, turn key to the OFF position, and remove key.

2. Remove mower deck. (See Removing Mower in Removing Mower section.)



3. Remove six cap screws (A) and left and right belt shields.

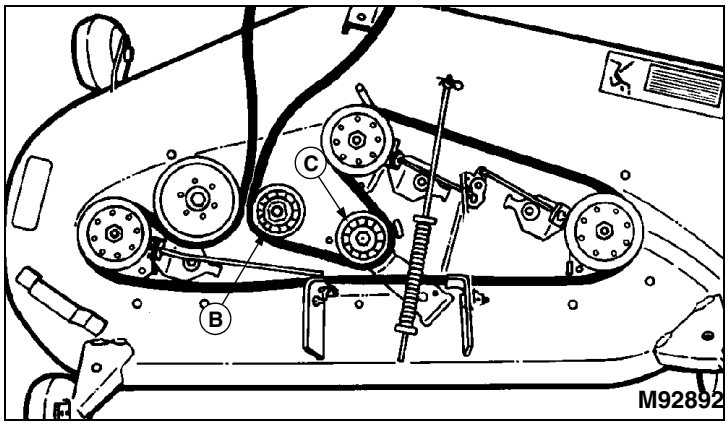
4. Loosen sheaves (B) and (C).

5. Remove mower belt.

6. Clean upper mower deck and sheaves.

7. Inspect belt for wear or damage; replace as necessary.

8. Install belt on mower deck as shown.



9. Tighten sheaves (B) and (C).

10. Install belt shields and fasten with six cap screws.

11. Install mower deck, (See Installing Mower in Installing Mower section), and adjust mower engagement rod, if necessary, (See Adjusting Mower Engagement Rod in this section).

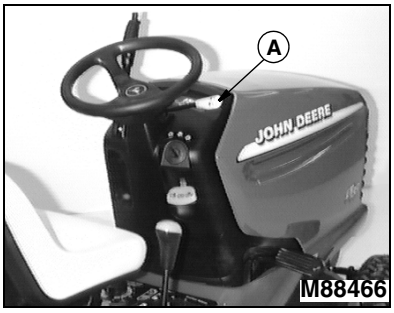
Adjusting Mower Engagement Rod (All Decks)

CAUTION: Before adjusting Mower Engagement Rod:
- **STOP engine.**
- **Remove key.**
- **Wait for all moving parts to STOP.**

IMPORTANT: If Mower Engagement Rod is not installed correctly:
Belt will not engage or disengage mower blades properly.
Belt damage may occur.

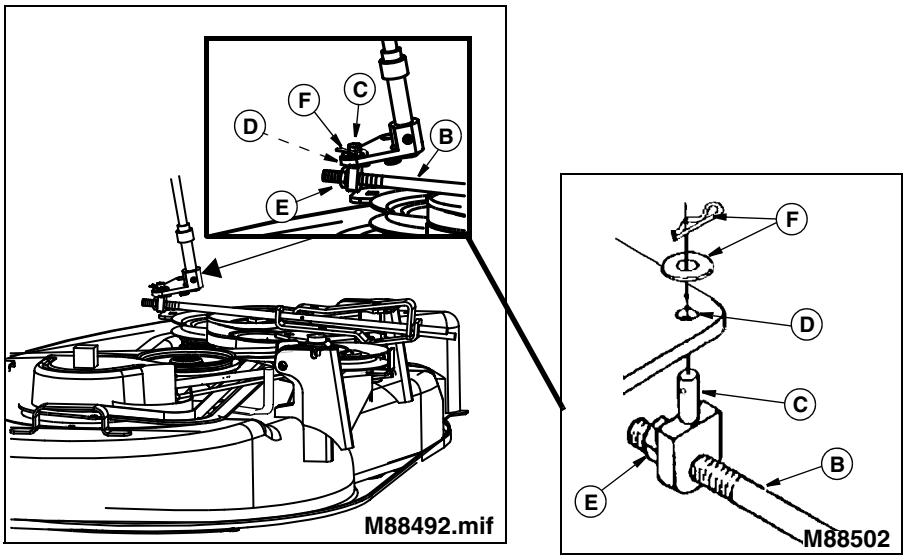
The Mower Engagement Rod should be installed correctly when replacing the mower drive belt and installing the mower deck.

1. Pull mower blade engagement lever (A) rearward to DISENGAGE.
2. Put mower cutting height in LOWEST position.



3. Pull mower engagement rod (B) forward to align pin (C) with hole (D).

4. If pin (C) does not line up with hole (D), loosen lock nut (E) and turn pin clockwise to shorten linkage and counter-clockwise to lengthen linkage until pin slips freely into hole.

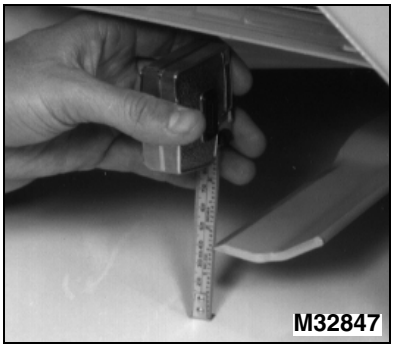


5. Remove pin from hole. While holding pin straight up, tighten locknut (E).

6. Install pin in mower engagement arm hole and install washer and spring locking pin (F).

Checking Mower Blades

CAUTION: Mower blades are sharp.
To avoid injury: Always wear gloves when handling mower blades.



To check for a bent blade:

1. Lower mower. Measure distance between blade tip and flat ground surface.

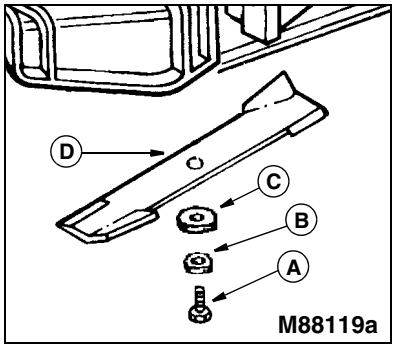
2. Turn blade 180 degrees. Measure distance between blades other tip and flat ground surface.

3. If the distance between the two measurements is more than 3 mm (1/8 in), install new blade.

Servicing Mower Blades (38 and 46-Inch Deck)

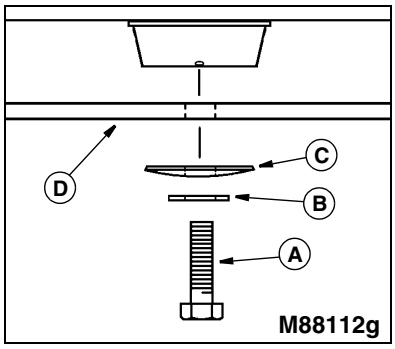
CAUTION: Be careful, sharp edges on mower blades. Always wear gloves when handling mower blades.

REMOVING MOWER BLADES



1. Raise mower deck to gain access to mower blades. If necessary, remove mower deck.
2. Using a wooden block, prevent mower blades from spinning.
3. Loosen and remove cap screw (A), hardened washer (B), blade washer (C) and blade (D).
4. Inspect blades; sharpen/balance or replace as necessary.

INSTALLING MOWER BLADES



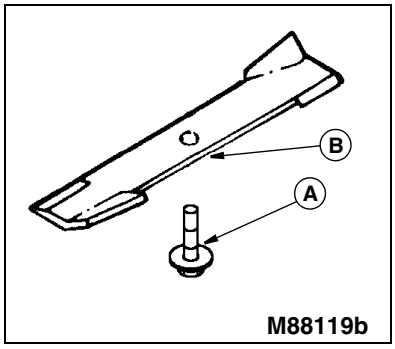
1. Lightly lubricate cap screw threads with a general purpose grease or oil. This lubrication is to prevent rusting and seizing.
2. Position mower blade (D) with the cutting edge towards the ground onto the mower spindle.
3. Install blade washer (C) with cup side toward the blade.
4. Install hardened washer (B).
5. Install and tighten cap screw (A) by hand until mower blade is in full contact (fully seated) with spindle.
6. With mower blade blocked, to prevent spinning, tighten cap screws to 53 N•m (39 lb-ft).

Servicing Mower Blades (Freedom42 Mower Deck)

CAUTION: Be careful, sharp edges on mower blades. Always wear gloves when handling mower blades.

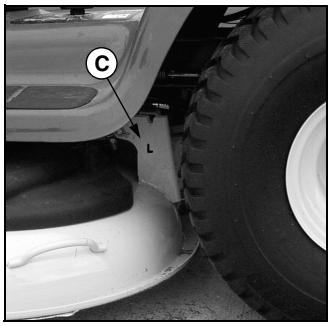
REMOVING MOWER BLADES

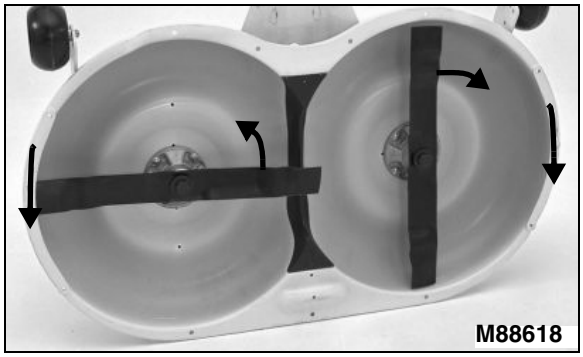
1. Raise mower deck to gain access to mower blades. If necessary, remove mower deck.
2. Hold mower blade with glove to prevent mower blades from spinning.
3. Loosen and remove bolt with washer (A), and blade (B).
4. Inspect blades; sharpen/balance or replace as necessary.



INSTALLING MOWER BLADES

NOTE: The RIGHT and LEFT sides are marked on the rear draft brackets (C). There are direction arrows located on each outside edge of the mower. There is a RIGHT and a LEFT side blade. The blades are marked for identification.

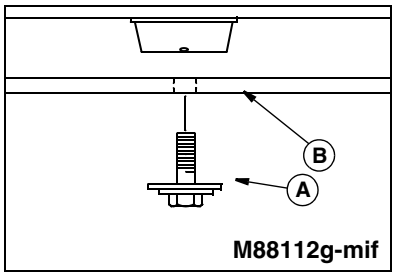




IMPORTANT: DO NOT lubricate or use power tools when installing bolt (A), or the bolt will be ineffective.
Using a HAND TORQUE WRENCH, tighten bolt to 57 N•m (42 lb-ft).

1. Position mower blades (B) with the cutting edge towards the ground onto the mower spindle and align key on bottom of spindle with slot in blade.

2. Install and tighten bolt with washer (A) by hand until mower blade is in full contact (fully seated) with spindle.



3. Hold mower blade with glove to prevent spinning, tighten bolts to 57 N•m (42 lb-ft).

4. Check mower deck timing and adjust if necessary. (See Replacing and Adjusting Mower Deck Timing Belt in this section.)

