

14PZ and 14SZ 21-Inch Walk-Behind Rotary Mowers (Serial No. 100001-)



JOHN DEERE

OPERATORS MANUAL

**14PZ and 14SZ 21-Inch Walk-Behind Rotary
Mowers (Serial No. 100001-)**

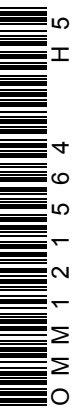
OMM121564 H5 English

**John Deere
Lawn & Grounds Care Division
OMM121564 H5
North American Version**

**LITHO IN U.S.A.
ENGLISH**



**Y
C
D**



**H 5
4
6
5
1
2
M
O**

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.

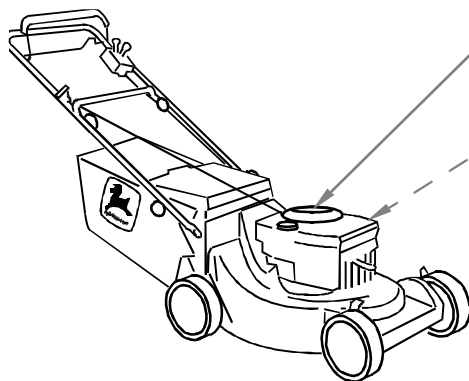
Measurements in this manual are metric units and their U.S. customary equivalents. RIGHT-HAND and LEFT-HAND sides are determined by facing in the direction the machine will travel when going forward. When you see a broken line arrow (➤) it indicates the part it is pointing to is hidden.

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:



Machine Serial Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Engine Serial Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

M60956

TABLE OF CONTENTS

	Page
Safety Signs	
Safety-Alert Symbol	1
Machine Safety Labels	1
Certification Label	3
Controls	
Handle Controls	4
Engine Controls	5
Mower Control	5
Operating	
SAFETY:	
Operate Safely	6
Rotating Blades Are Dangerous - Protect Children And Prevent Accidents	7
Wear Appropriate Clothing	7
ADJUSTMENTS:	
Adjust Cutting Height	8
Adjust Handle Height	9
Starting Engine	10
Forward Travel (14SZ)	11
Travel Speeds (14SZ)	12
Stopping Engine	12
Emergency Stopping	13
Using Discharge Chute (Optional)	13
Using Grass Bag	14
Using Mulch Plug (Optional)	14
Using Mulch Blade (Optional)	15

TABLE OF CONTENTS

	Page
Lawn Care	
Mowing Tips	16
Trimming Tips	17
To Avoid Scalping	17
Bagging Tips	17
Bagging And Composting	18
Mulching Tips	19
After Mowing	20
Replacement Parts	
WE RECOMMEND JOHN DEERE quality parts and lubricants, available at your John Deere dealer.	21
Service Machine Safely	
Practice Safe Maintenance	22
Wear Appropriate Clothing	22
Avoid Injury From Contacting Blades	23
Handling Waste Products	23
Service	
Service Intervals	24
Service Record	24
Avoid Fumes	25
Checking Engine Oil Level	26
Changing Engine Oil	27
Cleaning Air Cleaner Element	28
Cleaning And Gapping Spark Plug	29
Cleaning Fins	29
Adjusting Carburetor	30
Adjusting Traction Cable (14SZ)	30
Adjusting Throttle Cable	31
Lubricate Rear Axle Bushings	32
Grease	32
Cleaning Belt Area (14SZ)	33

TABLE OF CONTENTS

	Page
Service (Continued)	
Cleaning Fuel Cap Vents.....	33
Check, Tighten, And Remove Blade.....	34
Sharpen Blade.....	34
Balance And Install Blade.....	35
Handle Fuel Safely	36
Filling Fuel Tank.....	37
Troubleshooting	
Using Troubleshooting Chart.....	39
Storing Machine	
Storing Mower Safely.....	42
Storing Mower.....	42
Remove Mower From Storage.....	43
Fold Handles.....	43
Unfold Handles	44
Assembly	
Unfold Handle.....	45
Install Starter Handle In Bracket.....	45
Add Engine Oil.....	46
Install Grass Bag	47
Test Mower Operation	47
Specifications	
Engine.....	48
Machine Specifications	48
Recommended Lubricants.....	49

TABLE OF CONTENTS

	Page
Warranty Information	
Product Warranty	50
Limited Engine Warranty	50
John Deere Service Literature Available	
Order Form.....	55

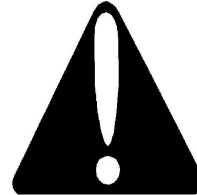
All information, illustrations and specifications in this manual are based on the latest information at the time of publication. The right is reserved to make changes at any time without notice.

COPYRIGHT© 1995
John Deere Horicon Works
All rights reserved
Previous Editions
COPYRIGHT© 1994 and 1992

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.

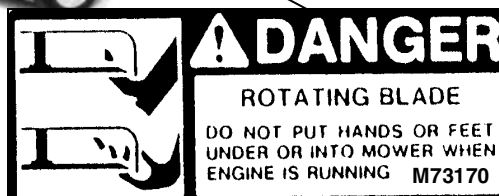


On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards. In this manual, the word CAUTION and this symbol call attention to safety messages.

Machine Safety Labels



M60956



SAFETY SIGNS



SAFETY SIGNS

 CAUTION HELP AVOID INJURIES	• Pick up objects that blade may hit and throw • Keep children and bystanders far away • Stop engine before adjusting cutting height • Read operator's manual
	S-5



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-71.1-1990, "Safety Specifications" for Power Lawn Mowers, Lawn and Garden Tractors, and Lawn Tractors.



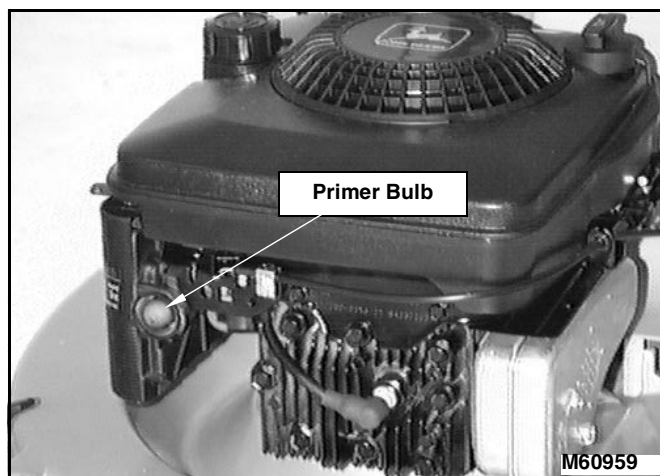
CONTROLS

Handle Controls



CONTROLS

Engine Controls



Mower Control



OPERATING

SAFETY

Operate Safely



- Inspect machine before you operate. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure proper guards, plates, grass catcher, or other safety protective devices 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 properly maintained and in good working order. Keep all guards, plates, grass catcher, or other safety devices in place.
- DO NOT leave machine unattended when it is running.
- Only operate during daylight or with good artificial light.
- Be sure of footing. Be especially careful when you pull machine backwards with the engine running.
- Mow across a hill - not up and down. Be careful when you change direction on a slope. Do Not mow excessively steep slopes.
- DO NOT mow wet grass. Reduced traction could cause you to slip.
- Stop the blade when crossing gravel drives, walks, or roads.
- Keep a firm hold on the machine handle.
- DO NOT wear radio or music headphones while operating the machine. Safe operation requires your full attention.
- DO NOT operate mower if you are under the influence of drugs or alcohol.

