

21-INCH WALK-BEHIND ROTARY MOWERS (SERIAL NO. 450.001-)



JOHN DEERE

OPERATORS MANUAL

**21-INCH WALK-BEHIND ROTARY
MOWERS (SERIAL NO. 450.001-)**

OMM75889 L7 English

**JOHN DEERE HORICON WORKS
OMM75889 L7**

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



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Introduction

Thank you for purchasing a John Deere product.

Read this manual carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage.

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 U.S. customary units and their metric equivalents.

Right-hand and left-hand sides are determined by facing in the direction of forward travel.

Write product identification numbers in the Specifications section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. If this manual is kept on the machine, also file the identification numbers in a secure place off the machine.

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 warranty does not cover:

A—Products which have been altered or modified in ways not approved by John Deere, including setting fuel delivery above specifications or otherwise over-powering of products.

B—Depreciation or damage caused by normal wear, accident, lack of reasonable and necessary maintenance as specified in this manual, improper maintenance, improper protection in storage, or improper use or abuse.

C—Normal maintenance and replacement of service items such as filters, spark plugs, belts, brake linings, cutting blades and hoses unless such items are defective.

D—Transportation, mailing and service call charges for warranty service.



Model 14SE

M41664



Model 12SB

M41663

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

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Safety

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



T81389

UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

Safety signs with signal word DANGER or WARNING are typically near specific hazards.

General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

 **DANGER**

 **WARNING**

 **CAUTION**

TS187

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.



TS201

INSPECT MACHINE

Inspect attaching hardware. Tighten if necessary.

Repair or replace damaged or worn parts.

Clean grass and oil build up from engine cooling fins.

Keep side chute, mulching plate or rear bag attachment in place.



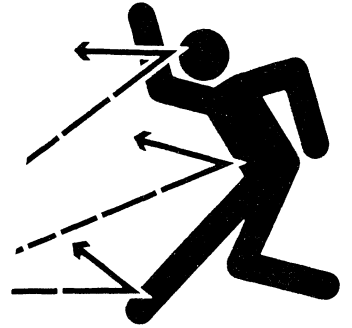
M41506

PROTECT PEOPLE AND PETS

Keep people and pets out of mowing area.

Do not let children or untrained persons operate the mower.

Do not leave mower unattended.



JD6518

LEARN MOWER SAFETY

Carefully read this manual. Learn how to operate the machine and how to use the controls properly.

Do not let anyone operate this machine without proper instruction.

Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.



M41585

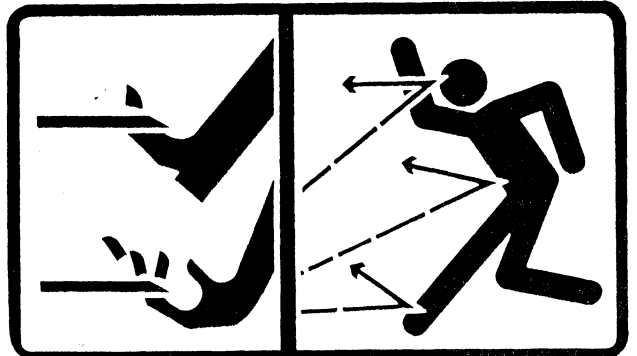
OPERATE MOWER SAFELY

Push your mower — do not pull it.

Be sure of your footing. Walk — do not run.

Discharge clippings away from people.

Do not use mower for anything other than its original design.



M41447

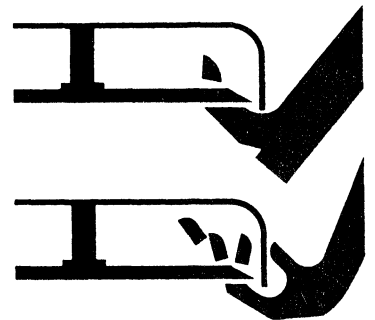
OPERATE SAFELY ON SLOPES

Mow across face of slopes — not up and down.

Keep a firm hold on mower handle.

Be especially careful when you change directions on a slope; slow down. Avoid sudden starts and stops on slopes.

Avoid leaving mower on a slope. Stop on level surface, if possible.



JD6541

AVOID EXHAUST FUMES

Do not run engine indoors unless there is enough ventilation.

Open doors when you run engine in garage.



JD6529

HANDLE FUEL SAFELY—AVOID FIRES

Handle fuel with care: it is highly flammable. Do not fuel the machine while you smoke or when you are near open flame or sparks.

Stop engine before you fuel machine. Fill fuel tank outdoors.

Help prevent fires:

- Keep machine clean.
- Clean up spilled fuel.



T5202

PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



TS186

PROTECT AGAINST FLYING DEBRIS

Clean mowing area of objects that might be thrown.

Discharge clippings away from people.

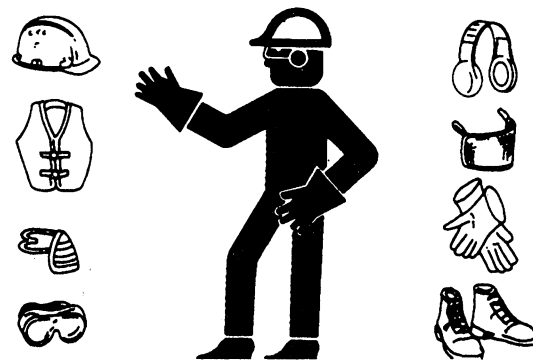
Keep discharge chute, mulching plate or rear bag attachment in place.



JD6518

WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.



TS206

AVOID INJURY FROM MOVING PARTS

Keep hands, feet, and clothing away from mower deck and discharge chute when blades are turning.

Do not adjust mower wheels or level mower while the engine is running. If these adjustments are to be made, STOP the engine.

Stop mower blades:

- Before you move mower between jobs.
- Before you cross a gravel road, path, or sidewalk.
- When you are not using the mower.

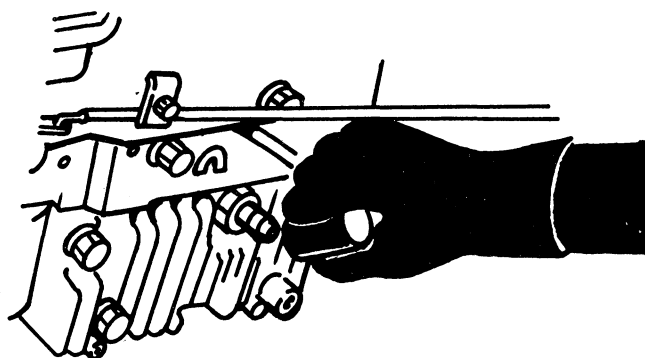


TY1371

SERVICE MOWER SAFELY

Before you service mower:

- Stop engine.
- Disconnect spark plug wire.



M41584

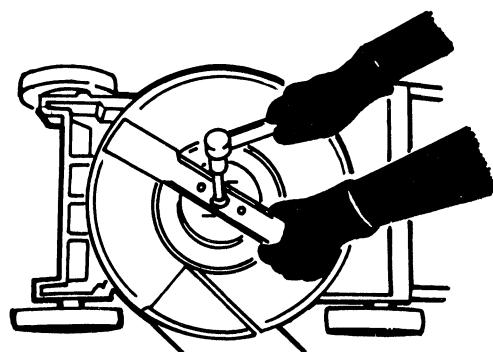
PRACTICE SAFE MAINTENANCE

Keep all parts in good condition and fastened in place.

Fix damage immediately. Replace worn or broken parts.

