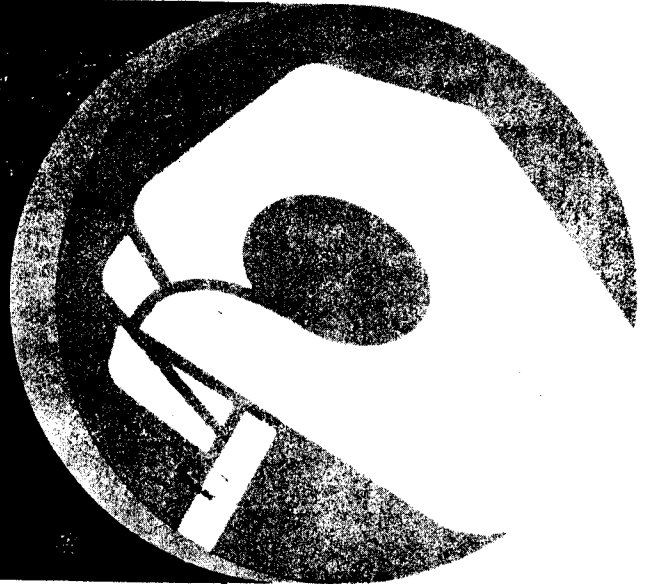


# 50-Inch Mid-Mount Rotary Mower

(Serial No. 537,001- )



## OPERATOR'S MANUAL



John Deere Horicon Works  
OM-M89626 Issue H5  
LITHO IN U.S.A.


# Introduction

**Thank you** for purchasing the 50-Inch Mid-Mount Rotary Mower.

**Read this manual** carefully to learn how to operate and service your mower correctly.

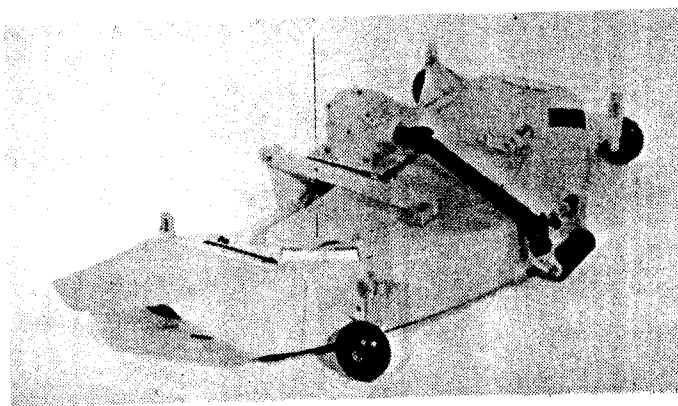


**This OPEI Seal** on your machine indicates that an independent laboratory has certified this model for compliance with American National Standard B71.1, 1984 "Safety Specifications for Power Lawn Mowers, Lawn and Garden Tractors, and Lawn Tractors."

 **This safety-alert symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

When you see this symbol on your machine or in your manual, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

**Right-hand and left-hand** sides of the implement are determined by facing in the direction the implement will travel when going forward.



*50-Inch Mid-Mount Mower (Gearbox Driven)*

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.

**Measurements** in this manual are U.S. customary units and their metric equivalents.

**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 overpowering 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 parts are defective.

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

**Record your mower serial number** in the space provided in the Specifications section.

# Dealer Checklists

Owner's Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Mower Model \_\_\_\_\_ Date Sold \_\_\_\_\_

Mower Serial Number \_\_\_\_\_

6A9; M23;;DCMB 01 060683

## PREDELIVERY CHECKLIST

Check the following before you deliver the mower to the customer:

- |  |   |
|--|---|
| <input type="checkbox"/> 1. Guards and shields fastened in place | <input type="checkbox"/> 6. Blade mounting bolts    |
| <input type="checkbox"/> 2. Decals fastened and legible          | <input type="checkbox"/> 7. Mower level             |
| <input type="checkbox"/> 3. Lubrication points                   | <input type="checkbox"/> 8. Mower operation         |
| <input type="checkbox"/> 4. Mower gearbox oil level              | <input type="checkbox"/> 9. Touch up paint          |
| <input type="checkbox"/> 5. Mower belt                           | <input type="checkbox"/> 10. Clean and polish mower |

\_\_\_\_\_  
Date Set Up

\_\_\_\_\_  
Signature

6A9; M23;;DCGE A 170284

## DELIVERY CHECKLIST

Review the operator's manual with the customer.  
Explain the following:

- |   |  |
|---|--|
| <input type="checkbox"/> 1. John Deere warranty                         | <input type="checkbox"/> 9. Removing the mower   |
| <input type="checkbox"/> 2. Safe operation and service                  | <input type="checkbox"/> 10. Storing the mower   |
| <input type="checkbox"/> 3. Installing the mower                        | <input type="checkbox"/> 11. John Deere parts and service  |
| <input type="checkbox"/> 4. Operating the mower correctly               | <input type="checkbox"/> 12. Have the customer write the mower serial number in the Specifications section.      |
| <input type="checkbox"/> 5. Correct lubricants                          | <input type="checkbox"/> 13. Remove and file this page.  |
| <input type="checkbox"/> 6. Troubleshooting the mower                   | <input type="checkbox"/> 14. Give the customer the operator's manual. Encourage the customer to read the manual. |
| <input type="checkbox"/> 7. Periodic inspections                        |  |
| <input type="checkbox"/> 8. Servicing the mower regularly and correctly |  |

---

Date Delivered

---

Signature

6A9; M23; DCGE B 200284

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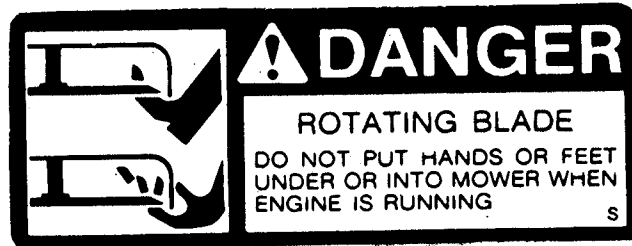
# Safety

## READ SAFETY SIGNS CAREFULLY

Carefully read and follow all safety signs

Keep safety signs in good condition. Replace any missing or damaged safety signs.

*Top, Left-Side of Mower Deck*



*Top, Right-Side of Mower Deck Near Chute*

A98;M38613 M38614 M21;;SAS A 050685

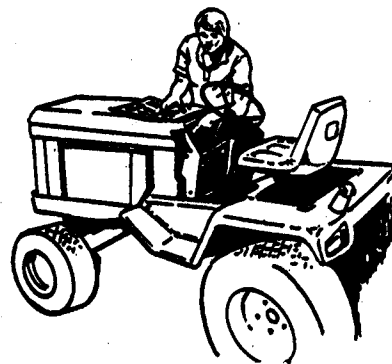
## LEARN MOWER SAFETY

Carefully read this manual and your tractor manual. Learn how to operate the mower, and how to use the controls properly.

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

DO NOT let anyone operate the tractor and mower without proper instruction.

DO NOT drive tractor on streets or highways. Watch for traffic when crossing or mowing near roadways.



6A9;M34225 M23;;SAGE B 200284

## PROTECT CHILDREN

Keep children and others away when you operate machine.

BEFORE YOU BACK UP:

—Stop the PTO.

—Look behind tractor for children.

Do not let children operate tractor.

Never carry children. Do not let children ride on tractor, mower, or any attachment.



3A2;M38365 M21;;SAA C 090485

## 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 and remove the key.

Shut off PTO switch to stop mower blades when:

- you are driving between mowing jobs
- mower is not in use
- you cross a gravel road, path, a sidewalk, or a street.

M23;;SAGE D 180785

## CHECK GROUND CONDITIONS

Clear the mowing area of objects that might be picked up and thrown.

Consider the type of area you plan to mow. Set up a safe mowing pattern. Do not mow under conditions in which traction or stability is doubtful: first test drive the area with PTO OFF and mower in the down position.

Travel slowly over rough ground.



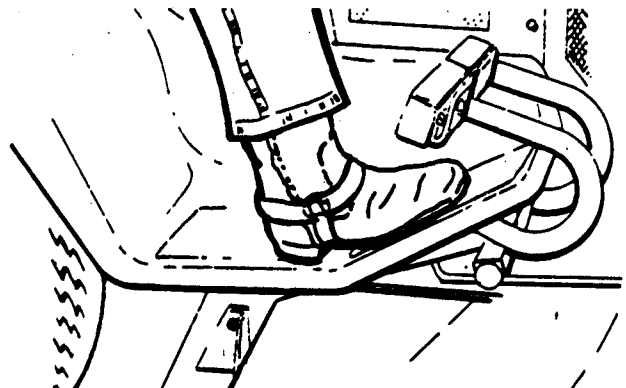
6A9;M33725 M23;;SAGE E 200284

## PRACTICE PERSONAL SAFETY

Always wear shoes when operating tractor and mower.

Be alert. Do not operate equipment when you are tired or ill.

Mow only in daylight or good artificial light.



6A9;M34594 M23;;SAGE F 260685

## BACK UP SAFELY

Do not operate the mower in reverse unless it is very necessary —and then only after you look carefully behind the tractor.

Be very careful when you back the tractor, especially if the PTO is engaged.

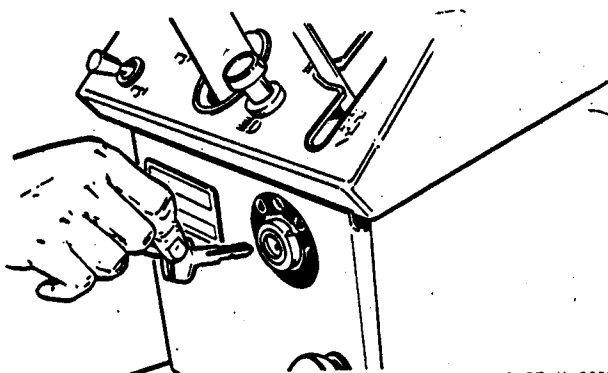


6A9;M34595 M23;;SAGE G 140384

## SERVICE TRACTOR AND MOWER SAFELY

Take all possible precautions before you leave the tractor. Before you adjust, service, clean, or inspect the mower, do the following:

- Lower the mower to the ground.
- Stop the engine.
- Remove the key.

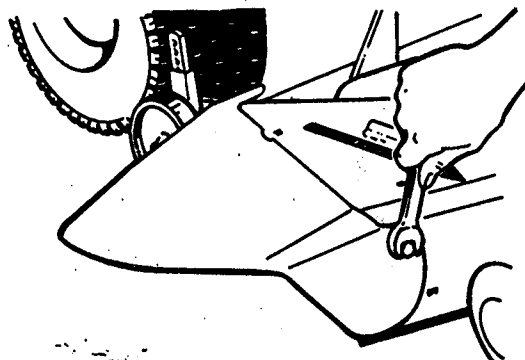


6A9;M34228 M23;;SAGE H 200284

## CHECK MOWER REGULARLY

Keep all guards and shields in place.

Check mower hardware regularly for correct tightness, especially blade mounting bolts.

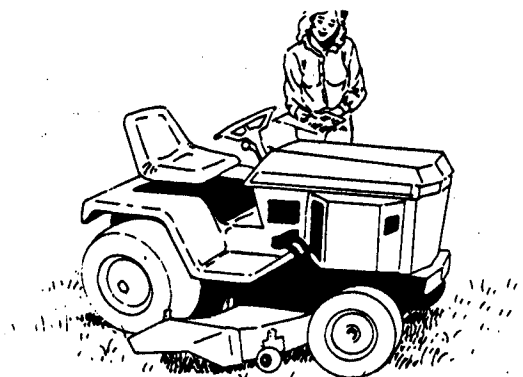


6A9;M35179 M23;;SAHA L 140684

## INSPECT TRACTOR AND MOWER CAREFULLY

Inspect the tractor and mower carefully before you begin operation.

Mower blades should stop automatically whenever you get off the operator's seat with the PTO switch on.



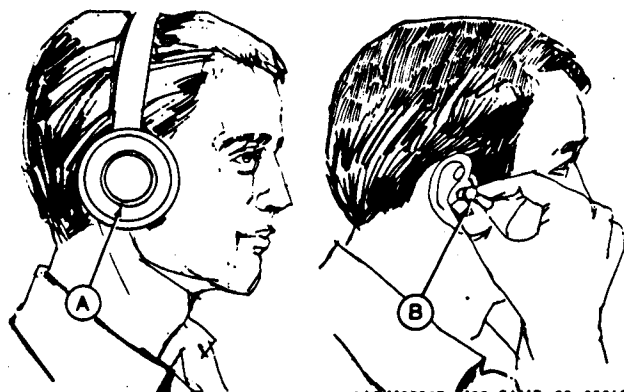
6A9;M34597 M23;;SAGE J 260685



## PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs (A) or earplugs (B) to protect against objectionable or uncomfortable loud noise.



6A9;M28247 M23;;SAMB 05 020683

## TRANSPORT TRACTOR AND MOWER SAFELY

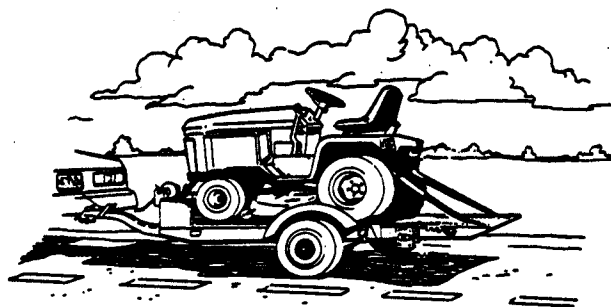
Do not pull tractor and mower behind any other vehicle.

Lower mower to trailer deck. Engage park brake.

Use a heavy-duty trailer to transport tractor and mower.

Be sure trailer has all the necessary lights and signs required by local, state, provincial, or federal laws.

Fasten the tractor and mower to the trailer with straps, chains, or cables.



6A9;M34229 M23;;SAHA N 050385

# ● Installation

## INSTALLING BELT DRIVEN MOWER

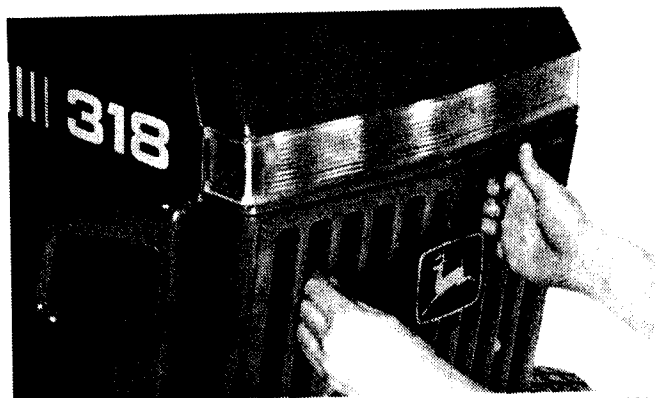
*NOTE: Installation procedures shown for 318 Tractor.*

1. Start engine. Move hydraulic control lever forward to lower lift straps.
2. Turn steering wheel until front wheels are all the way to the left.
3. Stop engine, remove key, and engage park brake.



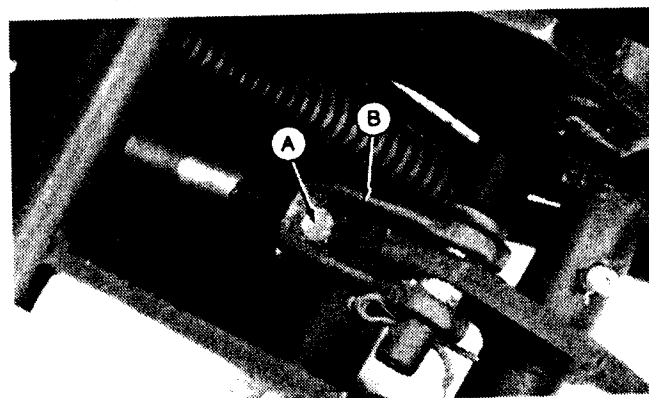
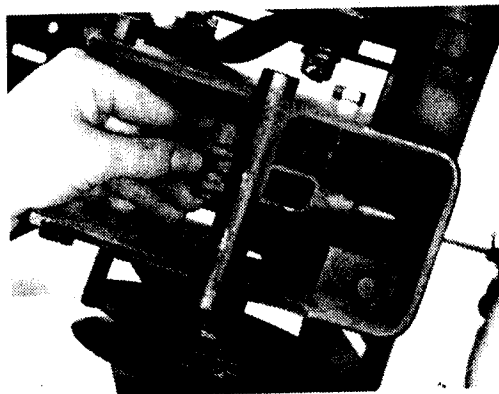
6A9;M32446 M23;;INGE A 140384

4. Slide mower under tractor from right side.
5. Pull to remove tractor grille.



6A9;M32718 M23;;INGE B 200284

6. Turn muledrive adjusting knob counterclockwise until end of stud (A) is flush with the inside of yoke (B).

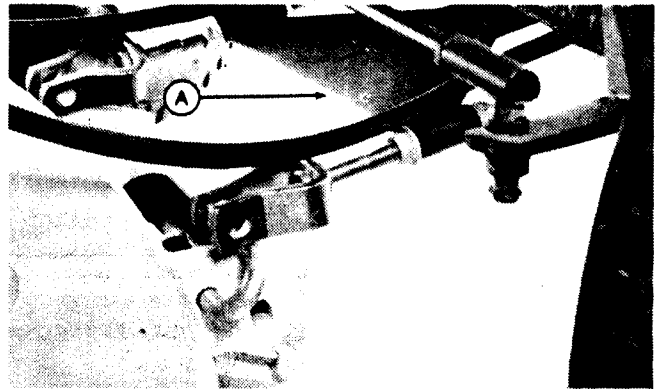
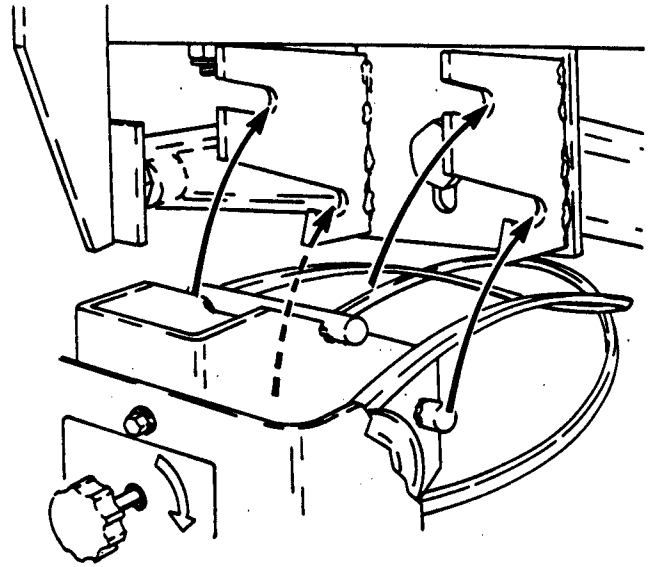


6A9;M34395, M30536 M23;;INGE C 200284

## Installation

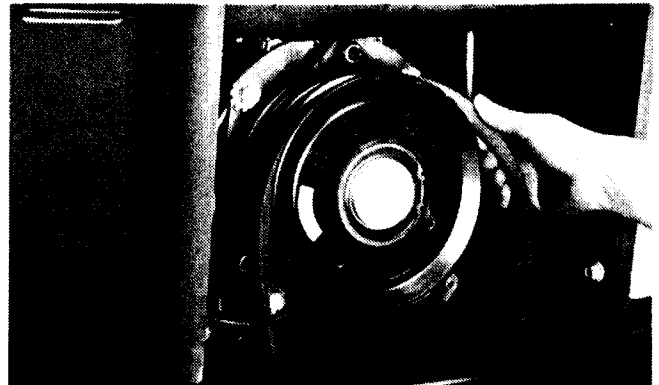
7. Hold muledrive plate (A) up while installing muledrive. Install muledrive assembly on front bracket.