OPERATING

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 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.

HELP PREVENT SERIOUS OR FATAL ACCIDENTS:

- Be alert at all times, people **ESPECIALLY CHILDREN** can move quickly into the area before you know it.
- Shut off blades when you are not mowing.
- Keep hands, feet, and clothing away from rotating blades.

Wear Appropriate Clothing



- Wear close fitting clothing and safety equipment appropriate for the job.
- Do Not operate the equipment when barefoot or wearing open sandals. Always wear substantial footwear.
- Loud noise can cause impairment or loss of hearing, wear a suitable protective device such as earplugs.

OPERATING

ADJUSTMENTS

Adjust Cutting Height



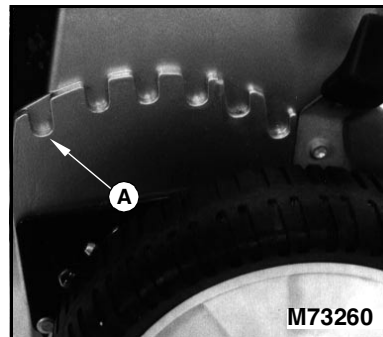
CAUTION: Before you adjust cutting height:
• STOP ENGINE.

IMPORTANT: Adjust all levers to same height except for LOWEST cutting height (A):

- Put front wheel levers in 1/2-in. (13 mm) notch: First rear notch.
- Put rear wheel levers in 1-in. (25 mm) notch: Second rear notch.

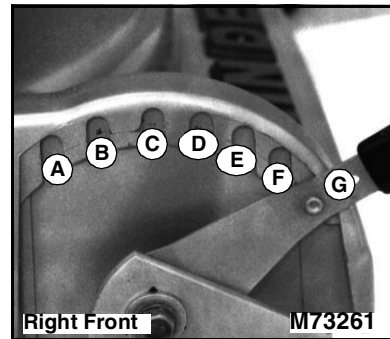
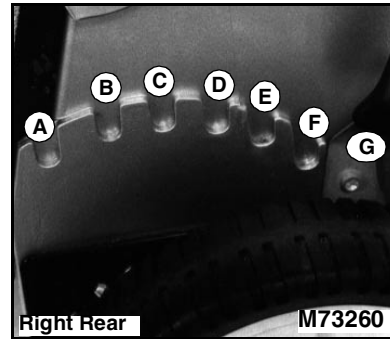
To help move rear wheel levers:

1. Lift lower handlebar slightly with one hand to take some weight off wheel.
2. Move lever to desired position with other hand.



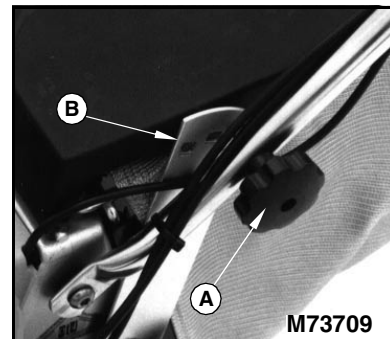
OPERATING

Key	Cutting Height Adjustments In Inches (MM)
(A)	1/2-in. (13 mm)
(B)	1-in. (25 mm)
(C)	1-1/2-in. (38 mm)
(D)	2-in. (50 mm)
(E)	2-1/2-in. (64 mm)
(F)	3-in. (75 mm)
(G)	3-1/2-in. (90 mm)



Adjust Handle Height

1. Remove knob (A) and bolt from each side.
2. Move handle to desired height.
3. Line up square hole in bracket (B) with hole in handle.
4. Install bolt through holes. Install knob.
5. Repeat Steps 2–4 on other side.



OPERATING

Starting Engine



CAUTION:

Engine exhaust fumes can cause sickness or death.



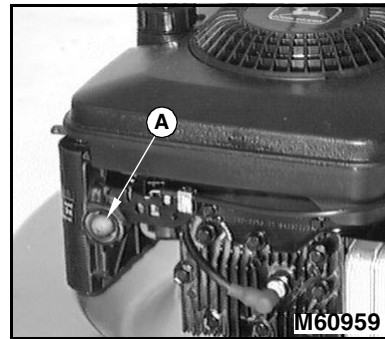
Run engine only in a ventilated area. If you run engine in an enclosed area, remove exhaust with exhaust pipe extension, or open doors to bring in outside air.

IMPORTANT:

To help prevent damage to starter and band brake, do not start the engine:

- When blade is under load, such as, in heavy grass OR
- When blade control lever is RELEASED.

1. Prime engine by pressing primer bulb (A) three times.



2. Move throttle lever (B) to the FAST  position.

3. Hold lever (C) against handle.



OPERATING

	CAUTION: 	WHEN ENGINE IS RUNNING, BLADE IS TURNING. Keep hands, feet and clothing away from blade.
--	---------------------	--

4. Pull starter handle (D) until you feel resistance. Then pull fast and steady.

5. When engine starts:

- Return rope slowly until handle is in bracket.



Forward Travel (14SZ)

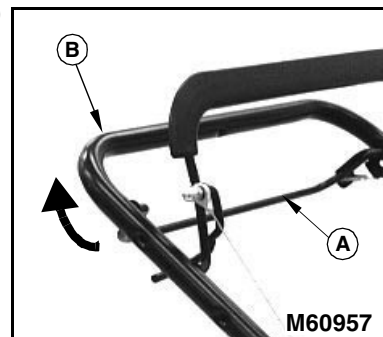
TO TRAVEL FORWARD:

Pull and hold traction clutch lever (A) against handle (B).

TO STOP FORWARD TRAVEL:

Release lever (A). Release lever before you turn.

NOTE: Rear wheels will make a clicking noise when you push mower forward. This means drivetrain is operating correctly.