Sharpening Blades

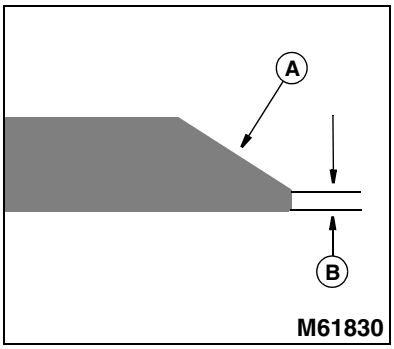
CAUTION: When you sharpen blades:
- **Wear goggles and gloves.**
- **Balance blade after you sharpen it.**
- **Replace damaged blade immediately.**

Sharpen blades with grinder, hand file, or electric blade sharpener.

Keep original bevel (A) when you grind.

Blade should have 0.40 mm (1/64 in.) cutting edge (B) or less.

Balance blades before installing. (See Balancing Blades in this section.)



Balancing Blades

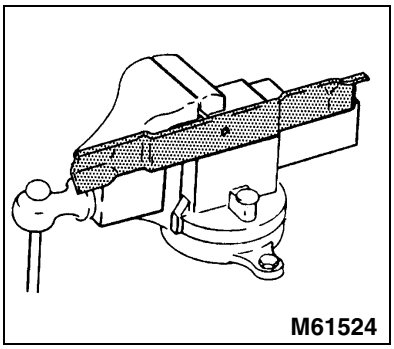
CAUTION: To avoid injury, wear gloves when you handle blade.

1. Clean blade.

2. Put blade on nail in vise or on vertical wall stud. Turn blade to horizontal position.

3. If blade is not balanced, heavy end of blade will drop.

4. Grind bevel of heavy end. Do not change blade bevel. (See Sharpening Blades in this section.)



Checking the Battery

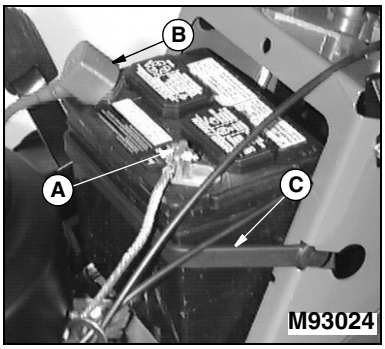
CAUTION: **•Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.**

- **Wear eye protection and avoid spilling or dripping electrolyte.**
- **Flush eyes with water for 15-30 minutes if acid is splashed into eyes.**
- **If acid is swallowed, get medical attention immediately.**

- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep small vent holes open.
- Battery should be charged if the voltage is below 12.3 volts.
  Battery is fully charged at 12.6 volts.
  Recharge, if necessary, at 6–10 amperes for 1 hour.
  (See Charging the Battery and Charging Rates in this section.)

Removing and Installing the Battery

CAUTION: Always remove negative (–) battery cable first, and install it last, to prevent electrical short circuit to chassis.
DO NOT remove rubber boot from positive (+) battery cable.



1. Turn ignition key off and lift hood.
2. Disconnect negative (–) battery cable (A).
3. Push red cover away from positive (+) battery cable (B) and remove cable from battery.
4. Remove black rubber strap (C).
5. Remove battery.

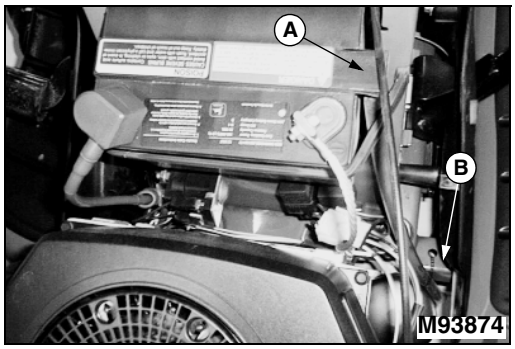
NOTE: If installing a NEW battery, see Replacing Battery in this section.

6. Install the battery following these steps in reverse order. (See Connect and Check Battery in the Assembly section.)

Replacing Battery

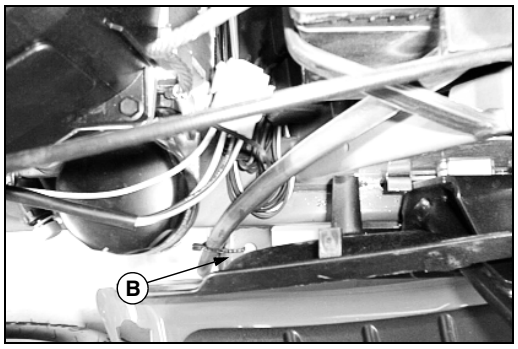
NOTE: The replacement battery is different than the battery that comes with your Lawn Tractor. Follow these instructions if you are installing a replacement battery, Service Part Number TY6191.

1. Install battery manifold cap drain to the negative (–) terminal side of the battery.



2. Place charged battery on battery tray.

3. Install drain hose on cell cap manifold (A) using clamp. See your John Deere dealer to order drain hose (M78562) and clamp (TY22462).



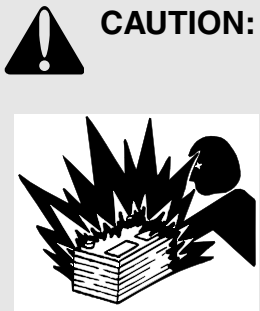
4. Route hose along the outside of the frame and in front of the left foot rest support.

5. Use a tie-wrap to attach hose to foot rest support (B).

6. Install rubber hold-down strap.

7. Connect battery. (See Connect and Check Battery in the Assembly section.)

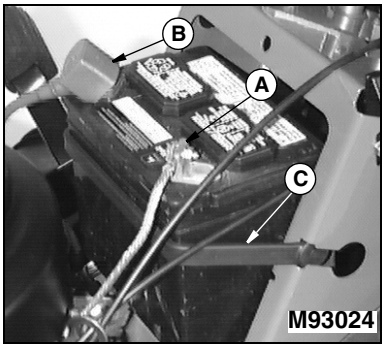
Clean Battery and Terminals



CAUTION: Battery gas can explode:

- Keep sparks and flames away from batteries.
- Never check battery charge by placing a metal object across the posts. Use a voltmeter or hydrometer.
- Always remove grounded (-) battery clamp first and replace it last.

IMPORTANT: Corrosion and dirt on the battery and terminals can cause the battery to “leak” power.



1. Turn ignition key off and lift hood.
2. Disconnect BLACK (–) battery cable (A) FIRST, then RED (+) battery cable (B).
3. Remove black rubber strap (C).
4. Remove battery.
5. Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
6. Rinse the battery with plain water and dry.
7. Clean terminals and battery cable ends with wire brush until bright.
8. Apply petroleum jelly or silicone spray to terminal to prevent corrosion.
9. Reinstall battery. (See Removing and Installing the Battery in this section and Connect and Check Battery in the Assembly section.)

Charging the Battery

Follow instructions on the battery charger or in the charger operator's manual, or use the instructions below as a guide.

CAUTION: **BE VERY CAREFUL: Battery fluid (electrolyte), is a solution of water and sulfuric acid. It is very harmful to eyes, skin, or clothing.**

- Wear goggles or an eye shield when you work with a battery.
- If the acid contacts your eyes, skin, or clothing, flush the area immediately with water. Get medical help, if necessary.

A battery gives off gas which can explode. An exploding battery will spray sulfuric acid in all directions.

- Keep cigarettes, sparks, and flames away from the battery.
- Charge the battery in an area with good ventilation.

Before you charge a battery:

- Wait until the battery has warmed to room temperature. Do not charge a frozen battery.
- Install the battery cap(s) on the battery.

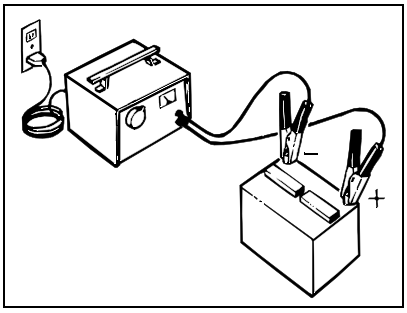
Turn OFF and unplug the charger before you connect cables to the battery or disconnect cables from the battery.

If the battery becomes warm to touch during charging:

- Reduce the charging rate OR
- Stop charging the battery until it cools.

Keep battery fully charged.

CAUTION: DO NOT charge a frozen battery. Battery gases can explode. Keep cigarettes, sparks, and flames away from battery.



1. Remove and clean battery. (See Removing and Installing the Battery and Clean Battery and Terminals in this section.)

2. Check electrolyte level. (See Checking Battery Electrolyte Level in this section.)

3. Leave cell caps on battery while you charge it.

CAUTION: To avoid injury, before you connect or disconnect charger cables to battery, unplug charger cord.

4. Connect positive (+) charger cable to positive (+) battery terminal.

5. Connect negative (–) charger cable to negative (–) battery terminal.

6. Plug in charger cord.

7. Charge battery. See **CHARGING RATES** on the next page.

8. Unplug charger cord. Remove charger cables.

9. Install battery.

Charging Rates

See your battery charger or charger operator's manual for information on charging. Or read the information below to FULLY CHARGE your battery.

Battery should be charged if the voltage is below 12.3 volts.
Battery is fully charged at 12.6 volts.

For a charger with a CURRENT ADJUSTMENT CONTROL:
• Adjust the control to 10 amps.
• Charge the battery for 6 to 8 hours.

For a charger with a switch for MAINTENANCE FREE, DEEP CYCLE, or NORMAL (CONVENTIONAL) setting:
• Use the MAINTENANCE FREE or DEEP CYCLE setting.

For a charger with SLOW CHARGE, FAST CHARGE, or BOOST CHARGE setting:
• DO NOT use the BOOST CHARGE setting.
• Use the SLOW CHARGE setting:
  - For a charger rated at less than 10 amps.
  - For 3 to 16 hours.
• Use the FAST CHARGE setting:
  - For a charger rated at 10 amps.
  - For 5 to 8 hours.

NOTE: Your charger may have an AUTOMATIC STOP to prevent charging the battery:

• When the battery is fully charged OR
• When the battery is not in condition to take a charge.

Using Booster Battery

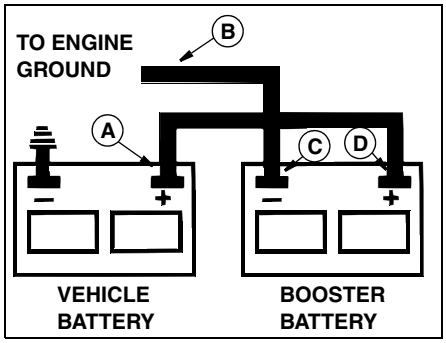
CAUTION: Battery gas is explosive:

- DO NOT smoke while you charge battery.
- Keep all flames and sparks away.
- DO NOT charge frozen battery.
- DO NOT connect booster battery negative (–) cable to starting vehicle negative (–) terminal.

