

Product: New Holland 442/452/462/463/465 Disc Mower Service Repair Manual  
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# Disc Mowers

442

452

462

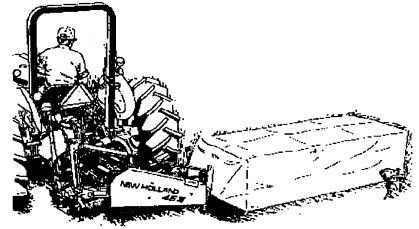
463

465

Issue 10/94

(Replaces All Previous Issues)

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# SERVICE MANUAL



**NEW HOLLAND**

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**40044253** 10/94

Reprinted

## SERIAL NUMBER INFORMATION

From model year 1982 to 1991 all serial numbers started with a letter of the alphabet. After 1991 and prior to 1982, the first two digits of the serial number designate the model year.

### EXAMPLES:

Serial number Q 0619 Q = 1991

Serial number 920566 92 = 1992

SERIAL # PREFIX	MODEL YEAR
93	1993
92	1992
Q	1991
R	1990
S	1989
T	1988
U	1987
V	1986

SERIAL # PREFIX	MODEL YEAR
W	1985
X	1984
Y	1983
Z	1982
81	1981
80	1980
79	1979
78	1978

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# **PRECAUTIONARY STATEMENTS**

## **PERSONAL SAFETY**

Throughout this manual and on machine decals, you will find precautionary statements (“CAUTION”, “WARNING”, and “DANGER”) followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.



**CAUTION: THE WORD “CAUTION” IS USED WHERE A SAFE BEHAVIORAL PRACTICE ACCORDING TO OPERATING AND MAINTENANCE INSTRUCTIONS AND COMMON SAFETY PRACTICES WILL PROTECT THE OPERATOR AND OTHERS FROM ACCIDENT INVOLVEMENT.**



**WARNING: THE WORD “WARNING” DENOTES A POTENTIAL OR HIDDEN HAZARD WHICH HAS A POTENTIAL FOR SERIOUS INJURY. IT IS USED TO WARN OPERATORS AND OTHERS TO EXERCISE EVERY APPROPRIATE MEANS TO AVOID A SURPRISE INVOLVEMENT WITH MACHINERY.**



**DANGER: THE WORD “DANGER” DENOTES A FORBIDDEN PRACTICE IN CONNECTION WITH A SERIOUS HAZARD.**

**FAILURE TO FOLLOW THE “CAUTION”, “WARNING”, AND “DANGER” INSTRUCTIONS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH.**

## **MACHINE SAFETY**

Additional precautionary statements (“ATTENTION” and “IMPORTANT”) are followed by specific instructions. These statements are intended for machine safety.

*ATTENTION: The word “ATTENTION” is used to warn the operator of potential machine damage if a certain procedure is not followed.*

*IMPORTANT: The word “IMPORTANT” is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.*





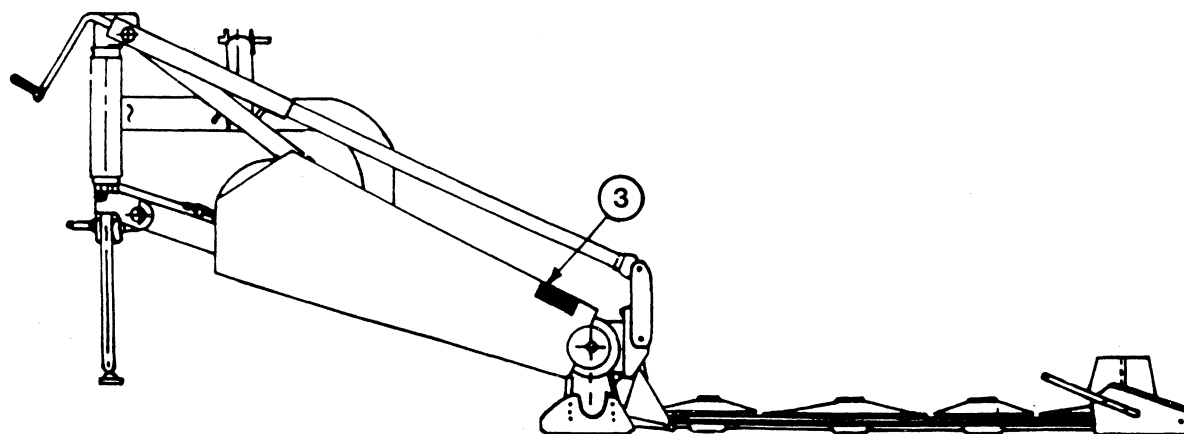
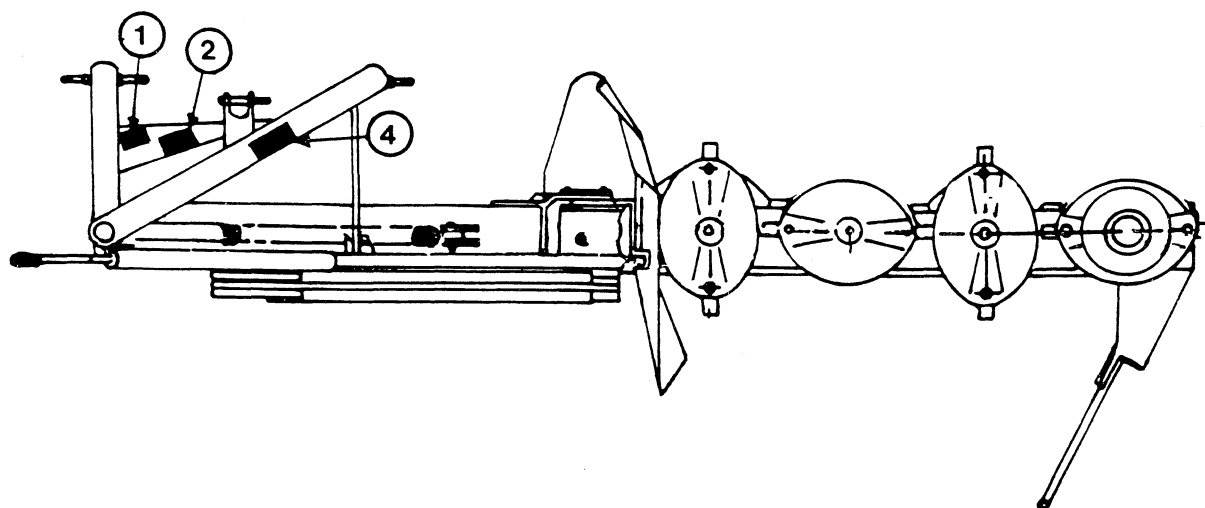
## **CAUTION**

- 1. KEEP ALL SHIELDS IN PLACE.**
- 2. STOP THE ENGINE BEFORE LEAVING THE OPERATOR'S POSITION TO ADJUST, LUBRICATE, CLEAN OR UNCLOG MACHINES, UNLESS OTHERWISE SPECIFICALLY RECOMMENDED IN THE OPERATOR'S MANUAL.**
- 3. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING THE MACHINE.**
- 4. KEEP HANDS, FEET, AND CLOTHING AWAY FROM POWER DRIVEN PARTS.**
- 5. KEEP OFF EQUIPMENT UNLESS A SEAT FOR OPERATION IS PROVIDED.**
- 6. KEEP ALL OTHERS OFF THE MACHINE.**
- 7. USE FLASHING WARNING LIGHTS WHEN OPERATING ON HIGHWAYS EXCEPT WHEN PROHIBITED BY LAW.**
- 8. MAKE CERTAIN EVERYONE IS CLEAR OF THE MACHINE BEFORE STARTING THE ENGINE OR OPERATION.**

## SAFETY DECALS

The following safety decals have been placed on your machine in the areas indicated. They are intended for your personal safety and for those working with you. Please take this manual and walk around your machine to note the content and location of these warning signs. Review these warning signs and the operating instructions detailed in this manual with your machine operators.