OPERATING

Travel Speeds (14SZ)

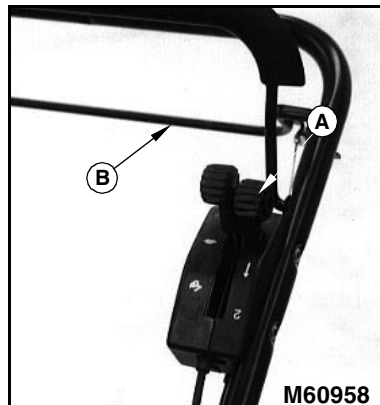
Travel speeds:

- 1st Gear: 2 mph (3.2 kph)
- 2nd Gear: 3 mph (5 kph)

To change travel speeds:

1. STOP FORWARD TRAVEL.
Move gear lever (A) to desired position:

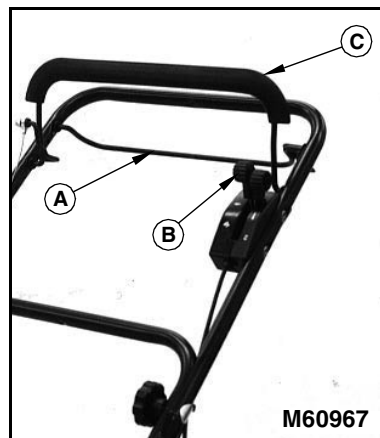
- 1st Gear: Move lever to rear notch as shown.
- 2nd Gear: Move lever to forward notch.



2. Engage traction clutch lever (B).

Stopping Engine

1. 14SZ: Release traction clutch lever (A).
2. Pull throttle lever (B) to the SLOW  position.
3. Release blade control lever (C).
4. Engine and blade must stop within 3 seconds. If not, see your John Deere dealer.

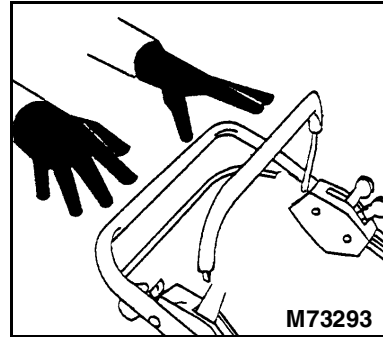


OPERATING

Emergency Stopping

Release handle and levers:

- Mower will stop.
- Blade will stop.
- Engine will stop.



Using Discharge Chute (Optional)



CAUTION: Do not operate mower unless grass bag, chute (optional), or mulch plug (optional) is held in place by door. Before you empty bag, STOP MOWER, BLADE and ENGINE.

1. Stop engine. Lift and hold door.
2. Remove grass bag.
3. Install chute. Lower door to hold chute in place.

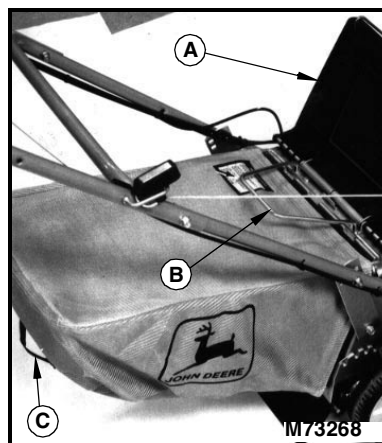


OPERATING

Using Grass Bag

1. Lift and hold door (A).
2. Grasp handle (B). Lift bag off mower.
3. Release door.
4. Grasp handle (C) to dump bag.

NOTE: Bag may wear and deteriorate. Check condition of bag often. Use a John Deere bag or equivalent to comply with safety specifications.

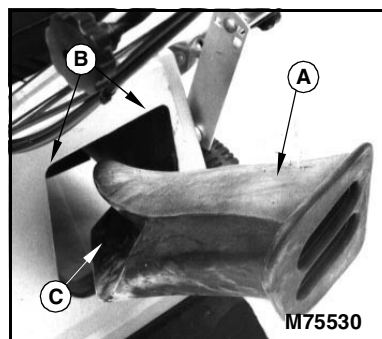


Using Mulch Plug (Optional)



CAUTION: Do not operate mower unless grass bag, chute, or plug is held in place by door. Before you unplug mower or remove mulch plug, STOP engine.

1. Lift and hold door up.
2. Install plug (A) in opening (B) with (C) facing left.
3. Push and turn plug to the left until it is seated.
4. Lower door.



OPERATING

Using Mulch Blade (Optional)

See your John Deere dealer for Mulch Plug Kit. The kit includes plug, blade, decal, and instructions.

Mulch blade works equally well with mulch plug, chute, or bag. There is no need to change blade when you change attachment.

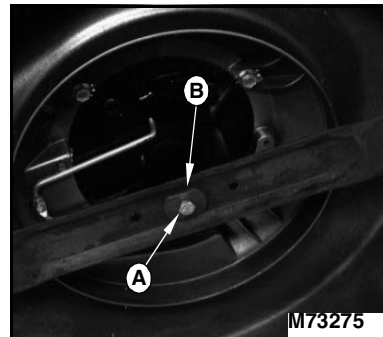


CAUTION: Service mower safely:

- Remove blade when fuel tank is almost empty.
- STOP engine. Let it cool.
- Disconnect spark plug wire.
- Wear gloves or wrap blade with rag.

IMPORTANT: To help prevent air cleaner damage and hard starting, turn mower on its LEFT SIDE.

1. Disconnect spark plug wire.
2. Turn mower on its LEFT SIDE.
3. Remove bolt (A) and washer (B) and blade.
4. Install mulch blade with wings pointing upward.
5. Tighten bolt to 35 lb-ft (47 N•m).
6. Lower mower to the floor.



LAWN CARE

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.

Mow grass only when it is dry: Wet grass may plug mower and leave a trail of grass clumps.

Mow grass often: Short grass clippings will decay quickly.

Mow at full throttle for best performance.

Use a travel speed that fits the conditions:

- Travel SLOW when you mow thick, tall grass.
- FAST travel or sharp turns may produce stripes or uneven cut. Slow down. Short, fast turns may scuff ground and pull grass out by the roots.
- Travel at MODERATE speed when you mow a thin stand of grass.

Mow often enough so you cut only 1/3 of grass blade in one 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

Trimming Tips

- 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.

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.
- Rear gauge wheels must be adjusted correctly.
- Mow over ridges and through shallow ditches straight-on, not at an angle.

Keep blade sharp: A dull blade will tear grass; tips of grass will then turn brown.

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

- Mower may not be level. Adjust cutting height levers.
- Slow down before you make a turn.
- Sharpen blade often.

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 often with water from garden hose, from outside to inside of bag. Let bag dry before use.

LAWN CARE

Bagging Tips (Continued)

- | | |
|-------------------|---|
| IMPORTANT: | DO NOT leave clippings in bag: <ul style="list-style-type: none">• Moisture may damage bag.• Damp clippings are a fire hazard. |
|-------------------|---|

Check clippings in bag often. When bag is full:

- Mower may leave a trail of clippings.
- Clippings may blow to side.
- Top of bag will deflate.

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.

LAWN CARE

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. You may have to mow with grass bag to remove this layer.

Mulch only when the grass and leaves are dry.

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 2–4 in. (50–100 mm).

Slow down. Mulching takes more power.

Keep blades sharp. Check them often.

Clean underside of deck after each use.