Connect positive (+) booster cable to booster battery positive (+) post (D).

Connect the other end of positive (+) booster cable to vehicle battery positive (+) post (A).

Connect negative (–) booster cable to booster battery negative (–) post (C).



Connect the other end of negative (–) booster cable (B) to engine ground away from battery.

Checking Battery Electrolyte Level

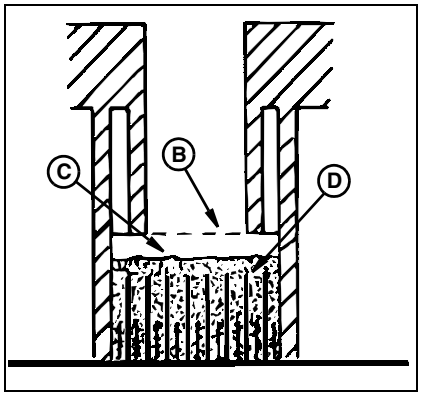
CAUTION: Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

- Wear eye protection and avoid spilling or dripping electrolyte.
- Flush eyes with water for 15-30 minutes if acid is splashed into eyes.
- If acid is swallowed, get medical attention immediately.

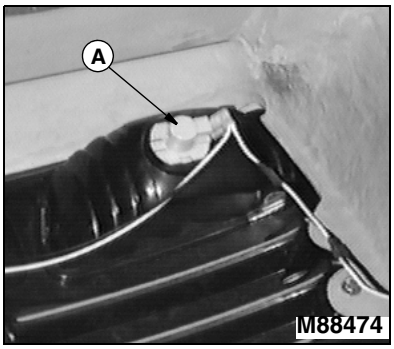
1. Lift hood.
2. Remove battery manifold caps (A).

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

3. Electrolyte (C) should be 6 mm (1/4 in.) above plates (D).
4. Add distilled water if necessary.
5. Install manifold caps.
6. Lower hood.

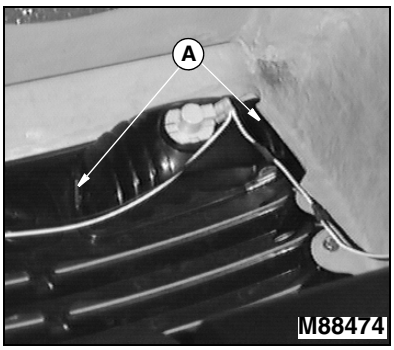


Replacing Headlight Bulb



1. Lift hood.
2. Turn bulb socket (A) 1/4 turn counterclockwise to remove.
3. Replace defective bulb(s) with a new bulb.
4. Insert bulb socket into housing, push in and turn 1/4 turn clockwise to install.
5. Lower hood.

Cleaning Headlight Lens



1. Lift hood.
2. Squeeze plastic clips (A) together to remove each lens.
3. Clean lens with a soft cloth and a household window cleaner.
4. Reinstall lens by pushing lightly on front surface of lens until clips snap in place.
5. Lower hood.

Checking Tire Pressure

CAUTION: Explosive separation of a tire and rim parts can cause serious injury or death:

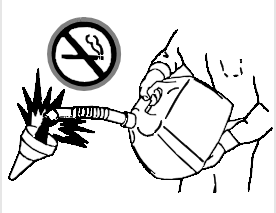
- Do not attempt to mount a tire without the proper equipment and experience to perform the job.
- Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.
- When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly.
- Check tires for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.

1. Check tires for damage.
2. Check tire pressure with an accurate gauge.
3. Add or remove air, if necessary:

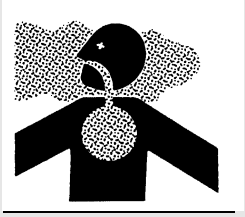
Tire Size	Pressure
Front: 15 x 6.00 - 6	83 kPa (12 psi)
Rear: 20 x 10.00 - 8	55 kPa (8 psi)

Fuel

CAUTION: **Handle fuel with care, it is highly flammable:**



- DO NOT refuel machine while you smoke, when machine is near an open flame or sparks, or when engine is running. STOP engine.
- Fill fuel tank outdoors.
- Prevent fires: clean oil, grease and dirt from machine. Clean up spilled fuel immediately.
- Do not store machine with fuel in tank in a building where fumes may reach an open flame or spark.
- To prevent fire and explosion caused by static electric discharge, while you fill tank, use a non-metal fuel container. If you use a funnel, MAKE SURE it is PLASTIC. Avoid using a funnel which has a metal screen or filter.
- Use only clean approved containers and funnels.
- Store oil and fuel in an area protected from dust, moisture and other contamination.



- DO NOT use METHANOL gasoline. METHANOL is harmful to the environment and to your health.

IMPORTANT:	**Avoid spilling fuel. Fuel can damage plastic and painted surfaces.** **DO NOT mix oil with gasoline. Unleaded gasoline with an octane rating of 87 or higher is recommended.**

Using Clean Fuels

Dirt in the fuel system is a major cause of performance problems. Be sure to clean any grass or trash from the top of the tank before removing lid. Use of a PLASTIC funnel with a plastic mesh strainer when filling the tank will prevent most foreign material from entering the tank.

Octane Rating

Regular grade 87 octane unleaded fuel is recommended for use in your tractor. Higher octane fuels will seldom make your tractor perform better. If your tractor develops a starting or performance problem immediately after use of new fuel, change supplier or fuel brand. If the problem still exists after switching fuel, see your John Deere dealer for service.

Fuel Blends

Fuels are blended to give peak performance during cold weather and warm weather. For cold weather, gasoline is specially blended to provide better starting capabilities. However, avoid prolonged storage of cold-weather blended fuel because it will evaporate more quickly. You may experience longer cranking times in cold weather with “old” fuel. Buy smaller amounts of cold-weather blended fuel in winter.

Fuels used during the summer are not required to provide improved starting properties so they are blended differently. As a result, you may experience hard starting or other performance problems during cold weather if you use fuel remaining from summer uses.

Oxygenated or Reformulated Fuels

Many areas are now required to add “oxygenates” (either alcohol or ether) which blend oxygen into the fuel to help reduce exhaust emissions. If you use oxygenated fuel be sure it is unleaded and meets the minimum octane rating requirement. DO NOT use fuel that contains methanol to avoid producing excess emissions.

Although fuels blended with alcohol or ether allow your engine to run cleaner, they may contribute to fuel system damage and performance problems by causing gum and varnish deposits, especially if fuel is stored for several weeks or more.

Using clean, fresh fuel will help to prevent damage to the fuel system and will help maintain peak engine performance. If engine performance problems occur, use fuel from another supplier before suspecting machine problems. Suppliers blend fuels differently and changing suppliers will generally solve any performance problems.

Using Fresh Fuel and Stabilizers

The best thing you can do to ensure peak performance of your engine is to use “fresh” fuel. Your tractor’s engine will perform well with most good-quality fresh fuels regardless of additives. Any fuel will begin to deteriorate and evaporate over time and begin to form gum and varnish deposits in the fuel system. Help to avoid this by buying only enough fuel to last approximately 30 days or add fuel stabilizer immediately.

Adding a fuel stabilizer to the fuel system is recommended any time the tractor will not be operated for more than 60 days. Varnish deposits may build up in the carburetor in as little as a few weeks by using stale, oxygenated fuel.

No stabilizer will work with “stale” fuel, any fuel that is more than 30 days old. (See **Preparing Your Engine For Storage** in this section for information on adding stabilizer to the fuel.)

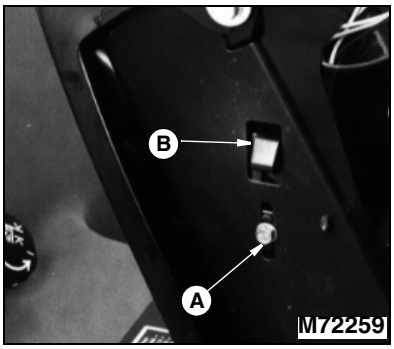
Filling Fuel Tank

IMPORTANT: Dirt and water in fuel are major causes of engine performance problems. Prevent dirt and debris from entering the fuel tank when filling.
Fill the tank at the end of each day's operation to help keep condensation out of the fuel tank.
Fuel tank capacity is 7.6 L (2.0 gal).

1. STOP engine. If engine is hot let it cool several minutes before you add fuel.
2. Remove grass clippings and other trash from tank area.
3. Remove fuel tank cap (A).
4. Fill tank with fresh fuel only to bottom of filler neck.
5. Install fuel tank cap.

Adjusting Hood Latch

NOTE: Hood should stay latched down when latches are properly adjusted.



1. Open hood and loosen cap screw (A) to adjust hood latch (B) on both sides of tractor.
2. Move latch up or down and tighten cap screw for proper adjustment.

Care for Plastic and Painted Surfaces

PLASTIC SURFACES

The plastic parts on your tractor are made of a blend of polycarbonate and polyester materials. These parts are extremely strong and durable. Unlike painted metal, the plastic parts will never dent or rust. If the plastic parts get scratched, the color will remain the same since the color goes through the entire part.

IMPORTANT:	**“Dry wiping” or wiping the plastic surface when it is dry will result in minor surface scratches. Always wet the surface before cleaning. Follow correct cleaning and waxing procedures.**

Correct Cleaning Care:

NOTE: Follow cleaning procedure every time plastic surfaces are cleaned. DO NOT wipe dry plastic surface with hand or towel.

1. Before washing, rinse hood and entire machine with clean water to remove dirt and dust that may scratch the surface.

2. Wash plastic surface with clean water and a mild liquid automotive washing soap. Use a SOFT, CLEAN cloth (bath towel or automotive mitt) when washing.

3. Dry thoroughly with a SOFT, CLEAN cloth (diaper or bath towel).

4. Wax the surface with a liquid automotive wax. Use products that specifically say “contains no abrasives.”

5. Remove applied wax by hand using a clean, soft cloth.

Care for Plastic and Painted Surfaces (Continued)

Avoid Damage:

- “Dry wiping” or wiping the plastic surface when it is dry is a major source of minor surface scratches.
- DO NOT wipe hood or other plastic parts unless wetted first.
- DO NOT apply wax unless plastic surface has been thoroughly cleaned first.
- DO NOT use abrasive materials, such as polishing compounds, to clean or to wax plastic surface.
- DO NOT wax plastic surfaces without drying first. Hard-to-remove water spots will be left.
- DO NOT use solvents or commercial cleaners.
- DO NOT use power buffers to remove wax.
- DO NOT spray insect repellent near machine. Insect repellent spray may damage plastic or painted surfaces.
- Be careful not to spill fuel on any plastic or painted surfaces. Wipe up fuel immediately.