Keep the decals legible. If they are not, obtain replacements from your New Holland dealer.



①



## WARNING

ADJUST MACHINE (SEE OPERATOR'S MANUAL) TO CLEAR OBSTRUCTIONS AND STONES. STONES AND OTHER DEBRIS CAN BE DEFLECTED TOWARD THE OPERATOR AND BYSTANDERS.

③



## WARNING

**STAND CLEAR!  
ROTATING ELEMENTS MAY  
CAUSE SERIOUS BODILY  
INJURY.**

②



## CAUTION

**BEFORE OPERATING THIS MACHINE, READ THE OPERATOR'S MANUAL AND ALL SAFETY INSTRUCTIONS. IF YOU DO NOT HAVE A MANUAL, CONTACT YOUR NEW HOLLAND DEALER.**

1. MAKE CERTAIN EVERYONE IS CLEAR OF MACHINE BEFORE STARTING ENGINE OR OPERATION.

2. STOP THE ENGINE, REMOVE THE KEY AND WAIT FOR ALL MOVEMENT TO STOP BEFORE LEAVING OPERATOR'S POSITION FOR ANY REASON.

3. KEEP ALL SHIELDS IN PLACE. KEEP HANDS, FEET, CLOTHING AND HAIR AWAY FROM MOVING PARTS.

4. NEVER ADJUST, LUBRICATE, CLEAN OR UNPLUG MACHINE WITH THE ENGINE RUNNING. SEE OWNER'S MANUAL FOR ALL ADJUSTMENT AND LUBRICATION PROCEDURES.

5. KEEP RIDERS OFF THE MACHINE.

6. USE SLOW MOVING VEHICLE IDENTIFICATION EMBLEM AND FLASHING WARNING LIGHTS WHEN OPERATING ON HIGHWAYS EXCEPT WHEN PROHIBITED BY LAW.

40362

④



Rabattre le volet du protecteur d'éclats avant de faucher

Schutzvorrichtung vor Beginn der Arbeit in Schutzstellung bringen

Before commencing work bring the guard down into the correct position

Always operate mower with plastic cover in place

Do not lean against or stand on plastic cover

0521-2700

# MINIMUM HARDWARE TIGHTENING TORQUES

IN FOOT POUNDS (NEWTON-METERS) FOR NORMAL ASSEMBLY APPLICATIONS

## METRIC HARDWARE AND LOCKNUTS

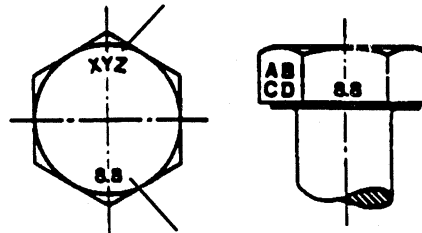
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	15* (1.7)	19* (2.2)	23* (2.6)	30* (3.4)	33* (3.7)	42* (4.8)	16* (1.8)
M6	51* (5.8)	67* (7.6)	79* (8.9)	102* (12)	115* (13)	150* (17)	56* (6.3)
M8	124* (14)	159* (18)	195* (22)	248* (28)	274* (31)	354* (40)	133* (15)
M10	21 (28)	27 (36)	32 (43)	41 (56)	45 (61)	58 (79)	22 (30)
M12	36 (49)	46 (63)	55 (75)	72 (97)	79 (107)	102 (138)	39 (53)
M16	89 (121)	117 (158)	137 (186)	177 (240)	196 (266)	254 (344)	97 (131)
M20	175 (237)	226 (307)	277 (375)	358 (485)	383 (519)	495 (671)	195 (265)
M24	303 (411)	392 (531)	478 (648)	619 (839)	662 (897)	855 (1160)	338 (458)

NOTE: Torque values shown with \* are inch pounds.

### IDENTIFICATION

#### HEX CAP SCREW AND CARRIAGE BOLTS CLASSES 5.6 AND UP

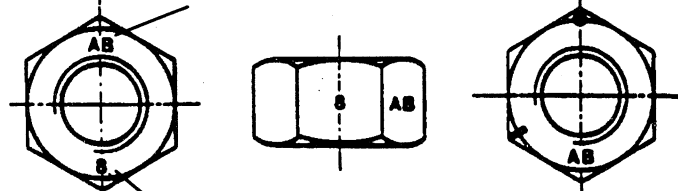
##### MANUFACTURER'S IDENTIFICATION



##### PROPERTY CLASS

#### HEX NUTS AND LOCKNUTS CLASSES 05 AND UP

##### MANUFACTURER'S IDENTIFICATION



##### PROPERTY CLASS

##### CLOCK MARKING

---

# SECTION 1

## GENERAL INFORMATION

### TRACTOR REQUIREMENTS

The Models 442, 452, 462, and 463 disc mowers are designed to fit tractors with 540 RPM PTO's and with standard ASAE category I or II three point hitches.

The model 465 disc mower is designed for tractors with 540 RPM PTO's and with standard ASAE category II three point hitches.

Depending on the size of the tractor and the wheel spacing, it may be necessary to use category II bushings.

The tractor should be 30-horsepower minimum for the Model 442, 40-horsepower minimum for the Model 452, 45-horsepower for the Model 462 and 463, and 50-horsepower for the Model 465. Insufficient tractor horsepower may cause stripping and poor cutting.

### ATTACHING THE MOWER TO THE TRACTOR (MODELS 442, 452, 462, AND 463)

If the tractor tire centers are 52" (1321 mm), position the lower links as shown. Ideally a 4" (101.6 mm) clearance should be held at, A, for a full cut of the cutter bar at all times.

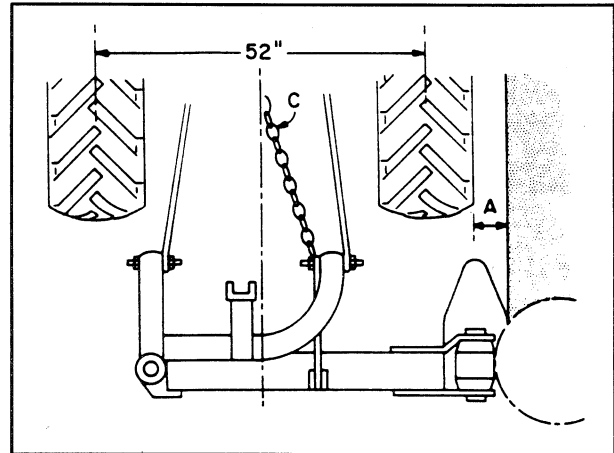


Figure 1-1

For 59" (1499 mm) centers, position the lower links as shown. Bushings can be used at, B.

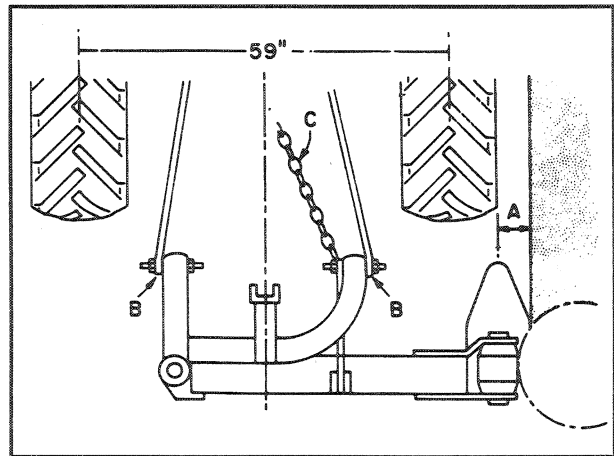


Figure 1-2

For larger tractors with a 65" (1651 mm) center, position the links as shown.

