

JOHN DEERE
WORLDWIDE COMMERCIAL & CONSUMER
EQUIPMENT DIVISION

Power Flow™
38 QT

OMM146114 D1

OPERATOR'S MANUAL



JOHN DEERE

North American Version
Litho in U.S.A.



INTRODUCTION

Thank You for Purchasing a John Deere Product

We appreciate having you as a customer and wish you many years of safe and satisfied use of your machine.

Using Your Operator's Manual

This manual is an important part of your machine and should remain with the machine when you sell it.

Reading your operator's manual will help you and others avoid personal injury or damage to the machine. Information given in this manual will provide the operator with the safest and most effective use of the machine. Knowing how to operate this machine safely and correctly will allow you to train others who may operate this machine.

If you have an attachment, use the safety and operating information in the attachment operator's manual along with the machine operator's manual to operate the attachment safely and correctly.

This manual and safety signs on your machine may also be available in other languages (see your John Deere dealer to order).

Sections in your operator's manual are placed in a specific order to help you understand all the safety messages and learn the controls so you can operate this machine safely. You can also use this manual to answer any specific operating or servicing questions. A convenient index located at the end of this book will help you to find needed information quickly.

The machine shown in this manual may differ slightly from your machine, but will be similar enough to help you understand our instructions.

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 (----->), the item referred to is hidden from view.

Before delivering this machine, your dealer performed a predelivery inspection to ensure best performance.

Special Messages

Your manual contains special messages to bring attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.



CAUTION: Avoid injury! This symbol and text highlight potential hazards or death to the operator or bystanders that may occur if the hazards or procedures are ignored.

IMPORTANT: Avoid damage! This text is used to tell the operator of actions or conditions that might result in damage to the machine.

NOTE: General information is given throughout the manual that may help the operator in the operation or service of the machine.

PRODUCT IDENTIFICATION

Record Identification Numbers

Power Flow™

38 QT for STX and LX Series Lawn Tractors Serial No.
(010001-)

If you need to contact an Authorized Service Center for information on servicing, always provide the product model and serial number.

You will need to locate the model and serial number for the mower deck and record the information in the spaces provided below.



M77264

DATE OF PURCHASE:

DEALER NAME:

DEALER PHONE:

PRODUCT SERIAL NUMBER (A):

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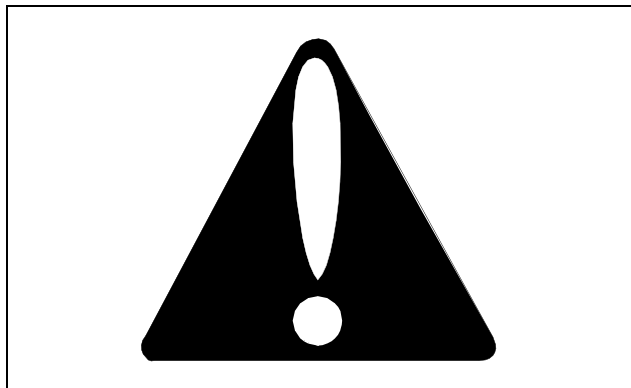
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OMM146114 D1 - English

SAFETY

Understanding The Machine Safety Labels



MIF

The machine safety labels shown in this section are placed in important areas on your machine to draw attention to potential safety hazards.

On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards.

The operator's manual also explains any potential safety hazards whenever necessary in special safety messages that are identified with the word, CAUTION, and the safety-alert symbol.

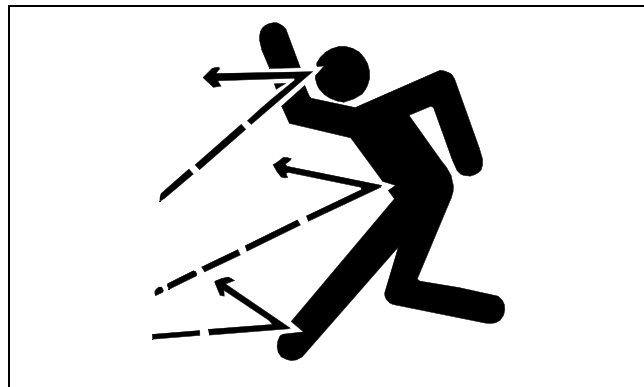
WARNING - Rotating Blade - Thrown Objects



M118454 M77270

Operate blower with entire grass catcher secured in place.

Operate Safely



MIF

- Check vehicle brake action before you operate. Adjust or service brakes as necessary.
- Inspect machine before you operate. Be sure hardware is tight. Repair or replace damaged, badly worn, or missing parts. Be sure guards and shields are in good condition and fastened in place. Make any necessary adjustments before you operate.
- Clear work area of objects that might be thrown. Keep people, especially children, 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 shields and guards in place.
- Do not leave machine unattended when it is running.
- Only operate during daylight or with good artificial light.
- Do not let anyone, especially children, ride on machine or vehicle.
- Do not let children or an untrained person operate machine.
- Do not wear radio or music headphones while operating the machine. Safe operation requires your full attention.
- Do not operate machine if you are under the influence of drugs or alcohol.
- Study mowing area. Set up safe mowing pattern. Do not mow under conditions where traction or stability is doubtful.
- First, test drive area with PTO off and mower lowered. Slow down when you travel over rough ground.

Parking Safely

1. Stop vehicle on a level surface, not a slope.
2. Disengage PTO.

SAFETY

3. Lock the park brake.
4. Stop the engine.
5. Remove the key.
6. Before you leave the operator's seat, wait for engine and all moving parts to stop.

Avoid Injury From Rotating Blades



MIF

- Do not put hands or feet near blower assembly when engine is running.
- Stop engine before you unplug the blower assembly.
- Do not operate the blower assembly unless entire grass catcher is fastened in place with hopper cover latched in the closed position.

Practice Safe Maintenance

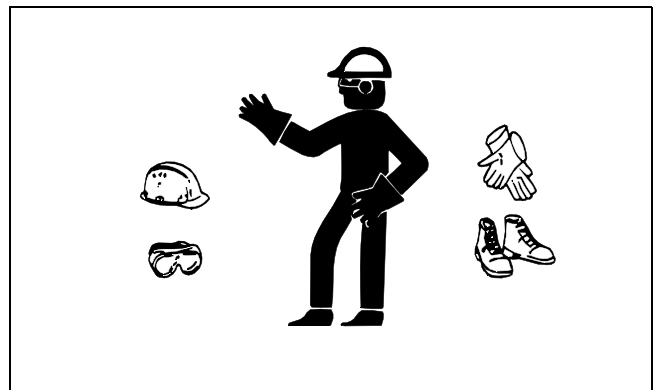


MIF

- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate, service, or adjust machine while it is moving. Keep safety devices in place and in working condition. Keep hardware tight.

- To prevent them from getting caught, keep hands, feet, clothing, jewelry, and long hair away from any moving parts.
- Before servicing machine, lower it to the ground. Disengage all power and stop the vehicle engine. Move hydraulic lift levers back and forth to relieve pressure. Lock vehicle park brake and remove the key. Let engine cool.
- Securely support any machine elements that must be raised for service work.
- Never run vehicle engine unless park brake is locked.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.
- Unauthorized modifications to the machine may impair its function and safety.

Wear Appropriate Clothing



MIF

- 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 servicing requires your full attention.

PREPARING MACHINE

Front Ballast



CAUTION: Avoid injury! To help maintain vehicle stability front ballast is recommended when using vehicle on slopes and when vehicle is equipped with the rear grass bagger.

A 35 pound weight can be mounted to each front wheel for ballast.