8. Put top half of belt loop up in front grille area. Make sure belt is under the belt guides.



6A9;M33320, M33387 M23;;INGE D 140384

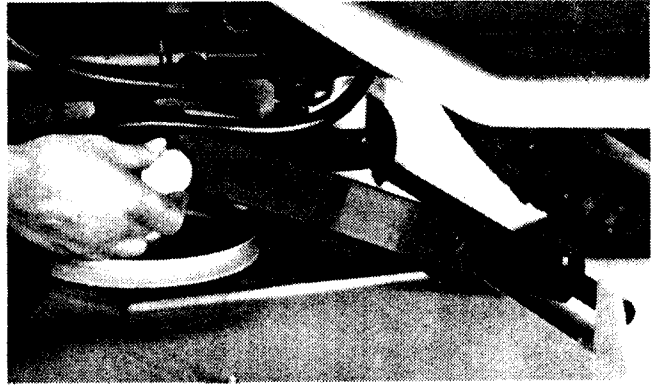
9. Install drive belt over engine PTO sheave.



6A9;M32719 M23;;INGE E 200284

10. Pull out on spring loaded pins.

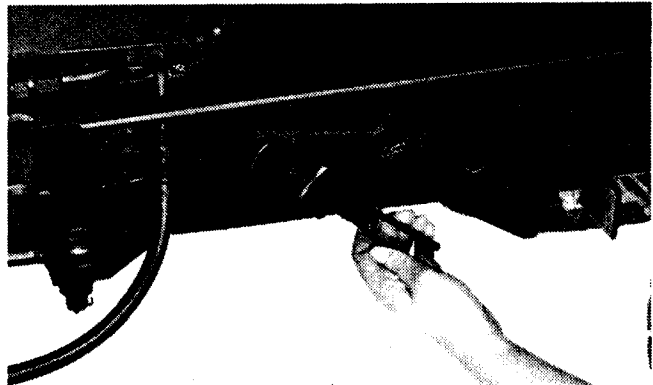
11. Connect mower lift arms over tractor mounting bracket. Release spring loaded pins.



6A9;M34415 M23;;INGE F 140384

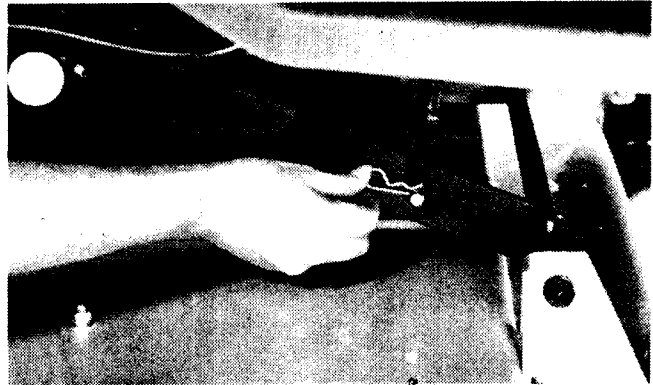
*NOTE: Fender deck is removed from tractor for clarity of photograph.*

12. Install left adjustable lift strap on left mower attaching bracket.



6A9;M34413 M23;;INGE F1 140384

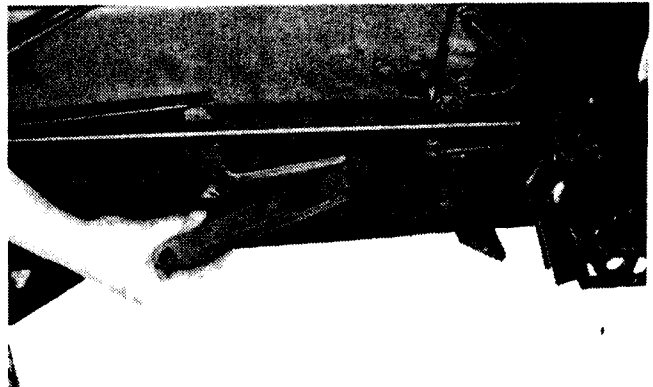
13. Install a headed pin through adjustable lift strap mower arm. Fasten with spring locking pin.



6A9;M34416 M23;;INGE G 140384

14. Install right lift strap on right mower attaching bracket.

15. Put lift strap pin through mower arm. Fasten with spring locking pin.

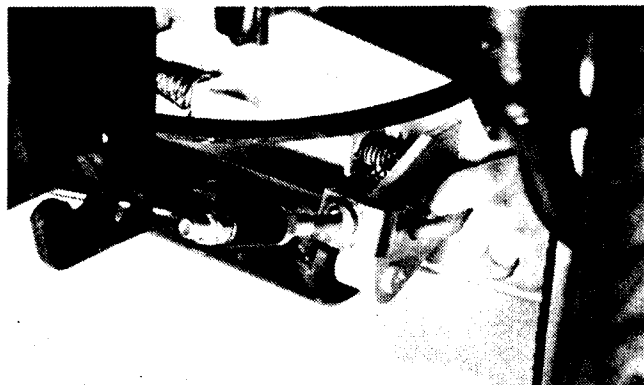


6A9;M34414 M23;;INGE G1 140384

## Installation

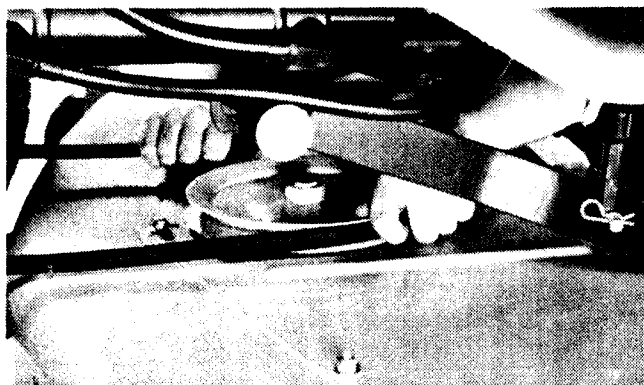
16. Pull out on mower draft pins.

17. Align adjusting yokes to mower brackets and fasten with mower draft pins. You may have to lift front of mower to align the holes of yoke with mower brackets.



6A9;M34417 M23;;INGE H 140384

18. Install drive belt over mower drive sheave. Make sure drive belt is properly installed before operating.



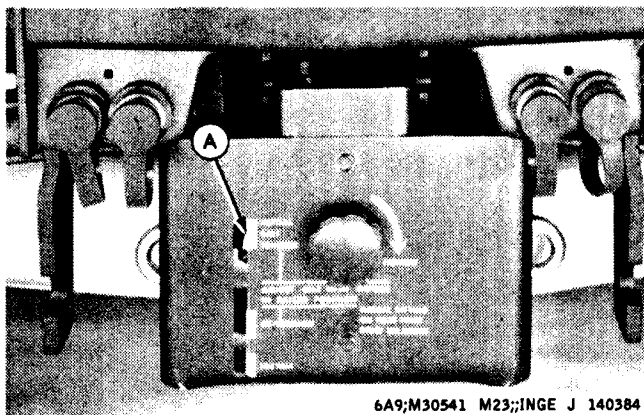
6A9;M34418 M23;;INGE I 140384

19. Install front grille.

20. Start engine and lift mower.

21. Turn adjusting knob clockwise until the indicator is in the "INITIAL BELT TENSION" area (A).

22. Make mower adjustments. (See Operating the Mower section.)



6A9;M30541 M23;;INGE J 140384

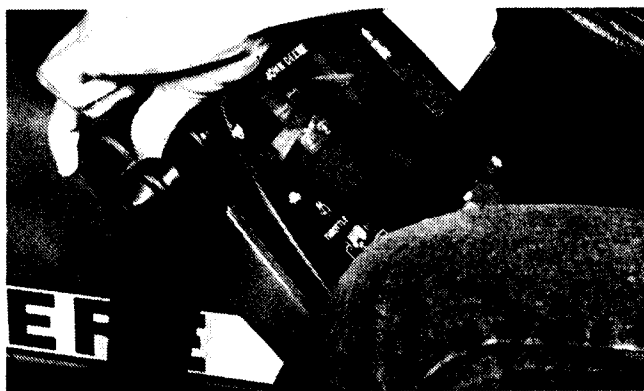
## INSTALLING GEARBOX DRIVEN MOWER

*NOTE: Installation procedures shown for 420 Tractor.*

1. Start engine. Move hydraulic control lever forward to lower lift links.

2. Turn steering wheel until front wheels are all the way to the left.

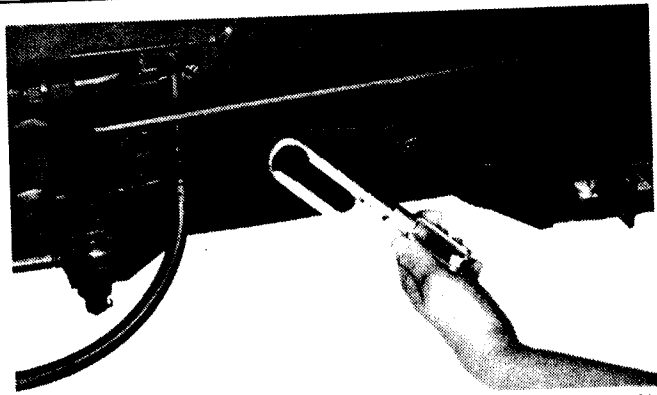
3. Stop engine, remove key, and engage park brake.



6A9;M33342 M23;;INGE K 200284

**NOTE:** Fender deck is removed from tractor for clarity of photograph.

4. Install a lift link on right and left mower attaching brackets.



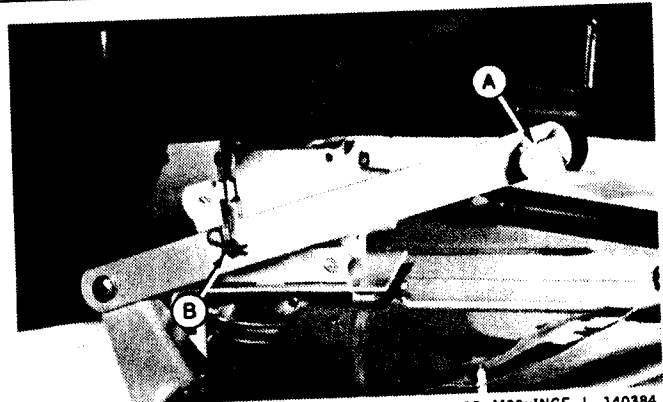
6A9;M34419 M23;;INGE K1 140384

5. Slide mower under tractor from right side.

6. Pull out on spring loaded pins(A).

7. Connect each mower lift arm to welded bracket on tractor. Release spring loaded pins.

8. Install a headed pin (B) through right and left adjusting yoke and mower lift arm. Fasten with spring locking pins.



6A9;M34635 M23;;INGE L 140384

9. Pull back on driveline collar.

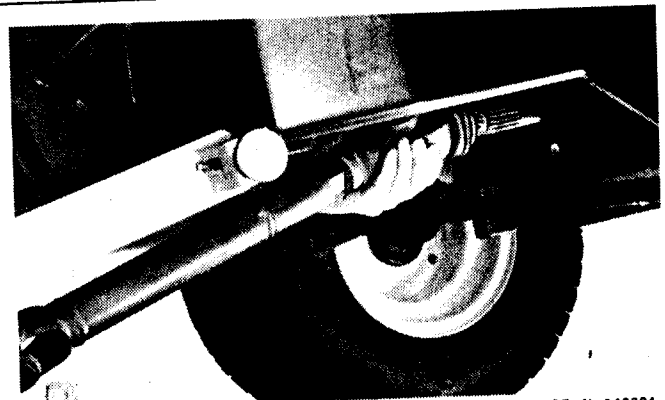


6A9;M34412 M23;;INGE M 140384

10. Connect driveline.

11. Slide driveline forward as far as it will go.

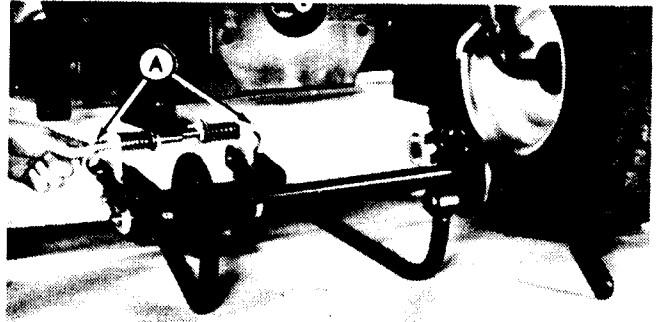
12. Push collar forward to lock driveline in place. Slide driveline back and forth to make sure driveline is properly locked.



6A9;M32745 M23;;INGE N 140384

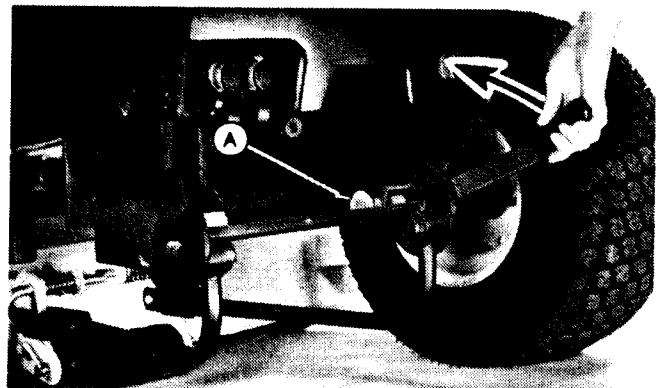
## Installation

13. Connect front bracket yokes to front of mower. Fasten yokes with mower draft pins (A).



6A9;M34407 M23;;INGE O 140384

14. Pull out spring loaded pin (A). Put pin in locked position.
15. Install front bracket in tractor frame hooks.
16. Pull up on front bracket lever until bracket is positioned between spring loaded pin (A) and tractor frame. Put spring loaded pin in unlocked position.
17. Pull up on front bracket lever until spring loaded pin (A) locks into place.
18. Make mower adjustments. (See Operating the Mower section.)



6A9;M32747 M23;;INGE P 140384

# Operating the Mower

## BEFORE MOWING

1. Learn all controls and how they work.
2. Stop engine. Check condition of blades. Sharpen or replace blades if necessary.
3. Make sure mower chute is in the down position.
4. Pick up debris —rocks, cans, sticks —from area you plan to mow. Keep people and pets out of mowing area.

6A9; M23;;OPGE A 140384

## ADJUSTING CUTTING HEIGHT

You can adjust cutting height from:

Belt Driven Mower . . . . .	1.5 to 4 in. (38 to 102 mm)
Gearbox Driven Mower . . . . .	1.5 to 6 in. (38 to 152 mm)

1. Start the engine. Lift mower using the appropriate hydraulic control lever.
2. Stop the engine.



6A9;M33339 M23;;OPGE B 160284

3. Turn depth stop counterclockwise as far as possible.
4. Lower mower to desired cutting height.
5. Turn depth stop clockwise until it stops. The mower will return to same cutting position each time mower is lowered.
6. Adjust mower wheels. (See Adjusting Mower Wheels in this section.)



6A9;M32336 M23;;OPGE C 160284



## ADJUSTING MOWER WHEELS

1. Adjust cutting height. (See Adjusting Cutting Height in this section.)

2. Stop engine and engage park brake.

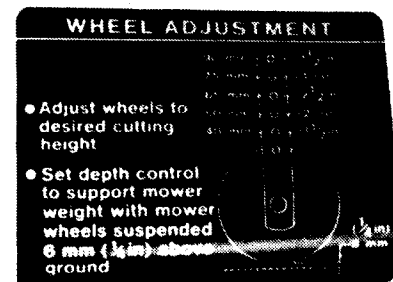
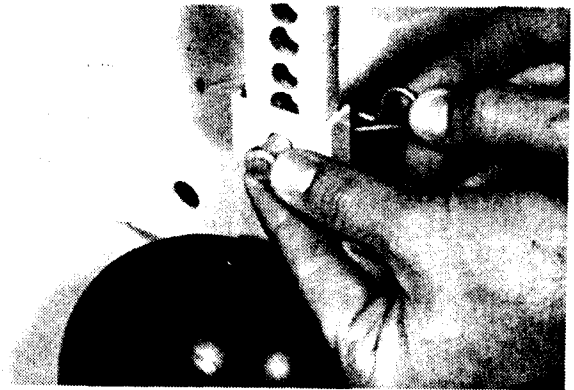
**IMPORTANT: The front and rear wheels must not ride on the ground to support the mower weight.**

3. Remove spring locking pins and headed pins from front and rear wheels.

4. Move front and rear wheels up or down until wheels are 1/4 to 3/4 in. (6 to 19 mm) above a level surface. A smoother cut will be obtained if wheels are adjusted properly.

5. Install headed pins and fasten with with spring locking pins.

6. When changing cutting height, adjust wheels accordingly.



6A9;M33344, M34399 M23;;OPGE D 160284

## ADJUSTING MOWER SIDE-TO-SIDE

1. Move tractor and mower to a level surface.

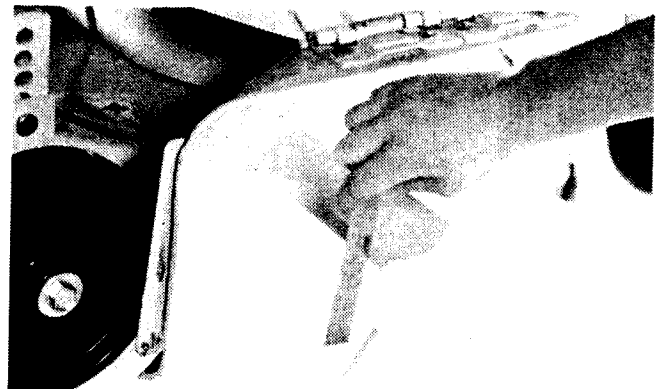
2. Lower mower until the bottom of mower deck is approximately 3 in. (76 mm) from the ground. Mower wheels must not be on the ground.