Repair:

- Your John Deere dealer has the professional materials needed to properly remove surface scratches from any plastic surfaces.
- DO NOT attempt to paint over marks or scratches in plastic parts.
- DO NOT use polishing compounds to attempt to remove scratches.

PAINTED METAL SURFACES

Correct Cleaning Care:

Follow automotive practices to care for your tractor painted metal surfaces. Use a high-quality automotive wax regularly to maintain the factory look of your tractor's painted surfaces.

Repair:

Minor Scratches (surface scratch):

1. Clean area thoroughly to be repaired.

2. Use automotive polishing compound to remove surface scratches.

- DO NOT use rubbing compound to avoid removing paint.

3. Apply wax to entire surface.

Deep Scratches (bare metal or primer showing):

1. Clean area to be repaired with rubbing alcohol or mineral spirits.

2. Use paint stick with factory-matched colors available from your John Deere dealer to fill scratches. Follow directions for use and for drying.

- Apply sparingly to scratch without getting on surrounding painted surface. Fill in scratch to level of surrounding painted area.
- Allow to dry 48 hours in warm weather and up to 30 days in colder temperatures.

3. Use automotive polishing compound to smooth out surface. Do not use power buffer.

4. Apply wax to surface.

Removing Mower

CAUTION:
- **To avoid injury, before removing mower from tractor: STOP engine. Remove key. Wait for all moving parts to STOP.**
- **To avoid injury from loaded spring when removing mower: DO NOT attempt to remove mower until first moving lift lever all the way forward and LOCK in MOWING (lower) position.**

NOTE: 38-Inch Mower Deck Used For Photo Purposes.

1. STOP engine, LOCK park brake, pull mower blade engagement lever rearward to DISENGAGE, turn key to the OFF position, and remove key.

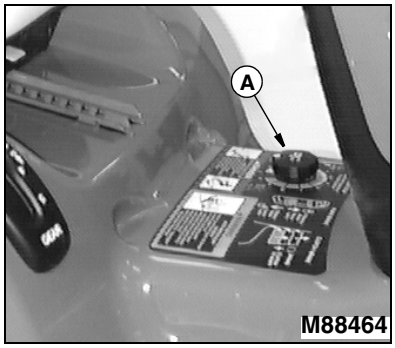
2. Raise mower lift lever and LOCK in TRANSPORT (upper) position.

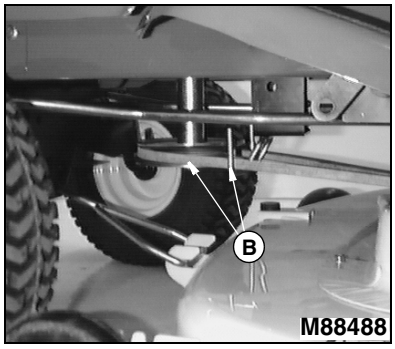
3. Set cutting height knob (A) to 25 mm (1 in).

4. Put wood blocks under each side of mower.

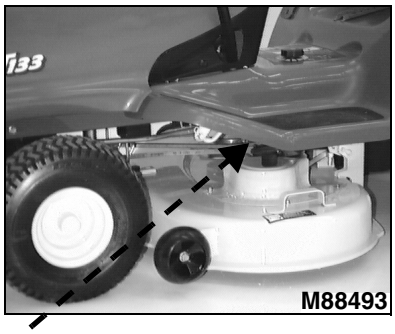
5. Push mower lift lever down to lower mower and LOCK in MOWING (lower) position, bringing deck down onto blocks.

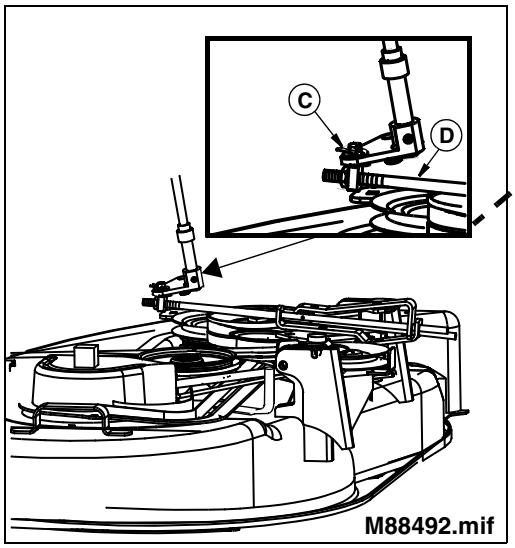
6. Remove belt from engine drive sheave and belt guides (B).





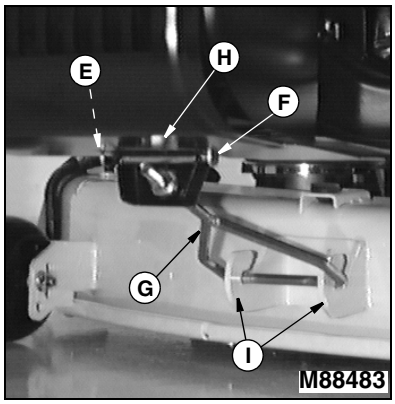
7. Remove spring locking pin and washer (C) from FRONT of mower engagement rod link (D).





8. Remove spring locking pin (E) and pin (F).

9. Move deck slightly forward and slide front draft rod (G) out of hole (H) and deck bracket (I).

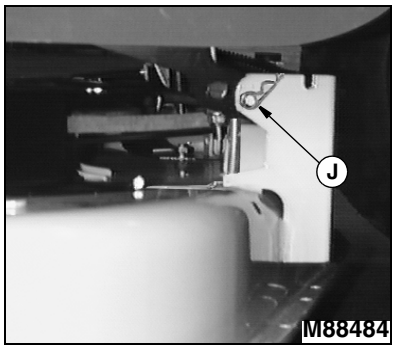


CAUTION: Avoid Injury From Loaded Spring. Mower lift lever under tension. Before disconnecting mower from tractor, make sure lift lever is pushed all the way forward to LOCK in MOWING (lower) position.

10. Remove spring locking pin and drilled pin (J) from right rear draft arm first and then left rear draft arm.

11. Pull mower lift lever back and LOCK in the TRANSPORT (upper) position.

12. Slide mower out from under the tractor.



Installing Mower

CAUTION: **•Avoid injury, before installing mower on machine: STOP engine. Remove key. Wait for all moving parts to STOP.**
•Avoid injury. Lift lever is spring loaded and will snap rearward when lever is released from MOWING (lower) position, with no attachment on tractor.

NOTE: 38-Inch Mower Deck Used For Photo Purposes.

1. STOP engine, LOCK park brake, pull mower blade engagement lever rearward to DISENGAGE, turn key to the OFF position, and remove key.

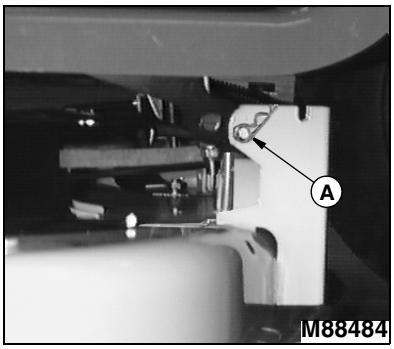
2. Raise mower lift lever and LOCK in TRANSPORT (upper) position.

3. Slide mower under the tractor.

4. Put wood blocks under each side of mower deck.

5. Push mower lift lever down to lower mower draft arms and LOCK in the MOWING (lower) position.

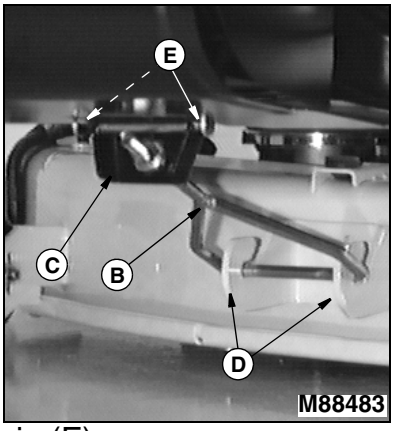
6. Install right rear draft arm first and then left to mower lift bracket with drilled pin and spring locking pin (A).



NOTE: Push spring locking pin (A) all the way through as shown.

7. Slide front draft rod (B) into hole in bracket (C) in front of tractor and onto deck bracket (D).

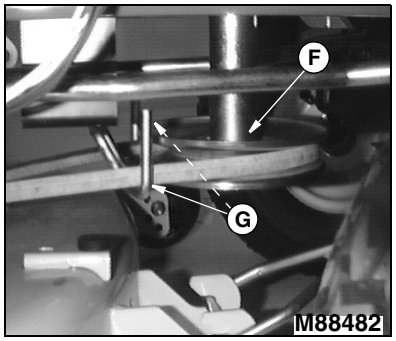
NOTE: Make sure the ball of front draft rod is located in formed pocket as shown.



8. Fasten with pin and spring locking pin (E).

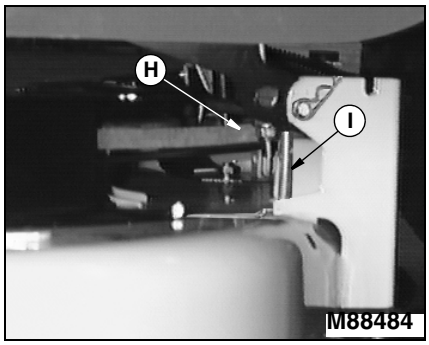
IMPORTANT: To avoid belt damage:
Make sure belt is routed through belt guides (G) and AHEAD of belt guide (I) as shown.

9. Put mower drive belt on engine drive sheave (F). Make sure belt is routed through belt guides (G).



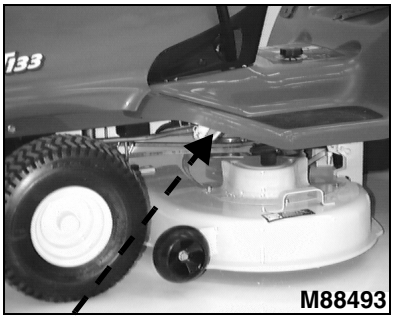
10. Check to make sure belt (H) is routed ahead of belt guide (I), one on each side of mower.

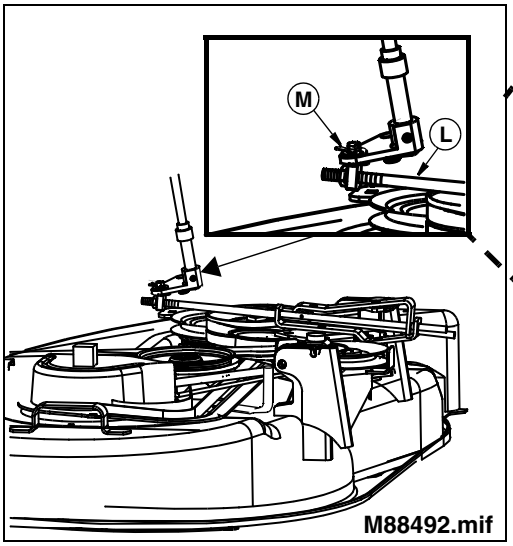
11. Remove wood blocks from both sides of mower.