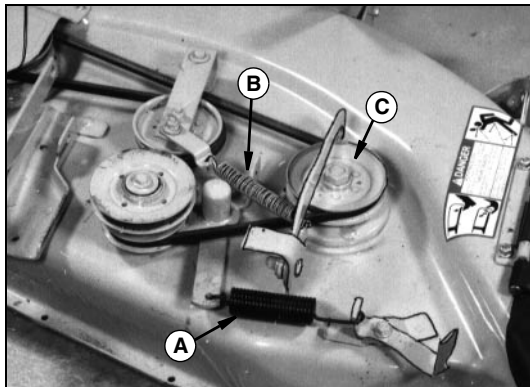
See your John Deere dealer for the correct weight for your vehicle.

Install Double Sheave - STX Models With Yellow Deck Only



CAUTION: Avoid injury! Springs are under high tension. Use care during removal and installation.

1. Remove the mower from the vehicle. See your operator's manual for this procedure.

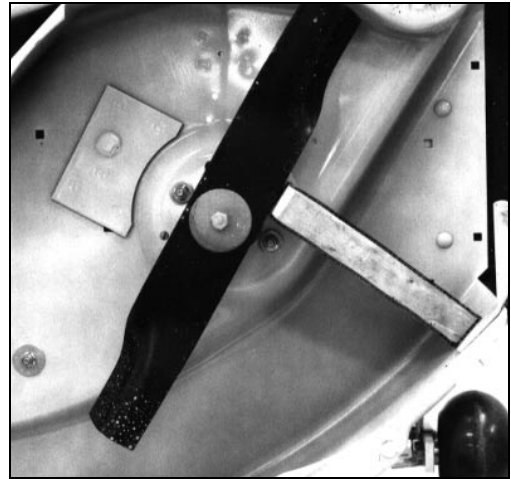


M75315

2. Release springs (A) and (B).
3. Remove belt from sheave (C).

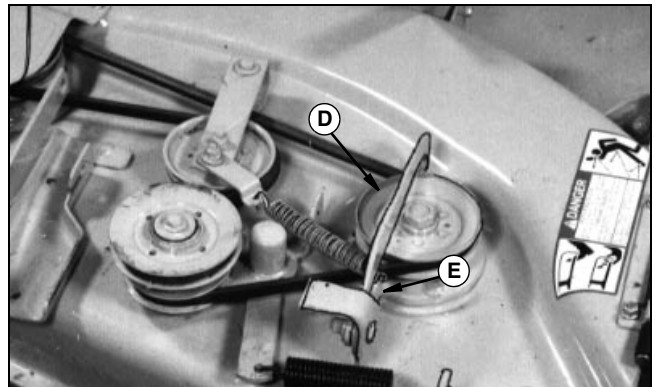


CAUTION: Avoid injury! Mower deck and blades have sharp edges. Wear gloves or wrap cloth around sharp edges to prevent injury.



M75311

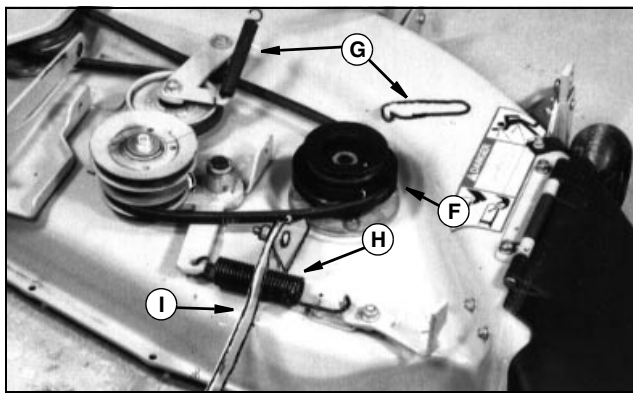
4. Put block of wood between blade and deck to prevent blade from turning when you remove or install sheaves or blades.



M75315

5. Remove and save right spindle sheave (D). Keep key in spindle shaft groove.
6. Pivot rear draft arm (E) to the rear of the deck.

PREPARING MACHINE



M75316

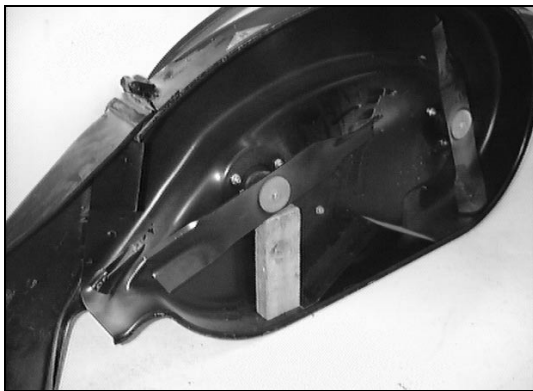
7. Put belt on bottom sheave of double sheave (F).
8. Make sure to align keyway of double sheave with spindle shaft key. Install double sheave on spindle.
9. Fasten with spindle sheave nut. Tighten to 125 N•m (92 lb-ft).
10. Connect spring (G).
11. Tighten spring (H).
12. Pivot rear draft arm (I) onto top of double spindle sheave.

Install Double Sheave - STX Models with Black Deck Only



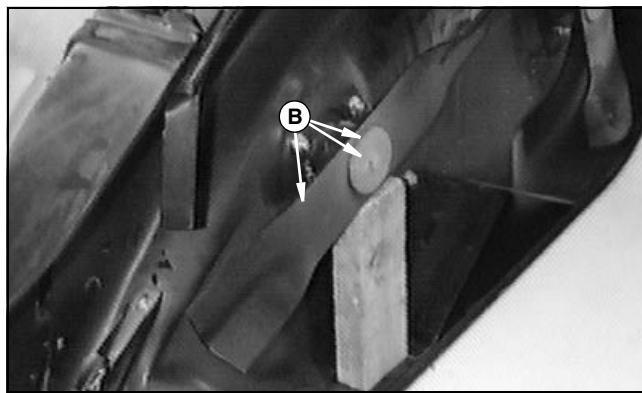
CAUTION: Avoid injury! Mower deck and blade have sharp edges. Wear gloves or wrap cloth around sharp edges to help prevent injury.

1. Remove the mower from the vehicle. (See your Operator's Manual for this procedure).



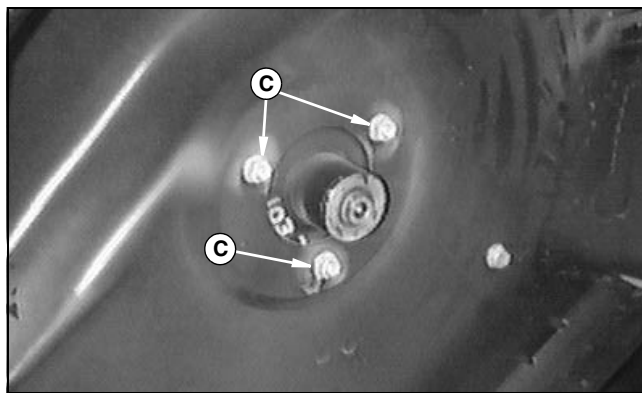
M57633

2. Put a block of wood between blade and deck to help prevent blade from turning when removing the blade.



M57634

3. Remove cap screw, two washers, and blade (B) and deflector cup from right spindle.

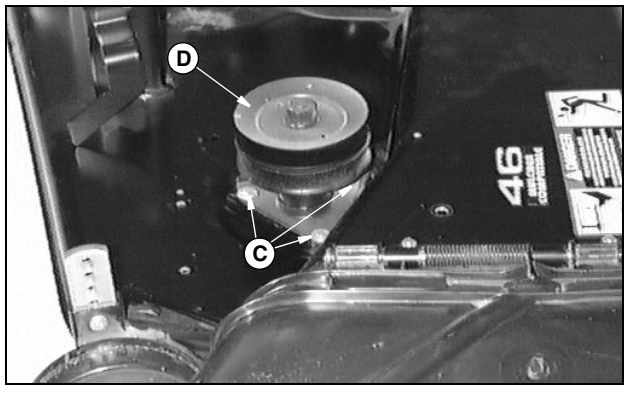
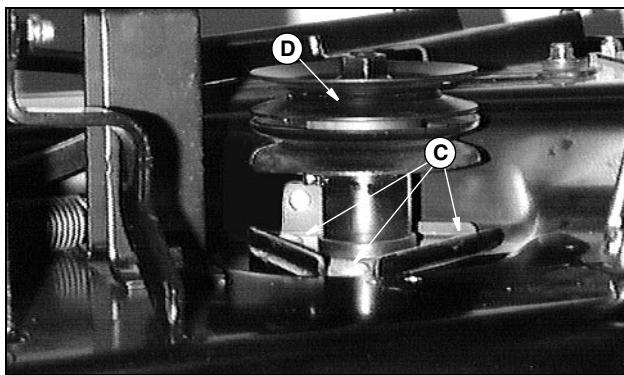


M57635

4. Remove and save three carriage bolts and lock nuts (C). Remove and save right spindle assembly. This spindle can be used for service of other spindles on deck.