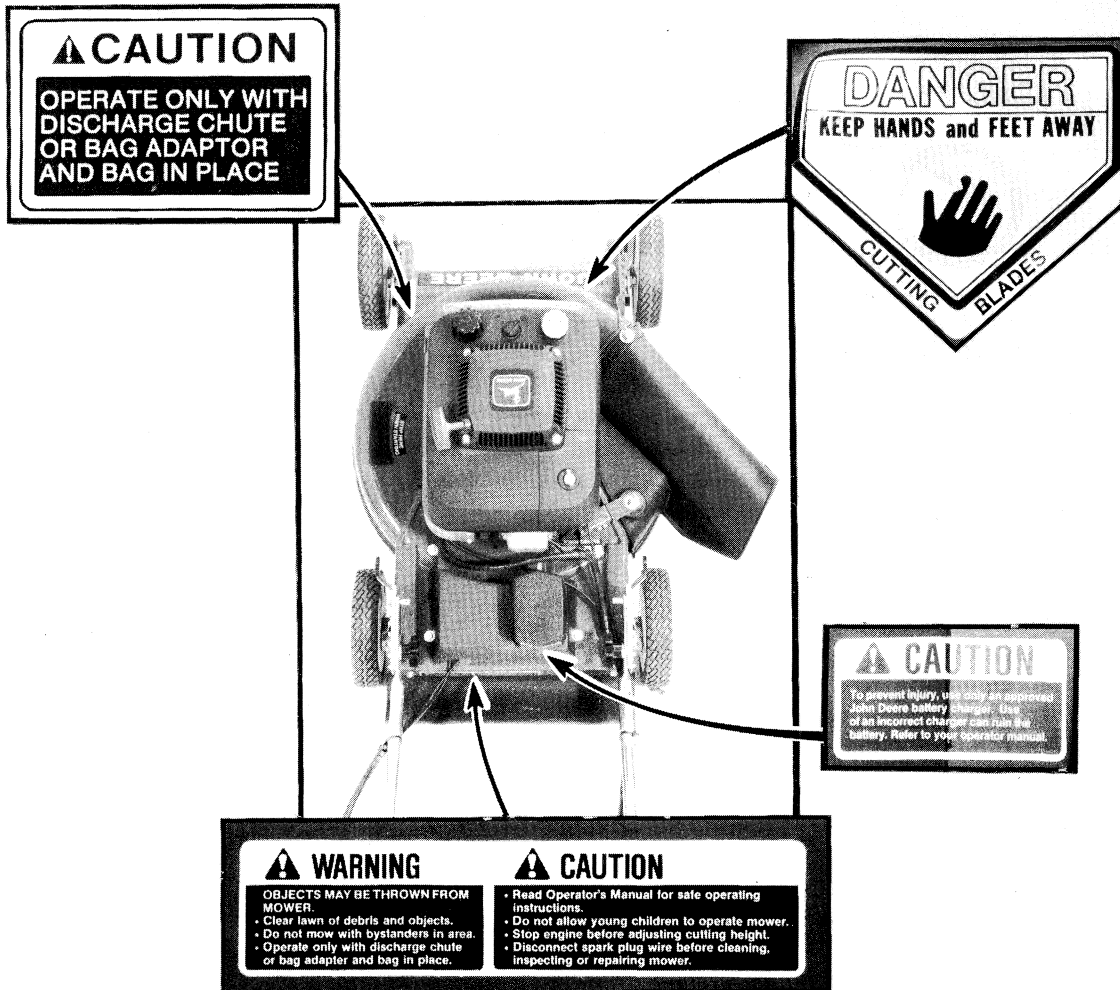
If you hit an object, stop the mower. Fix the damage before you operate again.

Wear gloves when you service blade.



M41586

SAFETY SIGNS



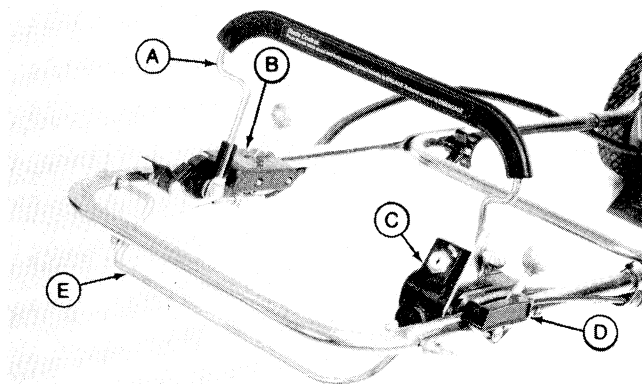
M41695

Controls

HANDLE BAR CONTROLS

(14SE Shown)

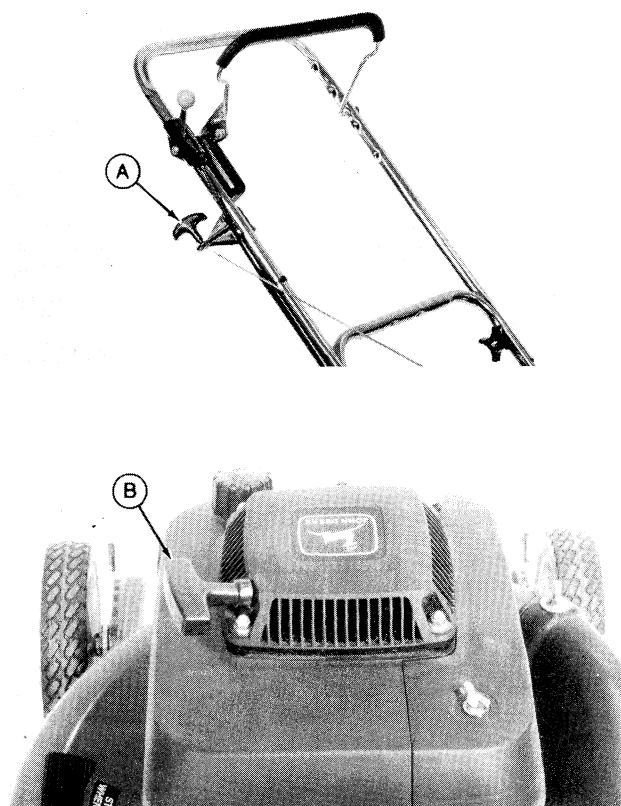
- A—Engine and Blade Shut-Off Bail (04PM, 12PM, 14PM, 14SM); or Blade Shut-Off Bail with Thumb Latch (12PB, 12SB, 14PB, 14SB, 14SE)
- B—Ground Speed Control (all models except 04PM).
- C—Ignition Key Switch (12PB, 12SB, 14SE).
- D—Throttle Control.
- E—Self-Propelled Control Bail (12SB, 14SM, 14SB, 14SE).



M41665

RECOIL STARTER HANDLE

- A—Handle Bar Mounted (04PM, 12PM, 14PM, 14SM).
- B—Engine Mounted (12PB, 12SB, 14PB, 14SB, 14SE).



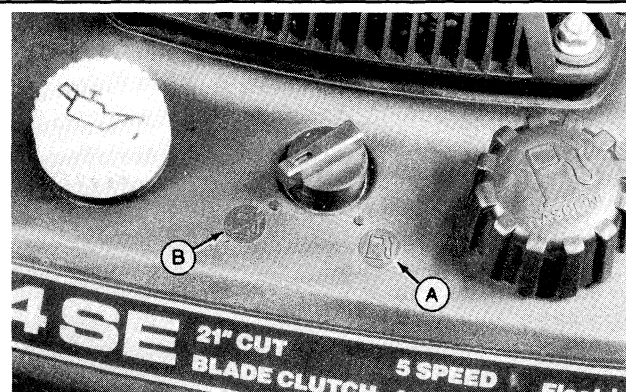
M41666, M41667

FUEL SHUT-OFF VALVE

All 2-cycle and 4-cycle engines have a fuel shut-off valve.

- Use OPEN or fuel position (A) when you operate engine.
- Use CLOSED or no-fuel position (B) when mower is not being used or in storage.

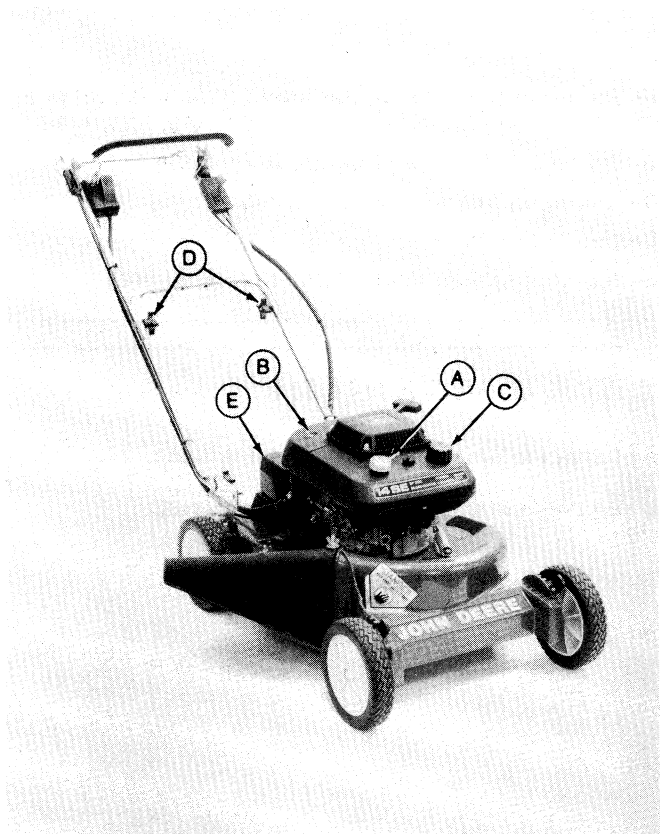
(Model 14SE Shown)



M41696

Prestarting Checks

PRESTARTING CHECKS



CHECK	WHEN
A—Oil Level (4-cycle only)	Before Each Use
B—Air Cleaner	Every 25-Hours
C—Fuel Level	Before Each Use
D—Loose or Missing Parts	Before Each Use
E—Battery	As Necessary

M41669, M41668

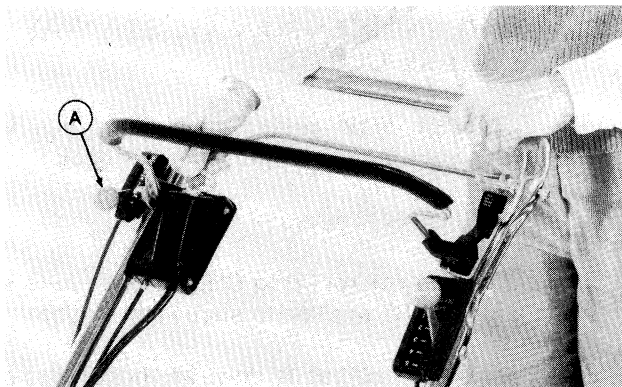
Operations

STARTING ENGINE—ELECTRIC START



CAUTION: Wear protective clothing and footwear.
Keep your feet from under mower deck.