**NOTE:** Make sure the stop chain, C, is properly located for different positions.

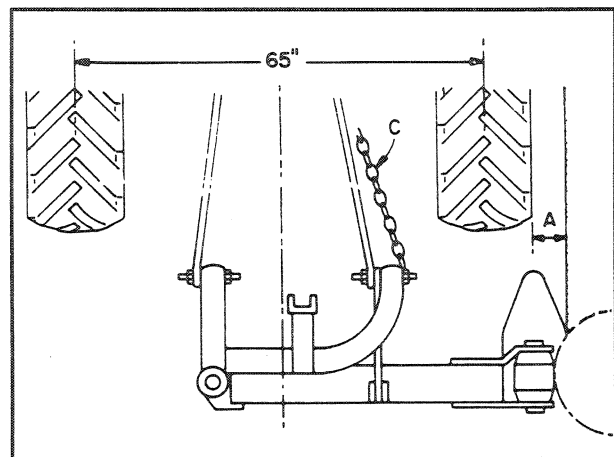


Figure 1-3

## ATTACHING THE MOWER TO THE TRACTOR (MODEL 465)

Position the lower links as shown with the stop chain on the outside of the hitch pin. Adjust the lower link stabilizers or sway chains to obtain a full cut. A 4" (102 mm) clearance should be held between the outside of the right tractor tire and the edge of the standing crop.



Figure 1-4

## ATTACHING THE MOWER TO THE TRACTOR (ALL MODELS)

1. Clean all paint or rust from the hitch pins.
2. Back the tractor to the mower and attach the lower links to the hitch pins. Secure the links with linchpins, A.
3. Attach the top link, B, using the pin provided at, C. Two positions are available on the pin, depending on the diameter of the ball joint, to secure the link to the mower.
4. The PTO assembly, A, must be fitted to the tractor being used.

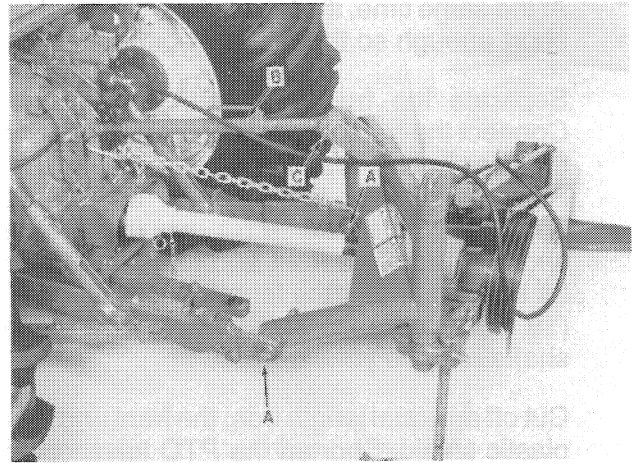


Figure 1-5

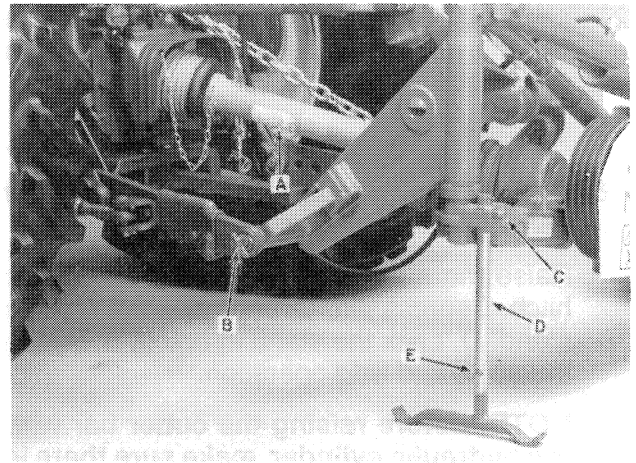


Figure 1-6

The assembly must be long enough so it does not pull apart when the breakaway system, A, is unhooked. The tubes must overlap at least 4" (102 mm).

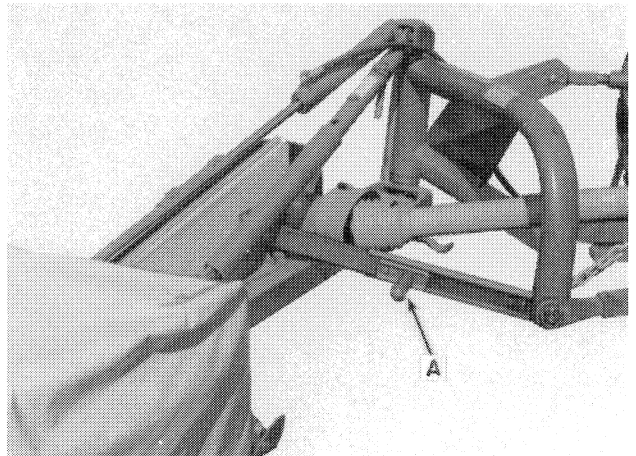


Figure 1-7

At the same time, the tubes, A and B, must be short enough so they do not bottom out.

Separate the front and rear PTO shafts. Connect the front half to the tractor PTO and the rear half to the disc mower input shaft. Raise and lower the machine to find the position where the PTO would be the shortest. Hold the front and rear shafts side by side and mark the length to provide 3/8" (10 mm) clearance between the end of the shafts and the yokes.

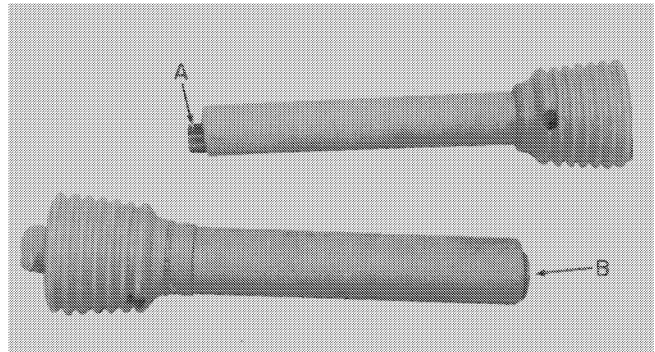


Figure 1-8

Cut off an equal length from the front and rear plastic shield. Shorten the PTO telescoping shafts the same amount as the plastic shields. Remove the burrs from the shaft ends with a file or grinder. Clean out the metal chips and filings. Apply grease to the inside of the outer telescoping tube before assembly.

5. Attach the PTO assembly to the tractor PTO.
6. Connect the hydraulic hose to the tractor if the unit is equipped with the hydraulic lift.
7. Raise the mower with the tractor hydraulic hitch. Depress pin, C, and raise the parking stand, D. Lock the stand in notch, E, during transport and field operation.

**NOTE:** Before raising the cutter bar with the hydraulic cylinder, make sure there is adequate clearance between the machine and the tractor.

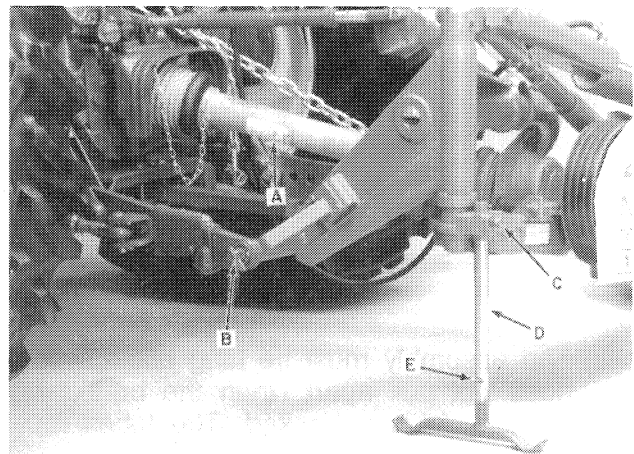


Figure 1-9



## LOWERING THE CUTTER BAR

1. Remove the pin, A, (transport position), and install it in hole, B, (field/work position). This will unlock the flotation system and allow it to operate.