3. Stop the engine, remove key, and engage park brake.

4. Lift and hold discharge chute back with tape.

5. Turn outer mower blades parallel with front axle.

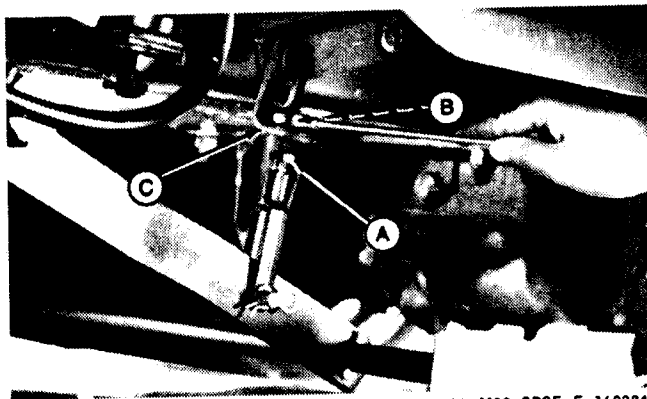
6. Measure distance from each outer blade tip to ground. The blade height must be equal within 1/8 in. (3 mm).



6A9;M34423 M23;;OPGE E 160284

7. For belt driven mower, adjust side-to-side as follows:

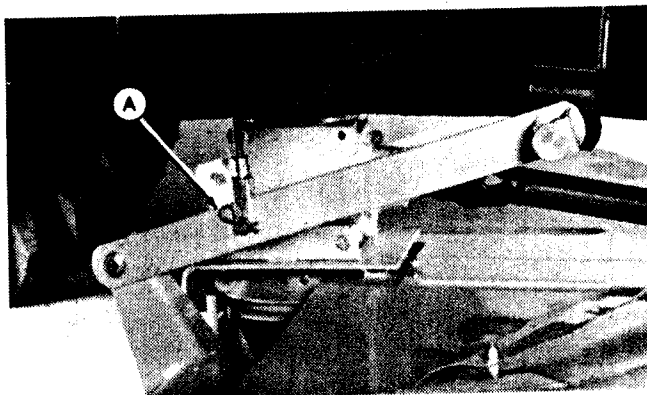
- a. Loosen nut (A) on left adjustable lift strap.
- b. Turn nut (B) to either lift or lower left side of mower.
- c. Check distance. Adjust if necessary.
- d. Tighten nut (A) against bracket (C).



6A9;M33386 M23;;OPGE F 160284

8. For gearbox driven mower, adjust side-to-side as follows:

- a. Remove spring locking pin (A) and headed pin from right adjustable lift link.
- b. Turning yoke counterclockwise or clockwise one FULL turn will either lift or lower right side of mower approximately 1/8 in. (3 mm).
- c. After making adjustment, connect adjustable lift link. Install headed pin and spring locking pin.
- d. Check distance. Adjust if necessary.



6A9;M32730 M23;;OPGE G 160284

## ADJUSTING MOWER FRONT-TO-REAR

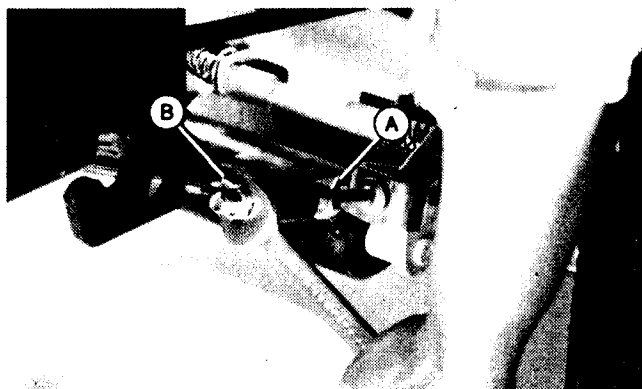
1. Move tractor and mower to a level surface.
2. Lower mower until the bottom of mower deck is approximately 3 in. (76 mm) from the ground. Mower wheels must not be on the ground.
3. Stop the engine, remove key, and engage park brake.
4. Lift and hold discharge chute back with tape.
5. Turn outer mower blades on right and left side to point straight forward.
6. Measure distance from both front blade tips to floor.
7. Turn blades halfway around (180°) so blades again point straight forward.
8. Measure distance from both rear blade tips to floor.
9. Rear measurement must be 1/8 in. (3 mm) more than front measurement.



6A9;M34424 M23;;OPGE H 160284

10. For belt driven mower, adjust front-to-rear as follows:

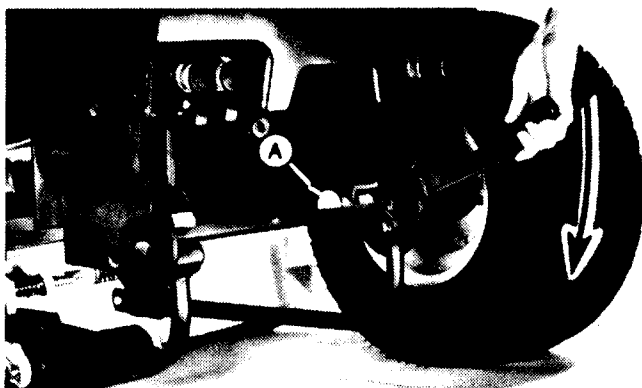
- a. Loosen nuts (A) on both draft arms.
- b. Turn nuts (B) as necessary to make rear measurement 1/8 in. (3 mm) more than front measurement. One FULL turn of nut in either direction is approximately 1/8 in. (3 mm).
- c. Check distances. Adjust front-to-rear as necessary.



6A9;M34425 M23;;OPGE I 160284

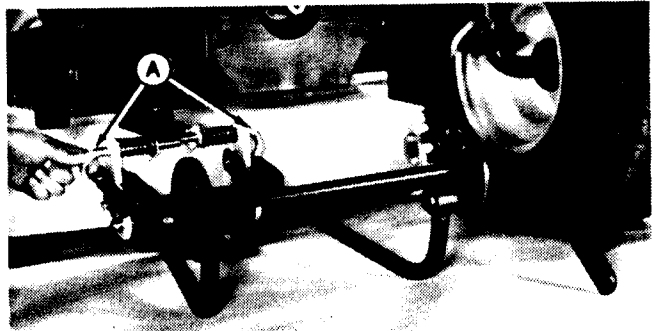
11. For gearbox driven mowers, adjust front-to-rear as follows:

- a. Pull out spring loaded pin (A). Put pin in locked position.
- b. Push down on front bracket lever to disconnect front bracket from tractor frame.



6A9;M34408 M23;;OPGE J 160284

- c. Pull out mower draft pins (A) to remove front bracket.

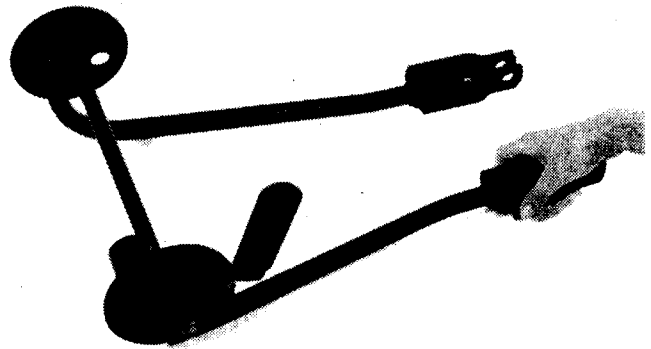


6A9;M34407 M23;;OPGE K 160284

- d. Turn adjusting yokes as necessary to make rear measurement 1/8 in. (3 mm) more than front measurement. One FULL turn of yoke in either direction is approximately 1/8-in. (3 mm).

- e. Install and connect front mounting bracket.

- f. Check distances. Adjust front-to-rear as necessary.

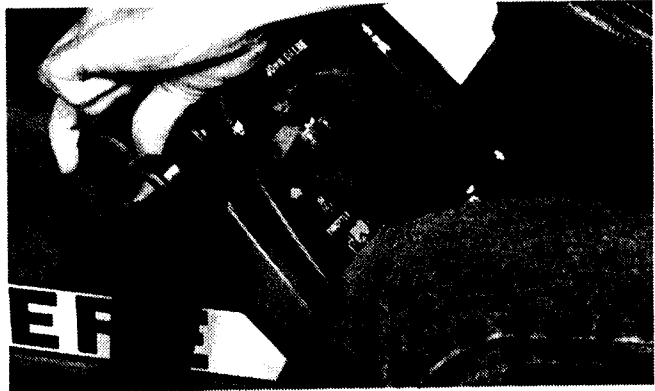


6A9;M33375 M23;;OPGE L 160284

## ENGAGING THE MOWER

1. Start tractor, lift mower, and move tractor to area to be mowed. (See tractor operator's manual.)
2. Lower mower.

420 Tractor Shown



6A9;M33342 M23;;OPGE M 140384

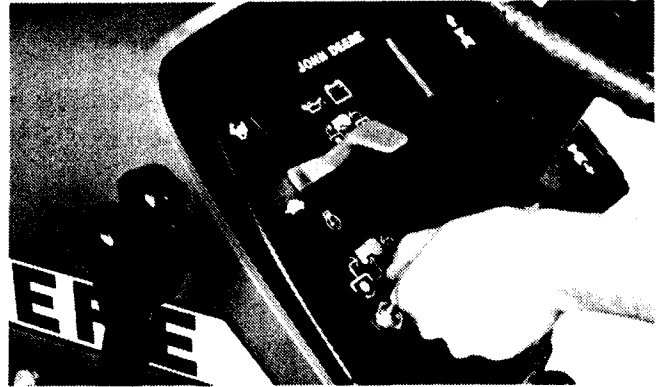


**CAUTION:** Make sure no one is near the mower deck or in the path of the discharge chute.

**IMPORTANT:** To prevent clutch damage, do not engage front PTO with throttle in fast ("RABBIT") position.

3. With throttle lever at 1/4 position, pull out and move front PTO switch to the "ON" position. The mower blades will start turning and front PTO indicator should glow.

4. Move throttle lever to fast ("RABBIT") position for best engine performance and cutting results.



6A9;M32723 M23;;OPGE N 140384



**CAUTION:** Look all around to make sure area is clear before mowing.

**Always select a safe forward speed.**

5. Slowly move hydrostatic control lever up to start tractor moving.

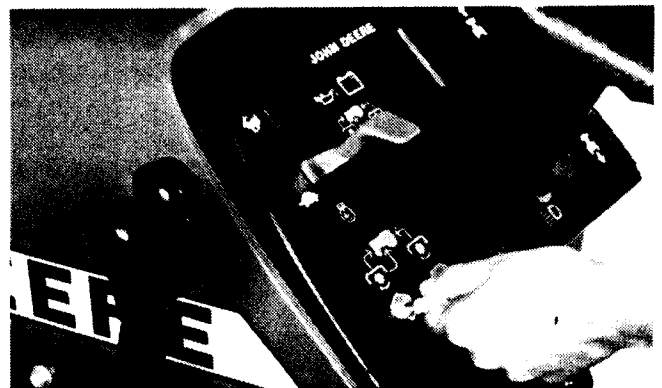
6. Disengage power to the mower before backing up. DO NOT mow in reverse unless absolutely necessary and only after careful observation behind you.



6A9;M33351 M23;;OMMB 18 030683

## STOPPING MOWER

1. Move hydrostatic control lever to "N" or "STOP" position.
2. Move throttle lever to slow ("TURTLE") position.
3. Move front PTO switch to the "OFF" position.
4. Lower mower.
5. Stop engine, engage park brake, and remove key.



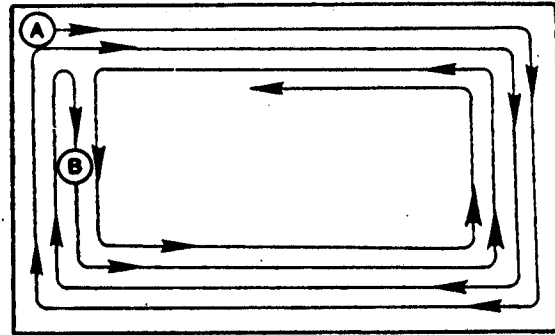
6A9;M32724 M23;;OPGE 0 140384

## MOWING A LARGE AREA

1. Mow two or three right-hand rounds (A) along the edges of area. Normally do not mow more than three right-hand rounds because:

- Clippings will build up.
- Mower could tend to plug.
- Cutting will be uneven.
- Engine could be overloading.

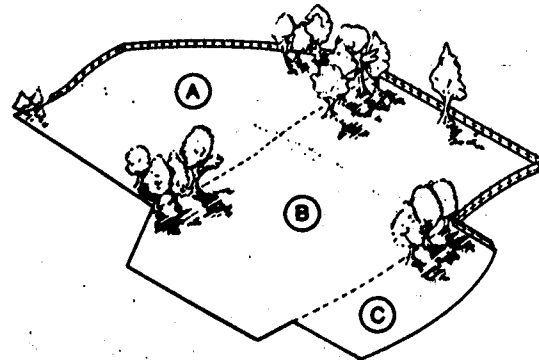
2. Then mow left-hand rounds (B) to finish.



6A9;M33867 M23;;OPGE P 140384

3. Divide uneven areas into sections (Example: A,B,C).

4. Change your mowing pattern regularly.



6A9;M33868 M23;;OPGE Q 160284

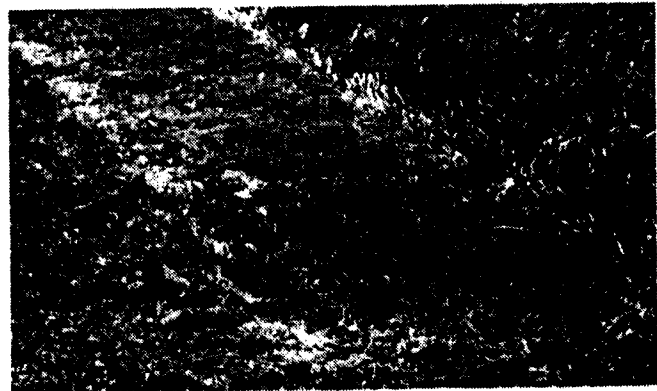
## MOWING FOR A BETTER LAWN

1. Cut grass when it is dry. Wet grass can cause mower to plug, thus leaving a trail of grass clumps behind the mower.

2. When mowing, operate at full throttle to maintain proper blade speed and air flow to discharge grass clippings.

3. Keep mower deck and chute clean. Before you clean the mower:

- Stop engine and remove key.
- Wait for all moving parts to stop.

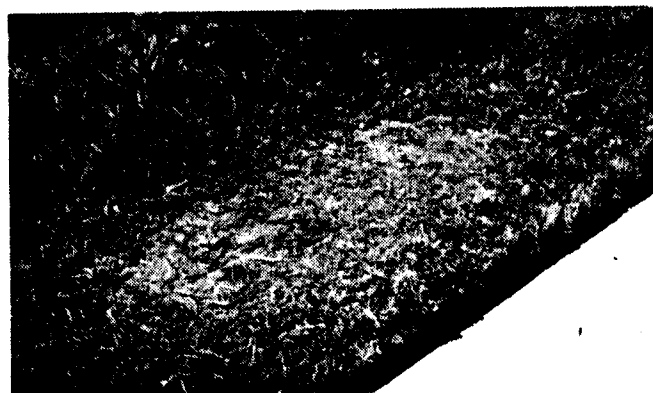


6A9;M32856 M23;;OPGE R 160284

4. Mow grass frequently. Shorter clippings deteriorate faster. Cutting grass too short will cause rapid deterioration and possible weed growth.

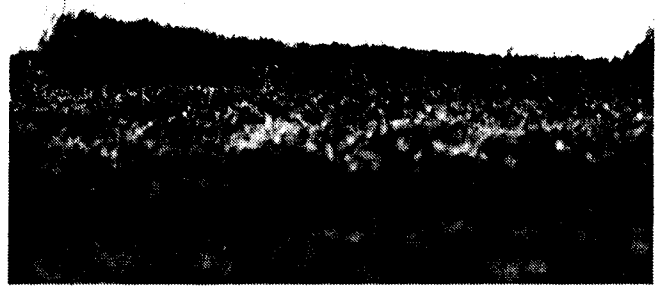
5. Mow with a sharp cutting blade. A dull blade will tear the grass and cause grass tips to turn brown.

6. Slow down when making turns. Short, fast turns will cause scuffing and pull grass out by the roots.



6A9;M32859 M23;;OPGE S 160284

7. Uneven cutting results from mowing on slopes without:
- Adjusting front and rear wheels or
  - Adjusting mower from side-to-side.



6A9;M32860 M23;;OPGE T 160284

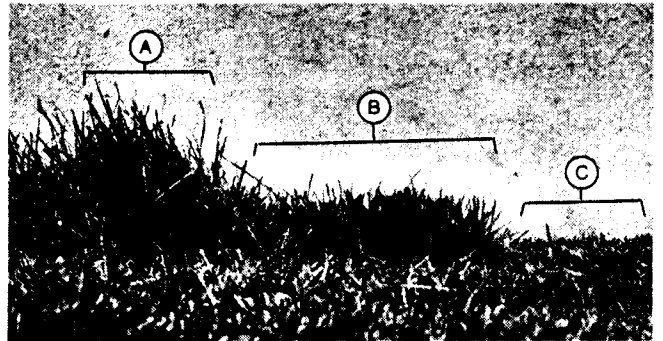
## MOWING TALL GRASS

First method: mow grass twice.

- Adjust cutting height of mower to mow tall grass (A) to half height (B).
- Before second pass, adjust cutting height so you can mow at desired height (C).

Second method:

- Mow at desired height at slow travel speed, full width OR
- Mow at desired height using only half of cutting width.



6A9;M27196 M23;;OPGE U 160284

## MOWING TRAVEL SPEEDS

Use slow travel speed for:

- Trimming.
- Working in close quarters.
- Mowing tall grass.

Use faster travel speeds for:

- Normal mowing on level ground.
- Driving between mowing jobs.