1. Open fuel shut-off valve.
2. Move throttle control (A) to CHOKE position to start cold engine and to FAST position to start warm engine.
3. Turn ignition key to engage starter. Release key when engine starts.
4. Move throttle control to desired engine speed.
5. **If battery is low**, use auxiliary recoil starter to start engine. Proceed as follows:
 - a. Move throttle control forward to CHOKE position.
 - b. Place foot on foot pad on left side of deck.
 - c. Pull auxiliary recoil starter. Do not let handle snap back.Return rope slowly when engine starts.



M41694

STARTING ENGINE—MANUAL START-WITH BLADE BRAKE CLUTCH



CAUTION: Wear protective clothing and footwear.
Keep your feet from under mower deck.

1. Open fuel shut-off valve.
2. Move throttle control to CHOKE position to start cold engine and to FAST position to start warm engine.
3. 2-cycle engine only: Turn ignition ON.
4. Put foot on foot pad on left side of deck.
5. Pull recoil starter handle (A) until resistance is felt, then pull sharply. Do not let rope snap back.
6. When engine starts, move throttle control to desired speed.

NOTE: If engine falters, move throttle control to CHOKE position until engine is warm.



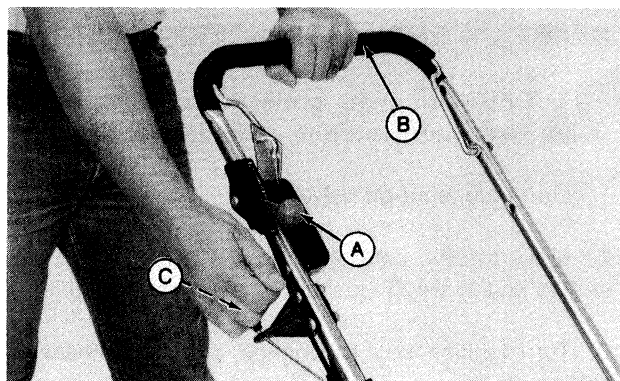
M41670

STARTING ENGINE—MANUAL START-WITHOUT BLADE BRAKE CLUTCH

CAUTION: Wear protective clothing and footwear.
Keep your feet from under mower deck.

1. Open fuel shut-off valve.
2. Move throttle control (A) to CHOKE position to start cold engine and to FAST position to start warm engine.
3. Pull engine shut-off bail (B) down and hold it against handle.
4. Pull recoil starter handle (C). Do not let go of handle quickly, allowing it to snap back. Return slope slowly when engine starts.
5. After engine starts, move throttle control to desired speed.

(4—Cycle Throttle Shown)



TY13735

STOPPING ENGINE—BLADE BRAKE CLUTCH AND ELECTRIC START MODELS

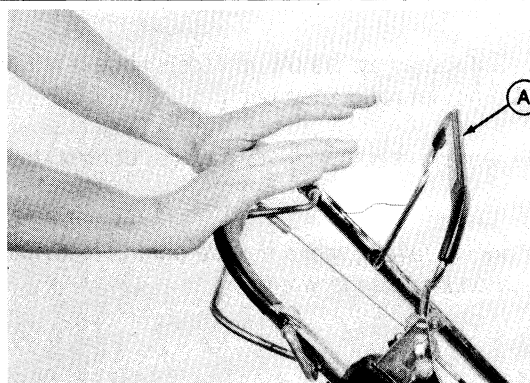
CAUTION: Protect yourself from possible
blade contact injuries. See your John Deere
dealer for repairs if blade does not stop within
3 seconds.

1. Release blade brake clutch bail.
- 2a. 4-cycle engines: Move throttle control to STOP position.
- 2b. 2-cycle engines: move throttle to SLOW position and turn ignition key OFF.

STOPPING ENGINE—MANUAL START MODELS

CAUTION: Protect yourself from possible blade contact injuries. See your John Deere dealer for repairs if engine and blade do not stop within 3 seconds.

1. Move throttle control to SLOW position.
2. Release engine shut-off bail (A).



M40486

ENGAGING BLADE—BLADE BRAKE CLUTCH MODELS



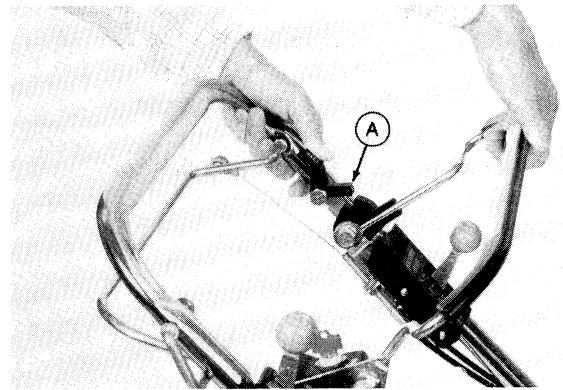
CAUTION: Protect yourself from possible blade contact injuries. If blade does not stop within 3 seconds, see your John Deere dealer.

NOTE: Do not engage blade brake in heavy cutting conditions: You may stall engine.

Engage blade: press the bail latch (A) and rapidly pull blade bail against handle.

Mower may make a squealing noise when blade is engaged. This does not indicate a problem.

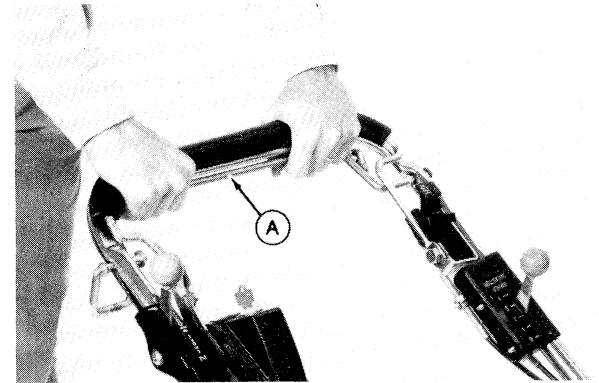
Release bail to disengage blade. Engine will continue to run.



M41692

ENGAGING AND DISENGAGING DRIVE WHEELS—SELF-PROPELLED MODELS

1. Pull bail (A) to handle and hold.
2. Release bail to disengage wheels.

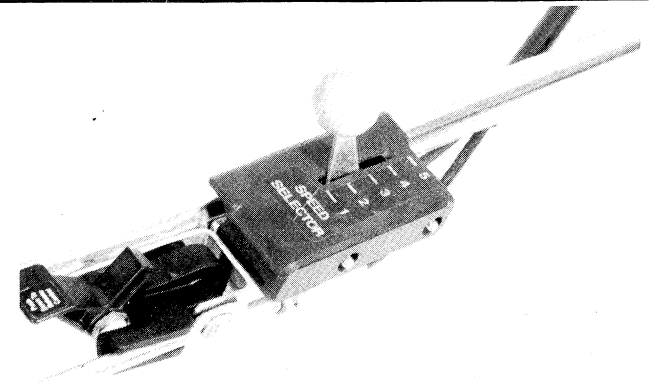


M41691

CHANGING GROUND SPEED

Release self-propelled bail when you change speeds.

Speed Selector Position	Ground Speed
1	1.0 mph (1.6 Km/h)
2	1.5 mph (2.4 Km/h)
3	2.0 mph (3.2 Km/h)
4	2.5 mph (4.0 Km/h)
5	3.5 mph (5.6 Km/h)



M41671

ADJUSTING CUTTING HEIGHT

IMPORTANT: Both front and rear adjusting levers must be adjusted to the same height.