PREPARING MACHINE

IMPORTANT: Avoid damage! To help prevent blade damage, check blade clearance prior to tightening three carriage bolts.

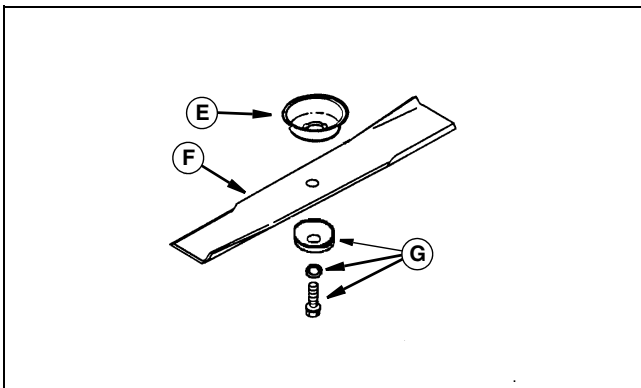


M63021 M77182

5. Install double sheave assembly (D) and fasten with three original carriage bolts and lock nuts (C) .

6. Tighten nuts to 27 N•m (20 ft-lb).

NOTE: Do not install mower belt on vehicle sheave or mower jacksheave until you have installed power flow belt to the mower jacksheave.



M57064

7. Install deflector cup (E) and blade (F).

8. Install two washers and cap screw (G).

9. Tighten cap screw to 61 N•m (45 ft-lb).

10. Install mounting brackets. (See Installing Mounting Brackets in this section).

11. Install the mower deck on the vehicle. (See your Operator's Manual for this procedure).

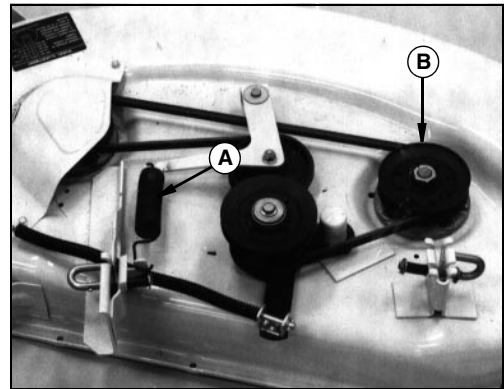
12. Install the power flow.

Install Double Sheave - LX Tractor Models Only



CAUTION: Avoid injury! Springs are under high tension. Use care during removal and installation.

1. Remove the mower from the vehicle. (See your operator's manual for this procedure).



M75312

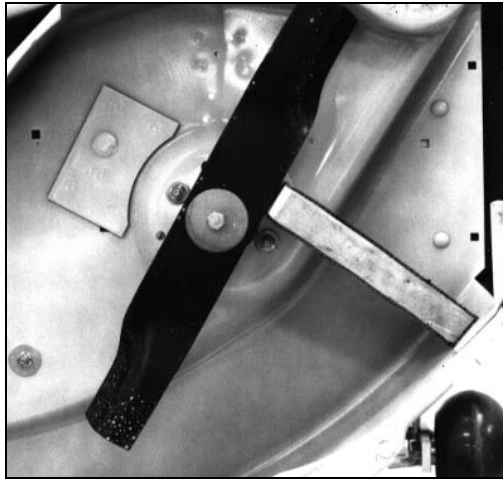
2. Release spring (A).

3. Remove belt from sheave (B).

PREPARING MACHINE

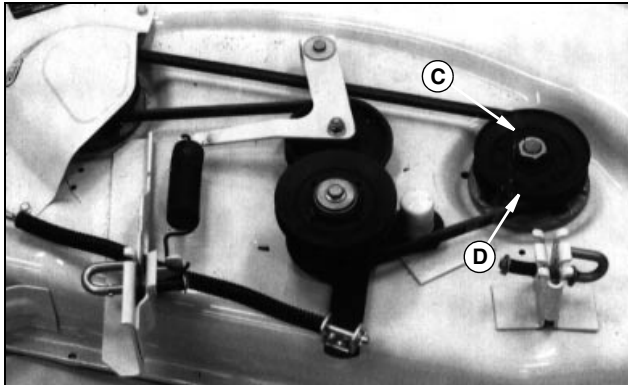


CAUTION: Avoid injury! Mower deck and blades have sharp edges. Wear gloves or wrap cloth around sharp edges to prevent injury.