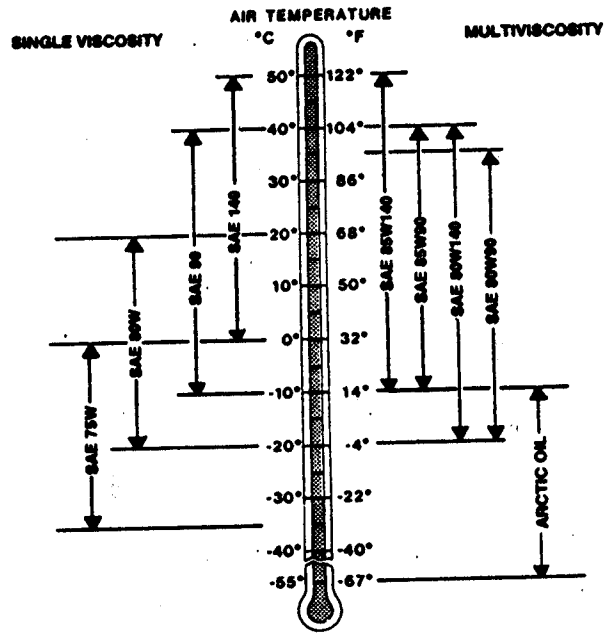
6A9;M33351 M23;;OPGE V 140384

## GEAR CASE OIL

Use oil as shown on the temperature chart for the expected air temperature range during the service interval.

John Deere API GL-5 Gear Oil is recommended. If other oils are used, they must meet performance requirements of:

- API Service Classification  
GL-5
- Military Specification  
MIL-L-2105C



6A9;X9322 M23;;LUGE A 160284

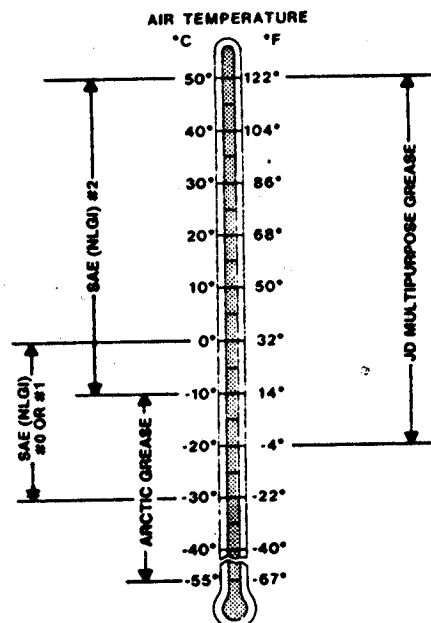
## GENERAL PURPOSE GREASE

Use grease as shown on the temperature chart for the expected air temperature range during the service interval.

John Deere Multi-Purpose Lubricant is recommended. If other lubricants are used, use:

- SAE Multipurpose Grease.
- SAE Multipurpose Grease containing 3 to 5 per cent molybdenum disulfide.

At temperatures below -22°F (-30 °C), use arctic greases such as those meeting Military Specification MIL-G-10924C.



6A9;X9326 M23;;LUGE B 140384



## **ALTERNATIVE LUBRICANTS**

Conditions in certain geographical areas outside the United States and Canada may require different lubricant recommendations than those printed in the operator's manual. Consult your John Deere dealer to obtain alternative lubricant recommendations.

6A9; M23;;LUMB 03 030683

# Troubleshooting

Symptom	Problem	Correction	Page
<b>Discharge Chute Plugged</b>	Belt installed incorrectly.	Check belt installation.	32,34
	Grass too wet.	Wait for grass to dry.	—
	Grass too long.	Raise cutting height and cut grass twice.	19
	Ground speed too fast.	Using hydrostatic control lever, slow down ground speed.	—
	Tractor rpm too low.	Mow at full throttle. Check tractor engine and PTO speed.	17
<b>Patches of Grass Uncut</b>	Ground speed too fast.	Using hydrostatic control lever, slow down ground speed.	—
	Tractor rpm too low.	Mow at full throttle. Check tractor engine and PTO speed.	17
	Blades dull or damaged.	Sharpen or replace blades.	26
	Belt tension spring weak.	Check or replace tension spring.	—
<b>Belt Slipping</b>	Mower plugged.	Remove and clean mower, deck.	30
	Debris in sheaves.	Remove belt guard shield and clean sheaves.	30
<b>Excessive Vibration</b>	Debris on mower deck or in sheaves.	Clean mower deck. Remove belt guard shield and clean debris from sheaves and belt area.	30
	Not enough clearance between belt guard shield and belt.	Remove belt guard shield and check clearance.	29
	Damaged drive belt.	Replace drive belt.	32
	Damaged sheaves or sheaves out of alignment.	Replace sheaves. See your John Deere dealer.	—
	Cutting too low.	Raise cutting height.	12
<b>Blades Scalping Grass</b>	Turning speed too fast.	Reduce speed on turns.	—
	Ridges in terrain.	Change mowing pattern.	—
	Rough or uneven terrain.	Check wheel adjustment.	13
	Mower wheels not adjusted properly.	Adjust mower wheels.	13
	Low tire pressure.	Check tire pressure.	—

*Continued on next page*




## Troubleshooting

Symptom	Problem	Correction	Page
Uneven Cut	Mower not level.	Level mower.	14,15
	Ground speed too fast.	Using hydrostatic control lever, slow down ground speed.	—
	Blades dull.	Sharpen blades.	26
	Mower wheels not adjusted properly.	Adjust mower wheels.	13
Mower Loads Down Tractor	Engine rpm too low.	Mow at full throttle.	17
	Ground speed too fast.	Using hydrostatic control lever, slow down ground speed.	—
	Debris wrapped around mower spindles.	Clean mower.	—
Noisy Gear Case	Lubricant level low.	Check lubricant level.	29

# Service

## BOLT TORQUE CHART

The table shown gives correct torque values for various bolts and cap screws. Check tightness of hardware periodically, using this chart as a guide.

RECOMMENDED TORQUE IN LB-FT (N-m) COARSE AND FINE THREADS			
			
Bolt Diameter	Plain Head	Three Dashes	Six Dashes
1/4	Not used	10 (14)	14 (19)
5/16	Not used	20 (27)	30 (41)
3/8	Not used	35 (47)	50 (68)
7/16	35 (47)	55 (75)	80 (108)
1/2	55 (75)	85 (115)	120 (163)
9/16	75 (102)	130 (176)	175 (237)
5/8	105 (142)	170 (230)	240 (325)
3/4	185 (251)	300 (407)	425 (576)
7/8	160 (217)	445 (603)	685 (929)
1	250 (339)	670 (908)	1030 (1396)
1-1/8	330 (447)	910 (1234)	1460 (1979)
1-1/4	480 (651)	1250 (1695)	2060 (2793)

6A9;M32199 M23;;SEMB 01 030683

## RECORDING PERIODIC SERVICE

Check tractor hour meter (if equipped) to learn when the mower needs service.

After you have done ALL the services in an interval section, record them in the chart.



6A9;M31075 M23;;SEGE A 170284

## WEEKLY

Check mower blades.

Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				

6A9;M33856 M23;;SEGE B 170284

**25 HOURS**

Lubricate driveline (gearbox driven mowers).

Check gear case oil level (gearbox driven mowers).

Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				

6A9;M33856 M23;;SEGE C 170284

**50 HOURS**

Adjust idler arm stop.

Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				

6A9;M33856 M23;;SEGE D 170284

**100 HOURS**

Lubricate muledrive idler pivot (belt driven mowers).

Inspect roller support.

Inspect mower deck belt.

Inspect mower drive belt (belt driven mowers).

Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				
Hours				
Date				

6A9;M33856 M23;;SEGE E 170284

## REMOVING AND CHECKING MOWER BLADES

**NOTE:** Mower deck is shown removed from tractor for clarity of photograph.

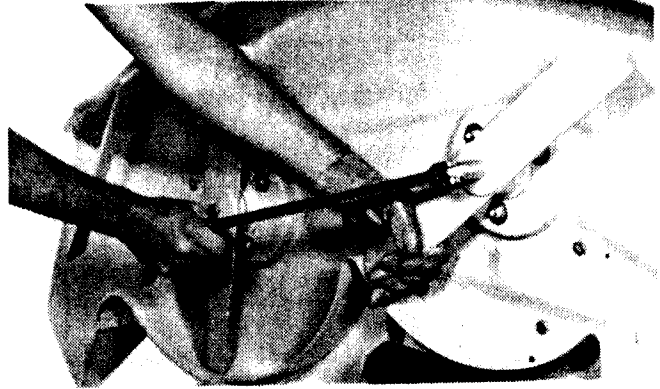
1. Move PTO switch to the "OFF" position, lift mower, stop the engine, remove key, and engage park brake.

2. Put blocking or support stands under mower deck to prevent mower from falling.

**CAUTION:** Mower blade may be sharp. When you remove, sharpen, or install a blade, wear heavy gloves.

3. Inspect blades for sharpness or damage.

4. If blade is damaged or dull, remove cap screw and washer. Put a block of wood between blade and deck to keep blade from turning.



6A9;M33364 M23;;SEGE F 140384

## SHARPENING MOWER BLADES

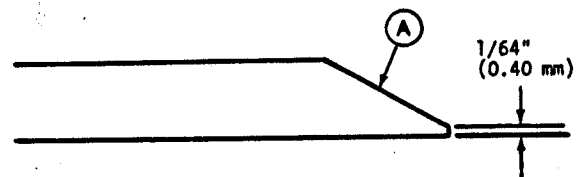
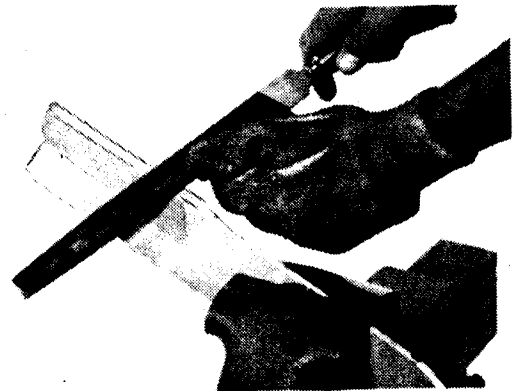
**CAUTION:** Follow safe procedures when sharpening mower blades:

- Always wear eye protection and gloves.
- Always balance a blade after sharpening.
- Replace cracked or damaged blades immediately.

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

2. Grind blade to bevel angle (A) at which blade was originally sharpened.

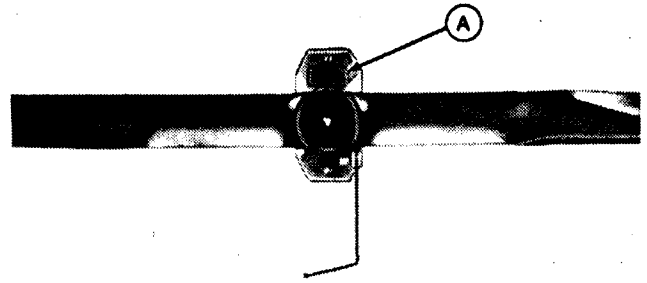
3. A properly sharpened blade must maintain a 1/64-in. (0.40 mm) cutting edge to prevent chipping or dulling. A sharp edge will chip easier and dull quicker.



6A9;M33910, M27741 M23;;SEMB 13 091283

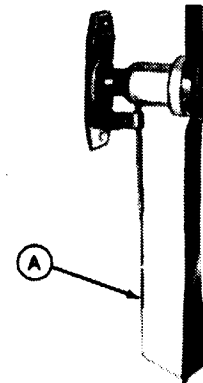
## BALANCING MOWER BLADES WITH BALANCER

1. Clean blade thoroughly.
2. Put blade horizontally on balancer (A).
3. If blade is not balanced, movement will occur. Grind the end that moves down, making sure to maintain original bevel angle.



6A9;M29527 M23;;SEMB 14 010783

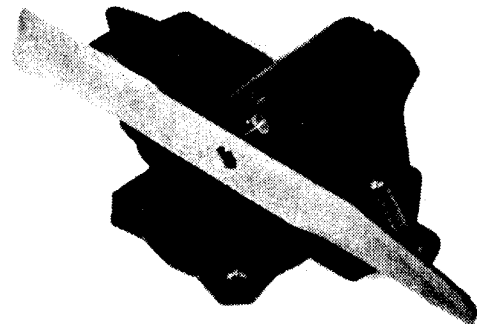
4. Adjust balancer track (A) to just miss the blade tip. Turn blade to opposite tip. If the difference is more than 1/16 in. (1.6 mm), replace the blade.



6A9;M29528 M23;;SEMB 15 010783

## BALANCING MOWER BLADES WITHOUT A BALANCER

1. Clean blade thoroughly.
2. Put the blade horizontally on a nail in a vise or vertical wall stud.
3. If the blade is not balanced, movement will occur. Grind the end that moves down, making sure to maintain original bevel angle.



6A9;M32964 M23;;SEMB 16 010783

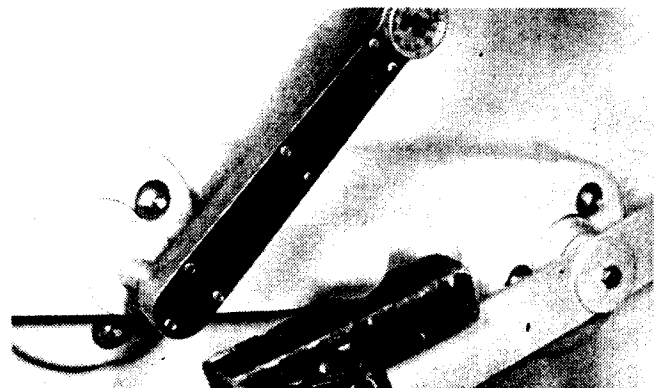
## INSTALLING MOWER BLADES

1. If replacing the mower blades, always use John Deere approved replacement blades and hardware.



**CAUTION:** Mower blade may be sharp. When you remove, sharpen, or install a blade, wear heavy gloves.

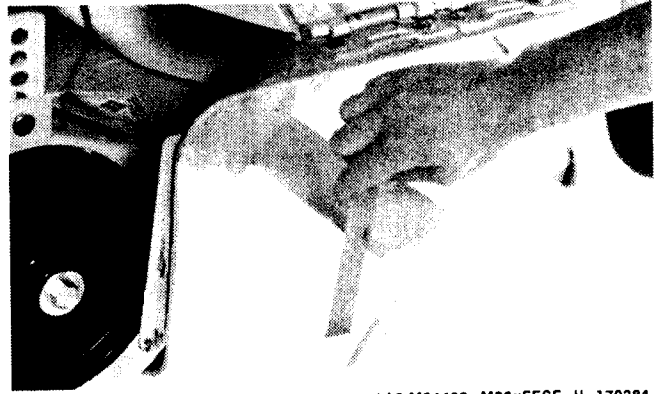
2. Install mower blade. Fasten with washer and cap screw. Tighten cap screw to 50 to 58 lb-ft (68 to 79 N·m ).



6A9;M33365 M23;;SEGE G 030484

3. To check for bent blade, follow these steps:

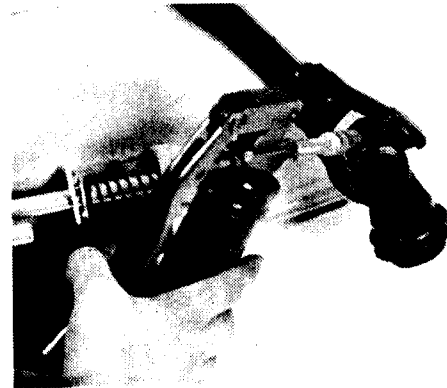
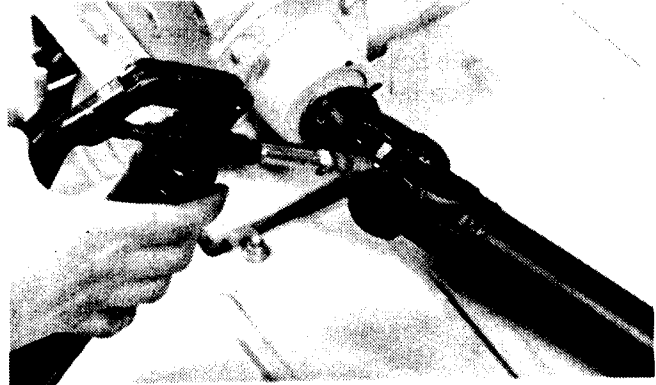
- a. Lower mower. Measure distance between blade tip and flat ground surface.
- b. Turn blade 180 degrees. Measure distance between other blade tip and flat ground surface.
- c. If the difference between the two distances is more than 1/16 in. (1.6 mm), install a new blade.



6A9;M34423 M23;;SEGE H 170284

### LUBRICATING DRIVELINE (Gearbox Driven Mower Only)

After every 25 hours, lubricate driveline (two places) with John Deere Multi-Purpose Lubricant or an equivalent. One or two strokes with a grease gun is sufficient.



6A9;M34402, M34403 M23;;SEGE I 170284



## CHECKING GEAR CASE OIL LEVEL (Gearbox Driven Mower Only)

**NOTE:** Mower is removed from tractor for clarity of photographs.

1. Move tractor to a level surface, lower mower, stop engine, remove key, and engage park brake.

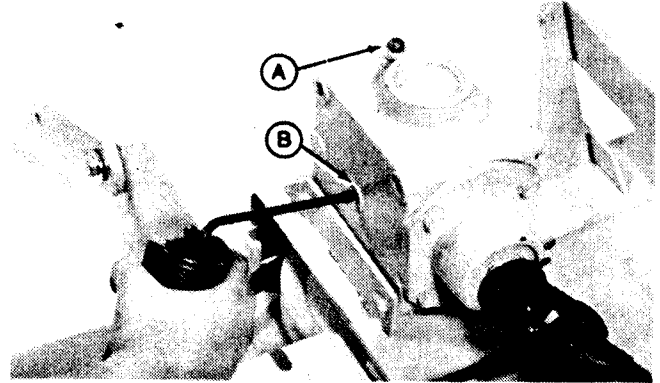
**IMPORTANT:** Vent (A) must be open. If vent is closed, oil will be forced out seals causing gear case to leak.