**NOTE:** The cutter bar must be in the raised or transport position to remove pin, A.

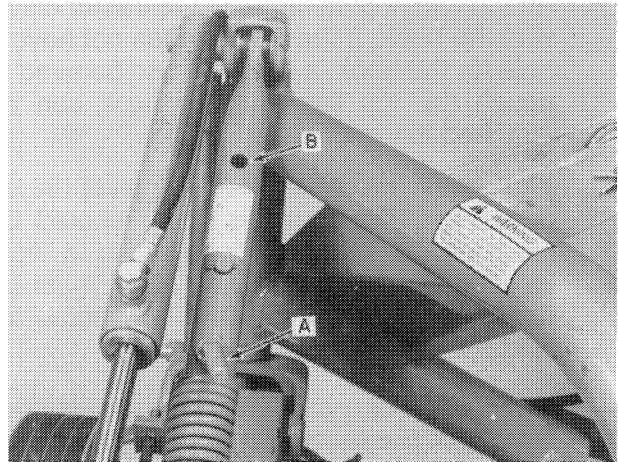


Figure 1-10

2. Raise the mower with the tractor hydraulic hitch to a height of 16" (400 mm) at the center of the hitch pins at, A. Both hitch arms must be set to the same height.

**NOTE:** In soft field conditions, the frame height can be higher to provide better flotation at the inner shoe. Do not exceed a frame height of 20" (504 mm).

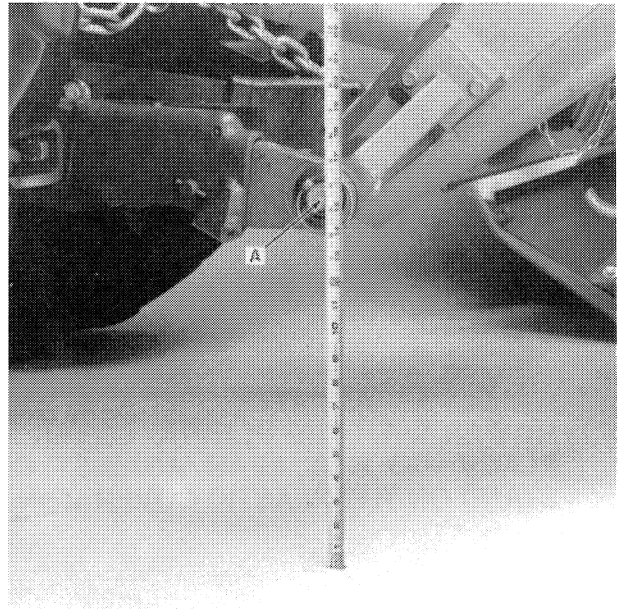


Figure 1-11

3. Attach carrying chain, A, to the tractor clevis with the hook. If the tractor does not have a hole for the hook, a long bolt can be used to attach the top link and the hook can be attached to the bolt.

The hook must be free to pivot in all directions. The carrying chain should be attached as high as possible to a rigid location on the tractor. The chain must be positioned at an angle (not horizontal) for field operation.

**NOTE: The carrying chain must carry the weight of the mower in operation and not the hydraulic hitch. Recheck the height and adjust the chain accordingly.**

After the correct height is obtained, drive the roll pin into the hook to retain the hook in the correct link. Attach the end of the chain with a hairpin cotter to a chain link.

4. Lower the cutter bar to the operating position with the hydraulic lift or mechanical handle.
5. Make sure the plastic cover is in place over the discs.



**WARNING: ALWAYS OPERATE THE MOWER WITH THE PLASTIC COVER IN PLACE. DO NOT LEAN AGAINST OR STAND ON THE PLASTIC COVER.**

## TRANSPORTING THE MOWER

To transport the mower on the road or from one field to another:

1. Raise the mower with the tractor hydraulic hitch. Depress pin, B, and raise the parking stand, C, as shown. Lock the stand in the notch.

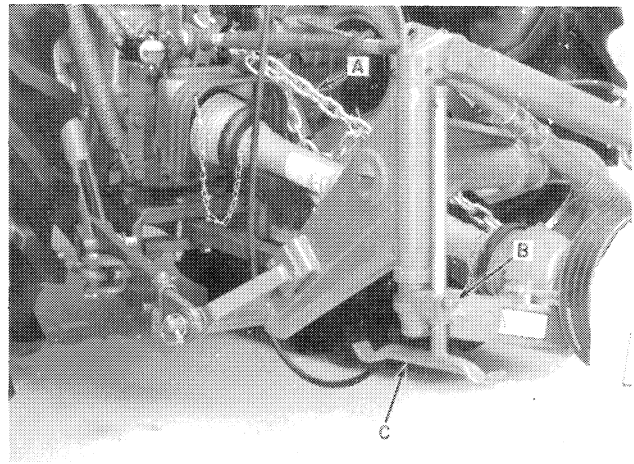


Figure 1-12

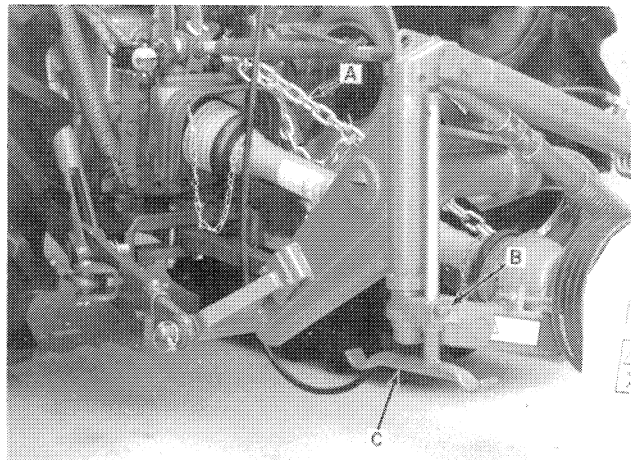


Figure 1-13

2. Install the flotation pin in the lower hole, A, to lock out the flotation system.

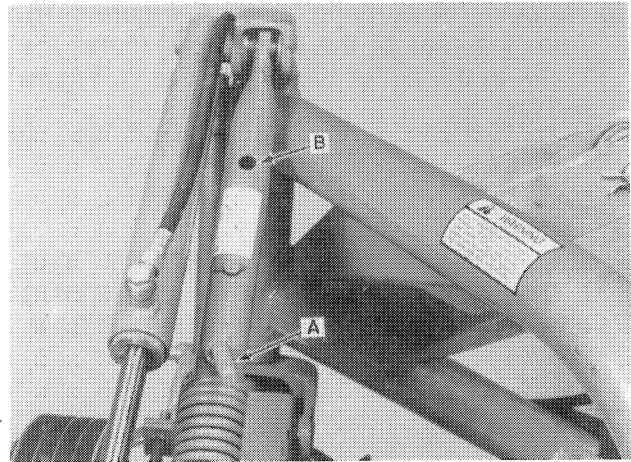


Figure 1-14

3. Fold the front portion of the cover as shown and secure it with straps A.
4. Raise the cutter bar with the tractor hydraulics or mechanical lift as shown.

**NOTE:** Before raising the cutter bar with the hydraulic cylinder, make sure there is adequate clearance between the machine and the tractor.