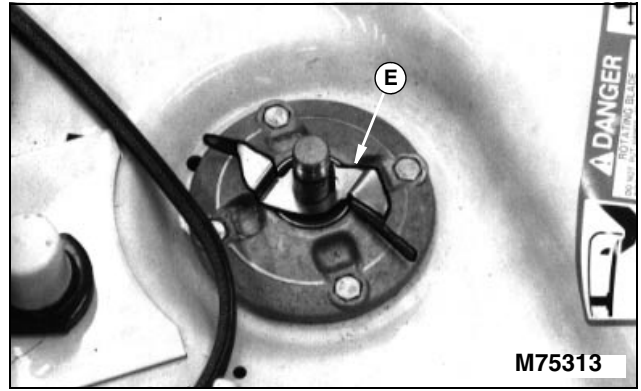
M75311

4. Put block of wood between blade and deck to prevent blade from turning when you remove or install sheaves or blades.



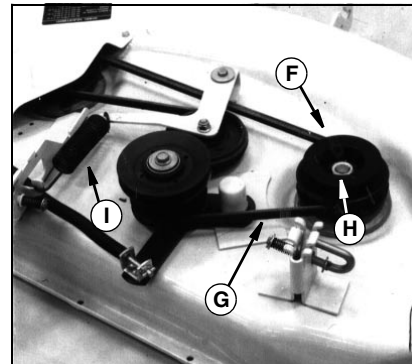
M75312

5. Remove and save right spindle nut (C) and sheave (D). Keep key in spindle shaft groove.



M75313

6. Remove wing fan (E).



M75314

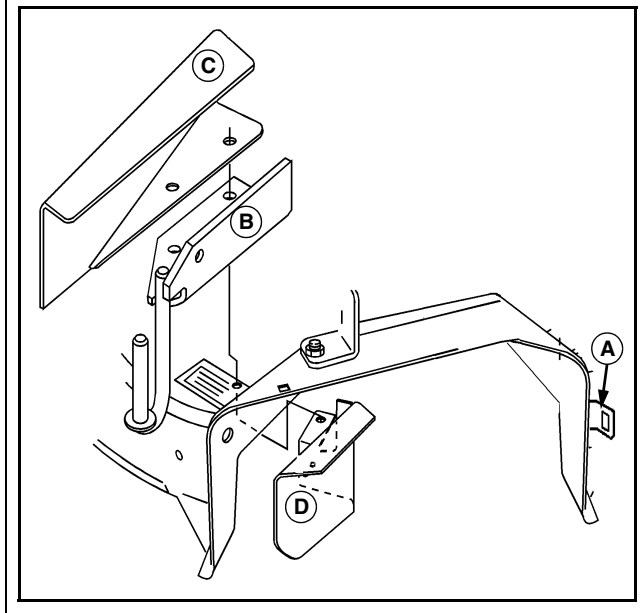
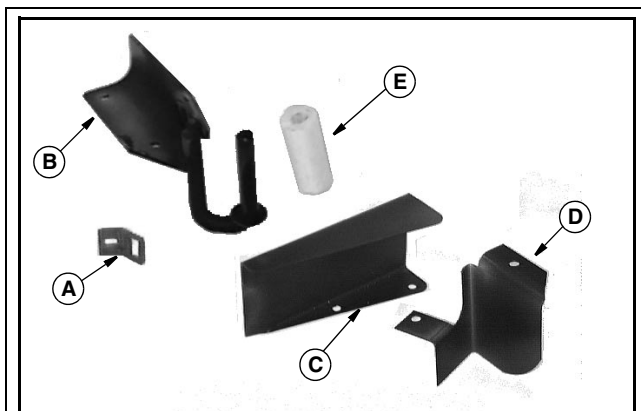
7. Align keyway of double sheave (F) with spindle shaft key. Install double sheave on spindle shaft.
8. Put belt (G) on bottom sheave of double sheave.
9. Fasten with sheave nut (H). Tighten to 125 N•m (92 lb-ft).
10. Connect spring (I).

Install Four Mounting Brackets



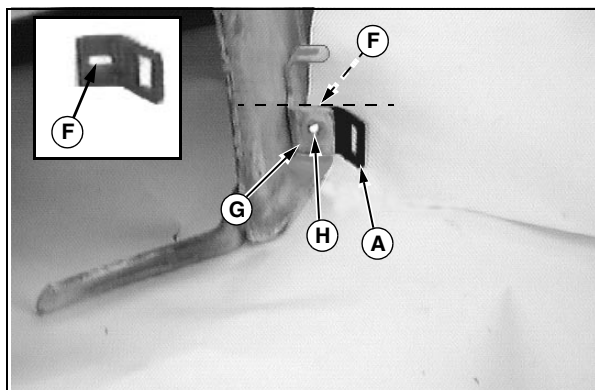
CAUTION: Avoid injury! Mower deck and blades have sharp edges. Wear gloves or wrap cloth around edges to help prevent injury.

PREPARING MACHINE



M77258 M77263a

- A - Bracket A
- B - Bracket B
- C - Bracket C
- D - Bracket D
- E - Foam Template



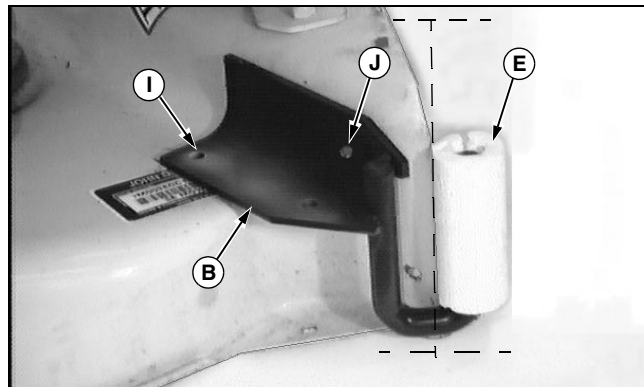
M77259

1. Using bracket A as a template, position bend in Bracket

A against edge of bracket (G) on deck. Align top edge of Bracket A with top edge of bracket (G) and mark center of slot (F). Drill a 7 mm (9/32 in.) hole (H).

2. Install Bracket A with a 6 mm bolt and nut. Fasten nut to the back side of Bracket A.

3. Lift and tape mower deflector out of the way.



M77255

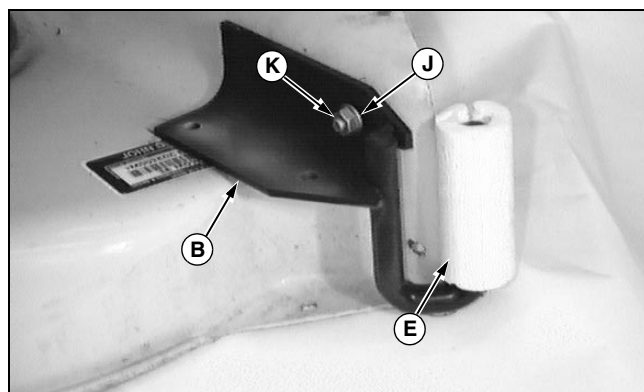
4. Put foam template (E) over pin of Bracket B as shown.

NOTE: Bottom of bracket will not lay flat on the deck.

5. Align template (E) flush with deck and mark bracket holes (I) and (J) on deck.

6. Drill two 9 mm (11/32 in.) holes through deck at marks (I) and (J).

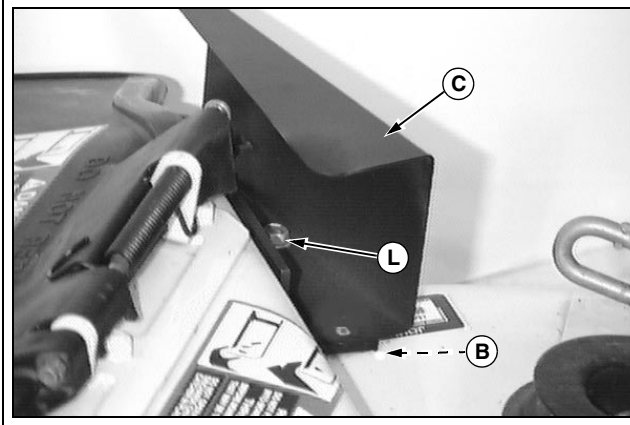
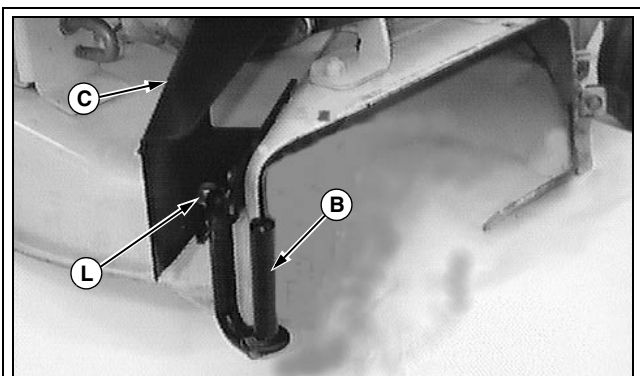
IMPORTANT: Avoid damage! Nut (K) must be on outside of deck as shown.



M77256

7. Fasten side of Bracket B with 8 mm bolt and nut (K) in hole (J) to hold bracket in place. Tighten bolt. Remove foam template (E).

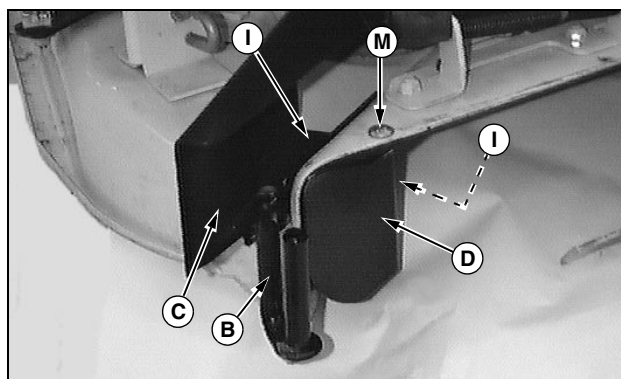
PREPARING MACHINE



M77262 M77257a

Picture Note: Lower photo shows bracket C as viewed from other side

8. Place Bracket C over Bracket B and fasten with 8 mm bolt and nut in hole (L). Do not tighten nut at this time.



M77261

9. Place Bracket D underneath the mower deck and align hole (I) in Bracket D with holes (I) of deck, Brackets B and C. Fasten with 8 mm bolt and nut, so nut is on top side of deck.