2. Check that vent (A) is open. Clean as necessary.

3. After every 25 hours, remove check plug from location (B). Oil must be level with hole.

4. If oil level is low, add gear case oil until oil runs out of hole. (See Lubrication section for recommended oil.)

5. Install and tighten check plug.



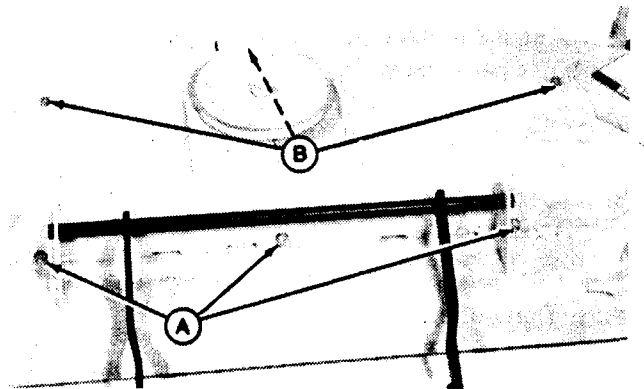
6A9;M34404 M23;;SEGE J 170284

## ADJUSTING IDLER ARM STOP

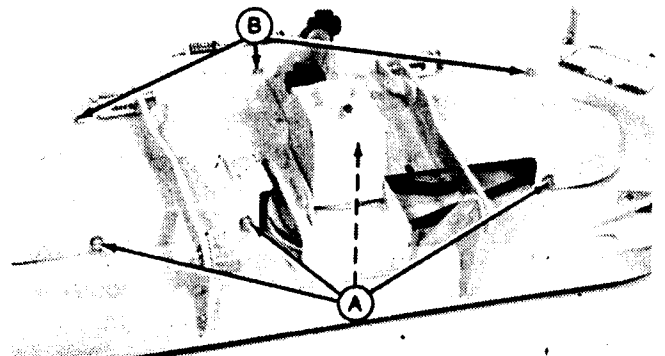
1. Remove mower. (See Removal section.)

2. Loosen nuts (A). Remove nuts and washers (B) and both deck shields.

*Belt Driven Mower*



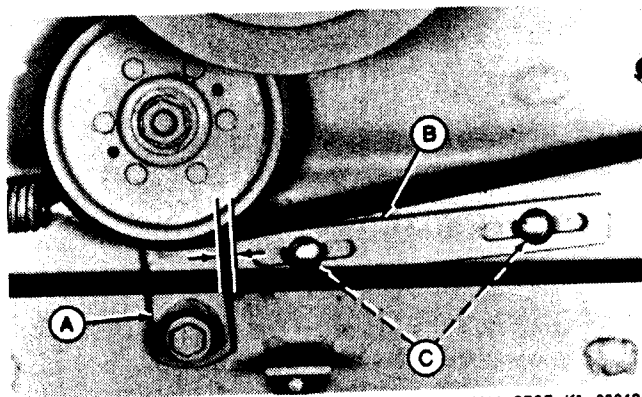
*Gearbox Driven Mower*



6A9;M34405, M34406 M23;;SEGE K 170284

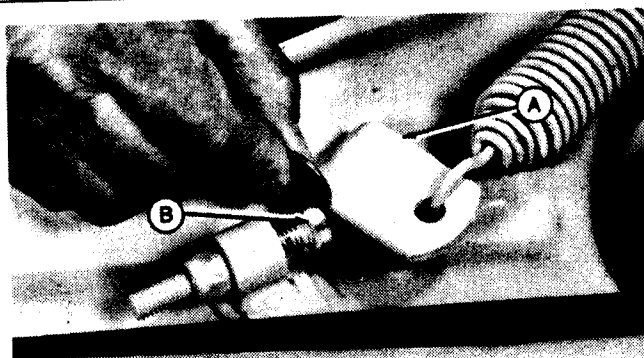
3. On belt driven mower, check for a clearance of 1/16 in. (2 mm) (thickness of a quarter) between idler arm (A) and stop strap (B).

4. To adjust, loosen nuts (C) from underside of mower deck. Move strap (B) to obtain 1/16-in. (2 mm) clearance. Tighten nuts. (Go to step 7.)



6A9;M34882 M23;;SEGE K1 030484

5. On gearbox driven mower, check every 50 hours for a 1/16-in. (2 mm) clearance, or the thickness of a quarter, between idler arm (A) and head of cap screw (B).



6A9;M34231 M23;;SEGE L 140384

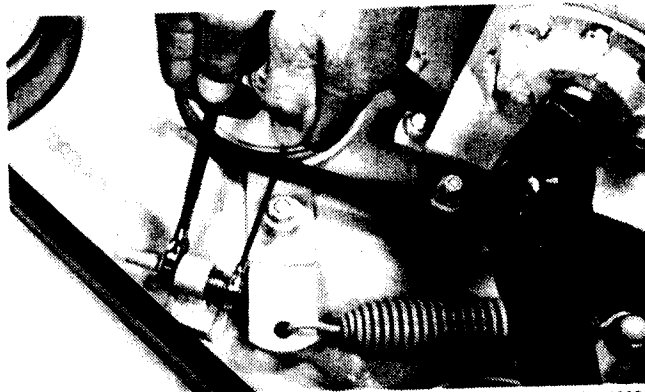
6. To adjust, loosen nut and turn cap screw as necessary to get proper clearance.

7. Clean all debris from belt area and sheaves.

8. Inspect belt and replace as necessary. (See Inspecting and Replacing Deck Belt in this section.)

9. Install mower deck shields. Fasten with washers and nuts. Tighten nuts.

10. Install mower. (See Installation section.)

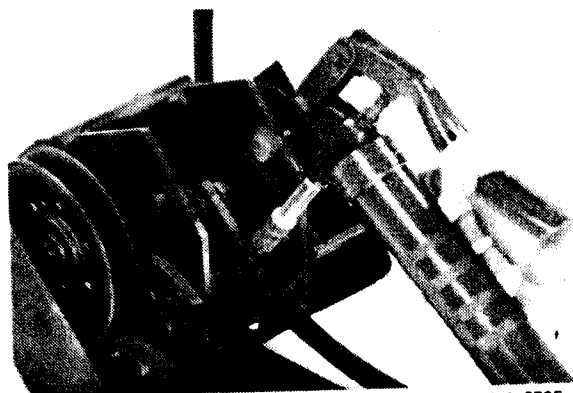


6A9;M34232 M23;;SEGE M 140384

## LUBRICATING MULEDRIVE IDLER PIVOT (Belt Driven Mowers Only)

*NOTE: Muledrive is removed from tractor for clarity of photograph.*

After every 100 hours, lubricate muledrive idler pivot with John Deere Multi-Purpose Lubricant or an equivalent. One or two strokes with a grease gun is sufficient.

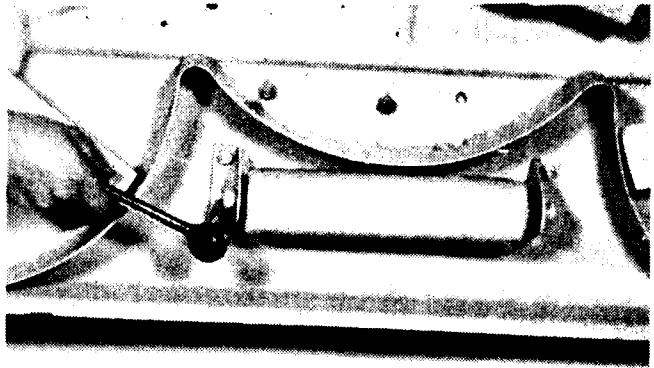


6A9;M34409 M23;;SEGE N 140384

## INSPECTING AND REPLACING ROLLER SUPPORT

*NOTE: Mower is removed from tractor for clarity of photograph.*

1. Move PTO switch to the "OFF" position, lift mower, stop the engine, remove key, and engage park brake.
2. Put blocking or support stands under mower deck to prevent mower from falling.
3. After every 100 hours, inspect roller for wear or damage. Roller must turn freely and must not have any flat spots. Replace if necessary.
4. Remove nuts to remove roller support assembly.
5. Install new support and fasten with nuts. Tighten nuts.



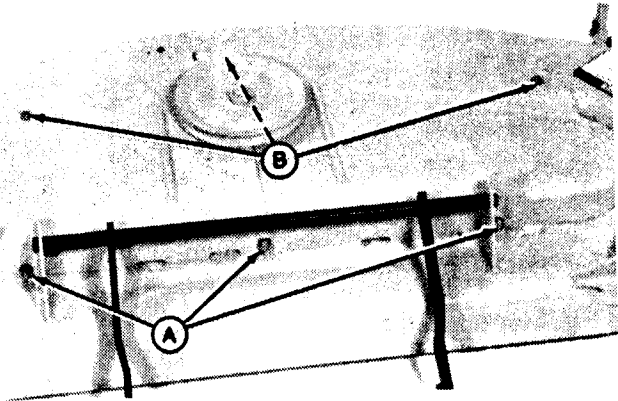
6A9;M34410 M23;SEGE 0 170284

## INSPECTING AND REPLACING MOWER DECK BELT

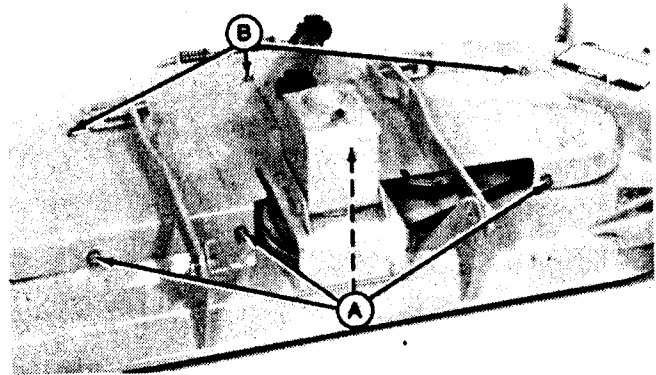
1. Remove mower. (See Removal section.)
2. Remove nuts (A). Remove nuts and washers (B) and both deck shields.

**IMPORTANT:** Clean the belt with a damp cloth, not with solvents or belt dressing; they soften belt and shorten belt life.

3. After every 100 hours, inspect mower deck belt for wear or damage.
4. If belt is in good condition, clean the belt, sheaves, and deck area.
5. Replace worn or damaged belt. Replace or repair parts that cause wear.



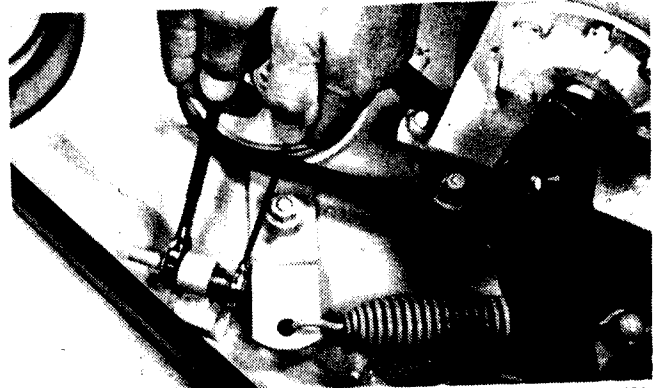
*Belt Driven Mower*



*Gearbox Driven Mower*

6A9;M34405, M34406 M23;;SEGE P 140384

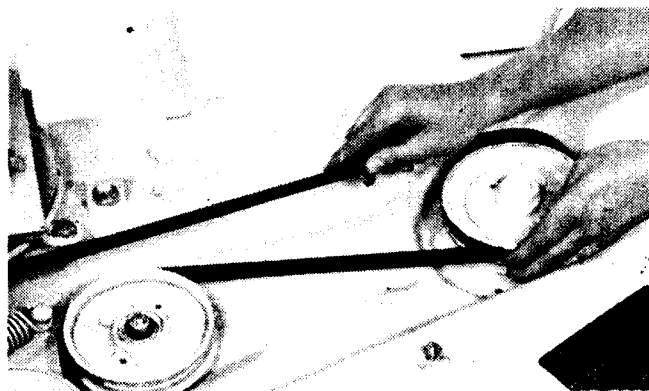
6. To remove belt, loosen idler arm stop to allow for full travel of idler arm.



6A9;M34232 M23;;SEGE Q 140384

7. Pull mower deck belt over sheave to remove belt.

8. Thoroughly clean the sheaves and belt area.



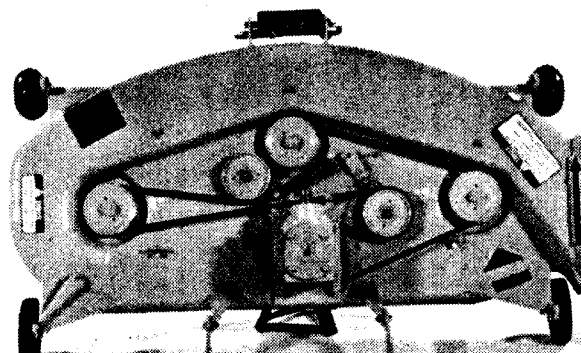
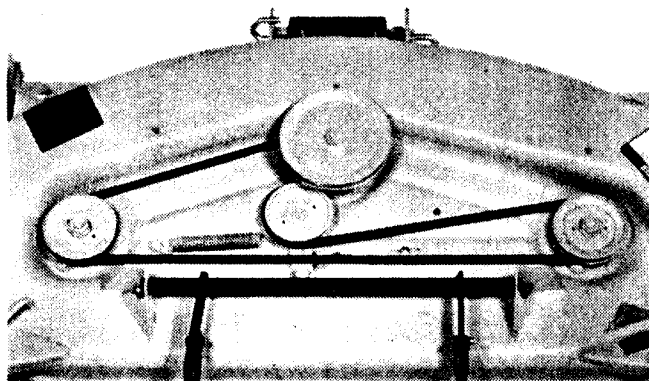
6A9;M33380 M23;;SEGE R 170284

9. Install new belt and route as shown. Make sure belt is positioned and routed correctly.

10. Adjust idler arm stop. (See Adjusting Idler Arm Stop in this section.)

11. Install deck shields. Fasten with washers and nuts. Tighten nuts.

12. Install mower. (See Installation section.)

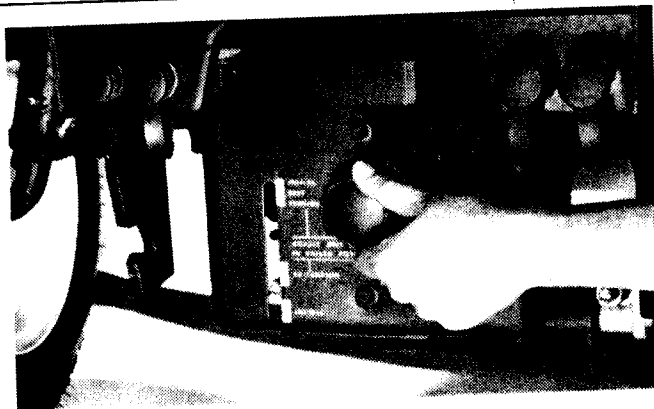


6A9;M33384, M32737 M23;;SEGE S 170284

## INSPECTING AND REPLACING MOWER DRIVE BELT (Belt Driven Mower Only)

**IMPORTANT:** Clean the belt with a damp cloth, not with solvents or belt dressing; they soften belt and shorten belt life.

1. Lower mower, shut off engine, and engage park brake.
2. After every 100 hours, inspect mower drive belt for wear or damage.
3. If belt is in good condition, clean the belt, sheaves, and deck area.
4. Replace worn or damaged belt. Replace or repair parts that cause wear.
5. To remove belt, turn adjusting knob counterclockwise until indicator is in the "INSTALL" position.



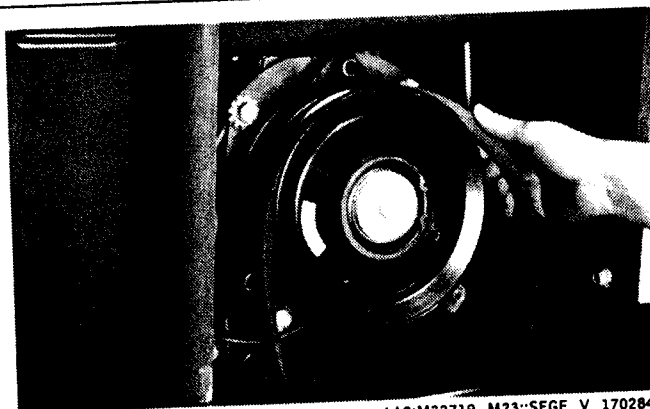
6A9;M33379 M23;;SEGE T 170284

6. Remove front grille.



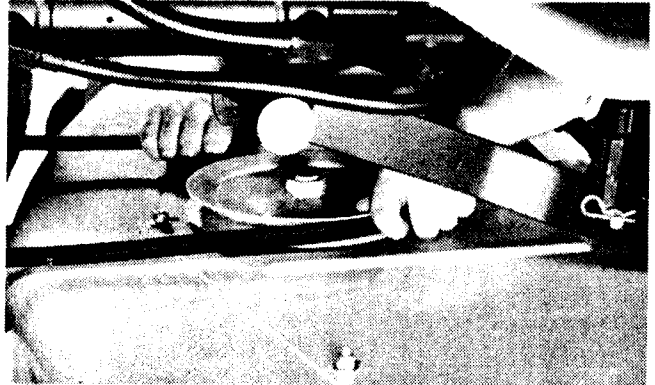
6A9;M32718 M23;;SEGE U 170284

7. Pull drive belt from engine PTO sheave.



6A9;M32719 M23;;SEGE V 170284

8. Remove drive belt from mower drive sheave.

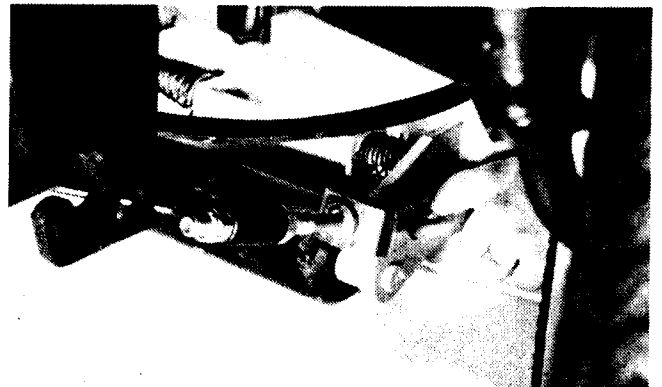


6A9;M34418 M23;;SEGE W 170284

9. Pull out on mower draft pins to disconnect adjusting yokes.

10. Pull muledrive assembly from tractor.

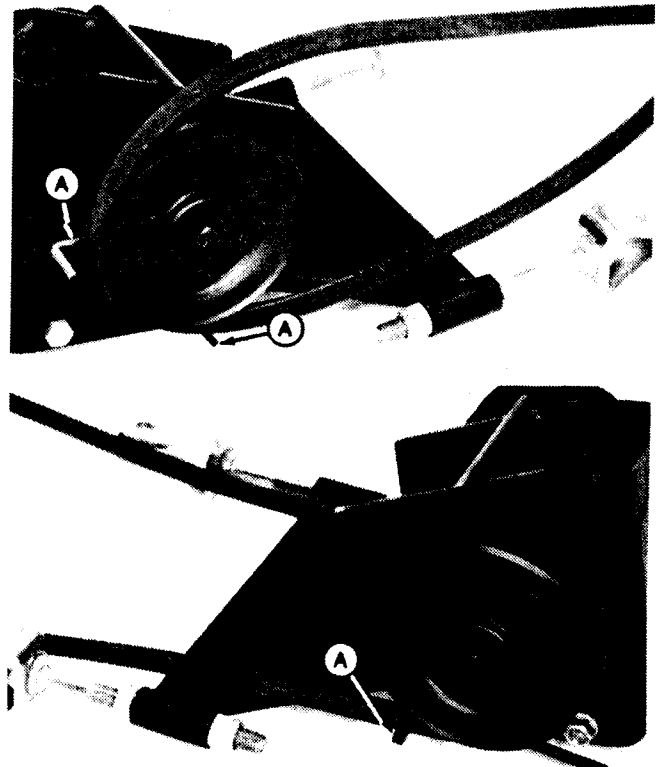
11. Remove drive belt.