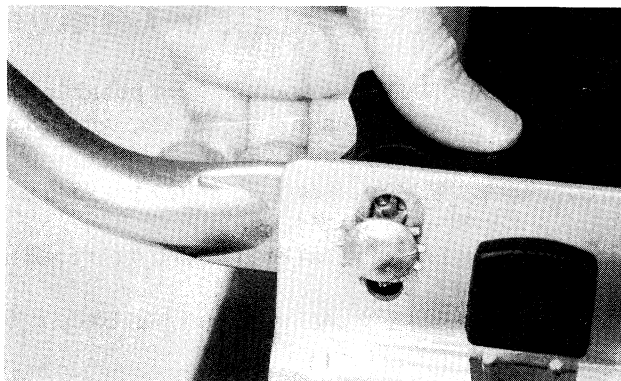
Wheel Position	Cutting Height
1	1 in. (25 mm)
—	1-3/8 in. (35 mm)
3	1-7/8 in. (48 mm)
—	2-1/4 in. (57 mm)
5	2-5/8 in. (67 mm)
—	3 in. (76 mm)
7	3-1/2 in. (89 mm)



M41672

ADJUSTING HANDLE HEIGHT

1. Loosen knobs on both sides of handle.
2. Raise or lower handle to desired position.
3. Tighten knobs.



M40472

Fuels & Lubricants

FUEL—4-CYCLE ENGINE



CAUTION: Do not smoke when you fill fuel tank.

Before you fill fuel tank:

- Stop engine.
- Let it cool.

Use clean, fresh, unleaded gasoline, not gasoline that has been stored for a long time. Leaded gasoline or gasohol is NOT recommended.



TS202

FUEL—2-CYCLE ENGINE



CAUTION: Do not smoke when you fill fuel tank.

IMPORTANT: Use regular or unleaded gasoline. Do not use gasohol or other alcohol blended fuels.

Use 32:1 fuel mixture when using John Deere 2-cycle engine oil.

Use 16:1 fuel mixture when using oil meeting BIA certification for TC-W service.

NOTE: To ensure maximum operating life, John Deere requires the gas-to-oil ratio not to exceed 32:1. The use of so-called "high ratio" oils is not recommended.

ENGINE OIL

John Deere PLUS-4 engine oil is recommended. Other oils may be used if they meet the requirements of API Service Classification SF or SE. Oils meeting Military Specification MIL-L46167A may be used as arctic oils.

TEMPERATURE LIMITS

Arctic Oil	— 55 to — 10°C
SAE 5W30	— 35 to + 10°C
SAE 10W	— 20 to + 10°C
SAE 10W30	— 20 to + 30°C
SAE 10W40	— 20 to + 40°C
SAE 30	0 to + 50°C

GREASE

Use only John Deere Multipurpose Lubricant to lubricate rear wheel axles on self-propelled models.

Troubleshooting

Symptom	Problem	Solution
Engine Does Not Start	Fuel shut-off valve closed.	Open fuel shut-off valve.
	Fuel tank empty.	Fill fuel tank.
	Improper fuel or fuel mixture.	Use correct fuel.
	Old fuel.	Use fresh fuel.
	Spark plug wire loose or disconnected.	Connect spark plug wire.
	Spark plug not gapped correctly.	Check and set spark plug gap.
	Spark plug bad.	Install new spark plug.
	Ignitions parts bad.	See your John Deere dealer.
	Engine shut-off bail not held down (Manual Start)	Hold engine shut-off bail down.
	Battery not connected (Electric Start).	Connect battery.
	Throttle control not in "FAST" position.	Move throttle control to "FAST" position.
	Carburetor out of adjustment.	See your John Deere dealer.
	Interlock plunger not depressed.	Adjust acutator to depress plunger.
Engine Starts Hard or Loses Power	Dirt or water in fuel tank.	Drain and clean fuel tank. Fill with fresh fuel.
	Vent in gas cap plugged.	Clean vent or install new gas cap.
	Air cleaner element dirty.	Clean or install new air filter element.
	Spark plug not gapped correctly.	Check and set spark plug gap.
	Spark plug bad.	Install new spark plug.
	Spark plug loose.	Clean, re-gap and tighten spark plug.
	Ignition parts bad.	See your John Deere dealer.
	Cylinder exhaust ports plugged.	See your John Deere dealer.
Engine Runs Erratically or Rough	Carburetor out of adjustment.	See your John Deere dealer.
	Spark plug bad.	Install new spark plug.
	Spark plug not gapped correctly.	Check and set spark plug gap.
	Throttle control in "CHOKE" position.	Move throttle control to "FAST" position.
	Cooling fins plugged.	Clean all cooling fins.
	Air filter element dirty or oily.	Clean or replace element.

Continued on next page

Troubleshooting

Symptom	Problem	Solution
Engine Idles Poorly	Air filter element dirty. Carburetor out of adjustment. Cooling fins plugged.	Clean or replace element. See your John Deere dealer. Clean all cooling fins.
Engine Overheats	Blower housing or cooling fins plugged.	Clean blower housing and cooling fins.
Engine Vibrates Too Much	Blade cap screws loose. Blade nut loose. Blade out of balance. Crankshaft bent.	Tighten cap screws. Tighten nut. Sharpen and balance blade. See your John Deere dealer.
Mower Mows Unevenly	Ground speed too fast. Operator making mower turn corner to fast. Ridges in terrain. Mower not level.	Walk slower or adjust ground speed — Self Propelled. Walk slower. Change mowing pattern. Set all four wheels to the same position.
Discharge Chute Plugs	Grass wet. Mower too low. Engine overloaded. Grass bag full.	Let grass dry. Raise mower cutting height. Remove half of grass height on first pass. Mow at desired height on second pass. Make a partial cut, using half of the mower cutting width. Empty grass bag.
Blade Does Not Stop Within 3 Seconds When Blade Brake Bail is Released	Blade brake clutch out of adjustment.	See your John Deere dealer.
Engine/Blade Do Not Stop Within 3 Seconds	Flywheel brake out of adjustment.	See your John Deere dealer.
Self-Propelled Mower Does Not Propel	Drive belt broken.	See your John Deere dealer.
Transmission Slips	Drive belt tension.	See your John Deere dealer.

Service

SERVICE SCHEDULE

Check	TIME INTERVALS					
	Before Each Use	5 Hours	10 Hours	25 Hours	50 Hours	Yearly
Engine Oil Level	X					
Clean Engine Blower Screen	X					
Lubricate Rear Axle Bearings				X		
Clean Air Filter- 2-Cycle			X			
Clean Air Filter- 4-Cycle				X		
Tighten Blade and Engine Mounting Nuts				X		
Change Engine Oil- 4-Cycle		X*		X		
Check Spark Plug				X		

***IMPORTANT:** To help prevent engine damage, change engine break-in oil after first 5 hours of use.

M41588

SERVICE AS NECESSARY

Charge battery.

Sharpen and balance blade.

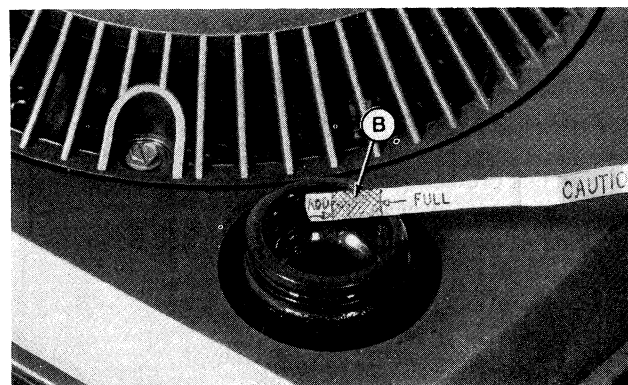
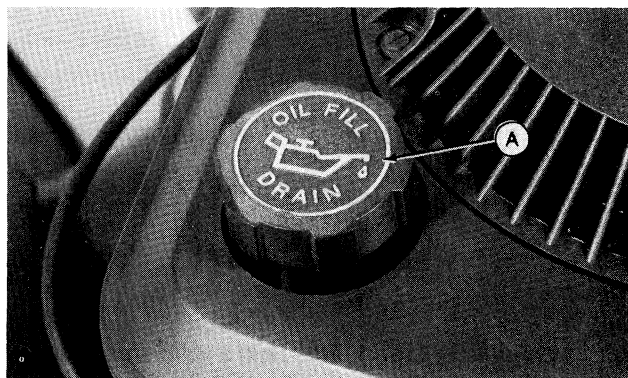
Adjust 4-cycle throttle and control cable.

Check blade brake clutch: blade must stop within 3 seconds after you release blade brake bail. If blade does not stop within 3 seconds, have your John Deere dealer check the blade brake clutch.