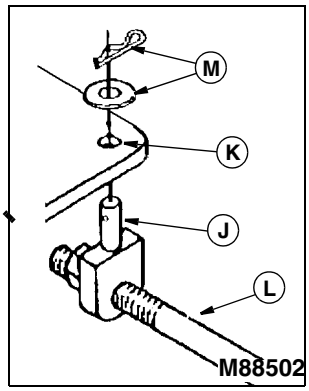


12. Check to see if pin (J) lines up with hole (K). If necessary, adjust mower engagement rod. (See Adjusting Mower Engagement Rod in Service-Mower section.)

13. Attach FRONT of mower engagement rod (L) with washer and spring locking pin (M).







14. Level mower. (See Leveling Mower in Operating the Mower section.)

Using Troubleshooting Chart

If you are experiencing a problem that is not listed in this chart, see your John Deere dealer for service.

When you have checked all the possible causes listed and you are still experiencing the problem, see your John Deere dealer.

Engine

IF	CHECK
Engine Will Not Start	Brake pedal not depressed.
	Mower Blade Engagement Lever is in ENGAGED position.
	Spark plug wire is loose or disconnected.
	Improper fuel.
	Plugged fuel filter.
	Electrical problem - See Electrical Troubleshooting Section
Engine Is Hard To Start	Carburetor is not adjusted properly or dirty.
	Plugged fuel filter.
	Choke adjusted incorrectly.
	Faulty spark plug.
	Loose or corroded electrical connections.
	Stale or improper fuel.
	Engine oil viscosity.

TROUBLESHOOTING

IF	CHECK
Engine Runs Unevenly	Cooling fins plugged.
	Loose electrical connections.
	Choke or throttle cable sticking.
	Fuel line or fuel filter plugged.
	Stale or dirty fuel.
	Improper fuel.
	Air cleaner element plugged.
Engine Misses Under Load	Faulty spark plug.
	Stale or dirty fuel.
	Plugged fuel filter.
Engine Vapor Locks	Fuel tank vent plugged.
	Dirt in fuel filter.
	Cooling fins plugged.
Engine Overheats	Engine air intake screen plugged.
	Cooling fins plugged.
	Engine oil low or too high.
	Engine operated too long at a slow idle speed.
Engine Will Not Idle	Spark plug not gapped correctly.
	Faulty spark plug.
	Operator raising off the seat.

IF	CHECK
Engine Knocks	Stale or low octane fuel.
	Engine overloaded.
	Low engine speed.
Engine Stops Or Misses When Operating On Hillsides	Fuel tank less than half full of fuel.
	Operator raising off of the seat.
Engine Backfires	Faulty spark plug.
	Operator raising off of the seat.
Engine Loses Power	Engine overheating.
	Too much oil in engine.
	Dirty air cleaner.
	Faulty spark plug.
	Travel speed is too fast for conditions.
	Improper fuel.
Engine Stops When REVERSE foot pedal is depressed and Attachment Is Engaged (Hydrostatic)	Normal condition. (See Using Reverse Implement Option in the OPERATING section.)
Engine Stops When gear shift lever is moved to the R (REVERSE) position and Attachment Is Engaged (Gear)	Normal condition. (See Using Reverse Implement Option in the OPERATING section.)

IF	CHECK
Excessive Fuel Consumption	Choke is not fully open. (LT166)
Black Exhaust Smoke	Air filter is dirty or oil soaked.

Electrical

IF	CHECK
Starter Does Not Work Or Will Not Turn Engine	Brake pedal is not depressed.
	Mower Blade Engagement Lever is in ENGAGED position.
	Battery terminals are corroded.
	Battery not charged.
	Fusible Link in starting circuit is blown - See your John Deere Dealer
Battery Will Not Charge	Dead cell in the battery.
	Battery cables and terminals are dirty.
	Low engine speed or excessive idling.
Lights Do Not Work	Light plug disconnected.
	Loose or burned out bulb.
Battery Overcharges (Low Fluid Level)	Headlights burned out or disconnected.

Tractor

IF	CHECK
Tractor Vibrates Too Much or Rattles Excessively	Attachment drive belts worn or damaged.
	Traction drive belt damaged or worn.
Tractor Will Not Move With Engine Running	Parking brake locked.
	Traction drive belt needs adjustment. (See your John Deere dealer for this service.)
	Free-wheeling lever not pushed in completely. (LT155 and LT166)

Mower

IF	CHECK
Discharge Chute Plugged	Belt installed incorrectly.
	Grass too wet.
	Grass too long.
	Engine should be at full throttle.
	Rear of deck too low.
Patches Of Grass Uncut	Travel speed too fast.
	Engine should be at full throttle.
	Dull blades.
	Cutting height set too high.

TROUBLESHOOTING

IF	CHECK
Belt Slipping	Debris in sheaves.
	Worn belt.
	Mower blade engagement rod needs adjustment.
Mower Blades Do Not Stop	Belt routed incorrectly.
	Mower blade engagement rod needs adjustment.
	Spindle brakes need adjustment. (See your John Deere dealer.)
Too Much Vibration	Debris on mower deck or in sheaves.
	Damaged drive belt.
	Damaged sheaves or sheaves out of alignment.
	Blades out of balance.
Uneven Cut	Check procedures on Adjusting Mower Level Side-to-Side and Front-to-Rear.
	Travel speed too fast.
	Blades are dull.
	Check tire pressure.
	Adjust mower wheels.

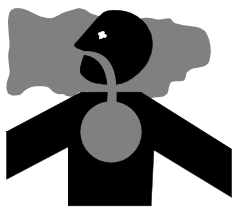
IF	CHECK
Blades Scalping Grass	Turning speed too fast.
	Ridges in terrain.
	Rough or uneven terrain.
	Low tire pressure.
	Cutting too low.
	Bent blade(s).
	Adjust mower wheels.
Mower Loads Down Tractor	Engine should be at full throttle.
	Travel speed too fast.
	Debris wrapped around mower spindles.
	Check procedure on Adjusting Mower Level Front-to-Rear.
	Grass conditions.
	Cutting height set too low.
Uneven Clipping Distribution	Cutting height set too low.
	Mowing too fast.
	Grass too wet.
Mower (or other attachment) Stops When REVERSE foot pedal is depressed and Attachment Is Engaged (Hydrostatic)	Normal condition. (See Using Reverse Implement Position in the OPERATING Section.)

IF	CHECK
Mower (or other attachment) Stops When gear shift lever is moved to the R (REVERSE) position and Attachment Is Engaged (Gear)	Normal condition. (See Using Reverse Implement Option in the OPERATING section.)

STORING VEHICLE

Storing Safety

CAUTION: Engine exhaust fumes can cause sickness or death.



- **If it is necessary to run an engine in an enclosed area, use an exhaust pipe extension to remove the fumes. Always try to work in a well ventilated area.**
- **DO NOT store vehicle with fuel in the tank inside a building where fumes may reach an open flame or spark.**
- **Allow engine to cool before storing in any enclosure.**
- **Remove the battery and store it in a cool dry place where it will not freeze, and where children cannot reach it.**

Preparing Machine for Storage

1. Repair any worn or damaged parts. Replace parts if necessary. Tighten loose hardware.
2. Clean under the deck.
3. Paint scratched or chipped metal surfaces to prevent rust.
4. Wash the machine and apply wax to metal and plastic surfaces. (See SERVICE-MISCELLANEOUS section for care of plastic and metal surfaces.)
5. Run machine for five minutes to dry belts and pulleys.
6. Apply light coat of engine oil to pivot and wear points to prevent rust.
7. Lubricate grease points.
8. Make sure tires are properly inflated.

STORING VEHICLE

Preparing Engine For Storage

NOTE: Properly preparing your tractor engine for storage will make it easier to start the following season. Engine storage procedure should be used if vehicle is not used for longer than 60 days.

There are two satisfactory methods of preparing the engine for storage: running the engine completely dry of fuel, or filling the fuel tank with a mixture of fresh fuel and fuel stabilizer.

Running engine dry of fuel:

NOTE: Try to anticipate the last time the tractor will be used for the season so very little fuel is left in the fuel tank.

1. Park tractor in a well-ventilated area.
2. Engage park brake and disengage PTO.
3. Turn on engine and allow to run until it runs out of fuel.
4. Turn key to OFF position.
5. Continue with Step 6.

Add fuel and stabilizer mixture to tank:

1. Park tractor in a well-ventilated area.

IMPORTANT:	**Be sure fuel is fresh when adding fuel stabilizer. Fuel stabilizers are ineffective when added to fuels that are more than 30 days old.**

2. Mix fresh fuel and fuel stabilizer in separate container. Follow stabilizer instructions for mixing.

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

3. Fill fuel tank with stabilized fuel.
4. Run engine for a few minutes to allow fuel mixture to circulate through carburetor.
5. Continue with Step 6.

6. Change engine oil and filter while engine is warm.

7. Service air filter if necessary.

8. Clean debris from engine air intake screen.

9. Remove spark plugs. Put 30 mL (1 oz.) of clean engine oil in cylinders.

10. Install spark plugs, but DO NOT connect spark plug wires.

11. Crank the engine for approximately five seconds to allow oil to be distributed.

12. Clean the engine and engine compartment.

13. Remove battery.

14. Clean the battery and battery posts. Check the electrolyte level. (See **Checking Battery Electrolyte Level** in the SERVICE - ELECTRICAL section.)

NOTE: The stored battery should be recharged every 90 days.

15. Charge the battery. (See **Charging Battery** in the SERVICE - ELECTRICAL section.)

16. Store the battery in a cool, dry place where it will not freeze.

17. Store the vehicle in a dry, protected place. If vehicle is stored outside, put a waterproof cover over it.

STORING VEHICLE

Removing Machine From Storage

1. Check tire pressure.

2. Check engine oil level.

3. Check battery electrolyte level. Charge battery if necessary.

4. Install battery. (See Removing and Installing the Battery in the SERVICE-ELECTRICAL section.)

5. Check spark plug gap. Install and tighten plugs to 20 N•m (15 lb-ft).

6. Lubricate all grease points.

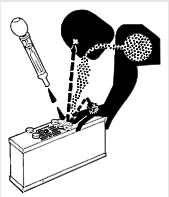
7. Check transmission oil level.

8. Run the engine 5 minutes without the mower or any attachments running to allow oil to be distributed throughout engine.