6A9;M34417 M23;;SEGE X 170284

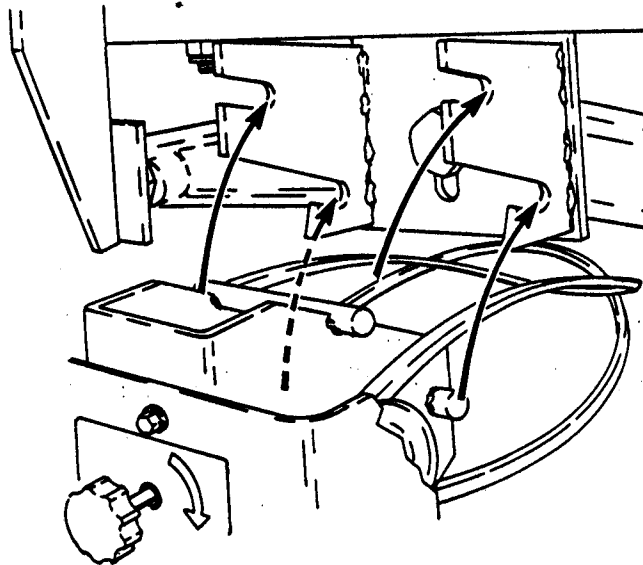
*NOTE: Belt guard removed from muledrive for clarity of photograph.*

12. Install new belt with V-side toward sheaves. Belt must be under belt guides (A).



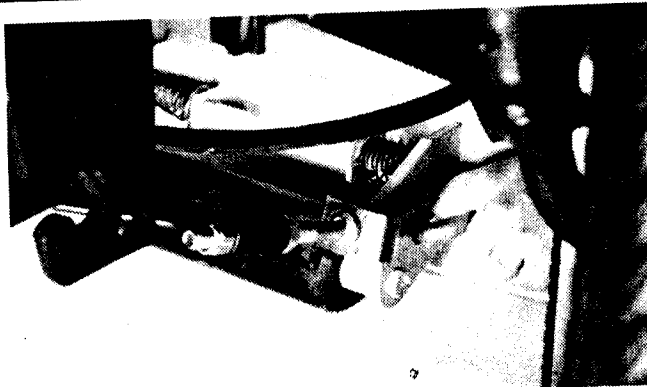
6A9;M34396, M34648 M23;;SEGE Y 030484

13. Install muledrive assembly on front bracket. Put top half of belt loop up in front grille area.



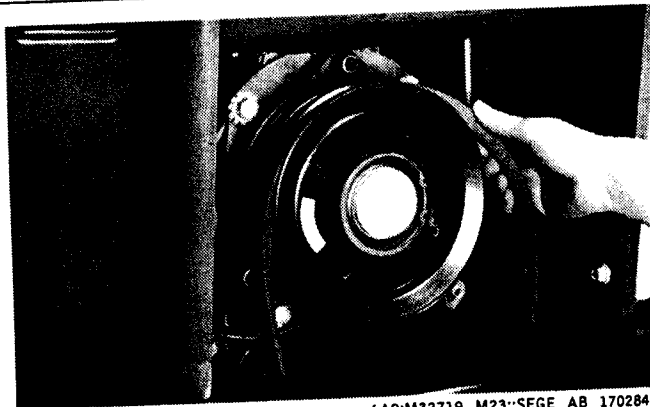
6A9;M33320 M23;;SEGE Z 170284

14. Connect adjusting yokes to mower brackets and fasten with mower draft pins. You may have to lift front of mower to align adjusting yokes with mower brackets.



6A9;M34417 M23;;SEGE AA 170284

15. Install drive belt over engine PTO sheave.

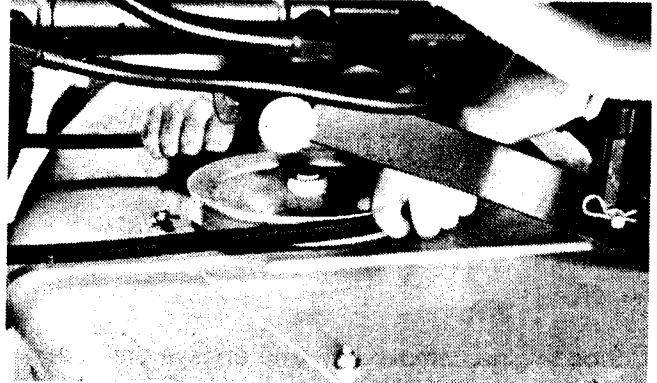


6A9;M32719 M23;;SEGE AB 170284



16. Install drive belt over mower drive sheave. Make sure drive belt is properly installed before operating.

17. Install front grille.

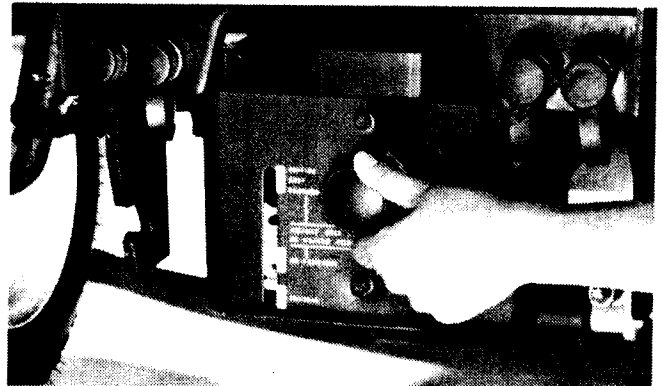


6A9;M34418 M23;;SEGE AC 170384

18. Start engine and lift mower deck.

19. Turn adjusting knob clockwise until the indicator is in the "INITIAL BELT TENSION" area.

20. Check tension of drive belt regularly. If indicator is in the "RE-TENSION" area, turn adjusting knob clockwise to tighten belt. If proper tension cannot be obtained, replace the belt.



6A9;M33379 M23;;SEGE AD 170284

# Removal

## REMOVING BELT DRIVEN MOWER

*NOTE: Removal procedures shown for 318 Tractor.*

1. Start engine. Move hydraulic control lever forward to lower mower.
2. Turn steering wheel until front wheels are all the way to the left.
3. Stop engine, remove key, and engage park brake.



6A9;M32446 M23;;REGE A 200284

4. Turn adjusting knob counterclockwise until the indicator is in the "INSTALL" area.



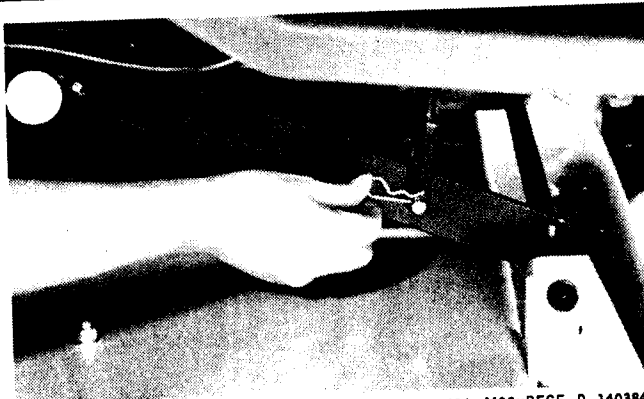
6A9;M33379 M23;;REGE B 200284

5. Remove drive belt from mower drive sheave.



6A9;M34418 M23;;REGE C 200284

6. On left side of tractor, remove spring locking pin and headed pin from left lift strap.



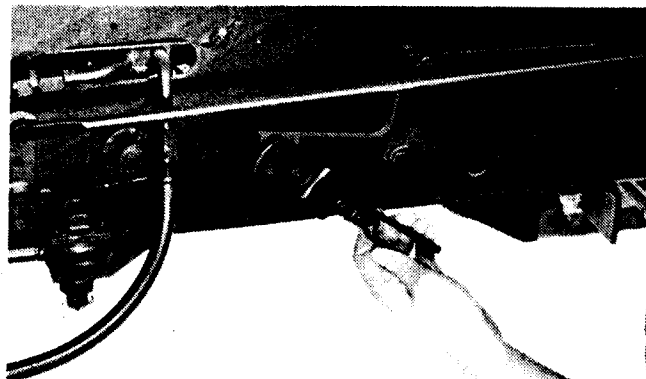
6A9;M34416 M23;;REGE D 140384

## Removal

*NOTE: Fender deck is removed from tractor for clarity of photograph.*

7. Remove left adjustable lift strap from left mower attaching bracket.

*NOTE: Install lift strap on mower arm to prevent parts from getting lost.*

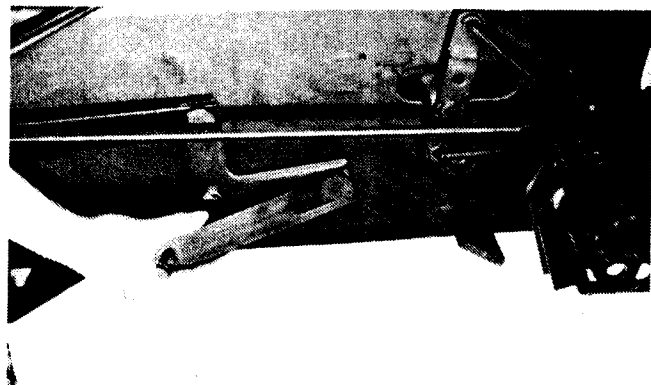


6A9;M34413 M23;;REGE D1 140384

8. On right side of tractor, remove spring locking pin. Disconnect right lift strap from mower arm.

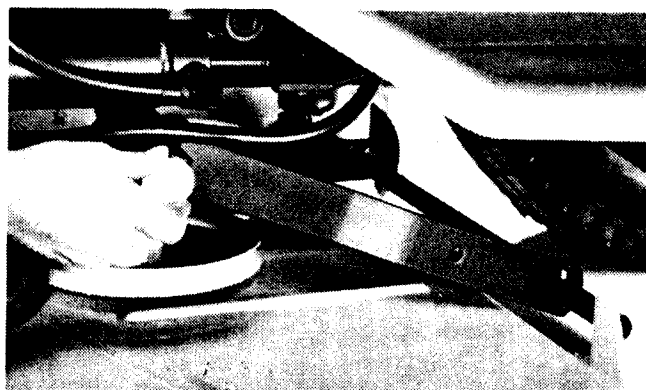
9. Remove right lift strap from right mower attaching bracket.

*NOTE: Install lift strap on mower arm to prevent parts from getting lost.*



6A9;M34414 M23;;REGE D2 140384

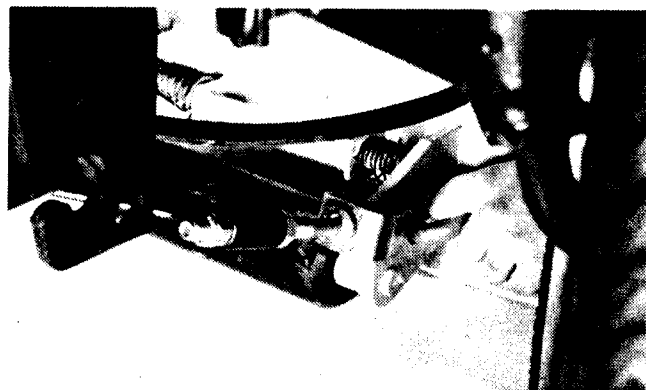
10. Pull out on spring loaded pins to disconnect mower lift arms.



6A9;M34415 M23;;REGE E 140384

11. Pull on mower draft pins to disconnect muledrive plate.

12. Slide mower out from right side of tractor.



6A9;M34417 M23;;REGE F 140384

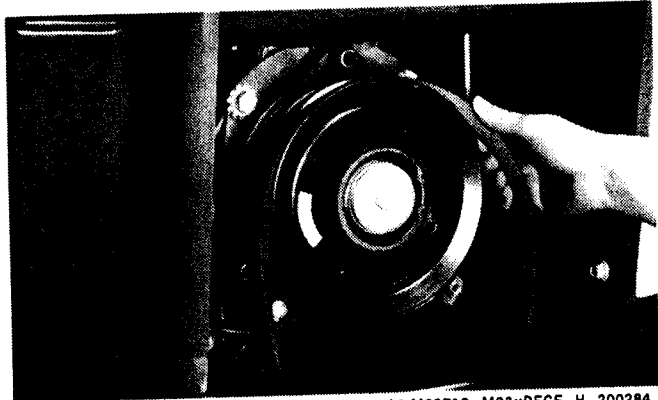
## REMOVING MULEDRIVE (Belt Driven Mower Only)

1. Pull to remove tractor grille.



6A9;M32718 M23;;REGE G 030484

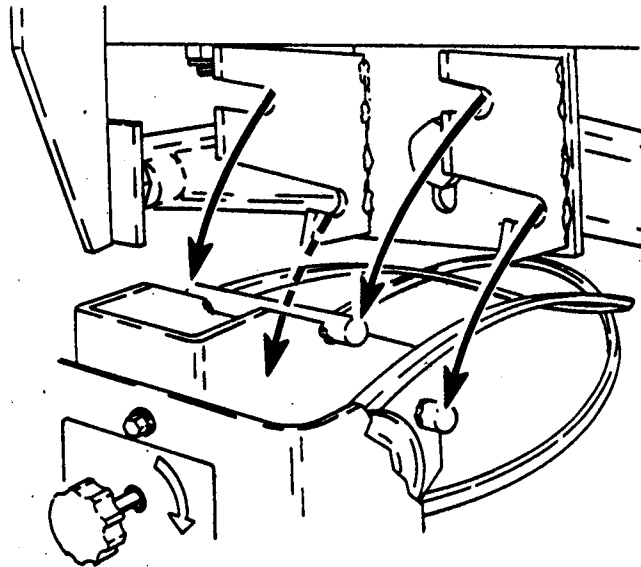
2. Remove drive belt from engine PTO sheave.



6A9;M32719 M23;;REGE H 200284

3. Pull to remove muledrive assembly from tractor bracket.

4. Install tractor grille.

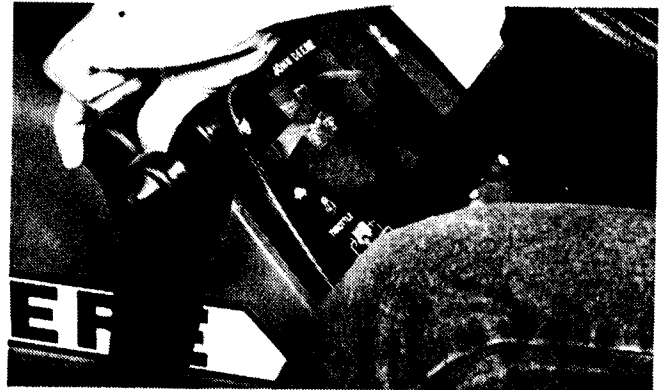


6A9;M33389 M23;;REGE I 140384

## REMOVING GEARBOX DRIVEN MOWER

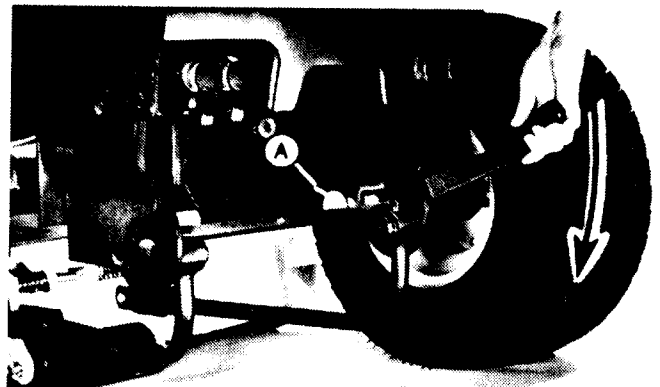
*NOTE: Removal procedures shown for 420 Tractor.*

1. Start engine. Move hydraulic control lever forward to lower mower.
2. Turn steering wheel so front wheels are all the way to the left.
3. Stop engine, remove key, and engage park brake.



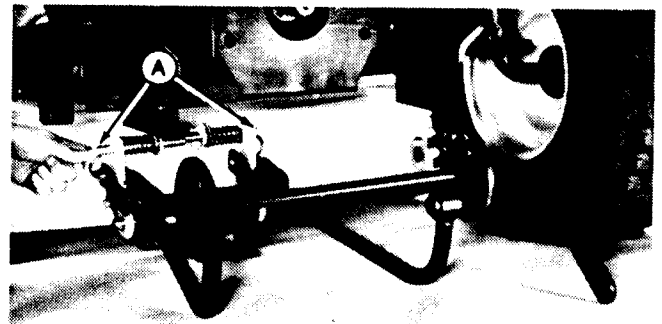
6A9;M33342 M23;;REGE J 200284

4. Pull out spring loaded pin (A). Put pin in locked position.
5. Push down on front bracket lever to disconnect front bracket from tractor frame.