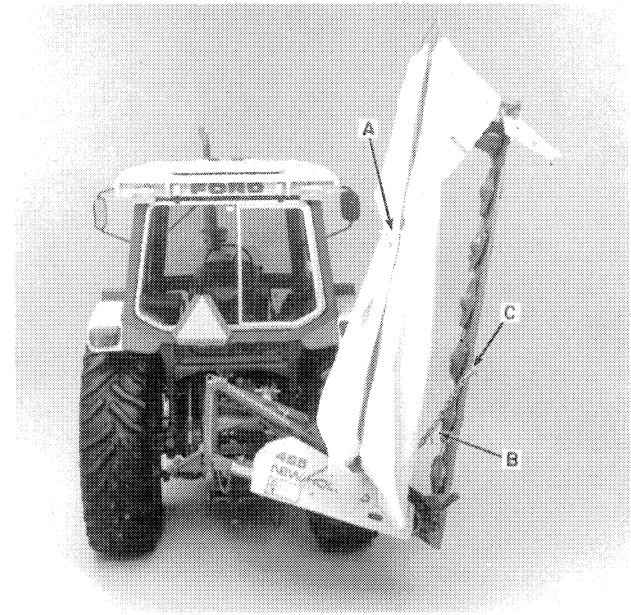


Figure 1-15

5. Remove the carrying chain, A, Figure 1-16, from the rear of the tractor and install the chain in the cutter bar support at C, Figure 1-17.



**CAUTION: NEVER TRANSPORT THE MOWER WITHOUT THE CARRYING CHAIN INSTALLED IN THE CUTTER BAR.**

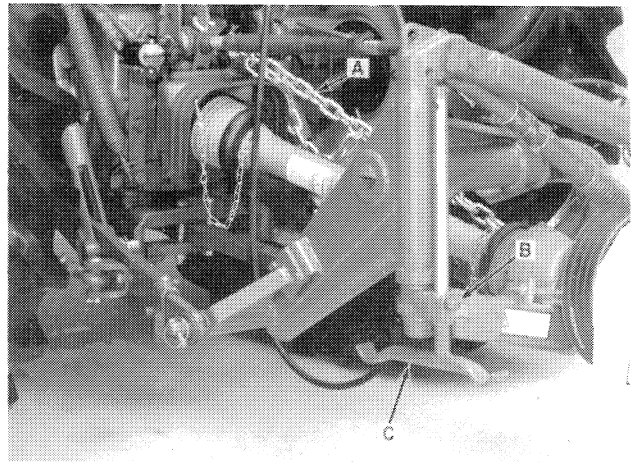


Figure 1-16

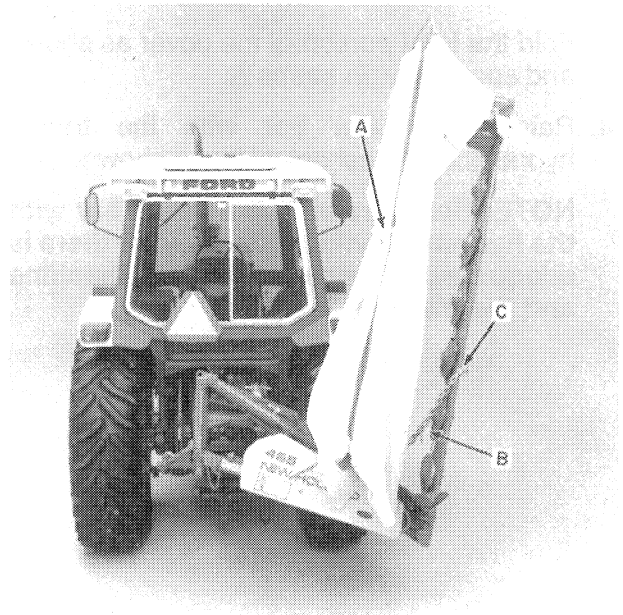


Figure 1-17

## REMOVING THE MOWER FROM THE TRACTOR

1. All Models: Install the flotation pin in the lower hole, A, to lockout the flotation system. Raise the cutter bar to the transport position to remove the pin.

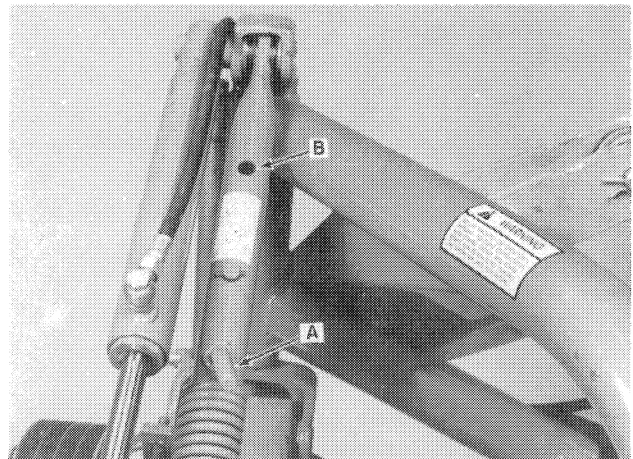


Figure 1-18

2. Lower the cutter bar to the operating position and raise the frame far enough with the tractor hydraulic hitch to lower the parking stand, D, in the locked position. Lower the mower onto the parking stand.
3. Disconnect the hydraulic hose, PTO assembly, upper link, carrying chain, and lower links.
4. Always store the mower with the cutter bar in the operating position.



**CAUTION: NEVER ATTEMPT TO UNHOOK THE UNIT FROM THE TRACTOR WITH THE CUTTER BAR IN THE TRANSPORT POSITION OR WITH THE FLOTATION SYSTEM IN THE FIELD/WORK OPERATING POSITION, OR INJURY COULD RESULT.**

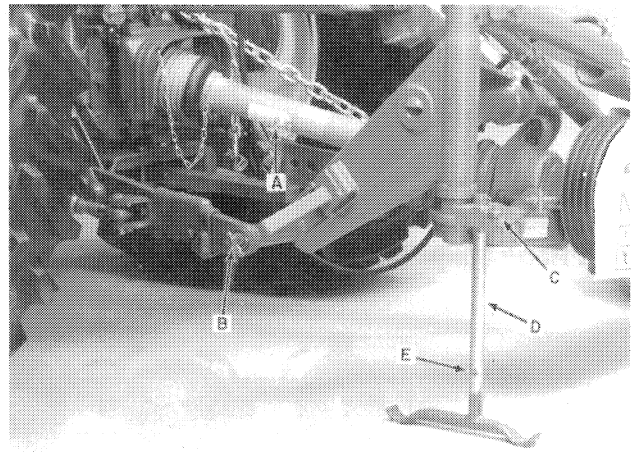


Figure 1-19

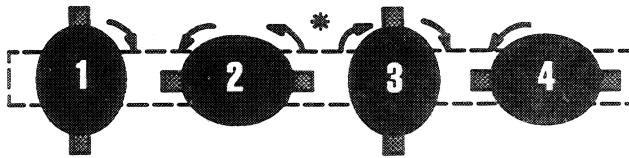
## STORING THE MOWER

1. Clean the mower.
2. Drain the oil from the gearbox and the cutter bar and refill with clean new oil to the correct level. Run the mower for a few minutes to distribute the oil.
3. Store the cutter bar in the operating position.
4. Remove the tension on the drive belts.
5. Clean the cutter bar or rusted areas and touch up with New Holland paint.