10. Align hole in Bracket D with hole in deck and install carriage bolt (M) and nut.

11. Tighten nuts.

12. Remove tape and release deflector.

13. Install the mower deck on the vehicle. (See your tractor Operator's Manual).

NOTE: Slight resistance may be felt moving lift lever to locked transport position.

14. Raise and lower the mower deck several times to check that new upstop does not interfere with locking mower deck into transport (upper) position.

15. Install the Power Flow.

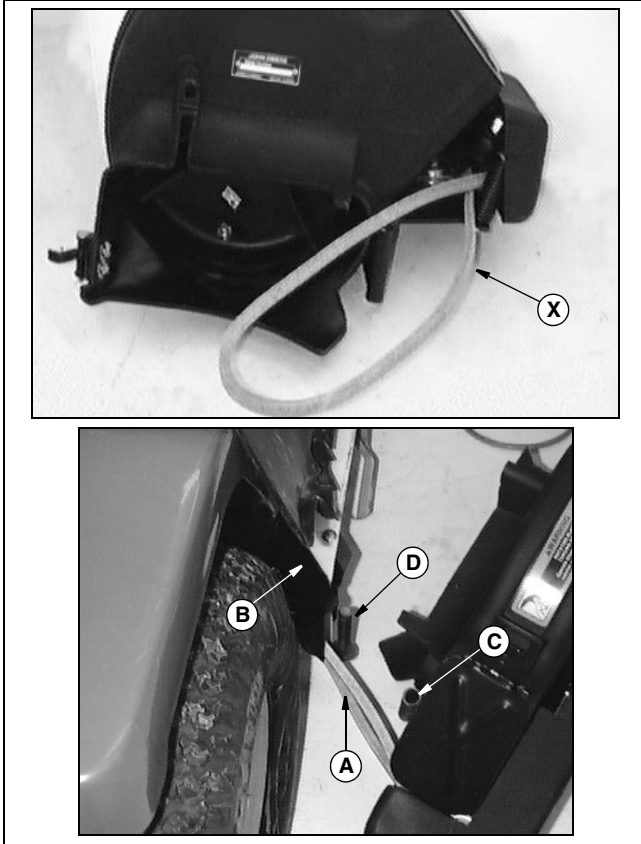
INSTALLING

Installing Power Flow and Belt

NOTE: The mower should be installed before installing the Power Flow unit. See your mower operator manual to install mower on vehicle.

On Black Deck: Do not install mower drive belt.

1. Install mower. Tape mower deflector up and out of the way.



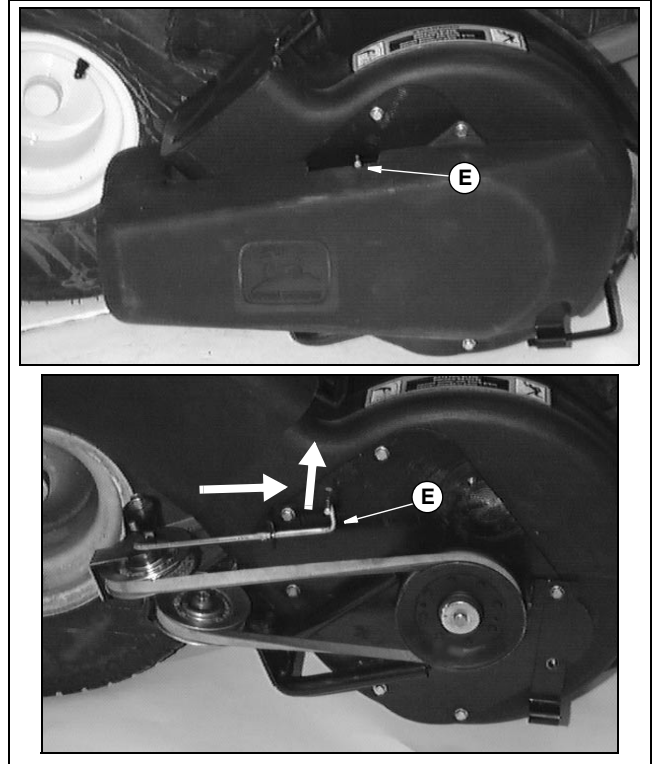
M77264 M77269

2. Position (crossed) Power Flow belt (X) between belt guide bracket (B) and mower deck.
3. Slide Power Flow tube (C) over mounting bracket pin (D).



CAUTION: Avoid injury! Belt shield removed for photo purposes only. DO NOT operate Power Flow without belt shield.

NOTE: Latch lever will be shipped in the locked position to release belt tension for installation.



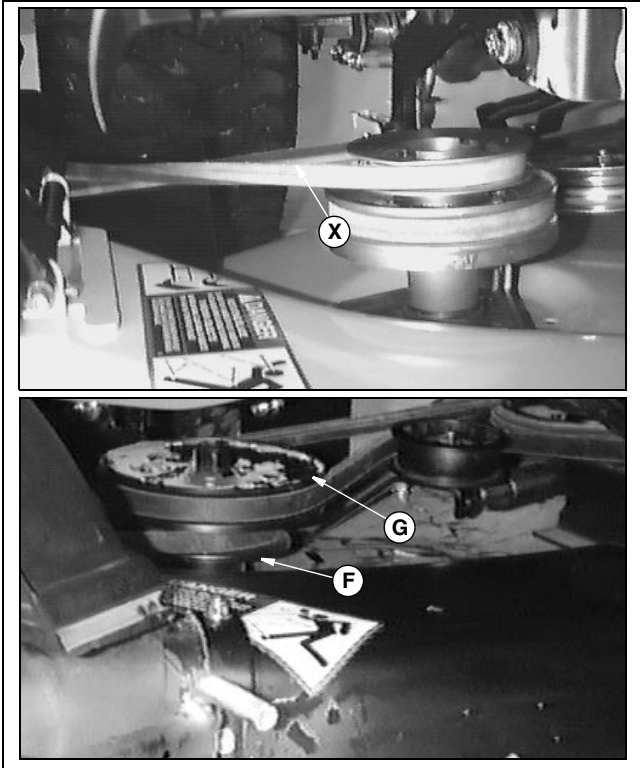
M77271 M77265

Picture Note: Belt shield removed for photo clarity only.

4. Check that latch lever (E) is locked. If necessary pull lever (E) out and lift to lock.

INSTALLING

IMPORTANT: Avoid damage! Belt must be crossed in order for the Power Flow to work properly.

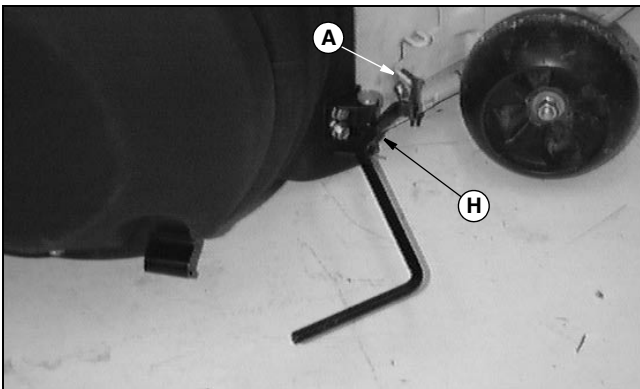


M93284 M57649

5. Install (crossed) belt (X) onto mower sheave.

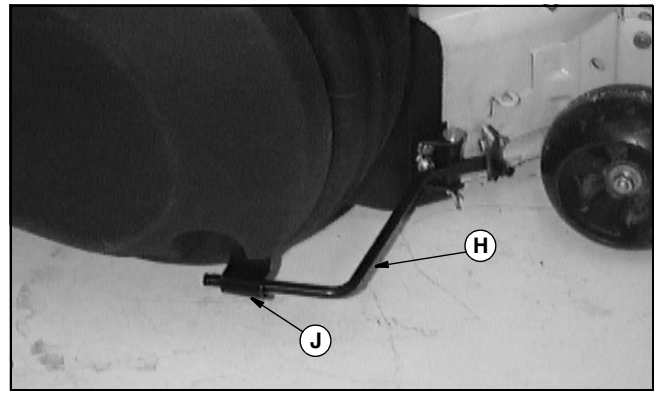
- **On BLACK DECK:** Install crossed belt onto bottom sheave (F) and mower drive belt onto upper sheave (G).