CHECKING OIL LEVEL—4-CYCLE ENGINE — BEFORE USE

IMPORTANT: Do not check or add oil while engine is running.

1. Stop engine. Put mower on a level surface.
2. Remove dipstick (A). Wipe it clean.
- 3a. Push Models: Thread dipstick all the way in.
- 3b. Self Propelled Models: Install dipstick in tube, but DO NOT tighten it. Let dipstick threads rest on top of tube.
4. Add oil to bring level to FULL mark (B) on dipstick. See ENGINE OIL in Fuels and Lubricants section for correct oil.
5. Install and tighten dipstick.

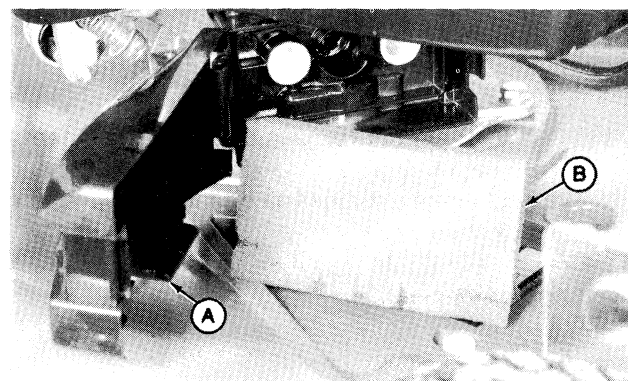


M40475, M40476

CLEANING AIR CLEANER ELEMENT—2-CYCLE ENGINE—10 HOURS

CAUTION: Stop engine. Disconnect spark plug.

1. Wipe dirt from outside of air cleaner housing. Remove cover (A) and element (B).
2. Inspect element. Replace if it is damaged. If you replace element, go to step 5.
3. Wash element in liquid detergent and warm water.
4. Wrap element in cloth and squeeze it dry.
5. Apply 10-15 drops of clean engine oil to element. Squeeze element to distribute oil.
6. Install element and cover.

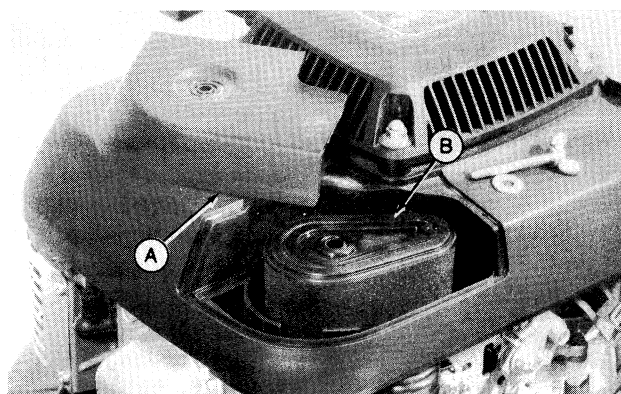


TY13688

CLEANING AIR CLEANER ELEMENT—4-CYCLE ENGINE—SELF-PROPELLED MODELS—25 HOURS

IMPORTANT: Do not run engine with element removed.

1. Remove screw, washer and filter cover (A).
2. Inspect precleaner and element (B). If either is damaged, replace it.
3. If precleaner is dirty, wash it in a solution of warm water and liquid detergent. Do not wash paper element.
4. Rinse precleaner. Squeeze out water and let it dry.
5. Apply 10-15 drops of clean engine oil on precleaner. Squeeze precleaner to distribute oil.
6. Install precleaner on element.
7. Install air cleaner cover, washer, and screw.



M41673

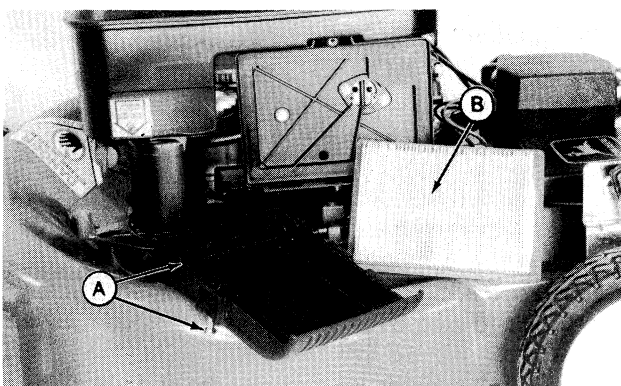
CLEANING AIR CLEANER ELEMENT—4-CYCLE ENGINE—PUSH MODELS—25 HOURS

IMPORTANT: Do not run engine without element.

1. Wipe dirt from outside of air cleaner. Remove screw, cover (A) and element (B).
2. Inspect element.
 - Clean a dirty element.
 - Replace a damaged element.
3. To clean element, wash it in a detergent and warm water solution. Do not use solvents such as kerosene, to clean element.
4. Rinse element thoroughly with flowing water from inside out until water is clear.
5. Let element dry.

IMPORTANT: Do not oil element. Do not use pressurized air to clean or dry element.

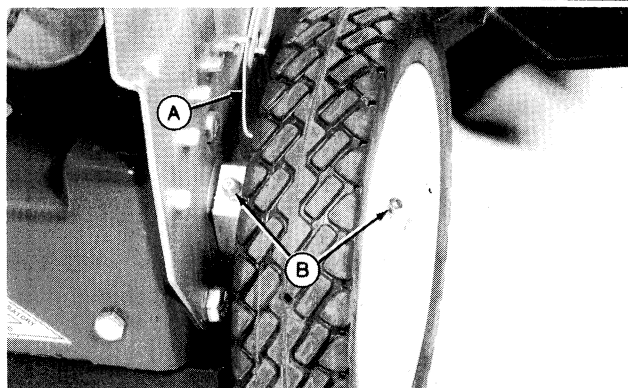
6. Install element and cover.



TY13727

LUBRICATING REAR AXLE BEARINGS— SELF-PROPELLED—25 HOURS

1. Stop engine, disconnect spark plug wire, and put height adjustment lever (A) in HIGH position.
2. Lubricate bearings (B) on rear wheels with John Deere Multipurpose Lubricant.



M40492

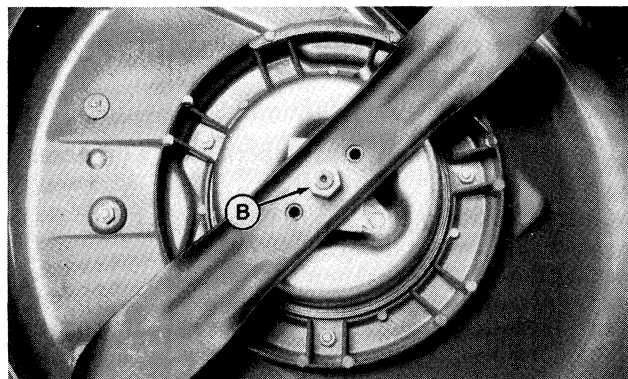
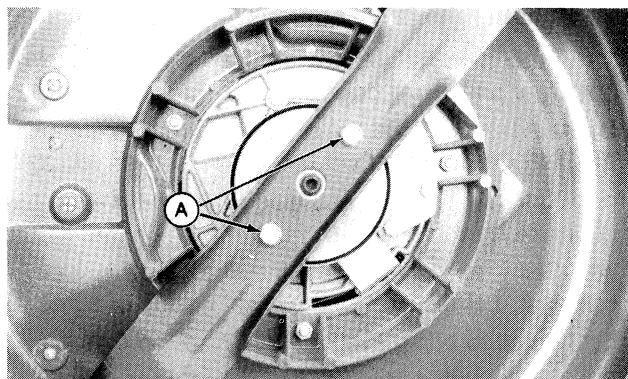
TIGHTENING BLADE MOUNTING HARDWARE— 25 HOURS



CAUTION: Disconnect spark plug wire.
Disconnect battery on electric-start models.
Wear heavy work gloves or wrap blade with a rag.

IMPORTANT: Do not overtighten hardware.

- 1a. Units with Blade Brake Clutch: Tighten cap screws (A) to 30 lb-ft. (41 N.m).
- 1b. 2-cycle units without Blade Brake Clutch: Tighten nut (B) to 45-50 lb-ft (61-68 N.m).
- 1c. 4-cycle units without Blade Brake Clutch: Tighten cap screw (not shown) to 50 lb-ft (68 N.m).