9. Be sure all shields and guards are in place.

Charge and Connect Battery

CAUTION: **BE VERY CAREFUL: Battery fluid (electrolyte), is a solution of water and sulfuric acid. It is very harmful to eyes, skin, or clothing.**



- Wear goggles or an eye shield when you work with a battery.
- If the acid contacts your eyes, skin, or clothing, flush the area immediately with water. Get medical help, if necessary.

A battery gives off gas which can explode. An exploding battery will spray sulfuric acid in all directions.

- Keep cigarettes, sparks, and flames away from the battery.
- Charge the battery in an area with good ventilation.
- Do not charge a frozen battery; it may explode. Warm battery to 16 degrees C (60 degrees F).

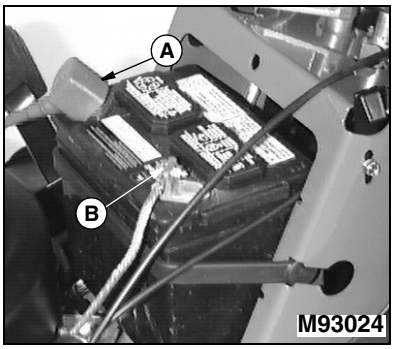
1. Remove and discard the RED positive (+) protective cap from the positive (+) battery terminal.

2. Remove and discard the BLACK (–) protective cap from the negative battery terminal.

3. Charge the battery. (See Charging the Battery in the Service-Electrical section.)

4. Clean both battery terminals and battery cable ends with a wire brush until bright.

5. Connect RED positive (+) cable (A) to battery. Apply petroleum jelly or silicone spray to terminal to prevent corrosion. Make sure connection is tight. Install the red terminal cover.



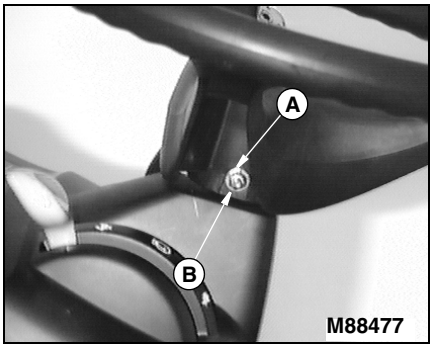
6. Connect black negative (–) cable (B) to battery. Apply petroleum jelly or silicone spray to terminal to prevent corrosion. Make sure connection is tight.

Install Steering Wheel

1. Put front wheels in the straight forward position.

2. Put John Deere NEVER-SEEZ™ Lubricant or an equivalent on the steering shaft.

3. Install steering wheel with John Deere logo in the upright position.



4. Install shoulder bolt (A). Drive bolt in until head of bolt contacts steering wheel.

5. Install washer and nut (B).

6. Tighten lock nut until it is snug. Do not tighten lock nut to pull washer or head of bolt into steering wheel.

NEVER-SEEZ is a trademark of the Never-Seez Corp.

Check Machine Safety System

Perform safety system check to make sure the electronic safety interlock circuit is functioning properly. Perform all seven Tests. (See Testing Safety System in the Operating section).

Checking Tire Pressure

CAUTION: Explosive separation of a tire and rim parts can cause serious injury or death:

- Do not attempt to mount a tire without the proper equipment and experience to perform the job.
- Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.
- When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly.
- Check tires for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.

1. Check tires for damage.
2. Check tire pressure with an accurate gauge.
3. Add or remove air, if necessary:

Tire Size	Pressure
Front: 15 x 6.00 - 6	83 kPa (12 psi)
Rear: 20 x 10.00 - 8	55 kPa (8 psi)

SPECIFICATIONS

Engine

Model	LT133	LT155	LT166
Make	Kohler	Kohler	Briggs & Stratton
Engine Model Number	CV13S-21525	CV15S-41562	303777
Horsepower	9.7 kW (13 hp)	11.2 kW (15 hp)	11.9 kW (16 hp)
Cylinders	One	One	V-Twin
Cycle	Four	Four	Four
Cooling Type	Air	Air	Air
Displacement	398 cc (24.3 cu.in.)	426 cc (26.0 cu.in.)	480 cc (29.3 cu.in.)
Compression Ratio	8.5 to 1	8.5 to 1	8.25 to 1
Crankcase Capacity (without oil filter)	1.4 L (1.5 qt)	1.4 L (1.5 qt)	1.4 L (1.5 qt)
Crankcase Capacity (with oil filter)	1.8 L (1.9 qt)	1.8 L (1.9 qt)	1.5 L (1.6 qt)
Oil Filter	Full Flow Filter	Full Flow Filter	Full Flow Filter
Air Cleaner	Paper Element with Foam Precleaner	Paper Element with Foam Precleaner	Paper Element with Foam Precleaner
Spark Plug Gap	1 mm (0.040 in.)	1 mm (0.040 in.)	1 mm (0.040 in.)

Model	LT133	LT155	LT166
Spark Plug Torque	40 N•m (30 lb-ft)	40 N•m (30 lb-ft)	20 N•m (15 lb-ft)

Fuel System

Model	LT133	LT155	LT166
Fuel	See **Fuel** in the Service - Miscellaneous section.		
Fuel Capacity	7.5 L (2.0 gal)	7.5 L (2.0 gal)	7.5 L (2.0 gal)
Fuel Filter	Replaceable	Replaceable	Replaceable

Drive Train

Model	LT133	LT155	LT166
Transaxle	Dana	Tuff-Torq	Tuff-Torq
Type	Five-Speed/ Linear Shift	Hydrostatic Variable Speed	Hydrostatic Variable Speed

Electrical System

Model	LT133	LT155	LT166
Battery Type	Lead-Acid 12 volts	Lead-Acid 12 volts	Lead-Acid 12 volts
Charging System	Flywheel Alternator	Flywheel Alternator	Flywheel Alternator
Starting Circuit Fuse	Fusible Link	Fusible Link	Fusible Link

SPECIFICATIONS

Tires

Model	LT133	LT155	LT166
Front	15x6.00-6	15x6.00-6	15x6.00-6
Rear	20x10.00-8	20x10.00-8	20x10.00-8
Inflation Front	83 kPa (12 psi)	83 kPa (12 psi)	83 kPa (12 psi)
Inflation Rear	55 kPa (8 psi)	55 kPa (8 psi)	55 kPa (8 psi)

Steering and Brakes

Model	LT133	LT155	LT166
Brake Type	Single, External Disk	Single, Internal Disk	Single, Internal Disk
Parking Brake	Right Pedal, Clutch Interlock	Right Pedal	Right Pedal
Steering	Sector and Pinion	Sector and Pinion	Sector and Pinion

SPECIFICATIONS

Travel Speeds

Model	LT133	LT155	LT166
First Gear (Forward)	2.5 km/h (1.6 mph)	9.3 km/h (0-5.8 mph)	9.3 km/h (0-5.8 mph)
Second Gear	3.3 km/h (2.1 mph)	N/A	N/A
Third Gear	5.2 km/h (3.2 mph)	N/A	N/A
Fourth Gear	6.6 km/h (4.1 mph)	N/A	N/A
Fifth Gear	8.5 km/h (5.3 mph)	N/A	N/A
Reverse	3.9 km/h (2.4 mph)	4.7 km/h (0-2.9 mph)	4.7 km/h (0-2.9 mph)

Mower

Model	38-Inch	Freedom42	46-Inch
Type	Rotary	Mulching	Rotary
Cutting Blades	Two	Two	Three
Blade Bolt Torque	53 N•m (39 lb-ft)	57 N•m (42 lb-ft)	53 N•m (39 lb-ft)
Cutting Width	965 mm (38 in.)	1067 mm (42 in.)	1168 mm (46 in.)
Cutting Height (Approximate)	25 to 102 mm (1 to 4 in.)	25 to 102 mm (1 to 4 in.)	25 to 102 mm (1 to 4 in.)
Height Adjustment	13-position (1/4 in. increments)	13-position (1/4 in. increments)	13-position (1/4 in. increments)

SPECIFICATIONS

Dimensions

Model	LT133	LT155	LT166
Overall Height	103.1 cm (40.6 in.)	103.1 cm (40.6 in.)	103.1 cm (40.6 in.)
Overall Width: **38-Inch Deck** **Freedom42 Deck** **46-Inch Deck**	132.1 cm (52 in.)	132.1 cm (52 in.) 111.3 cm (43.8 in.)	132.1 cm (52 in.) 111.3 cm (43.8 in.) 144 cm (56.7 in.)
Overall Length	172.5 cm (67.91 in.)	172.5 cm (67.91 in.)	172.5 cm (67.91 in.)
Wheelbase	117.5 cm (46.26 in.)	117.5 cm (46.26 in.)	117.5 cm (46.26 in.)
Net Weight (No Fuel) **38-Inch Deck** **Freedom42** **46-Inch Deck**	206.8 kg (455 lb)	213.6 kg (470 lb) 215.9 kg (475 lb)	213.6 kg (470 lb) 215.9 kg (475 lb) 220.5 kg (485 lb)

SPECIFICATIONS

Recommended Lubricants

Engine Oil	PLUS-4® (SAE 10W-30) See **Engine Oil** in Service-Engine section for preferred oils
Grease	John Deere MOLY HIGH TEMPERATURE EP GREASE John Deere HIGH TEMPERATURE EP GREASE John Deere GREASE GARD™

(Specifications and design subject to change without notice.)

WARRANTY

Product Warranty

Product warranty is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The following warranties are in addition to the product warranty you received from your dealer at the time of sale.

Tire Warranty

John Deere warranty applies for tires available through the John Deere parts system. For tires not available through the John Deere parts system, the tire manufacturer's warranty applicable to your machine may not apply outside the U.S. (See your John Deere dealer for specific information.

Limited Engine Warranty

FEDERAL AND CALIFORNIA EMISSION CONTROL DEFECTS

WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The United States Environmental Protection Agency (EPA), the California Air Resources Board (CARB) and Deere & Company (John Deere) are pleased to explain the emission control system warranty on your 1995 and later utility or lawn and garden equipment engine. In California new utility and lawn and garden equipment engines must be designed, built and equipped to meet the State's stringent anti-smog standards. In other states, new 1997 and later model year equipment engines must be designed, built and equipped, at the time of sale, to meet the U.S. EPA regulations for small non-road engines. The engine must be free from defects in materials and workmanship which cause it to fail to conform with U.S. EPA standards for the first two years of engine use from the date of sale to the ultimate purchaser. John Deere must warrant the emission control system on your utility or lawn and garden equipment engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your utility or lawn and garden equipment engine.

Your emission control system may include parts such as the carburetor or fuel-injection system, the ignition system, and catalytic converter. Also included may be hoses, belts, connectors and other emission related assemblies.

Where a warrantable condition exists, John Deere will repair your utility or lawn and garden equipment engine at no cost to you including diagnosis, parts and labor.