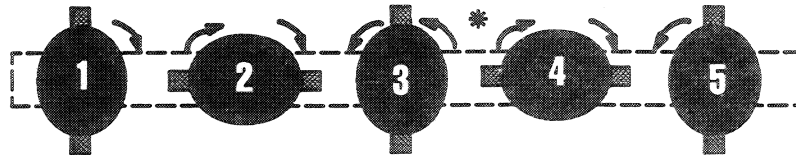
## DISC ROTATION

### CUTTER BAR CONFIGURATIONS

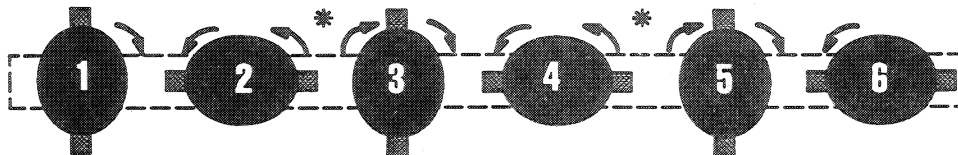
**Model: 442**  
**Width: 5' 3"**  
**H.P. Req.: 30hp**



**Model: 452**  
**Width: 6' 7"**  
**H.P. Req.: 40hp**



**Model: 462 - 463**  
**Width: 7' 10"**  
**H.P. Req.: 45hp**



**Model: 465**  
**Width: 9' 2"**  
**H.P. Req.: 50hp**

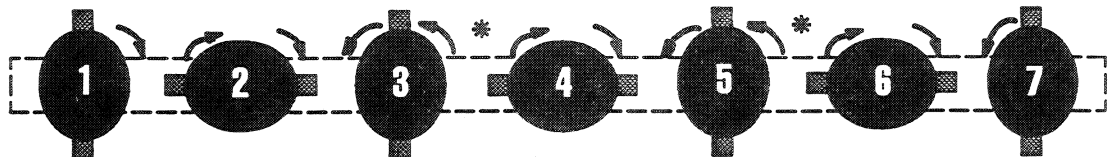


Figure 1-20



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# SECTION 2

## ADJUSTMENTS

### BELT ADJUSTMENTS/REPLACEMENT

The belts must be properly tensioned at all times to prevent excessive slipping and whipping. Loose belts will cause poor cutting and premature failures.

To tighten the belts, loosen the two lock nuts, A. Tighten nut, B, until it requires a force of 20 lbs. to deflect the belts 3/4" (19 mm) midway between sheaves.

**NOTE: Belt failures are usually caused by poor or improper maintenance and adjustment.**

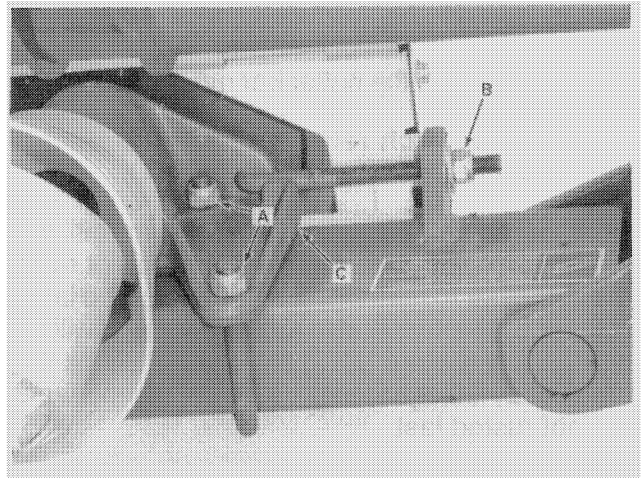


Figure 2-1

Check belt tension through slot, A. Make sure guide, C, Figure 2-1, on the housing is against the main frame.

***IMPORTANT:** It is very important to check and adjust the belt tension during the first few hours of operation. Failure to maintain the proper tension will cause the belts to become damaged from slipping.*

**NOTE: If a belt fails, install a new complete matched set of belts.**

Remove the rear half of the shield to replace the belts.

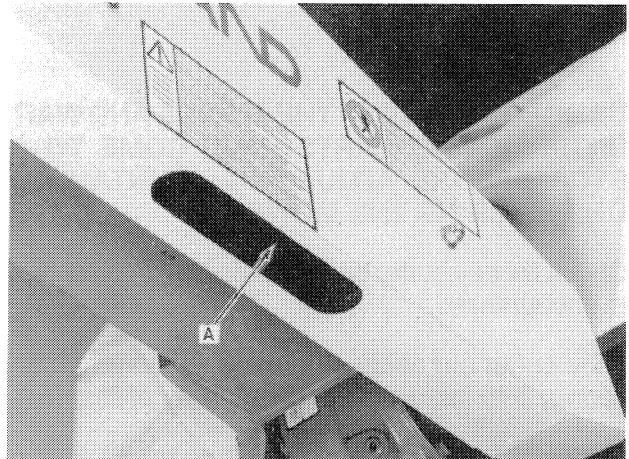


Figure 2-2

## BREAKAWAY LATCH

The mower can be operated at speeds up to 9 MPH (14 km/hr) depending on crop and field conditions. In rough field conditions, the ground speed should be reduced. The mower is protected with a breakaway latch. If an obstruction is hit, the cutter bar must swing back.

**NOTE: If the latch releases, stop the tractor immediately and disengage the PTO.**

To reset the cutter bar, back the mower until the cutter bar is in the normal position. Do not raise the cutter bar to relatch the breakaway. The latch is set at the factory and in most conditions will be satisfactory. Before using the mower, check the breakaway linkage to make sure the components are not rusted fast.

**NOTE: Make sure all sliding areas are well greased.**



**DANGER: TURN OFF THE ENGINE AND WAIT UNTIL MOVING PARTS HAVE COME TO A STOP BEFORE ADJUSTING, MAINTAINING OR REPAIRING THE MOWER.**

Check for any cutter bar damage if an obstruction is encountered.

If the cutter bar continues to break away, tighten spring, B to increase the breakaway pressure.

Normally for the Model 442 the overall spring length should be 3" (76mm). For the models 452, 462, 463, and 465, the spring washer length should be 3-3/4" (95mm) as shown at A.

**NOTE: Do not overtighten.**

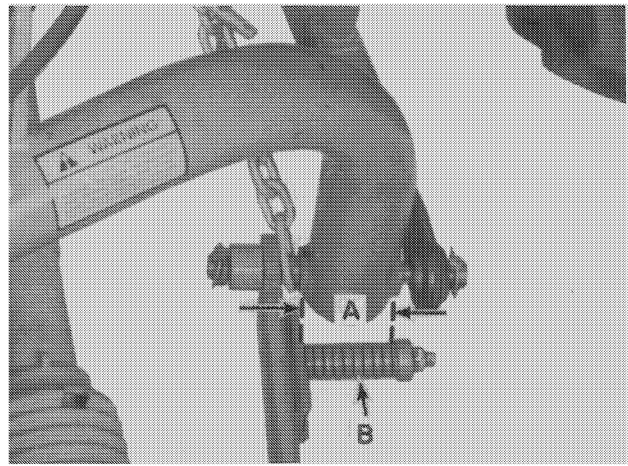


Figure 2-3



The spring washer formation on Models 452, 462, and 463 consists of 40 spring washers, A, doubled together. The 465 uses doubled springs at A, and tripled springs at B.