NOTE: When the Power Flow is swung into position, mower belt tension will release latch lever.



M77267

6. Swing Power Flow into position and hook handle (H) into Bracket A.

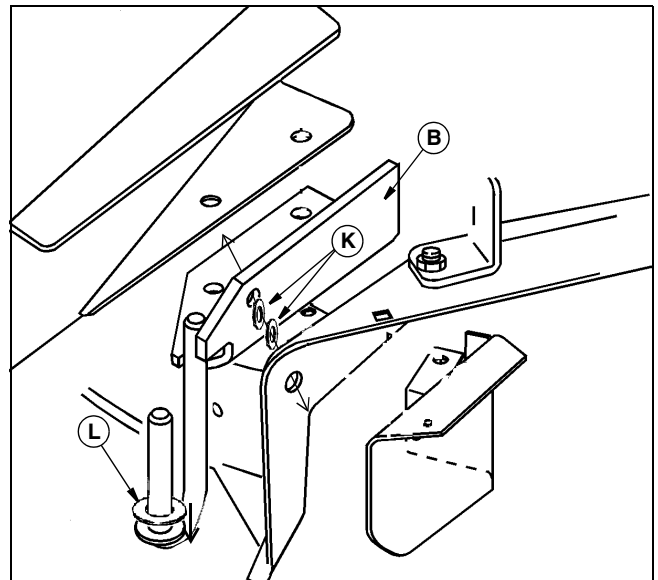


M77268

7. Hook handle (H) under bracket (J).

NOTE: The Power Flow should be level with the mower deck after hooking handle (H) into bracket (J).

8. If Power Flow is not level, add washers to level or raise:



M77292

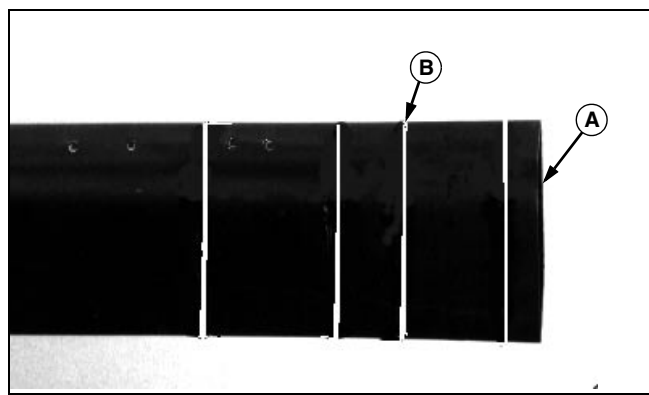
- **To Level Power Flow:** Insert one or two washers (K) between Bracket B and mower deck to level the Power Flow.
- **To Raise Power Flow:** Put large washer (L) on pin of Bracket B to raise the Power Flow.

9. Remove tape and release mower deflector chute.

Prepare Chute for Bagging Attachment

NOTE: Use this procedure for the 6 1/2-Bushel Power Flow system Only. See 7-Bushel Power Flow Operator's Manual for its specific procedure.

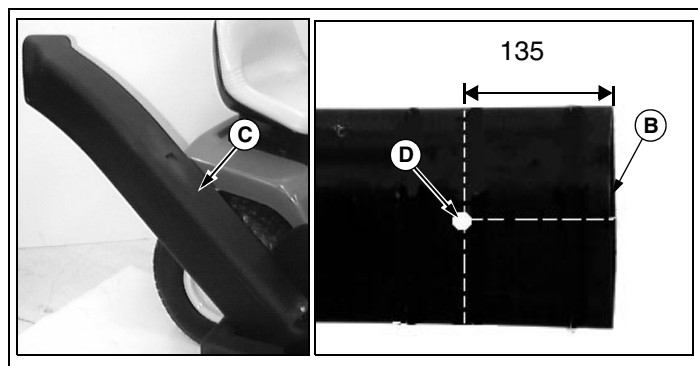
INSTALLING



M74108b

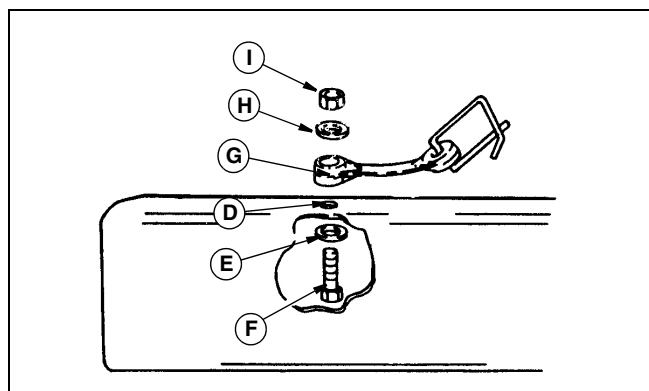
A - End of Chute

1. Cut off chute at line (B)



M77285 M74108A

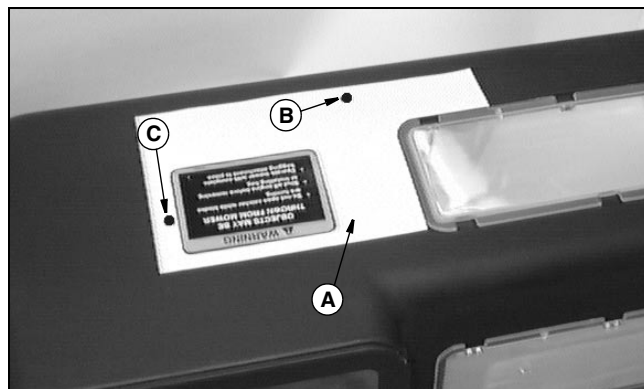
2. Looking at the top side (C) of the chute, measure 135 mm (5-5/16 in.) from the cut-off end of chute (B) and approximate center of chute and drill 6 mm (1/4 in.) hole (D).



M74109

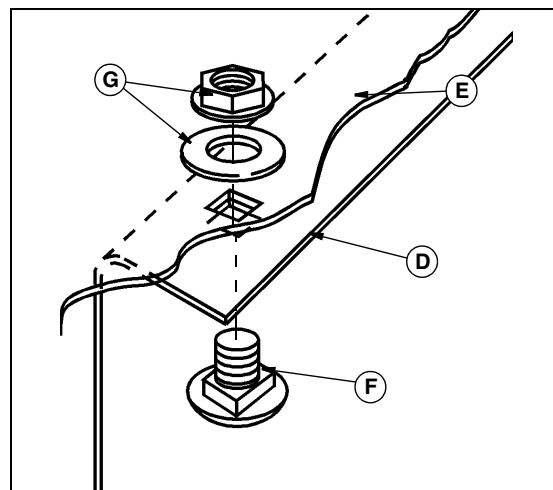
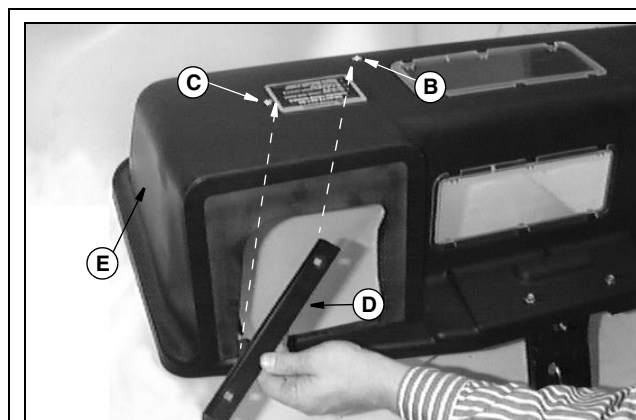
3. Install washer (E) on cap screw (F). Insert cap screw with washer through hole (D) from inside chute.
4. Fasten latch (G) on chute using washer (H) and lock nut (I).