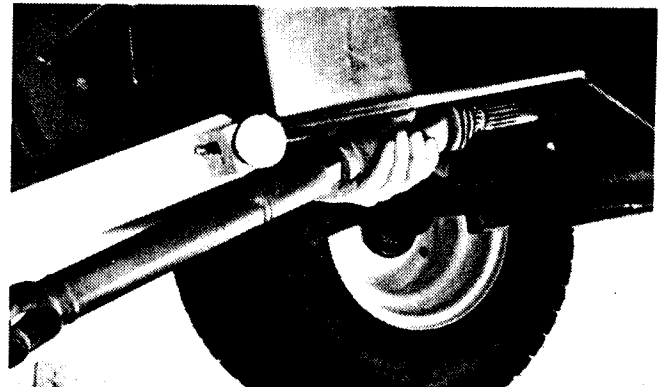
6A9;M34408 M23;;REGE K 200284

6. Pull out mower draft pins (A) to remove front bracket.



6A9;M34407 M23;;REGE L 200284

7. Pull back on driveline collar.
8. Disconnect driveline.

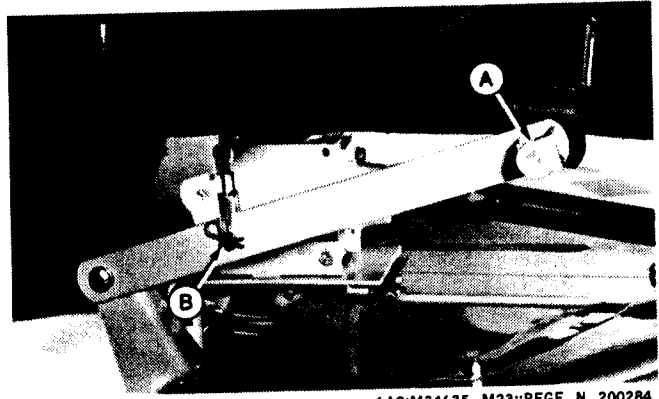


6A9;M32745 M23;;REGE M 200284

9. Remove spring locking pins and headed pins (B) to disconnect lift links from mower lift arm.

10. Pull out spring loaded pins (A) to disconnect mower lift arms.

11. Slide mower out from right side of tractor.

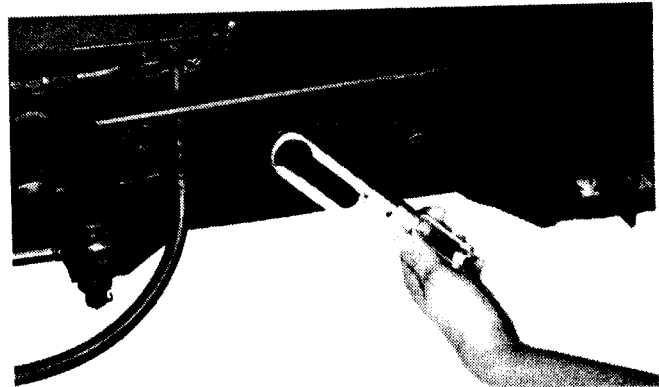


6A9;M34635 M23;;REGE N 200284

*NOTE: Fender deck is removed from tractor for clarity of photograph.*

12. Remove lift link on right and left mower attaching brackets.

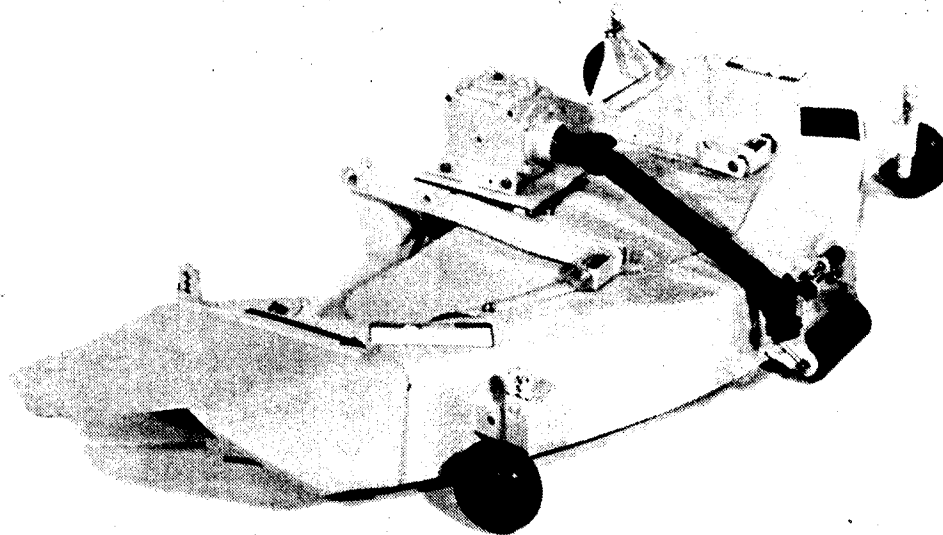
*NOTE: Install lift links onto mower lift arms to prevent parts from getting lost.*



6A9;M34419 M23;;REGE O 140284

# Storage

## PUTTING MOWER IN STORAGE



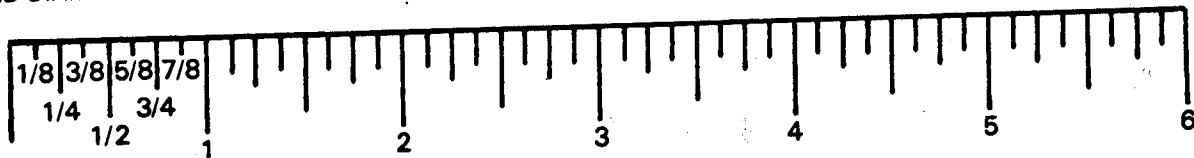
*Gearbox Driven Mower*

1. Remove mower. (See Removal section.)
2. Thoroughly clean the top and underside of mower deck.
3. Inspect mower blades for damage or wear. Remove and either sharpen or replace blades as necessary. (See Removing Mower Blades and Sharpening Mower Blades in the Service section.)
4. Remove deck shields to inspect, clean, or replace mower drive belt. (See Checking and Cleaning Mower Drive Belt and Replacing Mower Drive Belt in the Service section.)
5. If mower is to be stored for a long period of time, remove mower drive belt from one sheave to release idler spring tension.
6. Apply paint to unpainted areas to prevent rust.
7. If tractor will be stored also, install mower on tractor.

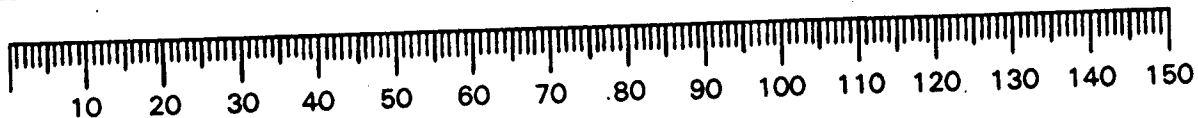
# ● Assembly ●

## MEASURING HARDWARE

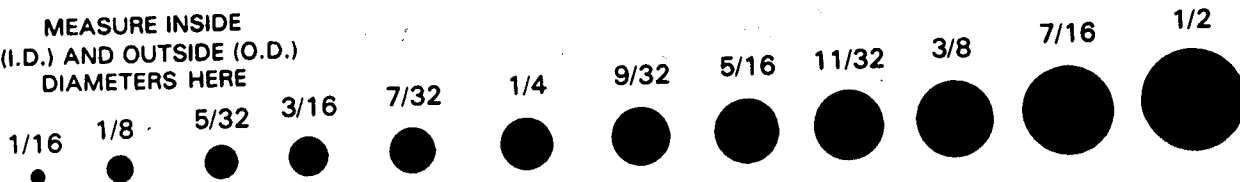
INCHES—USE  
FOR LENGTHS  
AND DIAMETER



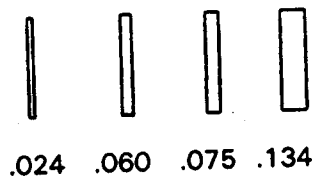
MILLIMETERS



MEASURE INSIDE  
(I.D.) AND OUTSIDE (O.D.)  
DIAMETERS HERE

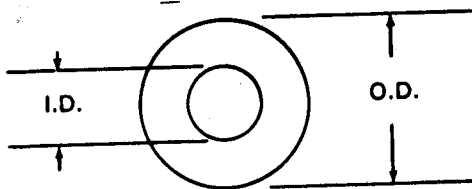


MEASURE  
WASHER  
THICKNESS  
HERE

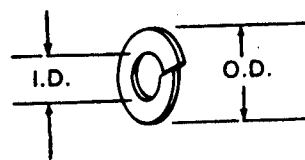


## MEASURING COMPONENTS

FLAT WASHERS

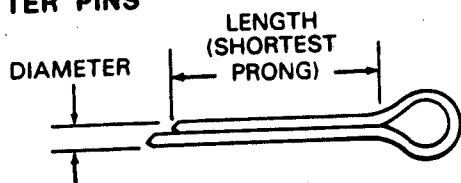


LOCK WASHERS



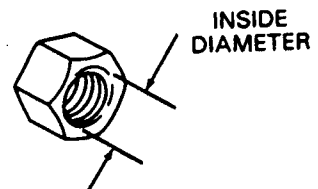
MEASURE WASHERS BY:  
I.D. BY O.D. BY THICKNESS (ABOVE).

COTTER PINS



NUTS

NUTS ARE SPECIFIED  
BY INSIDE DIAMETER  
(AT THREAD DEPTH)



CAP SCREWS, BOLTS AND MACHINE SCREWS



M30322

6A9/M30322 M23;ASGE A 200284

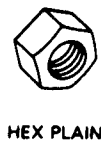


# HARDWARE IDENTIFIER

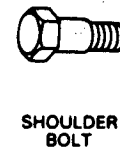
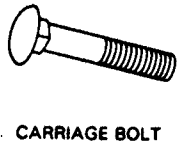
## WASHERS



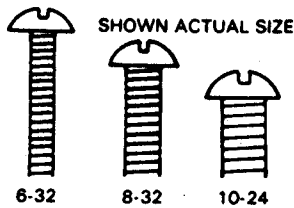
## NUTS



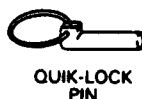
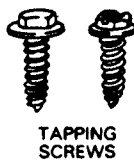
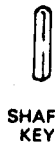
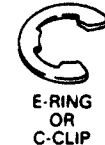
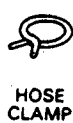
## CAPSCREWS AND BOLTS



## MACHINE SCREWS



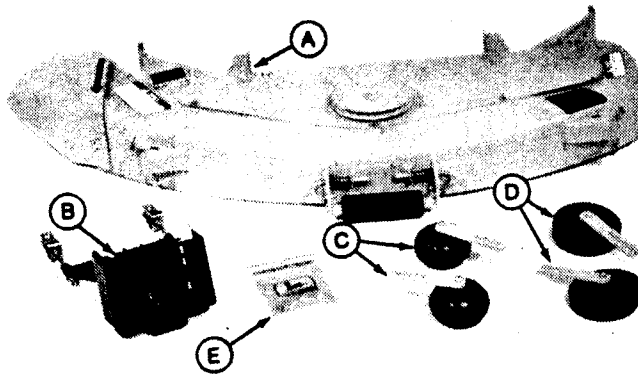
## OTHER COMMON HARDWARE



M30321

6A9;M30321 M23;ASGE B 200284.

## UNPACK BELT DRIVEN MOWER



Remove top of carton. Remove the following parts:

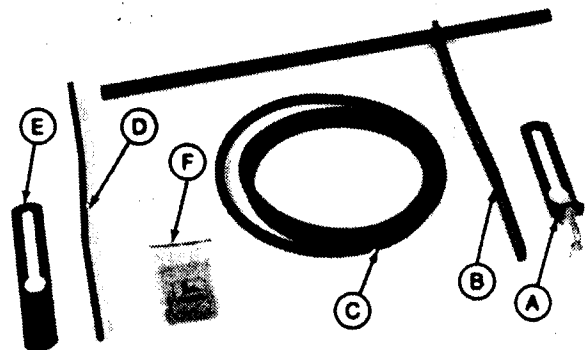
- A—Mower Deck
- B—Muledrive
- C—Front Mower Wheels (2 used)
- D—Rear Mower Wheels (2 used)

- E—Bag of Parts to Contain:
- Spring Locking Pin (4 used)
  - Headed Pin (4 used)
  - Bushing
  - Lock Washer
  - 3/8-in. Nut
  - 3/8 x 3.75-in. Cap Screw

6A9;M34382 M23;;ASGE C 170284

## 314 AND 317 TRACTOR ATTACHING PARTS

- A—Left Adjustable Lift Strap
- B—Welded Lift Arm Bracket
- C—\*Drive Belt
- D—Right Lift Arm
- E—Right Lift Strap
- F—Bag of Parts to contain:
  - Spring Locking Pin (2 used)
  - Roll Pin (4 used)

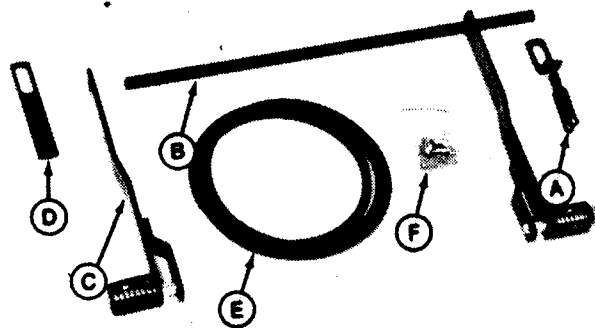


*\*317 Tractor requires a different drive belt. See your John Deere dealer.*

6A9;M34383 M23;;ASGE D 170284

## 316, (285,001-), 318, AND 330 TRACTOR ATTACHING PARTS

- A—Left Adjustable Lift Strap
- B—Welded Lift Arm Bracket
- C—Right Lift Arm
- D—Right Lift Strap
- E—\*Drive Belt
- F—Bag of Parts to contain:  
 Spring Locking Pin (2 used)  
 Headed Pin  
 Roll Pin (4 used)



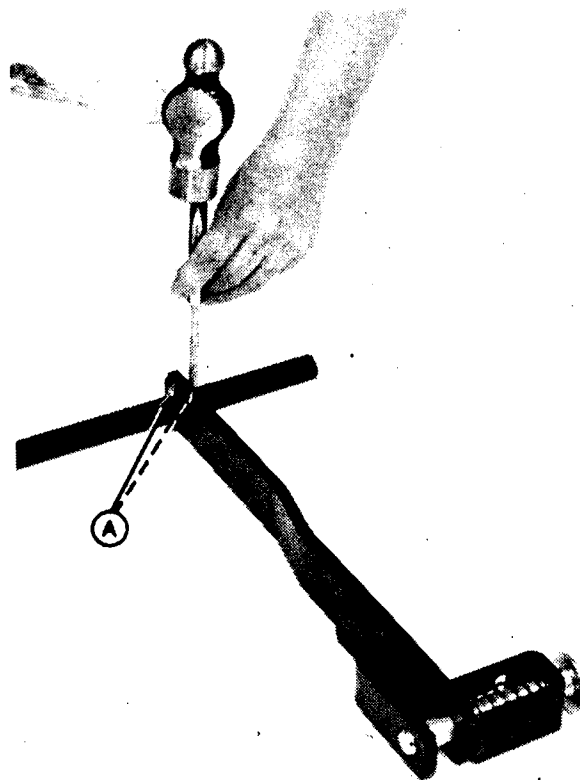
*\*330 Tractor Requires a different drive belt. (See your John Deere dealer.)*

6A9;M34384 M23;;ASGE E 180785

## ASSEMBLE BELT DRIVEN MOWER

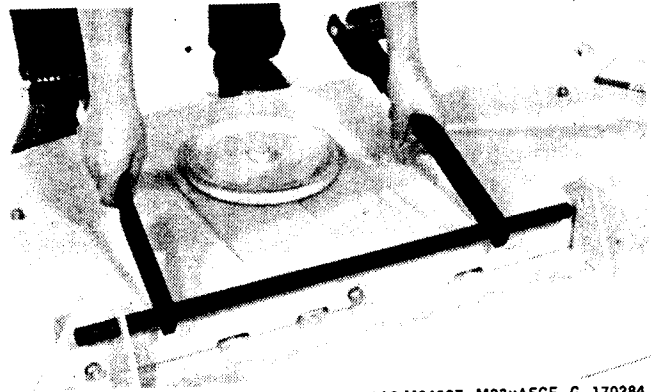
**NOTE:** Assemble 314, 317, 316 (285,001-), and 318 Tractor attaching parts using the following procedure. 316 and 318 Tractor attaching parts shown.

1. Slide lift arm on welded lift bracket, making sure spring loaded pins are facing out as shown.
2. Install roll pins (A) on each side of the lift arm. Pin should protrude on equal distance from each side of shaft.



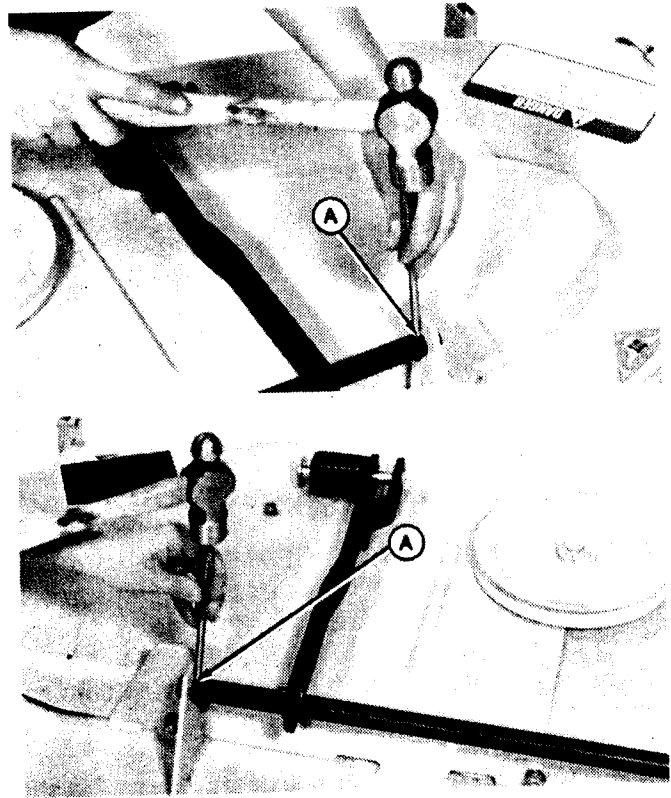
6A9;M34386 M23;;ASGE F 140384

3. Slide welded lift bracket into mower deck brackets.



6A9;M34387 M23;;ASGE G 170284

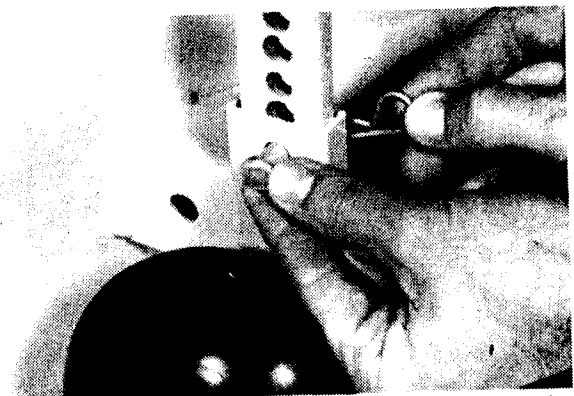
4. Install roll pins (A).



6A9;M34388, M34389 M23;;ASGE H 170284

5. Install the front wheels. Align wheels with any one mounting hole and fasten with headed pins and spring locking pins.