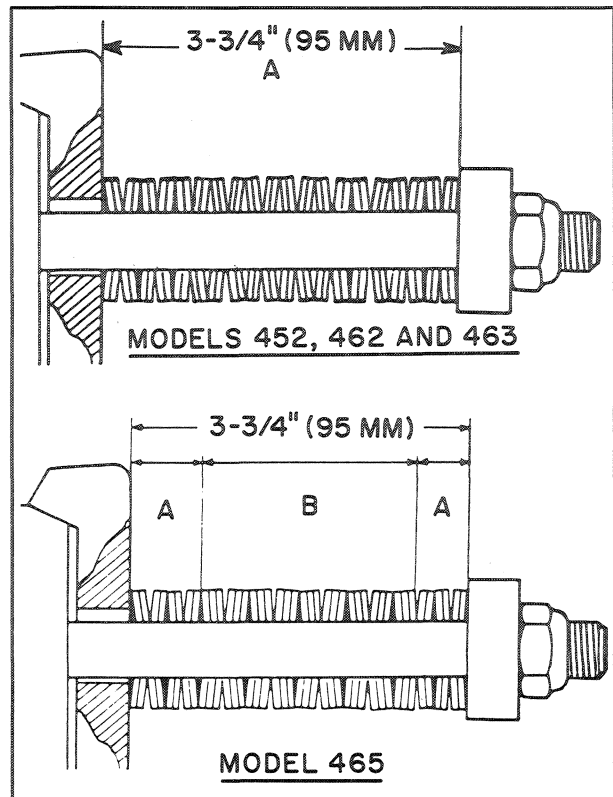


Figure 2-4

## CROP DIVIDER

Tighten the compression spring, A, so the divider can move freely if an obstruction is hit.



**WARNING: ADJUST THE MOWER TO CLEAR OBSTRUCTIONS AND STONES. STONES AND OTHER DEBRIS CAN BE DEFLECTED TOWARD THE OPERATOR AND BYSTANDERS.**

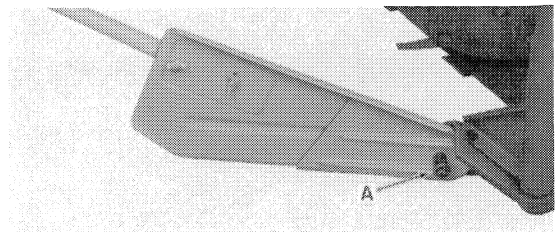


Figure 2-5

## CUTTER BAR FLOTATION

Cutter bar flotation is controlled by the height of the frame off the ground and the flotation system. A flotation spring, B, is used on all machines for cutter bar flotation. The Model 465 uses an additional spring, A, to float the extra weight of the cutter bar and frame.



Figure 2-6

The flotation system must be unlocked from the transport position by removing pin, A, and installing it in the upper hole, B.

**NOTE:** The cutter bar must be fully raised to relocate the pin.

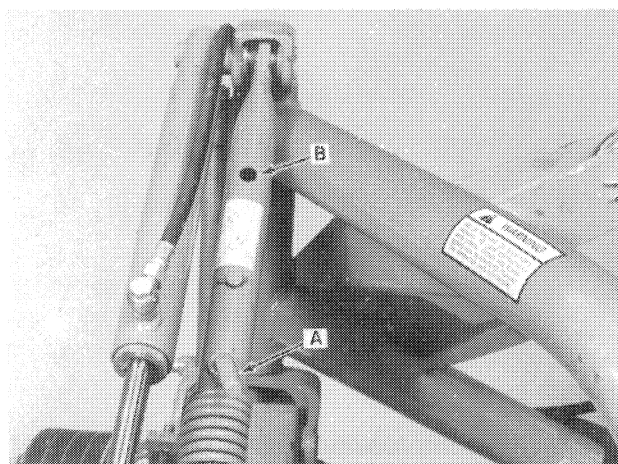


Figure 2-7

Adjust the cutter bar flotation by increasing the frame height between 16" and 20", A, from the ground.

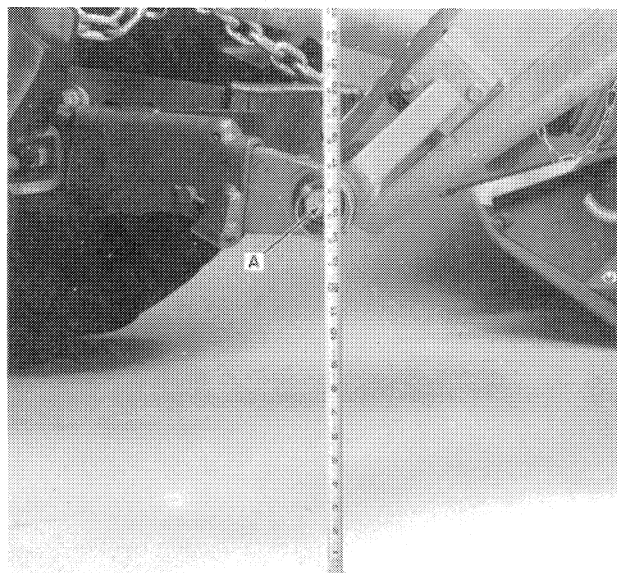


Figure 2-8

Readjust the carrying chain, A, to support the weight of the machine when in the field operating position. The carrying chain should be attached as high as possible to a rigid location on the tractor.

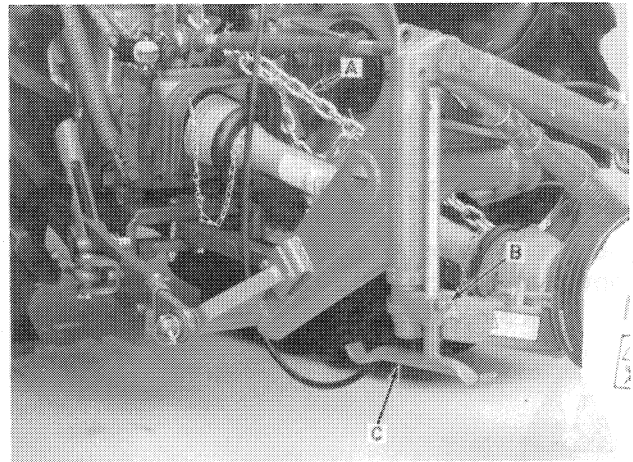


Figure 2-9

### CUTTING HEIGHT

Change the cutting height by tilting the angle of the cutter bar. Turn top link handle, B, until the desired cutting height is obtained.

For most conditions, the skid shoes should be parallel to the ground. Cutting too close to the ground will cause excessive wear on the discs and knives and could cause pinion bearing failures.

Cutting too high in fine grasses may cause a ragged cut.

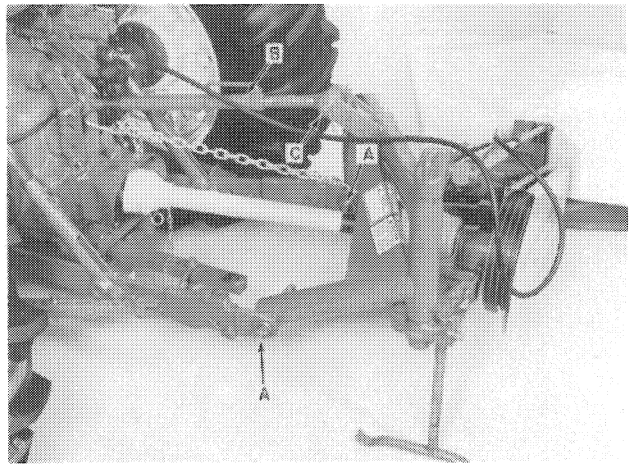


Figure 2-10

## OPERATING RECOMMENDATIONS



**CAUTION: A TRACTOR WITH AN ENCLOSED CAB IS RECOMMENDED WHEN OPERATING A ROTARY DISC CUTTING MACHINE.**

Fields can be opened the same way with a disc mower as with cutter bar type mowers by cutting the back swath first.



**DANGER: NEVER OPERATE THE MOWER WITHOUT THE PLASTIC COVER IN PLACE. KEEP BYSTANDERS AWAY.**

After the back swath is cut, continue to mow around the field in a clockwise direction. It may be necessary to slow the ground speed to turn corners, although it is almost impossible to make clean square corners. Corners will tend to stretch out as cutting continues. This operation will not cause plugging as with other type mowers.