Install Baffle Inside Hopper



M77274

1. Peel off backing of template (A) and apply to the hopper as shown.
2. Drill 7 mm (9/32 in.) hole at mark (B) and (C). Remove template.



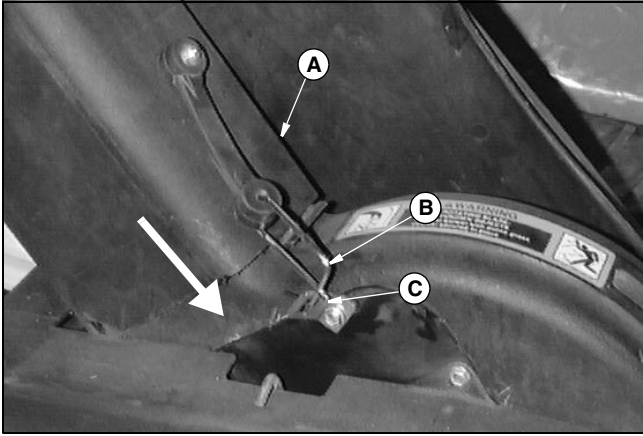
M77275 M77279

3. Place the baffle (D) inside the hopper (E) and secure with two 6 mm carriage bolts (F) to the inside of the hopper and two washers and nuts (G) to the outside of the hopper

INSTALLING

Install Chute

1. Insert chute in bagger top opening or upper chute (if attaching to cart).



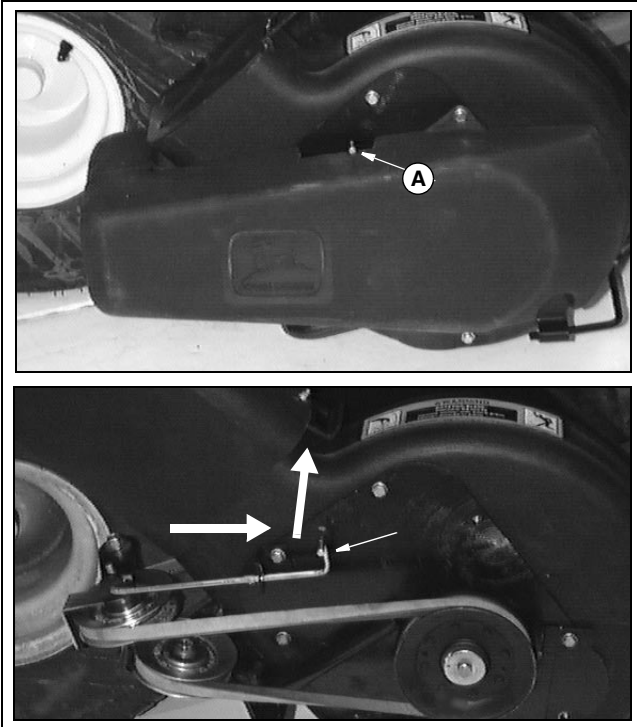
M77293

2. Slide chute (A) onto Power Flow and connect latch (B) to bracket (C) on blower assembly.

REMOVING

Removing Blower Assembly

1. Release chute latch and remove chute from Power Flow.
2. Open hopper cover to provide clearance for chute removal.
3. Pull chute off blower.



M77271 M77265

4. Lift the latch lever (A) to lock idler when swinging the Power Flow open.
5. Remove belt from double sheave.
6. Lift Power Flow off mounting pin.
7. Clean all parts of attachment, especially internal housing, as build up of grass will dry out making it difficult to remove at a later date.

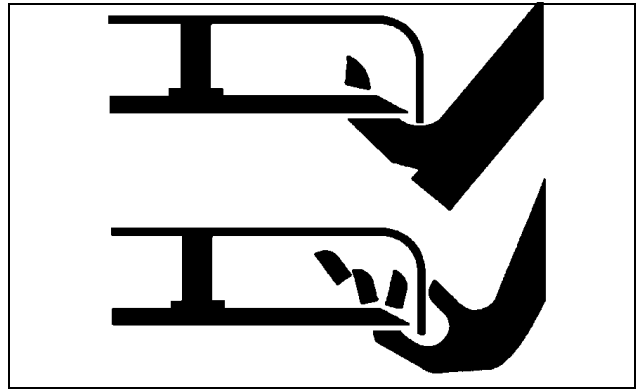
OPERATING

Check for Plugging While Bagging

Check the flow indicator on the Rear Bagger or Power Flow chute periodically for any indication of loss of air flow.

If there is a trail of clippings behind mower or the clippings blow to the side, check for plugged chute, full bags, or problems with the blower assembly (if equipped).

If grass builds up in front of mower deck discharge chute, check for plugged rear bagger or power flow chute, or problems with the blower assembly (if equipped).



M41421

Dismounting to Inspect or Unplug Material Collection System



CAUTION: Avoid injury! Rotating blades are dangerous:

- **Park the machine safely and lock the park brake before getting off the seat.**
- **Turn the mower off.**
- **Stop the engine.**

Before getting off the seat:

1. Stop machine.
2. Disengage mower blades.
3. Move throttle lever to slow position.
4. Lower mower to the ground.
5. Lock the park brake.
6. Stop the engine.
7. Remove the key.
8. Wait for all moving parts to stop.

Remove debris from the following inspection points:

1. Open hopper cover. Check chute outlet.
2. Remove chute from mower deck or blower assembly (if equipped). Check chute inlet.
3. Check under mower deck for debris.

Inspect and Unplug Material Collection System



CAUTION: Avoid injury! To help prevent injury from mower blades, do not try to unplug discharge chute while engine is running.

REPLACEMENT PARTS

Service Literature

If you would like a copy of the Parts Catalog or Technical Manual for this machine call:

- **U.S. & Canada:** 1-800-522-7448.
- **All Other Regions:** Your John Deere dealer.

Parts

We recommend John Deere quality parts and lubricants, available at your John Deere dealer.

Part numbers may change, use part numbers listed below when you order. If a number changes, your dealer will have the latest number.

When you order parts, your John Deere dealer needs your machine serial number and engine serial number. These are the numbers that you have recorded in the Introduction section of this manual.

Part Numbers

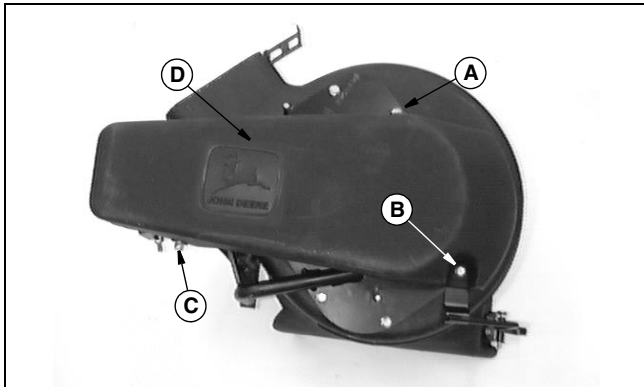
Item	Part Number
Belt (38-Inch Mower)	M47765

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

SERVICE

Removing Power Flow Belt

NOTE: Power Flow removed for photo clarity. Belt can be removed when blower is attached to deck.