TY13689, TY13665

CHANGING ENGINE OIL—4-CYCLE ENGINE— 25 HOURS

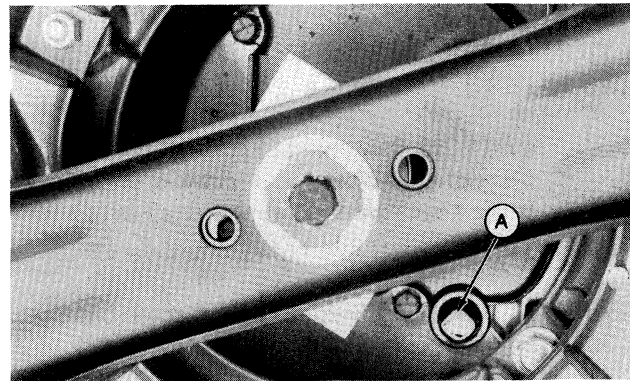
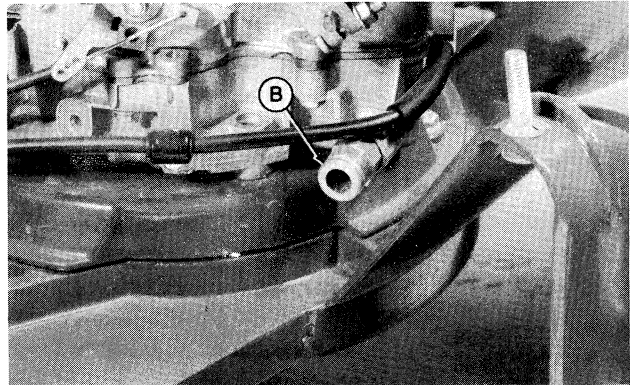


CAUTION: Stop engine. Disconnect spark plug wire.

1. Self-propelled models: Remove discharge chute.
- 2a. Self-propelled models: Turn oil drain valve (B) counter-clockwise to open it. Drain oil into a container and close drain valve. Do not over tighten it.

NOTE: On push model 14PB the oil drain plug is not accessible. Oil must be drained out through dipstick tube.

- 2b. Push models: remove oil drain plug (A). Drain oil into a container and install drain plug.
3. Add 1-¼ pt. (0.6 L) of engine oil through dipstick tube. See ENGINE OIL in Fuels and Lubricants section for correct oil.
- 4a. Push Models: Thread dipstick all the way in before you check oil level.
- 4b. Self-Propelled Models: Install dipstick in tube, DO NOT tighten it. Let dipstick threads rest on top of tube.
5. Add oil to bring level to FULL mark on dipstick.
6. Self-Propelled Models: Install discharge chute.



M41676, TY13791

CLEANING AND GAPPING SPARK PLUG— 25 HOURS

IMPORTANT: Do not clean spark plug with abrasives.

Clean spark plug with a wire brush. Wash with a commercial solvent.

2-Cycle Engine	0.035 in. (0.890 mm)
4-Cycle Engine	0.030 in. (0.762 mm)

Install spark plug. Tighten it to 15 lb-ft (20 N.m).

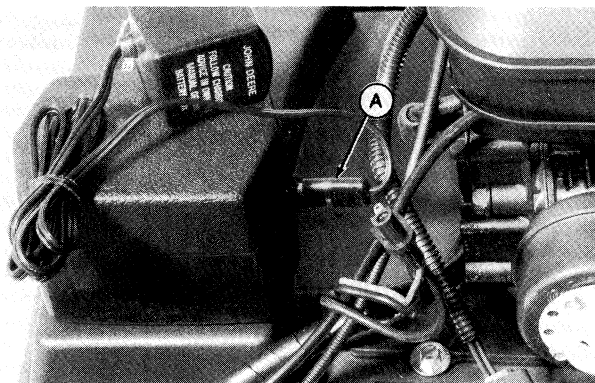


TY8335

CHARGING BATTERY—ELECTRIC START— AS NECESSARY

NOTE: Electric start engine has an alternator to charge a battery to its pre-start level in 3 minutes of engine running time. The 12-volt DC charger will charge the battery when engine is not running.

IMPORTANT: Use only charger supplied with the mower. Other chargers will permanently damage the battery. DO NOT charge battery where air temperature is below 41° (5°C) or above 122°F (50°C).



1. Insert charger connector (A) into battery receptacle.
2. Insert charger plug into 115V single phase 60-cycle outlet.
3. Disconnect charger after battery is charged 24-36 hours (new or discharged).

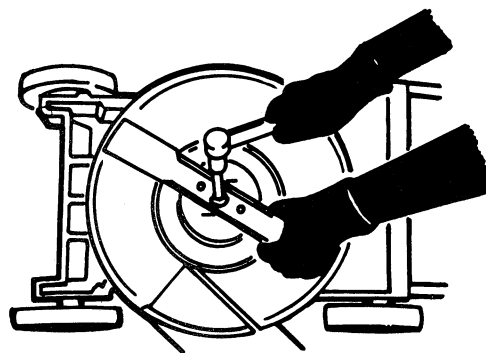
M40495

SHARPENING AND BALANCING BLADE

CAUTION: Stop engine. Disconnect spark plug wire and battery on electric-start models.

Wear heavy work gloves and wrap blade with a rag.

IMPORTANT: Do not turn mower on left side:
 — Oil will run into air cleaner and carburetor.
 — Engine will be hard to start.



1. Remove chute. Turn mower on right side.

2. Remove attaching hardware and blade.

CAUTION: Universal blades may adversely affect mower performance and/or safety. See your John Deere dealer for correct blades.

3. Clean and inspect blade. Replace damaged blade.

4. Sharpen the blade with a file or grinder. Sharpen only the leading edge. Do not grind blade beyond 5 in. (127 mm) (B) from the outside edges (ends) and no less than 2 in. (51 mm) (A) from the trailing edge.

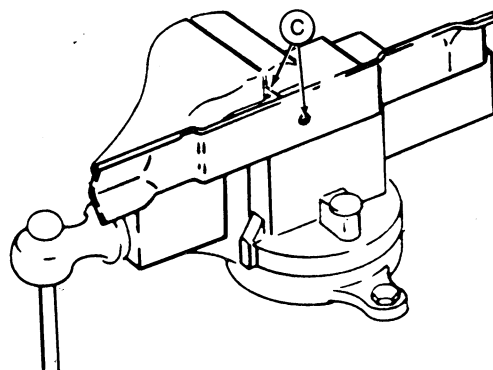
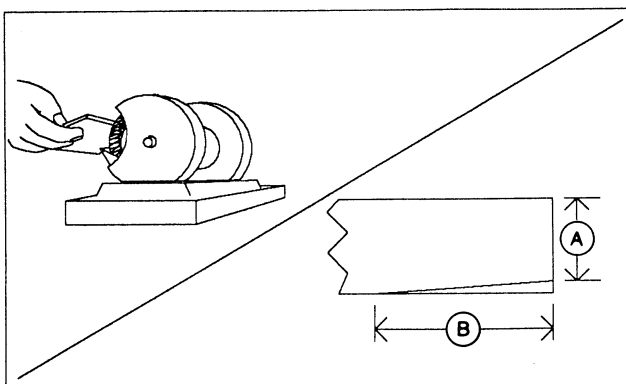
5. Leave a 1/64 in. (0.40 mm) dull area on cutting edge. A razor-sharp edge will chip and dull quickly.

6. Put a long nail (C) in a vise.

7. Install blade on nail as shown. File of blade that moves down until blade balances.

8. Install blade with bend (wing) toward deck.

9. Install and tighten hardware. See TIGHTENING BLADE MOUNTING HARDWARE in service section for specific torque.



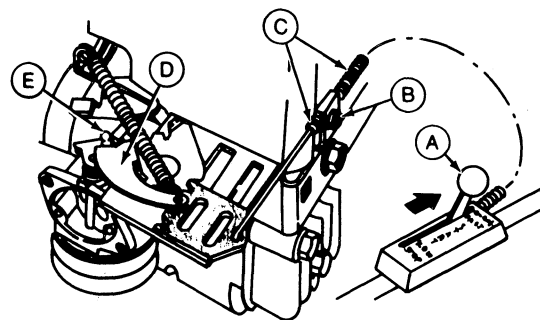
M41586, M41587, M41690

ADJUSTING THROTTLE CONTROL CABLE— 4-CYCLE ENGINE—PUSH MODELS

1. Remove air cleaner assembly.
2. Move throttle control lever (A) to FAST position.

NOTE: FAST position is detented: do not go past FAST position into CHOKE position.