WARRANTY

MANUFACTURER'S WARRANTY COVERAGE

In California, the 1995 and later utility and lawn and garden equipment engines are warranted for two years. In other states, 1997 and later model year equipment engines are warranted for two years. If any emission related part on your engine is defective, the part will be repaired or replaced by John Deere.

OWNER'S WARRANTY RESPONSIBILITIES

As the utility or lawn and garden equipment engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. John Deere recommends that you retain all receipts covering maintenance on your utility or lawn and garden equipment engine, but John Deere cannot deny warranty solely for lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the utility or lawn and garden equipment engine owner, you should however be aware that John Deere may deny you warranty coverage if your utility or lawn and garden equipment engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your utility or lawn and garden equipment engine to an authorized John Deere Commercial and Consumer Equipment Retailer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact your John Deere Commercial and Consumer Equipment Retailer, or the John Deere Customer Communications Center, 1-800-537-8233.

JOHN DEERE EMISSION CONTROL SYSTEM WARRANTY COVERAGE

LENGTH OF WARRANTY COVERAGE

John Deere warrants to the initial owner and each subsequent purchaser that the lawn and garden equipment engine is:

- Designed, built and equipped so as to conform with all applicable regulations adopted by the California Air Resources Board (CARB) pursuant to its authority in Chapters 1 and 2, Part 5, Division 26 of the Health and Safety Code for 1995 and later equipment engines, and all applicable regulations of the United States Environmental Protection Agency (EPA) for 1997 and later equipment engines; and
- Free from defects in materials and workmanship which can cause the failure of an emission warranted part for a period of two years after the engine is delivered to the initial retail purchaser. John Deere is liable for damages to other engine components caused by the failure of a warranted part during the warranty period. If any emission related part on your engine is defective, the part will be repaired or replaced by John Deere.

WARRANTY

WARRANTED PARTS

Coverage under this warranty extends only to the parts listed below (the emission control system parts) to the extent these parts were present on the engine purchased.

Fuel Metering System:
- Carburetor and internal parts (or fuel injection system).
- Air/fuel ratio feedback and control system.
- Cold start enrichment system.

Air Induction System:
- Air Cleaner
- Controlled hot air intake system.
- Intake manifold.

Ignition System:
- Spark plugs.
- Magneto or electronic ignition system.
- Spark advance/retard system.

Exhaust Gas Recirculation (EGR) System:
- EGR valve body and carburetor spacer if applicable.
- EGR rate feedback and control system.

Air Injection System:
- Air pump or pulse valve.
- Valves affecting distribution of flow.
- Distribution manifold.

Catalyst or Thermal Reactor System:
- Catalytic converter.
- Thermal reactor.
- Exhaust manifold.

Particulate Controls:
- Traps, filters, precipitators, and any other device used to capture particulate emissions.

Miscellaneous Items Used in Above Systems
- Vacuum, temperature, and time sensitive valves and switches.
- Electronic controls.
- Hoses, belts, connectors, and assemblies.

Since emission related parts may vary slightly from model to model, certain models may not contain all of these parts and certain models may contain functionally equivalent parts.

WARRANTY

WARRANTY SERVICE AND CHARGES

Warranty service shall be provided during customary business hours at any authorized John Deere Commercial and Consumer Equipment Retailer located within the United States of America. Repair or replacement of any warranted part will be performed at no charge to the owner, including diagnostic labor which leads to the determination that a warranted part is defective, if the diagnostic work is performed at an authorized John Deere Commercial and Consumer Equipment Retailer. Any parts replaced under this warranty shall become the property of John Deere.

MAINTENANCE WARRANTY COVERAGE

a) Any warranted part which is not scheduled for replacement as required maintenance shall be warranted as to defects for the warranty period. Any such part repaired or replaced under the warranty shall be warranted for the remaining warranty period.

b) Any warranted part which is scheduled only for regular inspection to the effect of “repair or replace as necessary” shall be warranted as to defects for the warranty period. Any such part repaired or replaced under the warranty shall be warranted for the remaining warranty period.

c) Any warranted part which is scheduled for replacement as required maintenance shall be warranted as to defects only for the period of time up to the first scheduled replacement for that part. Any such part repaired or replaced under the warranty shall be warranted for the remainder of the period prior to the first scheduled replacement point for that part.

d) Normal maintenance, replacement or repair of emission control devices and systems, which are being done at the customers expense, may be performed by any repair establishment or individual; however, warranty repairs must be performed by an authorized John Deere Commercial and Consumer Equipment Retailer.

e) Any replacement part that is equivalent in performance and durability may be used in the performance of any non-warranty maintenance or repairs, and shall not reduce the warranty obligations of John Deere.

CONSEQUENTIAL WARRANTY COVERAGE

Warranty coverage shall extend to the failure of any engine components caused by the failure of any warranted part still under warranty.

WARRANTY

LIMITATIONS

This Emission Control System Warranty shall NOT cover any of the following:

a) Repair or replacement required as a result of (i) misuse or neglect, (ii) improper maintenance or unapproved modifications, (iii) repairs improperly performed or replacements improperly installed, (iv) use of replacement parts or accessories not conforming to John Deere specifications which adversely affect performance and/or durability, (v) alterations or modifications not recommended or approved in writing by John Deere.

b) Replacement parts, other services and adjustments necessary for normal maintenance.

c) Transportation to and from the John Deere Commercial and Consumer Equipment Retailer, or service calls made by the Retailer.

LIMITED LIABILITY

a) The liability of John Deere under this Emission Control System Warranty is limited solely to the remedying of defects in materials or workmanship. This warranty does not cover inconvenience or loss of use of the utility or lawn and garden equipment engine or transportation of the engine to or from the John Deere Commercial and Consumer Equipment Retailer. JOHN DEERE SHALL NOT BE LIABLE FOR ANY OTHER EXPENSE, LOSS, OR DAMAGE, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL (EXCEPT AS LISTED ABOVE UNDER “COVERAGE”) OR EXEMPLARY ARISING IN CONNECTION WITH THE SALE OR USE OF OR INABILITY TO USE THE UTILITY OR LAWN AND GARDEN ENGINE FOR ANY OTHER PURPOSE.

b) NO EXPRESS EMISSION CONTROL SYSTEM WARRANTY IS GIVEN BY JOHN DEERE WITH RESPECT TO THE ENGINE EXCEPT AS SPECIFICALLY SET FORTH IN THIS DOCUMENT. ANY EMISSION CONTROL SYSTEM WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS EXPRESSLY LIMITED TO THE EMISSION CONTROL SYSTEM WARRANTY TERMS SET FORTH IN THIS DOCUMENT.

c) No dealer is authorized to modify this Federal, California and John Deere Emission Control System Warranty.

WARRANTY

LEGAL RIGHTS

This Warranty gives you specific legal rights. You may also have other rights in the State of California for 1995 and later equipment engines and in other states for 1997 and later equipment engines.

THIS FEDERAL AND CALIFORNIA EMISSION CONTROL SYSTEM WARRANTY IS IN ADDITION TO THE JOHN DEERE LIMITED ENGINE WARRANTY.

WARRANTY

Limited Battery Warranty

NOTE: Applicable in North American only. For complete machine warranty, reference a copy of the John Deere warranty statement. Contact your John Deere dealer to obtain a copy.

TO SECURE WARRANTY SERVICE

The purchaser must request warranty service from a John Deere dealer authorized to sell John Deere batteries, and present the battery to the dealer with the top cover plate codes intact.

FREE REPLACEMENT

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship within 90 days of purchase will be replaced free of charge. Installation costs will be covered by warranty if (1) the unserviceable battery was installed by a John Deere factory or dealer, (2) failure occurs within 90 days of purchase, and (3) the replacement battery is installed by a John Deere dealer.

PRO RATA ADJUSTMENT

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship more than 90 days after purchase, but before the expiration of the applicable adjustment period, will be replaced upon payment of the battery's current list price less a pro rata credit for unused months of service. The applicable adjustment period is determined from the Warranty Code printed at the top of the battery and chart below. Installation costs are not covered by warranty after 90 days from the date of purchase.

THIS WARRANTY DOES NOT COVER

A. Breakage of the container, cover, or terminals.

B. Depreciation or damage caused by lack of reasonable and necessary maintenance or by improper maintenance.

C. Transportation, mailing, or service call charges for warranty service.

LIMITATION OF IMPLIED WARRANTIES AND PURCHASER'S REMEDIES

To the extent permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations, or promises as to the quality, performance or freedom from defect of the products covered by this warranty. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE, SHALL BE LIMITED IN DURATION TO THE APPLICABLE ADJUSTMENT PERIOD SET FORTH HERE. THE PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON JOHN DEERE BATTERIES ARE THOSE SET FORTH HERE. IN NO EVENT WILL THE DEALER, JOHN DEERE OR ANY COMPANY AFFILIATED WITH JOHN DEERE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. (Note: Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages. So these limitations and exclusions may not apply to you.) This warranty gives you specific legal rights, and you may also have some rights which vary from state to state.

NO DEALER WARRANTY

The selling dealer makes no warranty of it's own and the dealer has no authority to make any representation or promise on behalf of John Deere, or to modify the terms or limitations of this warranty in any way.

PRO RATA MONTHS OF ADJUSTMENT

Warranty Code	Warranty Period
A	40 Months
B	36 Months
C	24 Months

NOTE: If your battery is not labeled with a warranty code, it is a warranty code "B".