LAWN CARE

After Mowing

- STOP engine. Let it cool. This will help prevent starting a fire when you store the mower.
- Remove and shake bag to remove all clippings. This will help to prevent deterioration of bag and starting a fire.
- Clean top of deck, engine, and chute with brush or compressed air, if possible. This will help to prevent buildup and starting a fire.
- Spray under deck with water under pressure to remove corrosive lawn chemicals and buildup.
- Install bag. Put mower in safe storage.
- Turn mower on its side with air cleaner up. Remove mulch plug.

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. This is the number you have recorded on the inside front cover of this manual.

ITEM	PART NUMBER
Air Cleaner Element	AM116236
Belt	M77167
Standard Blade	M112972
Mulching Blade	M112972
Spark Plug	Champion RCJ8

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

SERVICE MACHINE SAFELY

Practice Safe Maintenance



- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate or service 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, disengage all power and stop the engine. Let engine cool.
- Securely support any machine elements that must be raised for service work.
- 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.
- Unauthorized modifications to the machine may impair its function and safety.

Wear Appropriate Clothing



- Wear close fitting clothing and safety equipment appropriate for the job.
- Loud noise can cause impairment or loss of hearing, wear a suitable protective device such as earplugs.
- Do not wear radio or music headphones while servicing the machine. Safe service requires your full attention.

SERVICE MACHINE SAFELY

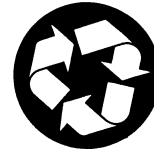
Avoid Injury From Contacting Blades



Before you unplug or adjust machine:

- STOP the engine.
- Wait for blades to STOP.
- Keep hands, feet and clothing away from blades when engine is running.

Handling Waste Products



- Waste products, such as, used oil, fuel, 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

Service Intervals

BEFORE EACH USE	• Check oil level.
AFTER EACH USE	• Clean the mower.
5 HOURS	• Change engine oil.
25 HOURS	• Change engine oil. • Clean air cleaner element. • Tighten blade bolt; 35 lb-ft (47 N•m). • Lubricate rear axle bushings. • Clean and gap spark plug. • Clean belt and transmission area (14SZ).
50 HOURS	• Change engine oil.
100 HOURS	• Have your John Deere dealer check flywheel brake liner.

Service Record

DATE	SERVICE PERFORMED

SERVICE

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.

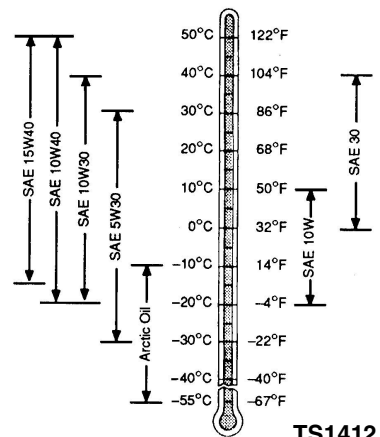
The following oil is preferred:

- John Deere PLUS-4®

Other oils may be used if they meet one of the following:

- API Service Classification SG
- API Service Classification SF
- CCMC Specification G4

Oils meeting Military Specification MIL-L-46167B may be used as arctic oils.



SERVICE

Checking Engine Oil Level

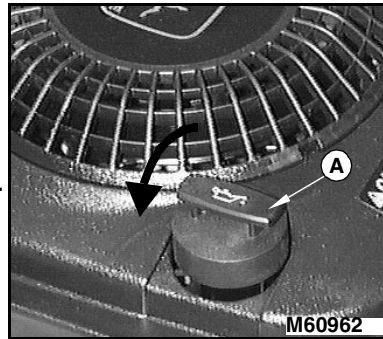
IMPORTANT: Change oil after first 5 hours of operation.



CAUTION: Before you check or add oil:

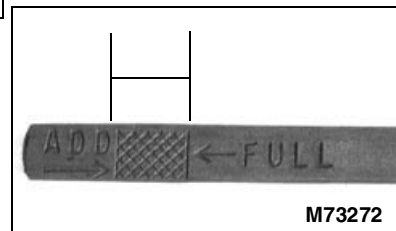
- STOP engine. Let it cool.

1. Stop engine. Put mower on level surface.
2. Turn dipstick (A) to the left 1/4 turn and remove it.
3. Wipe dipstick off with a clean cloth.
4. Install dipstick, turn it to the right 1/4 turn and tighten it.



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

5. Remove dipstick. Check oil level. Oil should be between ADD and FULL MARKS shown on dipstick. Not above FULL MARK.



6. Add oil, if necessary.
7. Install and tighten dipstick.

SERVICE

Changing Engine Oil



CAUTION: Used oil may harm environment and people if it is dumped on ground or into a drain or body of water.

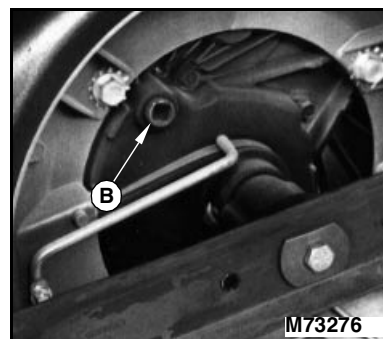
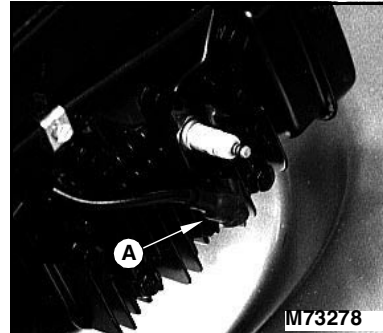
Call your local Recycling Center or John Deere dealer to learn how to recycle used oil.

IMPORTANT: Change oil after first 5 hours of operation.

If you do not run mower 25 hours during mowing season, change oil before you store mower.

To help prevent air cleaner damage and hard starting, turn mower on LEFT SIDE.

1. Disconnect spark plug wire (A).
2. Turn mower on LEFT SIDE.
3. Put a shallow pan under mower.
4. Remove drain plug (B) using a 3/8 in. driver head. Lower mower over pan.
5. After oil has drained, turn mower on LEFT SIDE. Install plug.
6. Lower mower. Remove dipstick.
7. Add 20 oz (0.6 L) oil through dipstick tube.
8. Install the dipstick.



SERVICE

Cleaning Air Cleaner Element

NOTE: If you operate mower in dusty conditions, clean element often.



CAUTION: Before you remove element:

- STOP engine. Let it cool.

IMPORTANT: Do not run engine without element.
If element is damaged, replace it.

1. Loosen screw (A).



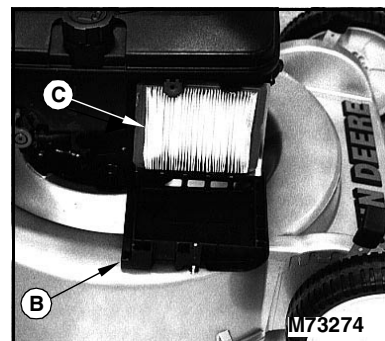
2. Pivot cover (B) down.