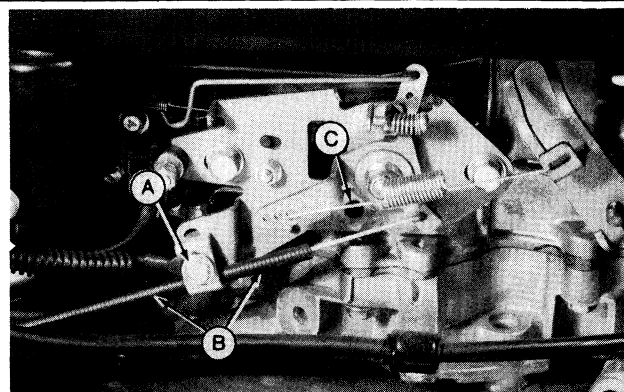
3. Loosen screw (B). Slide cable casing (C) until lever (D) just touches choke arm (E). Tighten screw.
4. Install air cleaner assembly.



TY12369

ADJUSTING THROTTLE CONTROL CABLE— 4-CYCLE ENGINE—SELF-PROPELLED MODELS ONLY

1. Move throttle control lever to FAST position.
2. Loosen screw (A). Slide cable casing (B) until hole (C) in lever is in line with hole in bracket.
3. Tighten screw.



M41696

Accessories

ACCESSORIES

REAR BAG ATTACHMENT — Has a 2 bu (0.07 M³) capacity. Easily installed and removed.

REMOVE FUEL KIT — Extra fuel 5.7 qt. (5.5 L) tank extends mowing time.

THATCHER — Lifts grass for more uniform cut. Removes dead grass.

MULCHING PLATE — Replaces discharge chute. Keeps grass clippings under mower deck until the blade chops it to a fine mulch.

STEEL WHEEL KIT — Kit has two steel wheels with ball bearings and grease fittings. Order two kits for push mowers and one kit for self-propelled mowers.

REMOTE AIR INTAKE KIT — For 2-cycle engines used in extremely dusty conditions.

Storage

STORING MOWER



Caution: Do not store mower where fuel fumes reach an open flame or spark.

IMPORTANT: Use John Deere Gasoline Storage Stabilizer in the fuel tank. See your John Deere dealer. A gasoline storage conditioner should always be used when storing the mower to prevent carburetor varnishing and partial plugging of carburetor jets. Either of these conditions could cause the engine to run lean and result in piston seizure or engine failure.

1. Drain fuel.
2. Close fuel shutoff valve.
3. Run engine until it stops.

4. 4-cycle engine: change engine oil.

5. Pour 1 oz. (29 ml) of engine oil into spark plug hole. Turn engine over twice to distribute oil.

6. Replace spark plug but leave plug wire disconnected.

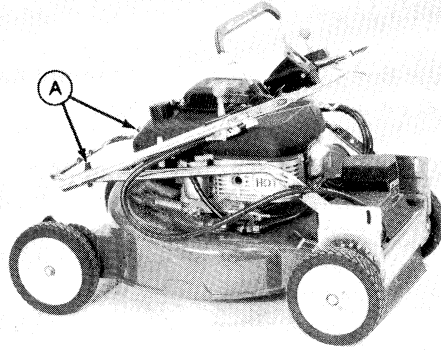
IMPORTANT: Do not kink control cables when you fold handle. Disconnect battery on electric start models before you fold handles.

7. Remove lower handle knobs and hardware.
8. Loosen folding handle knobs and fold handle.
9. Replace lower handle knobs and hardware.

Assembly

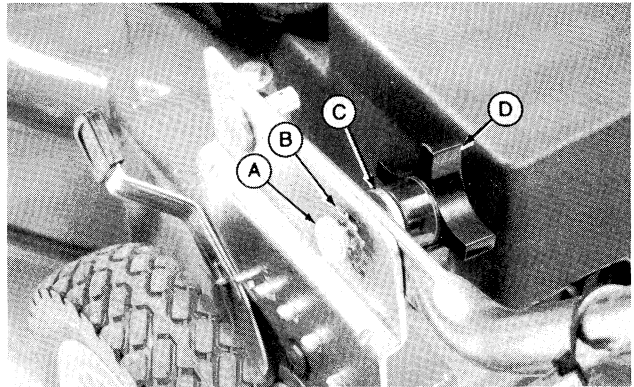
ASSEMBLE MOWER

1. Loosen folding handle knobs (A).
2. Lift handle to an upright position and tighten folding handle knobs.
3. Align hole in handle with slot in bracket on both sides of mower deck.



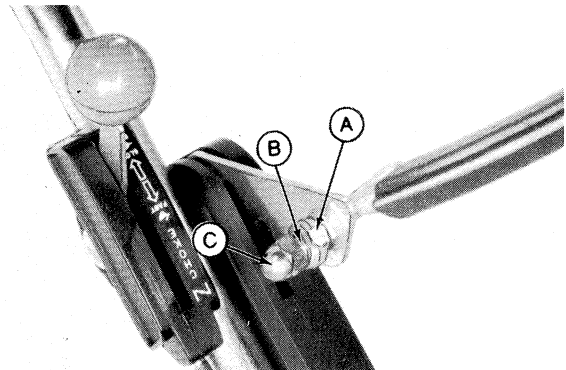
M41678

4. Install carriage bolt (A), lock washer (B), flat washer (C) and knob (D) on both sides of handle.
5. Adjust handle height and tighten knobs.



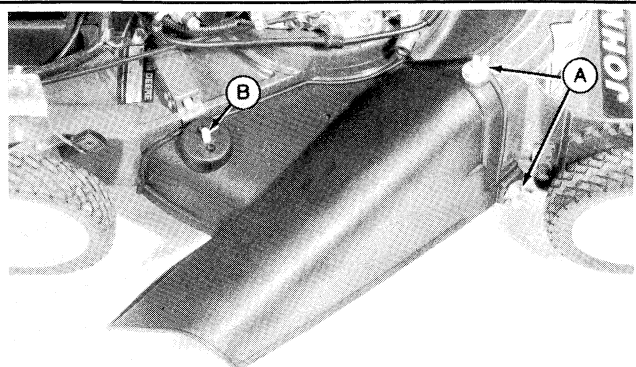
M41679

6. Blade Brake Clutch: install clutch cable eyelet (A) over threaded stud (B). Fasten it with nut (C).
7. Manual Start without Blade Brake Clutch (not shown): pull recoil starter handle to release slip knot in starter rope.



TY13724

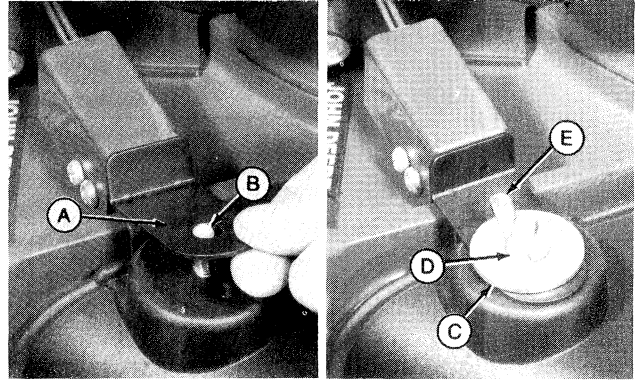
8. Install side discharge chute. Fasten it with washers and wing nuts (A). Do not install washers and wing nut on stud (B) at this time.



M41680

9. Push switch into housing until actuator (A) fits over stud (B).

10. Install flat washer (C), lock washer (D), and wing nut (E).

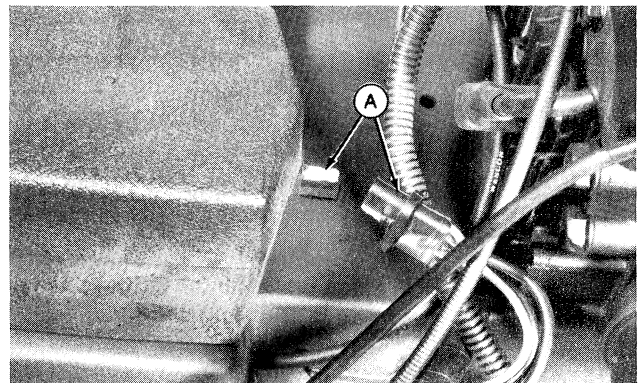


M40498, M40499

CONNECT BATTERY—ELECTRIC START

NOTE: Before first start, charge battery for 24-36 hours.

Connect battery leads (A).