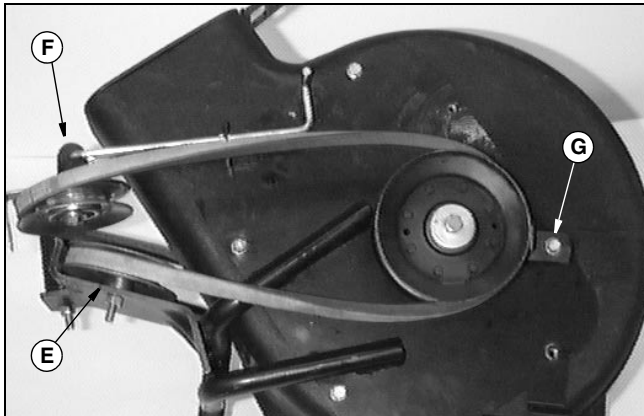


M77280

1. Remove bolts (A) and (B), and nut and washer (C).
2. Remove Power Flow belt shield (D).

IMPORTANT: Avoid damage!

- Belt **MUST** be installed as shown for proper blower operation.
- Note position of belt guides when loosening nuts and removing old belt.



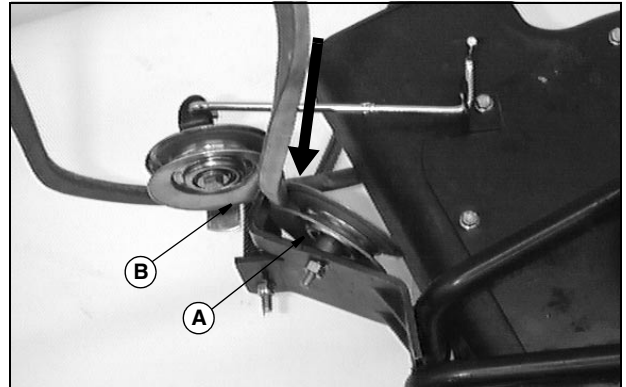
M77281

3. Loosen nut on V-idler (E), bolt and nut on V-idler (F) and bolt on belt guide (G).
4. Remove old belt.

Installing Power Flow Belt

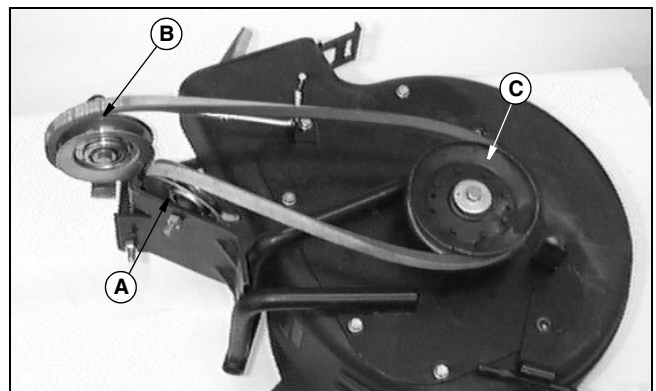
IMPORTANT: Avoid damage! Belt **MUST** be installed correctly, (crossed), for blower operation.

Belt guides must not touch sheave or belt.



M77282

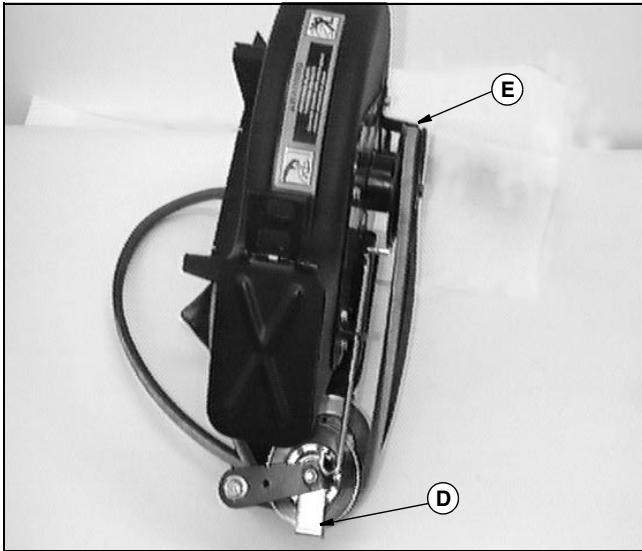
1. Put belt between V-idler (A) and V-idler (B) as shown.



M77283

2. Put belt onto V-idler (A), then onto V-idler (B) and around sheave (C).
3. Tighten nut on V-idler (A).

SERVICE



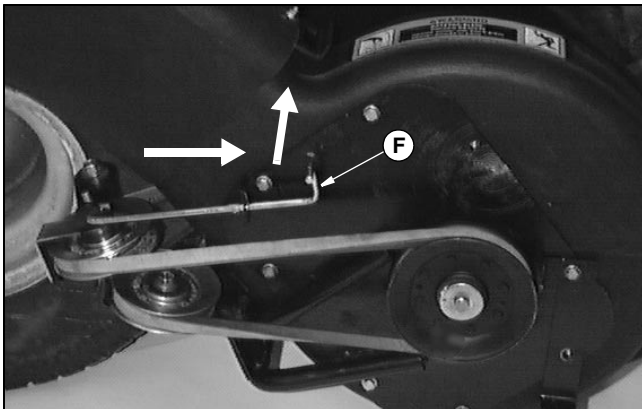
M77284

4. Position belt guides as shown and tighten belt guide (D) on V-idler and belt guide (E) on sheave.



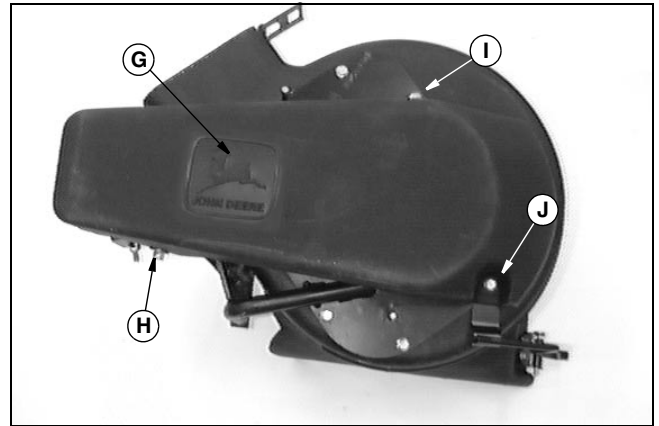
M77264

5. Check that belt is crossed as shown.



M77265

6. Pull latch lever (F) out and lift to put in locked position.



M77280

7. Install belt shield (G) with original nut and washer (H) and bolts (I) and (J).

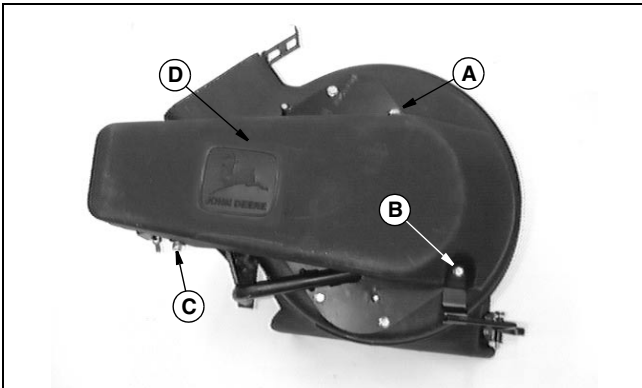
STORAGE

Storing Blower Assembly Safely

1. Remove blower assembly from mower deck.

IMPORTANT: Avoid damage! Grass build up will affect operation of the blower assembly. Any grass build up left will be difficult to clean out if allowed to dry out.

2. Clean the exterior of the blower assembly.



M77280

3. Remove bolts (A) and (B), and nut and washer (C).
4. Remove Power Flow belt shield (D).
5. Remove and inspect drive belt. Replace belt if necessary.
6. Install drive belt and make sure all belt guides are properly adjusted.
7. Install the belt shield.
8. Store blower assembly in a dry area.

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JOHN DEERE QUALITY STATEMENT

John Deere Quality



MIF

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 (Call 1-800-537-8233 to locate your nearest John Deere 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.