3. Remove element (C).

4. Tap element gently to remove dust.

5. If element is very dirty, sooty, oily, or damaged, replace it.

6. Install element and cover.



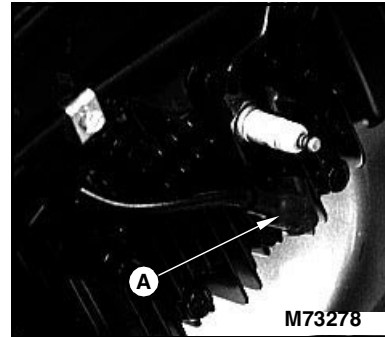
SERVICE

Cleaning And Gapping Spark Plug



CAUTION: Before you remove plug:
• STOP engine. Let it cool.

1. Disconnect spark plug wire (A). Remove plug.
2. Carefully wire brush carbon from plug. Do not clean it with abrasives in a machine.
3. Inspect plug for damage. Replace damaged plug.
4. Adjust gap: 0.030 in. (0.76 mm).
5. Install and tighten plug to 15 lb-ft (20 N•m).
6. Connect wire.



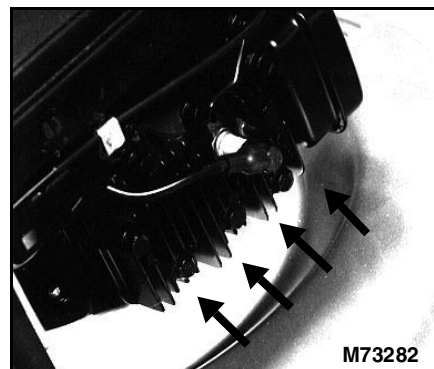
Cleaning Fins



CAUTION: Before you clean fins:
• STOP engine.
• Let it cool.

IMPORTANT: Keep fins clean or engine may overheat.

Clean fins with brush, rag, or compressed air.
Also blow compressed air under shroud.



SERVICE

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 PTO switch in the OFF position. 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.

Adjusting Traction Cable (14SZ)

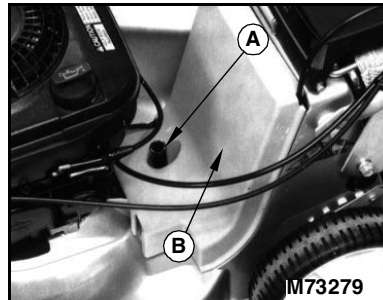
NOTE: Adjust Cable If Mower Slows Going Uphill.



CAUTION: Do Not operate mower without belt shield. Before you adjust clutch:

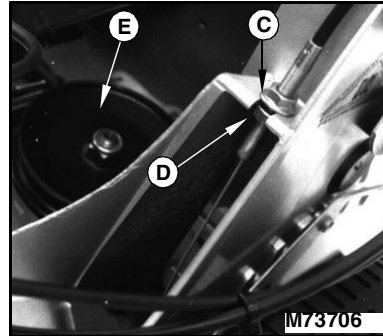
- STOP engine. Let it cool.
- Keep people and pets away from mower.
- Avoid belt when engine is running.

1. Remove knob (A) and belt shield (B).



SERVICE

2. Loosen nut (C). Turn nut (D) down 1/8 in. (3 mm).
3. Tighten nut (C). Start engine.
4. ENGAGE traction clutch lever to check clutch action.
5. If clutch needs more tension, repeat Steps 2 and 3.
6. Pulley (E) should not turn when engine is running and clutch lever is DISENGAGED. If pulley turns when engine is running, traction clutch cable is adjusted too tight.

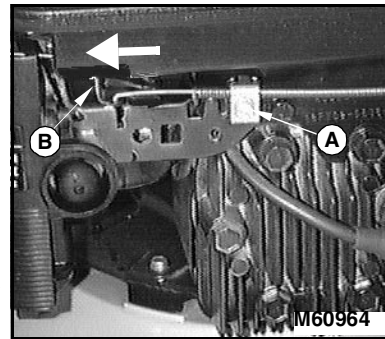


Adjusting Throttle Cable



CAUTION: Before you adjust cable:
• STOP engine. Let it cool.

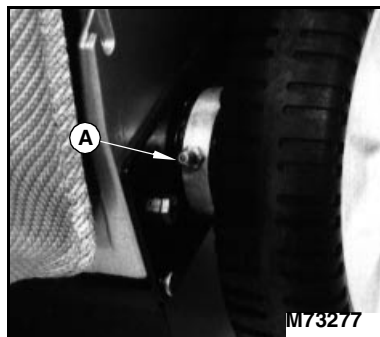
1. Move throttle lever to the FAST  position.
2. Loosen screw (A).
3. Using your finger, move throttle control cable (B) all the way to the left until it stops.
4. Tighten screw (A) on throttle cable clamp.



SERVICE

Lubricate Rear Axle Bushings

Lubricate bushing (A) on each side with John Deere Multipurpose Grease or an equivalent.



Grease

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

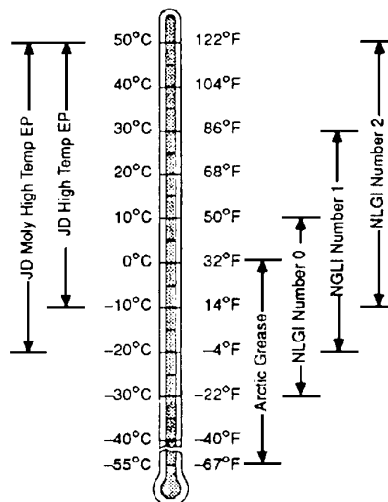
The following greases are preferred:

- John Deere MOLY HIGH TEMPERATURE EP GREASE
- John Deere HIGH TEMPERATURE EP GREASE
- John Deere GREASE-GARD™

Other greases may be used if they meet one of the following:

- SAE Multipurpose EP Grease with a maximum of 5% molybdenum disulfide.
- SAE Multipurpose EP Grease

Greases meeting Military Specification MIL-G-10924F may be used as arctic grease.



TS1417

SERVICE

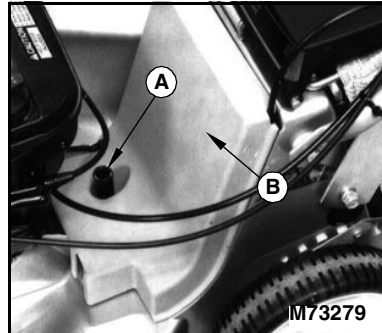
Cleaning Belt Area (14SZ)



CAUTION: Before you remove shield:

- STOP engine. Let it cool.
- Do Not operate mower without belt shield.

1. Remove knob (A) and belt shield (B).
2. Use a brush or compressed air to remove clippings or debris from belt area.
3. Install shield and knob.