M40500

ADD ENGINE OIL—4-CYCLE ENGINE

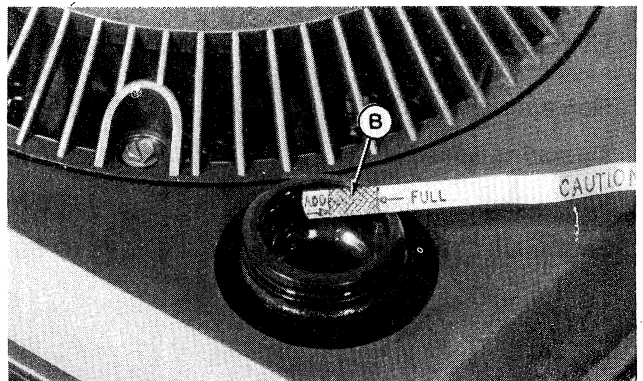
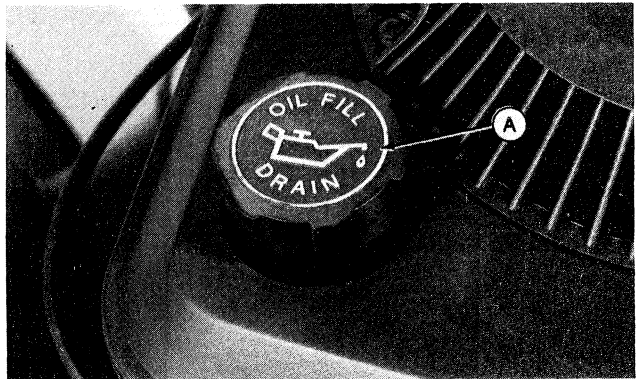
IMPORTANT: The engine is shipped without oil. Add oil before you run engine.

1. Add 1-¼ pt. (0.6 L) of engine oil through dipstick tube (A). See ENGINE OIL in Fuels and Lubricants section for correct oil.

2a. Push Models: Thread dipstick all the way in before you check oil level.

2b. Self Propelled Models: Install dipstick in tube. DO NOT tighten it. Let dipstick threads rest on top of tube.

3. Add oil to bring level to FULL mark (B) on dipstick.



M40475, M40493

Specifications

MOWER SPECIFICATIONS

	04PM	12PM	12PB	12SB	14PM	14PB	14SM	14SB	14SE
4-Cycle Engine	×				×	×	×	×	×
2-Cycle Engine		×	×	×					
Kawasaki Engine							×	×	×
Briggs&Stratton Eng.	×				×	×			
OMC Engine		×	×	×					
Push	×	×	×		×	×			
Self propelled				×			×	×	×
Electric Start									×
Manual Start	×	×	×	×	×	×	×	×	
Blade Brake Clutch			×	×		×		×	×
20in. Cut	×								
21in. Cut		×	×	×	×	×	×	×	×

Cutting Height Range 1-3½ in. (25-89 mm)

Number of Cutting Heights 7

Blade Hardware Torque

— Mower with Blade Brake Clutch 30 lb-ft (41 N·m)

— 2-Cycle Mower without Blade
Brake Clutch 45-50 lb-ft (61-68 N·m)

— 4-Cycle Mower without Blade

Brake Clutch 50 lb-ft (68 N·m)

Self Propelled Models

— Travel Speed Range 1-3½ mph (1.6-5.6 Km/h)

— Number of Ground Speeds 5

M41697

KAWASAKI 4-CYCLE ENGINE

Horsepower 4.5 hp (3.4 kW)

Operating Speed 3125 + 75 rpm

Idle Speed 1500 rpm

Engine Oil Capacity 1¼ pt. (0.60 L)

Fuel Tank Capacity 1.4 qt. (1.3 L)

Spark Plug NGK-BPGES or equivalent

Spark Plug Gap 0.030 in. (0.762 mm)

Spark Plug Torque 15 lb-ft (20 N·m)

BRIGGS AND STRATTON 4-CYCLE ENGINE

Horsepower 3.5 hp (2.6 Kw)

Operating Speed 3100-3300 rpm

Idle Speed 1750 rpm

Engine Oil Capacity 1-¼ pt. (0.60 L)

Fuel Tank Capacity 1.5 qt. (1.4 L)

Spark Plug Champion-RJ17LM or equivalent

Spark Plug Gap 0.030 in. (0.762 mm)

Spark Plug Torque 15 lb-ft (20 N·m)

OMC 2-CYCLE ENGINE

Horsepower 4 hp (3.0 Kw)

Operating Speed 3100-3300 rpm

Fuel Tank Capacity 2 qt. (1.9 L)

Spark Plug Champion-CJ14 or equivalent

Spark Plug Gap 0.035 in. (0.890 mm)

Spark Plug Torque 15 lb-ft (20 N·m)

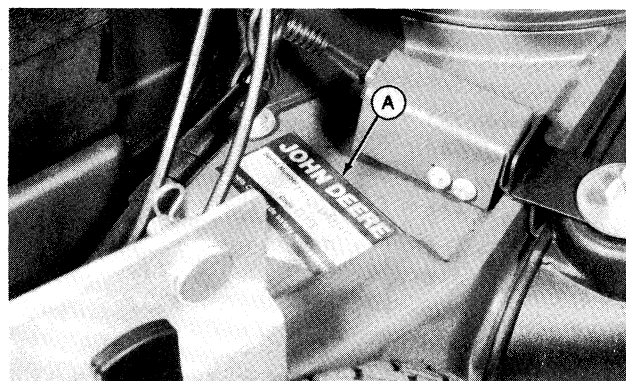
SERIAL NUMBER

Record the serial number and code number (A) below.

Mower Serial No. _____

Code No. _____

Date of Purchase _____



M40503

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			x	=
			x	=
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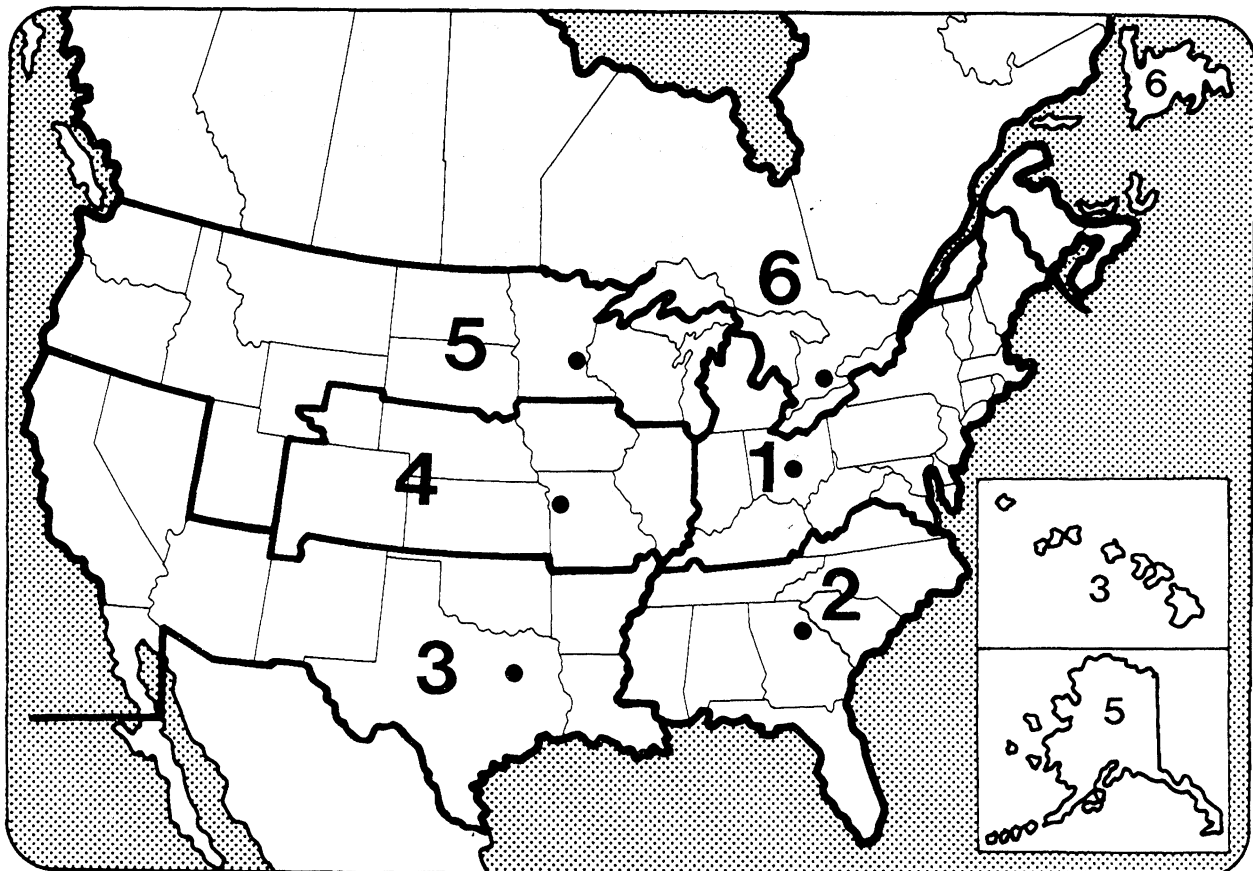
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