INDEX

A

Adjusting Mower Engagement Rod (All Decks) 80
Air Cleaner Element (Foam) 50
Air Cleaner Element (Paper) 50
Air Cleaner Elements (LT133 and LT155),
Checking and Cleaning 63
Air Cleaner Elements (LT166), Checking and Cleaning 64
Air Intake Screen, Cleaning 62
Automatic Transmission (LT155 and LT166),
Using and Stopping 17

B

Bagging and Composting 46
Bagging Tips 46
Bagging With Optional Bolt-On Lip Sections (38-Inch Mower) 48
Balancing Blades 86
Battery 51, 87
Battery and Terminals, Clean 90
Battery Electrolyte Level, Checking 95
Battery Warranty 138
Battery, Charge and Connect 123
Battery, Charging the 91
Battery, Checking the 87
Battery, Removing and Installing the 88
Battery, Replacing 89
Battery, Using Booster 94
Belt 51
Belt (38-Inch Deck), Replacing Mower Drive 72
Belt (46-Inch Deck), Replacing Mower Drive 78
Belt (Freedom42 Mower), Replacing Mower Drive 73
Belt, Timing on (Freedom42 Mulching Mower),
Replacing and Adjusting 75
Blades 51
Blades (38 and 46-Inch Deck), Servicing Mower 83
Blades (38-Inch Mower), Using Correct 39
Blades (46-Inch Mower), Using Correct 40
Blades (Freedom42 Mower Deck), Servicing Mower 84

INDEX

Blades (Freedom42 Mulching Mower), Using Correct 40
Blades, Balancing 86
Blades, Checking Mower 82
Blades, Sharpening 86
Brake, Using Park 12
Bulb, Replacing Headlight 96

C

Carburetor, Adjusting 56
Certification Label 4
Chains on Tires, Preparing Tractor for Installing 26
Chains, Installing the 27
Chains, Using Tire 26
Charge and Connect Battery 123
Charging Rates 93
Charging the Battery 91
Clean Battery and Terminals 90
Cleaning Air Intake Screen 62
Cleaning Care, Correct 102
Cleaning Headlight Lens 96
Controls, Dash 5
Cutting Height, Adjusting 32

D

DAILY OPERATING CHECKLIST 20
Dash Controls 5
Dimensions 130
Disengaging Mower 39
Dismounting to Inspect or Unplug Mower or Optional Bagger 41
Drive Train Specifications 127

E

Electrical System 127
Elements (LT133 and LT155), Checking and
Cleaning Air Cleaner 63
Engagement Rod (All Decks), Adjusting Mower 80
Engaging Mower 38

Engine Fins, Cleaning Air Intake Screen and 62
Engine For Storage,Preparing 120
Engine Oil 57
Engine Oil Filter, Changing 61
Engine Oil Level, Checking 58
Engine Oil, Changing 59
Engine Specifications 126
Engine Warranty 132
Engine Warranty Maintenance Statement 56
Engine, Starting 13
Engine, Stopping 15
Engine, Troubleshooting 111
Engine, Warming and Idling 15

F

Filter, Changing Engine Oil 61
Filter, Fuel 50
Filter, Oil 50
Filter, Replacing Fuel 66
Fins, Cleaning Air Intake Screen and Engine 62
Free Wheeling, Using 19
Freedom42 (Specifications) 129
Freedom42 Deck (Primary-V-Belt) and
(Secondary-Timed Belt) Replacement Part Numbers 51
Freedom42 Deck Only, Lubricate Mower Spindles 72
Freedom42 Deck, (Set),
Replacement Parts Numbers for Blades 51
Freedom42 Mower Deck, Servicing Mower Blades 84
Freedom42 Mower, Replacing Mower Drive Belt 73
Freedom42 Mower, Using Correc Blades 40
Freedom42 Mowing Tips 42
Freedom42 Mulching Mower Tips for Best-Looking Lawn 43
Freedom42 Mulching Mower, 100 Hours Service Interval 54
Freedom42 Mulching Mower, 25 Hour Service Interval 54
FREEDOM42 MULCHING MOWER,
Adjusting Mower Level (Front-to-Rear) 37
Freedom42 MULCHING MOWER,

Adjusting Mower Level (Side-to-Side) 35
FREEDOM42 MULCHING MOWER, Leveling Wheels 33
Freedom42 Mulching Mower,
Replacing and Adjusting Mower Deck Timing Belt 75
Freedom42 Trimming Tips 44
Fuel Filter, Replacing 66
Fuel System 127
Fuel Tank, Filling 101

G

Gear Transmission (LT133), Using and Stopping 16
Gear Transmission, Checking 67
Grease 68, 71

H

Headlight Bulb, Replacing 96
Headlight Lens, Cleaning 96
Height, Adjusting Cutting 32
Hood Latch, Adjusting 101

I

Idling Engine, Warming and 15
Installing Mower 108
Installing the Battery 88
Intake Screen, Cleaning Air 62
Intervals, Service 54

L

Label, Certification 4
Labels, Safety 1, 3
Lens, Cleaning Headlight 96
Level (Front-to-Rear), Adjusting Mower 36
Level (Side-to-Side), Adjusting Mower 34
Leveling Wheels, Adjusting Mower 33
Lever to Raise and Lower
Mower (LT133 and LT155), Using Lift 30
Lever to Raise and Lower Mower (LT166), Using Lift 31

Lift Lever to Raise and Lower
Mower (LT133 and LT155), Using 30
Lift Lever to Raise and Lower Mower (LT166), Using 31
Lubricants, Recommended 131
Lubricate Mower Spindles (Freedom42 Deck Only) 72
Lubricating Front Wheel Spindles 69

M

Mower (LT133 and LT155),
Using Lift Lever to Raise or Lower 30
Mower (LT166), Using Lift Lever to Raise or Lower 31
Mower Blades (38 and 46-Inch Deck), Servicing 83
Mower Blades (Freedom42 Mower Deck), Servicing 84
Mower Blades, Checking 82
Mower Drive Belt (38-Inch Deck), Replacing 72
Mower Drive Belt (46-Inch Deck), Replacing 78
Mower Drive Belt (Freedom42 Mower), Replacing 73
Mower Engagement Rod (All Decks),
Adjusting 80
Mower Level (Front-to-Rear), Adjusting 36
Mower Level (Side-to-Side), Adjusting 34
Mower Leveling Wheels, Adjusting 33
Mower or Optional Bagger, Dismounting to Inspect or Unplug 41
Mower Specifications 129
Mower Spindles (Freedom42 Deck Only), Lubricating 72
Mower, Bagging with Optional Bolt-On Lip Sections 48
Mower, Disengaging 39
Mower, Engaging 38
Mower, Installing 108
Mower, Removing 105
Mower, Troubleshooting 115
Mowing Tips 42
Mulching Mower (Freedom42),
Mower Deck Timing Belt , Replacing and Adjusting 75
MULCHING MOWER, Adjusting
Mower Level (Front-to-Rear) on Freedom42 37
MULCHING MOWER, Adjusting

Mower Level (Side-to-Side) on Freedom42 35
Mulching Mower, Freedom42 Lubricating Mower Spindles 72
Mulching Mower, Freedom42 Service Interval 54
MULCHING MOWER, Leveling Wheels on Freedom42 33
Mulching Mower, Using Correct Blades on Freedom42 40
Mulching Tips 47

O

Oil Filter, Changing Engine 61
Oil Level, Checking Engine 58
Oil, Changing Engine 59
Oil, Engine 57
OPERATING CHECKLIST, Daily 20

P

PAINTED METAL SURFACES, Care 104
Park Brake, Using 12
Parts for Lawn Tractor and Mower Deck 51
Plastic and Painted Surfaces, Care 102
Preparing Tractor for Installing Chains on Tires 26
Pushing Tractor 19

R

Removing and Installing the Battery 88
Removing Mower 105
Reverse Implement Option, Using the 18

S

Safety Labels 1, 3
Safety System, Check Machine 124
SAFETY SYSTEMS, Testing 20
SAFETY, Operating the Machine 7
SAFETY, Operating the Mower 29
Safety, Service Machine 52
Safety-Alert Symbol 1
Screen, Cleaning Air Intake 62
Seat Suspension, Adjusting 11

INDEX

Seat, Adjusting 11
Service Intervals 54
Service Literature Order Form 147
Service Record 55
Servicing Mower Blades (38 and 46-Inch Deck) 83
Sharpening Blades 86
Spark Plug 51
Spark Plug, Checking 65
Spindles (Freedom42 Deck Only), Lubricate Mower 72
Spindles, Lubricating Front Wheel 69
Starting Engine 13
Steering and Brakes 128
Steering Wheel, Install 124
Stopping Automatic Transmission (LT155 and LT166) 17
Stopping Engine 15
Stopping Gear Transmission (LT133) 16
Storage, Preparing Engine for 120
Storage, Preparing Machine for 119
Storage, Removing Machine from 122
Storing Safety 119

T

TESTING SAFETY SYSTEMS 20
Timing Belt, Replacing and
Adjusting on Freedom42 Mulching Mower 75
Tire Chains, Using 26
Tire Pressure, Checking 97, 125
Tire Warranty 132
Tires 128
Travel Speeds 129
Troubleshooting Chart 111

W

Warming and Idling Engine 15
WARRANTED PARTS 134
Warranty 132
Warranty Maintenance Statement, Engine 56
Warranty, Battery 138
Warranty, Engine 132
Warranty, Tire 132
Weights, Using Front 26
Weights, Using Rear 26
Wheel Spindles, Lubricating Front 69
Wheels, Adjusting Mower Leveling 33

JOHN DEERE SERVICE LITERATURE

Order Form

John Deere Distribution Center - Department S/P P.O. Box 186, Moline, IL 61266-0186

To order these publications, call 1-800-522-7448. If you want manuals or catalogs for equipment not shown on this list, provide the model number, serial number, and name of the product when you call. Make checks payable to John Deere.

Name _____

Address _____

City _____

State _____

Zip _____ **Phone**: ( ) _____

Title	Number	Price	Qty	Total
Parts Catalog	PC2606, PC2607, PC2608	(Call 1-800-522-7448 for current prices.)		
Operator's Manual	OMM138782			
Technical Manual	TM1695			
Sub-total				
State Sales Tax (Illinois & Iowa only)				
Shipping & Handling				
Total				

Method of Payment

__ Check/Money Order Enclosed
__ John Deere Credit Card
__ MasterCard
__ Visa
__ American Express
__ Discover
__ Farm Plan

Credit Card Acct. No. (13 or 16 digits) _____ - _____ - _____ - _____

Expiration Date:	Signature:
_____	_____

NOTES

QUALITY DOESN'T END WHEN YOU INVEST IN A DEERE

John Deere equipment is more than just a purchase, it's an investment in quality. That quality goes beyond our equipment to your John Deere dealer's parts and service support. This support is needed to keep you a satisfied customer.

That's why John Deere has initiated a process to handle your questions or problems, should they arise. The following three steps will help guide you through the process.

Step 1 Refer to your operator's manual

A. It has many illustrations and detailed information on the safe and proper operation of your equipment.

B. It gives troubleshooting procedures, and specification information.

C. It gives ordering information for parts catalogs, service and technical manuals.

D. If your questions are not answered in the operator's manual, then go to Step 2.

Step 2 Contact your dealer

A. Your John Deere dealer has the responsibility, authority, and ability to answer questions, resolve problems, and fulfill your parts and service needs.

B. First, discuss your questions or problems with your dealer's trained parts and service staff.

C. If the parts and service people are unable to resolve your problem, see the dealership manager or owner.

D. If your questions or problems are not resolved by the dealer, then go to Step 3.

Step 3 Call the John Deere Customer Communications Center

A. Your John Deere dealer is the most efficient source in addressing any concern, but if you are not able to resolve your problem after checking your operator's manual and contacting your dealer, call the Customer Communications Center.

B. For prompt, effective service, please have the following ready before you call:

- The name of the dealer with whom you've been working.
- Your equipment model number.
- Number of hours on machine (if applicable).
- Your 13-digit serial number which you recorded on the inside front cover of this manual.
- If the problem is with an attachment, your attachment identification number.

C. Then call 1-800-537-8233 and our advisor will work with your dealer to investigate your concern.