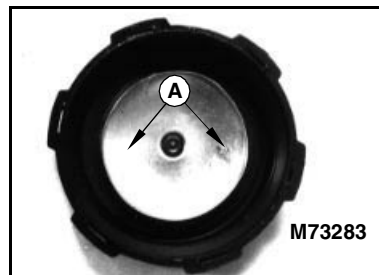
Cleaning Fuel Cap Vents



CAUTION: Before you remove cap:

- STOP engine. Let it cool.
- Do not smoke.

1. Remove cap. Check two vents (A) under metal ring and vent in top, center of cap.
2. Clean cap and vents in nonflammable solvent. Let cap dry.
3. Install the cap.



SERVICE

Check, Tighten, And Remove Blade



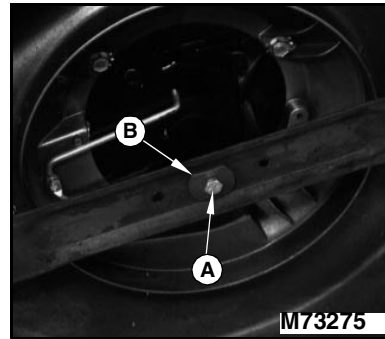
CAUTION: Service blade safely:

- STOP engine. Let it cool.
- Disconnect spark plug wire.
- Wear gloves or wrap blade with rag.

IMPORTANT: To help prevent air cleaner damage and hard starting, turn mower on LEFT SIDE.

1. Tighten Bolt (A) to 35 lb-ft (47 N•m).
2. Check Blade: Replace damaged blade. Sharpen dull blade.
3. Remove Blade: Remove bolt (A), washer (B), and blade.

NOTE: Make sure blade tip wing points up and washer cup is against blade.



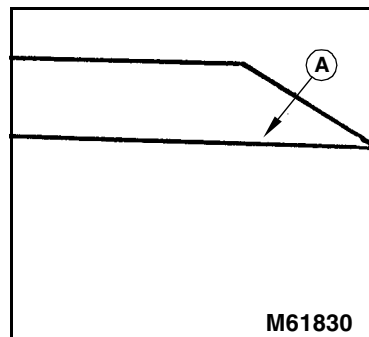
Sharpen Blade



CAUTION: Wear gloves and goggles when sharpening, balancing or installing blade.

Sharpen blade: Keep original bevel (A).

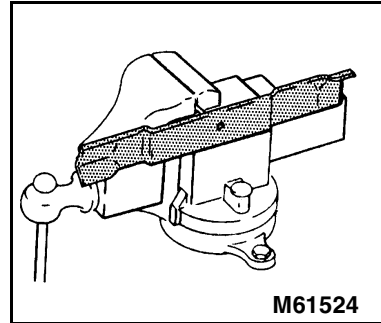
IMPORTANT: Balance blade after you sharpen it. An unbalanced blade may cause excessive vibration.



SERVICE

Balance And Install Blade

1. Clean blade. Put it on a nail in vise or on a wall. Heavy end of blade will drop. Grind bevel of heavy end. Do not change bevel.
2. Install blade, washer (cup-side against blade), and bolt.
3. Tighten bolt to 35 lb-ft (47 N•m).

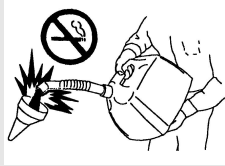


SERVICE

Handle Fuel Safely



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 oil and fuel and clean approved containers and funnels.
- Store oil and fuel in an area protected from dust, moisture and other contamination.

SERVICE

Filling Fuel Tank

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.
Fuel tank capacity is 1.5 qt (1.4 L).

- Use only clean, fresh, unleaded regular grade gasoline.
- Remove any trash from top of fuel tank drain area.
- Never use fuel that is stale or has been stored for a long period of time:

Warm Weather: Maximum 60 days.

Cold Weather: Maximum of 90 days.

- Fill fuel tank at the end of each day's operation. This helps to keep condensation out of fuel tank.

Oxygenated Fuel

Oxygenates (either ethanol or MTBE) are added to the gasoline. If you use the oxygenated fuel be sure it is unleaded and meets the minimum octane rating requirement.

The following are the EPA approved percentages of fuel oxygenates:

ETHANOL (Ethyl or Grain Alcohol): You may use gasoline containing up to 10 percent ethanol by volume.

MTBE (Methyl Tertiary Butyl Ether): You may use gasoline containing up to 15 percent MTBE by volume.

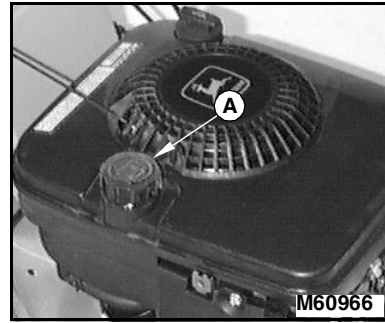
METHANOL (Methyl or Wood Alcohol): You may use gasoline containing up to 5 percent methanol by volume, as long as it also contains cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5 percent methanol by volume may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of your fuel system.

SERVICE

Filling Fuel Tank (Continued)

NOTE: Fuel tank capacity is
1.5 qt (1.4 L).

1. Remove fuel cap (A).
2. DO NOT fill tank to top; fuel can expand.
3. Fasten fuel cap.
4. Wipe off any spilled fuel.



TROUBLESHOOTING

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.

IF	CHECK
ENGINE WILL NOT START	Engine not primed three times.
	Fuel tank is empty.
	Stale or dirty fuel.
	Disconnected or dirty spark plug.
	Throttle lever not in fast position.
ENGINE STARTS HARD OR LOSES POWER	Dirty fuel tank cap vents.
	Stale or dirty fuel.
	Dirty air cleaner element.
	Disconnected or dirty spark plug.
ENGINE RUNS ROUGH	Disconnected or dirty spark plug.
	Throttle lever not in fast position.
	Dirty cooling fins.
	Dirty air cleaner element.
ENGINE OVERHEATS	Dirty blower housing and cooling fins.
ENGINE VIBRATES TOO MUCH	Loose blade bolt.
	Blade dull or not balanced.

TROUBLESHOOTING

IF	CHECK
MOWER PUSHES OR PULLS HARD	Rear axle not lubricated.
	Traction clutch needs adjustment (14SZ).
MOWER MOWS UNEVENLY	Pushing mower (14PZ) too fast.
	Mowing too fast around corners and mowing pattern not changed.
	Wheel levers not adjusted in the same position.
	Blade dull or not balanced.
DISCHARGE CHUTE PLUGS	Grass not dry.
	Cutting height not raised high enough.
	Dirty or full grass bag.
	Mowing too fast.
	Engine not in full throttle position.
MOWER JERKS OR WILL NOT SELF-PROPEL (14SZ)	Traction belt broken.
	Traction clutch not adjusted.
	Dirty transmission.
	Gear shift lever not in 1st or 2nd gear.