6. Install the rear wheels.



6A9;M33344 M23;;ASGE I 170284

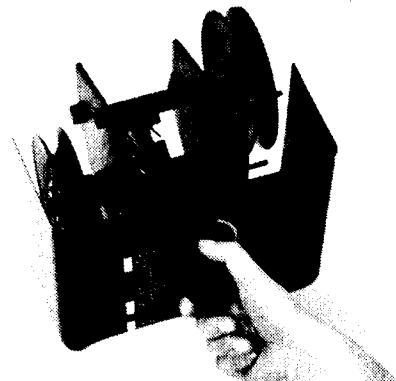
## Assembly

7. Remove wire from muledrive.



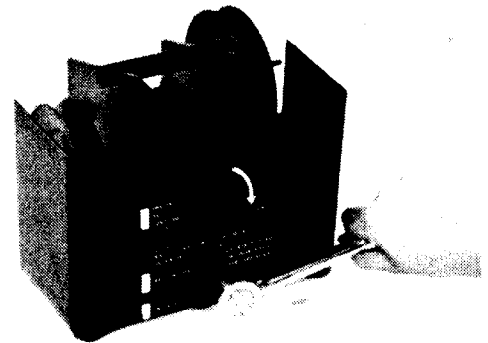
6A9;M34390 M23;;ASGE J 170284

8. Remove adjusting knob.



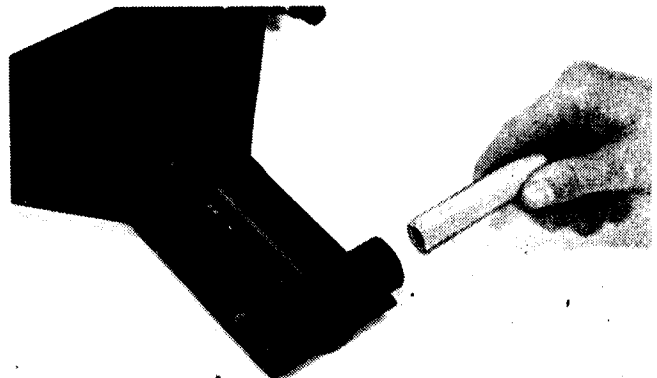
6A9;M34391 M23;;ASGE K 170284

9. Remove two cap screws and muledrive belt guard.



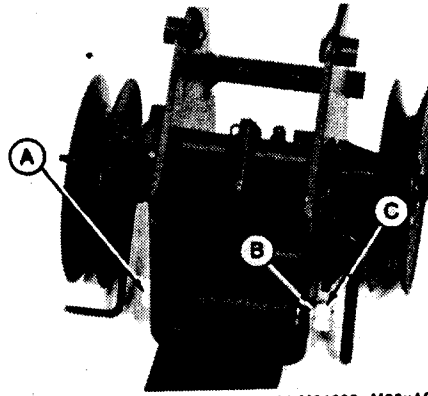
6A9;M34392 M23;;ASGE L 170284

10. Install bushing in muledrive plate.



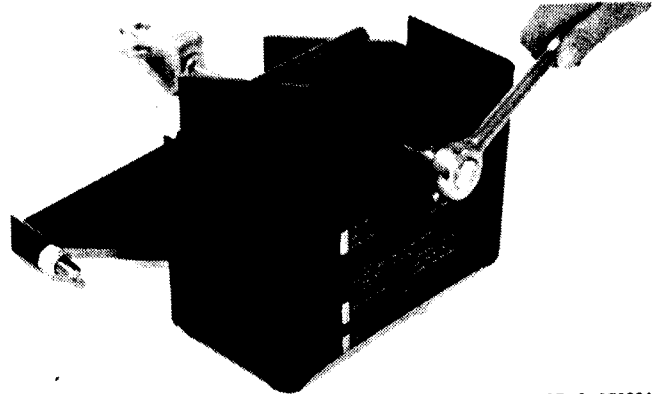
6A9;M32741 M23;;ASGE M 170284

11. Fasten muledrive plate to muledrive assembly with cap screw (A), lockwasher (B), and nut (C) as shown. Tighten nut.



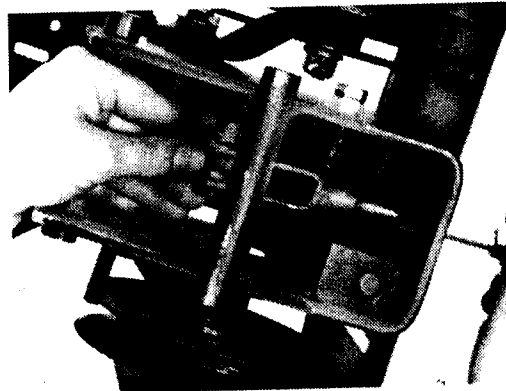
6A9;M34393 M23;;ASGE N 140384

12. Fasten muledrive belt guard with two cap screws. Tighten cap screws.



6MA;M34394 M23;;ASGE O 170284

13. Install adjusting knob into yoke.

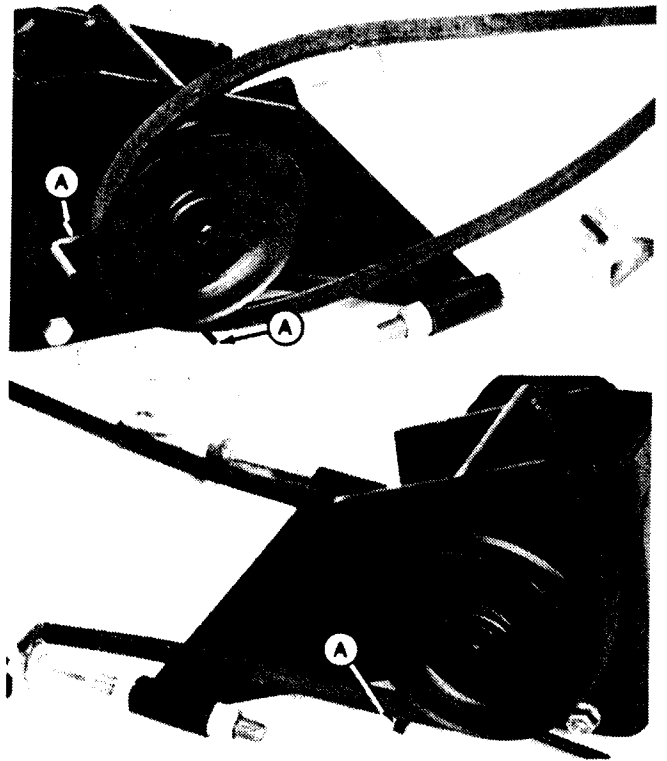


6A9;M34395 M23;;ASGE P 170284

## Assembly

**NOTE:** Belt guard removed for clarity of photograph.

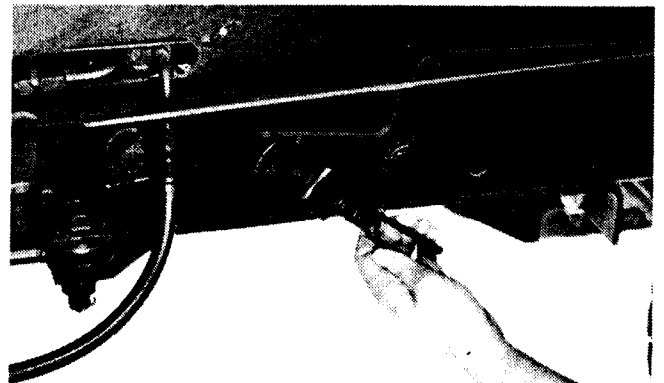
14. Install belt around sheaves, with V-side toward sheaves. Belt must be under belt guides (A).



6A9;M34396, M34648 M23;;ASGE Q 140384

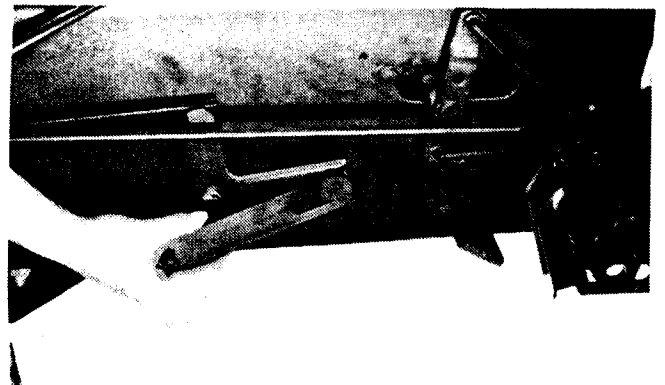
**NOTE:** Fender deck removed from tractor for clarity of photograph.

15. Install left adjustable lift strap on left mower attaching bracket.



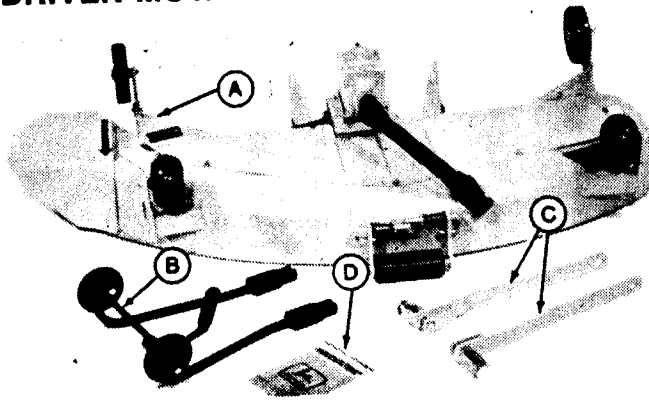
6A9;M34413 M23;;ASGE R 170284

16. Install right lift strap on right mower attaching bracket.  
17. Install mower on tractor. (See Installing Belt Driven Mower in Installation section.)  
18. Make mower adjustments. (See Operating the Mower section.)



6A9;M34414 M23;;ASGE S 140384

## UNPACK GEARBOX DRIVEN MOWER



Remove top of carton. Remove the following parts:

- A—Mower Deck
- B—Mounting Bracket
- C—Lift Arms

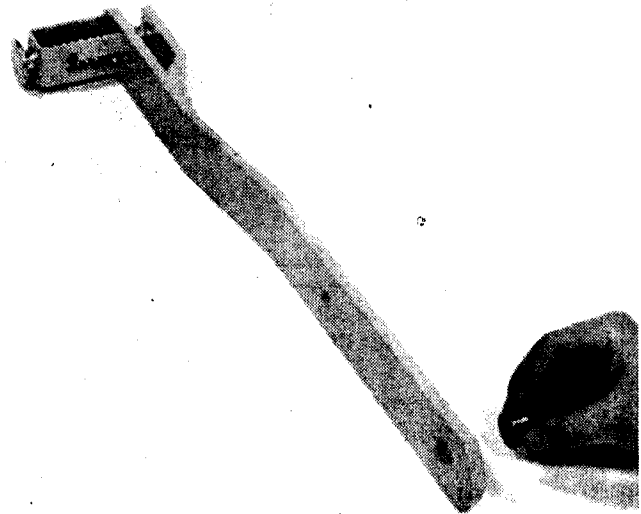
D—Bag of parts to contain:

- Lift Link (2 used)
- Spring Locking Pin (2 used)
- Headed Pin (2 used)
- Bearing (2 used)
- Washer (2 used)
- 3/8 x 1.25-in. Cap Screw
- 3/8-in. Lock Nut (2 used)

6A9;M34385 M23;;ASGE T 140384

## ASSEMBLE GEARBOX DRIVEN MOWER

1. Install bushings into hole of each lift arm.

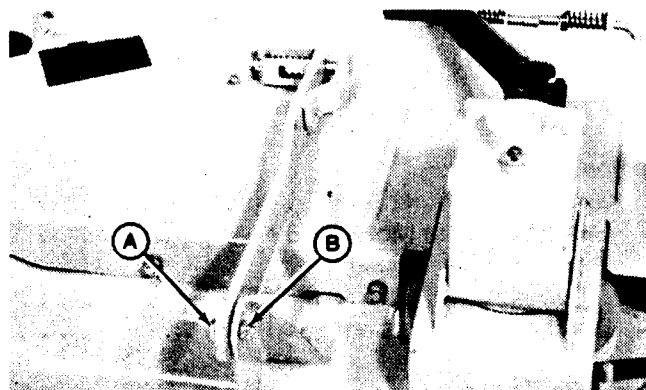


6A9;M34397 M23;;ASGE U 170284



2. Install washers on cap screws.

3. Fasten each lift arm to mower deck with cap screws (A), making sure spring loaded pins on lift arm are facing out as shown. Install and tighten nuts (B).



6A9;M34398 M23;;ASGE V 140384

4. The wheels are installed upside down. Remove spring locking pins, headed pins, and mower wheels.

5. Install wheels. Align wheels with any one mounting hole and fasten with headed pins and spring locking pins.



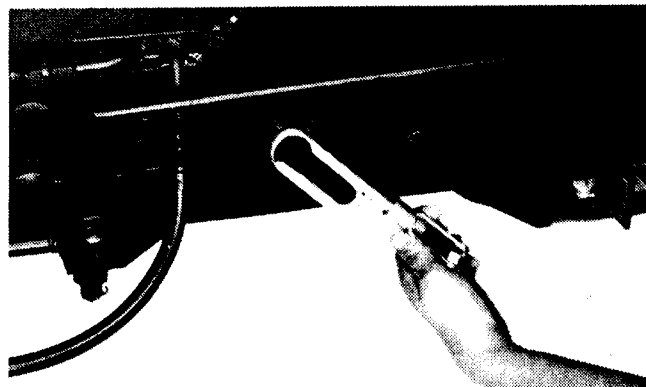
6A9;M33344 M23;;ASGE W 170284

*NOTE: Fender deck removed from tractor for clarity of photograph.*

6. Install a lift link on right and left mower attaching brackets.

7. Install mower on tractor. (See Installing Gearbox Driven Mower in Installation section.)

8. Make mower adjustments. (See Operating the Mower section.)



6A9;M34419 M23;;ASGE X 170284

# Specifications

Tractor Required	314, 316, 317, 318, 330, 420, and 430
Cutting Width	50 in. (127 cm)
Cutting Height:	1.5 to 4 in. (38 to 102 mm)
Belt Driven Mower	1.5 to 6 in. (38 to 152 mm)
Gearbox Driven Mower	
Blade Speed:	3450 rpm
Belt Driven Mower	3536 rpm
Gearbox Driven Mower	
Blade Tip Speed:	15 500 ft/min (4727.5 m/min)
Belt Driven Mower	15 930 ft/min (4858.5 m/min)
Gearbox Driven Mower	
Number of Blades	3
Blade Cap Screw Torque	50 to 58 lb-ft (68 to 79 N·m)
Approximate Shipping Weight:	115 lb (52 kg)
Belt Driven Mower	130 lb (59 kg)
Gearbox Driven Mower	

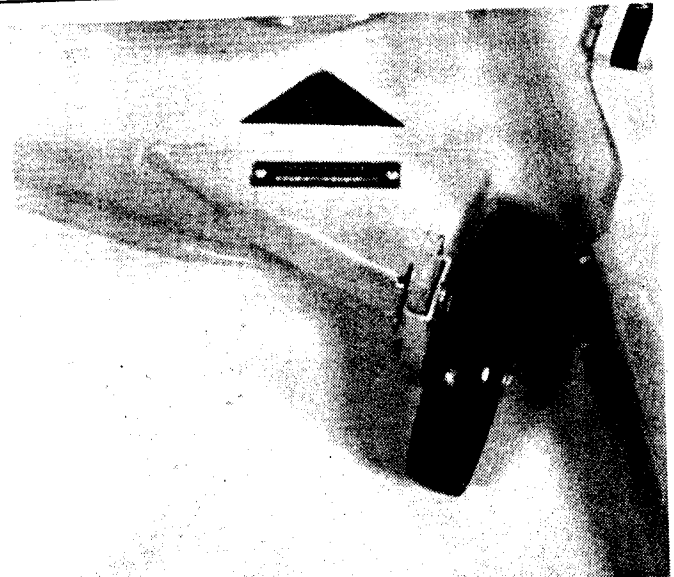
*Specifications and design subject to change without notice.*

M23;;SPGE A 260685

## RECORDING MOWER SERIAL NUMBER

Record the mower's serial number in the space provided. Your John Deere dealer will need to know this number when ordering parts.

Mower Serial Number \_\_\_\_\_



6A9/M32728 M23;;SPGE B 170284

# JOHN DEERE SERVICE LITERATURE AVAILABLE...

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Title	Order No.	Qty.	Price Each
Parts Catalog 50-Inch Mid-Mount Rotary Mower	PC-1959		\$ 2.25
Operator's Manual 50-Inch Mid-Mount Rotary Mower (537,001- )	OM-M89626		\$ 1.25

NOTE: If you want manuals or catalogs for equipment not shown on this list, list the model number, serial number and name of the equipment below.

## FOS COMPACT EQUIPMENT MANUALS

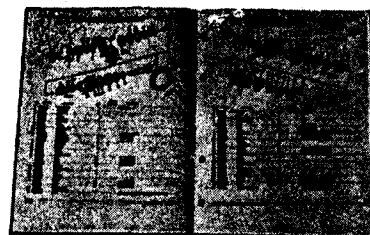
FCP-80101B	Engines	\$11.05
FCP-83101B	Electrical Systems	10.00
FCP-82101B	Hydraulics	8.80
FCP-81101B	Power Trains	8.80

Illinois State Residents add 6% for ROT ☐

Check or money order in U.S. dollars enclosed ... Total \_\_\_\_\_  
(Do not send cash or stamps)

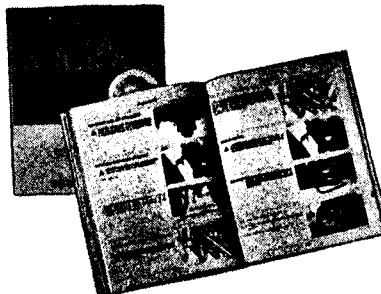
Prices listed will be effective until 31 December 1985.

## PARTS CATALOG



A parts catalog containing exploded view illustrations and lists of all parts is useful when purchasing service parts. Helps identify the correct parts. Useful in assembling and disassembling.

## OPERATOR'S MANUAL



An extra copy of the operator's manual may be important if the copy furnished with your machine is misplaced.

## FOS MANUALS ON COMPACT EQUIPMENT



John Deere has made these new books available so you can read and learn the basics of how to service and repair most types of compact tractors and small engine-powered equipment. The fundamentals of how those systems work are shown clearly with hundreds of color illustrations. You can learn about operating principles of engines, electrical systems, power trains, or hydraulic systems. No brands or model numbers are mentioned; only generic principles are covered.