TROUBLESHOOTING

MULCHED GRASS APPEARANCE IS POOR: CLUMPS, EXCESSIVE CLIPPINGS, ROUGH CUT, ETC:	Grass not dry.
	Mowing too fast.
	Engine not in full throttle position.
	Blade dull or not balanced.
	Cutting height set too low.

STORING MACHINE

Storing Mower Safely



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 mower 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.

Storing Mower

IMPORTANT: Use gasoline stabilizer: It helps prevent varnishing and plugging of carburetor jets. Either of these could cause engine to run lean, and result in piston seizure and engine failure.
Follow directions on stabilizer can.

1. Clean engine and top of deck.
2. Remove belt shield.
3. Clean belt and transmission area. Install shield.
4. Disconnect spark plug wire. Turn mower onto its LEFT SIDE.
5. Remove mulch plug. Clean underside of deck with water pressure to remove grass buildup, lawn chemicals, and fertilizer.
6. Lower mower to the ground.
7. Use John Deere Gasoline Storage Stabilizer or an equivalent. Follow directions on can.

STORING MACHINE

8. Lubricate rear axle bushings.
9. Remove bolts and fold handles down, if desired. Do not crimp cables.
10. Do not store mower with fuel in tank in a building where fumes may reach an open flame or spark.

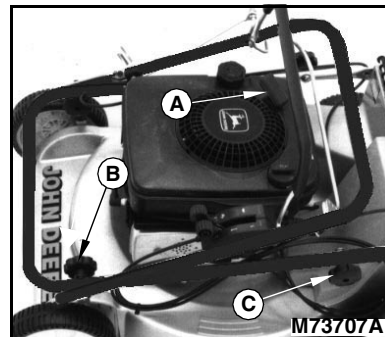
Remove Mower From Storage

1. Unfold handles. Tighten knobs. Do not crimp cables.
2. Fill fuel tank with fresh gasoline.
3. Check engine oil level.
4. Connect wire to spark plug.
5. Inspect shields, safety devices and hardware.
6. Lubricate rear axle bushings.
7. Push primer bulb three times to prime engine.
8. Run engine at the HALF-THROTTLE position briefly.

Fold Handles

IMPORTANT: Don't crimp cables.

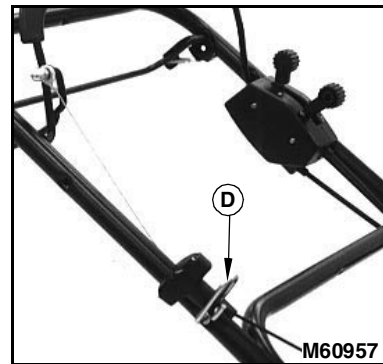
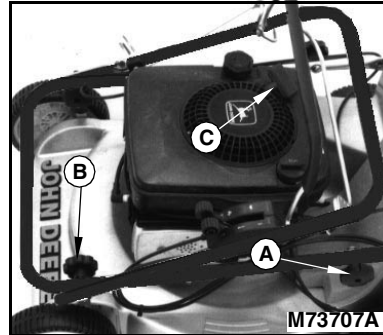
1. Remove starter handle (A) from bracket.
2. Loosen knob (B) on each side. Let handle pivot down.
3. Remove knob (C) and bolt from each side.
4. Pivot lower handle down. Install knob (C) as shown.



STORING MACHINE

Unfold Handles

1. Remove knob (A) and bolt from each side.
2. Straighten upper handle and tighten knob (B) on each side.
3. Line up lower handle hole with square hole in bracket. Install bolt and knobs on each side.
4. Hold blade lever against handle, slowly pull starter handle (C) and install it in bracket (D).

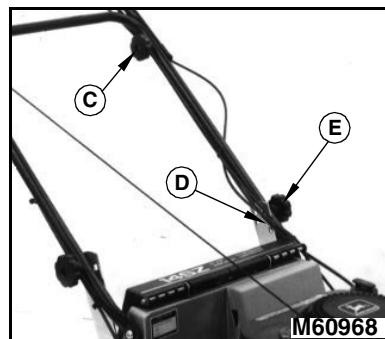
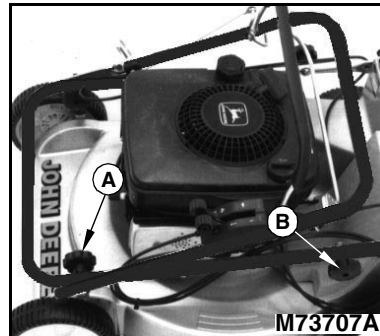


ASSEMBLY

Unfold Handle

IMPORTANT: Do not crimp cables.

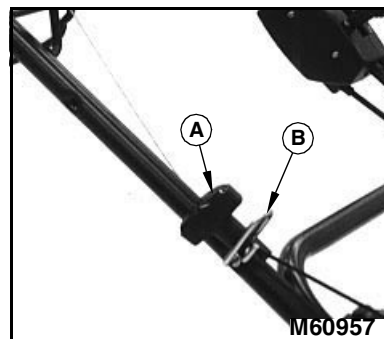
1. Loosen knob (A) on each side.
2. Remove knob (B) and bolt from each side.
3. Pivot upper handle to straight position.
4. Tighten knob (C) on each side.
5. Hold handle and install bolt through square hole of bracket (D) and handle. Install knob (E) on outside of handle.
6. Repeat Step 5 on other side.



Install Starter Handle In Bracket

**NOTE: Don't pull starter handle without blade control lever engaged.
When you pull starter handle, blade also turns and engine may start.**

1. Pull starter handle (A) to rear and install rope in bracket (B).
2. Pivot bracket forward.



ASSEMBLY

Add Engine Oil

IMPORTANT: Engine is shipped without oil. You must add oil before you run engine.

1. Turn dipstick (A) to the left 1/4 turn and remove it.

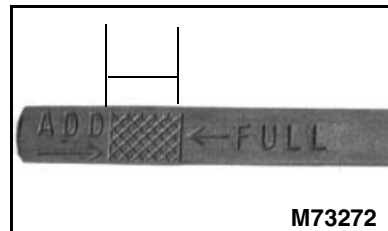
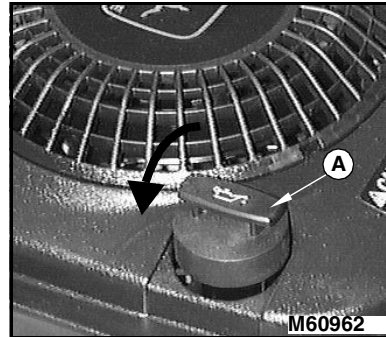
2. Add 20 oz. (0.6 L) oil through dipstick tube.

3. Check oil level:

- Install dipstick, turn it to the right 1/4 turn and tighten it.
- Remove dipstick.
- Check oil level: Oil should be between ADD and FULL MARKS on dipstick. Close to FULL MARK. If not, add oil.

4. Install and tighten dipstick.

5. Remove RED NO OIL tag from top of engine.



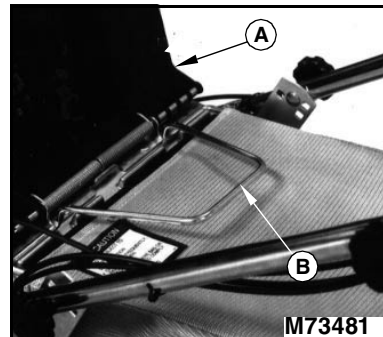
ASSEMBLY

Install Grass Bag



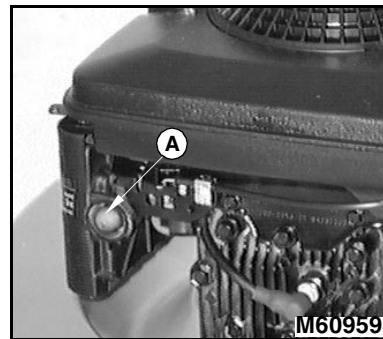
CAUTION: Do not operate mower unless grass bag, chute (optional), or mulch plug (optional) is held in place by door.

1. Lift and hold door (A).
2. Grasp handle (B). Install bag.
3. Lower door to hold bag in place.



Test Mower Operation

1. Put enough fuel in tank to test mower operation.
2. Press primer bulb (A) three times to prime engine.
3. Move throttle lever to the fast  position.
4. Start engine and check mower operation. (See Operating section).



SPECIFICATIONS

Engine

Model	"B" Series
Horsepower	5 hp (3.7 Kw)
Cycle	4
Displacement	11.56 cu in (190 cc)
Bore & Stroke	2.64 x 2.04 in. (68 x 52 mm)
Operating Range	2900—3000 rpm
Slow Idle Speed	2400—2600 rpm
Engine Oil Capacity	20 oz (0.6 L)
Fuel Tank Capacity	1.5 qt (1.4 L)
Spark Plug	Champion RCJ8
Spark Plug Gap	0.030-in. (0.76 mm)
Starter	Recoil
Air Cleaner	Paper Element

Machine Specifications

Cutting Height Range	1/2–3-1/2 in.(13–90 mm)
Number of Cutting Heights in 1/2-in. (13-mm) Steps	7
Blade Hardware Torque	35 lb-ft (47 N•m)
Travel Speed Range 14SZ	1st Gear - 2 mph (3.2 kph) 2nd Gear - 3 mph (5 kph)
Number of Travel Speeds	2
Safety System	Zone Start

SPECIFICATIONS

Machine Specifications

Wheel Diameter	8 in. (200 mm)
Bag Capacity	2.5 bu (74 L)
Weight (approximate)	93 lb (42 kg)

Recommended Lubricants

Fuel	See Filling Fuel Tank in the Service - Miscellaneous section.
Engine Oil	John Deere PLUS-4®
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.

CALIFORNIA EMISSION CONTROL SYSTEM LIMITED WARRANTY

YOUR RIGHTS AND OBLIGATIONS

The California Air Resources Board and Deere & Company (John Deere) are pleased to explain the emission control system warranty on your 1995 and later 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. John Deere must warrant the emission control system on your lawn and garden equipment engine for the periods of time listed herein provided there has been no abuse, neglect or improper maintenance of your 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 lawn and garden equipment engine at no cost to you including diagnosis, parts and labor.

WARRANTY

MANUFACTURER'S WARRANTY COVERAGE

The 1995 and later lawn and garden 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 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 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 lawn and garden equipment engine owner, you should however be aware that John Deere may deny you warranty coverage if your engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your lawn and garden equipment engine to an authorized John Deere Lawn and Grounds Care 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 Retailer, or the John Deere Customer Communications Center, 1-800-537-8233.

WARRANTY

JOHN DEERE EXPLANATION OF WARRANTY COVERAGE

COVERAGE

John Deere warrants to the initial owner and each subsequent purchaser that the lawn and garden equipment engine is free from defects in materials and workmanship 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.

WHERE TO GET WARRANTY COVERAGE

Warranty service shall be performed during customary business hours at any authorized John Deere Lawn and Grounds Care Retailer located within the United States of America. Only manufacturer-approved replacement parts may be used when performing any warranty maintenance or repairs on emission related parts, and must be provided without charge to the owner if the part is still under warranty. Any parts replaced under this warranty shall become the property of John Deere.

WHAT IS COVERED

The emissions control system warranty covers the following warranted parts only: carburetor and its internal parts, fuel injection system, spark advance/retard system, cold start enrichment system, magneto or electronic ignition system, hoses, tubing used directly in those parts. 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

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) lack of required maintenance, (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 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 lawn and garden equipment engine or transportation of the engine to or from the John Deere 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 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

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 John Deere California Emission Control System Warranty.

d) John Deere is not liable for parts which are not genuine John Deere parts except when genuine John Deere parts cause damage to non-John Deere parts.

LEGAL RIGHTS

This Warranty gives you specific legal rights. You may also have other rights in the State of California.

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

JOHN DEERE SERVICE LITERATURE

Order Form

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

Name _____

Address _____

City _____

State _____

Zip _____

Phone () _____

To order these publications fill out this form and the payment information and mail it to the address above. Make checks payable to Deere & Co. Service Publications. Please allow three weeks for delivery. No COD orders, please. Do not send cash or stamps. To place credit card orders, 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.

Title	Order Number	Price Each	x Quantity	= Total
Parts Catalog	PC2264	(Call 1-800-522-7448 for current prices.)	x	=
Operator's Manual	OMM121564		x	=
Technical Manual	TM1471		x	=
			x	=
Fundamentals of Service (FOS) Manuals:				
Engines	FCP80101B	(Call 1-800-522-7448 for current prices.)	x	=
Power Trains	FCP81102B		x	=
Electrical Systems	FCP83101B		x	=
Hydraulics	FCP82101B		x	=
Catalog of Available Service Publications	DB1112	N/C		
Sub-total				
Method of Payment ☐ Check or Money Order Enclosed ☐ John Deere Credit Card ☐ MasterCard ☐ Visa ☐ American Express ☐ Discover ☐ Farm Plan Credit Card Acct. No. (13 or 16 digits) _____ - _____ - _____ - _____		Illinois state residents add 6.25% and Iowa state resident add 4% for Retail Occupation Tax or show tax exemption number. Other states excluded. Total Shipping & Handling (from table below) (Prices subject to change without notice - DEC 91) Amount Due in U.S. Dollars		
		Subtotal	Shipping/ Handling	Optional shipping available. Please check and add cost to normal shipping: ☐ 1 day air.....\$15.00 ☐ 2 day air.....\$10.00
		\$.50 to 14.99	\$3.00	
		15.00 to 24.99	4.25	
Expiration Date:		25.00 to 49.99	5.50	
Signature:		50.00 to 99.99	7.50	
		100.00 and over	4% of sub total	

Cut along dotted line

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.