The disc mower should not be used for roadside maintenance or other applications where objects may be lying in proximity to people or property. Objects could be ejected by rotary blades causing injury or property damage.

**ADVERSE FIELD CONDITIONS**

**WARNING: DO NOT USE THIS MACHINE IN ROCKY FIELD CONDITIONS.**

Take extra care and precautions in rough, stony, or debris ridden fields. Make the following adjustments to the mower in these conditions to minimize the possibility of stones and foreign objects being deflected by the cutting blades.

1. Tilt the angle of the cutter bar by turning the top link handle, B, to raise the cutting height of the knives. Do not tilt the cutter bar past the horizontal position or premature knife wear will result.
2. Use a slower ground speed.
3. Make sure the cutting knives can pivot if an obstruction is hit.
4. The plastic cover will help to contain debris and foreign objects, but it will not stop all such material.



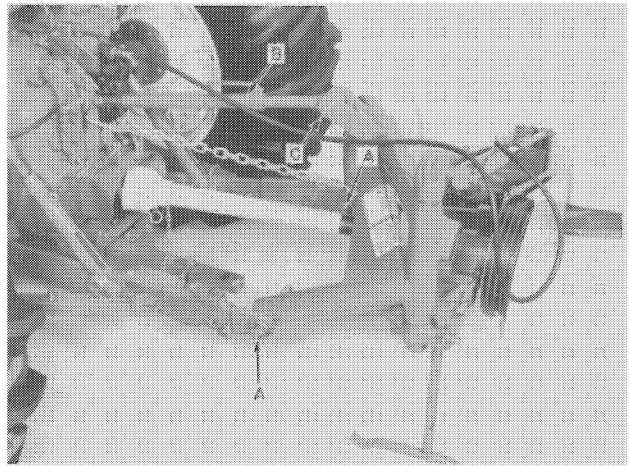
**WARNING: NEVER OPERATE THE MOWER WITHOUT THE PLASTIC COVER IN PLACE. THE COVER IS NOT STURDY ENOUGH TO LEAN OR STAND ON.**

5. Install optional straight knives in rough or stony fields on Models 442, 452, 462. Optional straight knives are not available for the Models 463 and 465.



**CAUTION: LOOSE STONES AND FOREIGN OBJECTS CAN BE DEFLECTED TOWARD THE OPERATOR ON MACHINES WITH ROTARY DISCS.**

**WARNING: TILT THE CUTTER BAR BACK IN FIELDS WHERE STONES AND FOREIGN OBJECTS ARE PRESENT TO RAISE THE CUTTING KNIVES AND MINIMIZE DEFLECTION FROM THE KNIVES.**



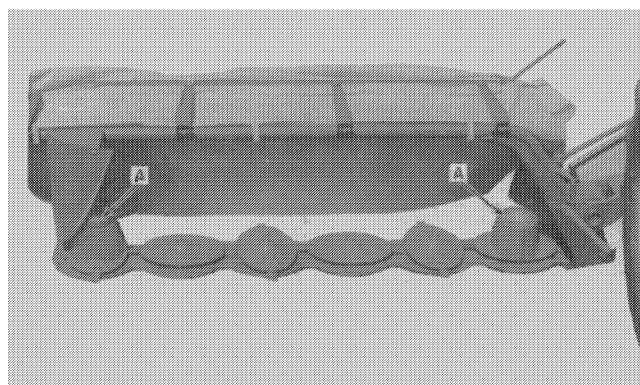
**Figure 2-11**



**WARNING: STAND CLEAR! ROTATING ELEMENTS MAY CAUSE SERIOUS BODILY INJURY.**

### OPERATING SUGGESTIONS

1. Always allow a few minutes for oil to spread in the cutter bar before engaging the PTO when changing the cutter bar from the transport position to the operating position.
2. Never operate the mower without caps, A, on the rotating drums. Replace missing or damaged caps immediately.
3. Engage the tractor PTO and slowly increase to 540 RPM. Always operate the tractor at 540 RPM. **DO NOT OVERSPEND.** Overspending could damage the mower and will cause stripping in light crops.
4. Regulate ground speed according to crop conditions. A slower ground speed may have to be used in heavy down crop.
5. Make sure the knives can pivot freely. Replace knives that are bent.
6. Knives can be removed and turned over to use the other cutting edge. Knives should be turned or replaced before they become excessively worn.
7. Replace knives in pairs or sets so disc balance is retained.
8. When changing knives, always replace worn or damaged knife bolts and nuts.  
  
Do not reuse locknuts if they are loose or have no resistance.
9. Install optional straight knives in rough or stony fields on Models 442, 452, and 462. Use straight knives in light crops to reduce wind turbulence. Optional straight knives are not available for the Models 463 and 565.



**Figure 2-12**

10. A slide in toolbox, A, is provided on the Model 465 to carry extra knives and tools to change knives.

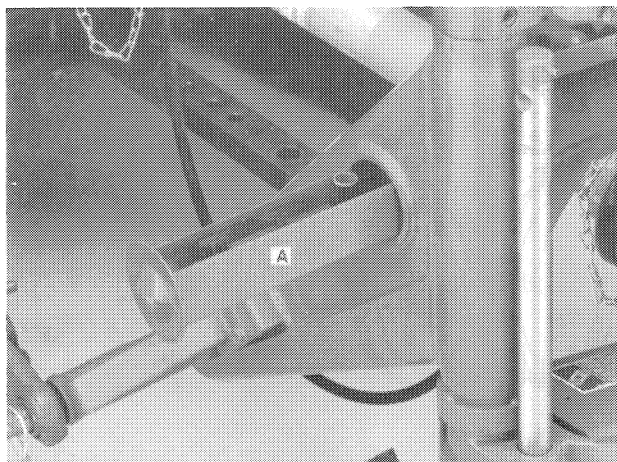


Figure 2-13

11. The cutter bar can be operated 10 degrees below horizontal. Additional angle can be achieved on units equipped with a hydraulic cylinder. Remove bolts, A, and extend lift rod, B. Reinstall bolts in the additional holes provided.

If the cutter bar is operated at angles beyond  $\pm 20$  degrees of being level, position the cutter bar horizontal for a few minutes every 1/2 hour.



**DANGER: DO NOT ATTEMPT TO REMOVE MATERIAL FROM THE MOWER WHILE IT IS IN OPERATION. TURN THE TRACTOR ENGINE OFF AND ALLOW THE ROTATING DISCS TO STOP BEFORE LEAVING THE TRACTOR.**

**WARNING: ALWAYS OPERATE THE MOWER WITH THE PLASTIC COVER IN PLACE. DO NOT LEAN AGAINST OR STAND ON THE PLASTIC COVER.**

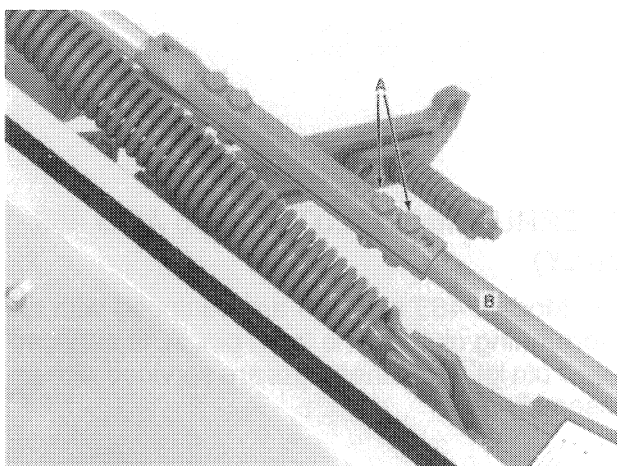


Figure 2-14

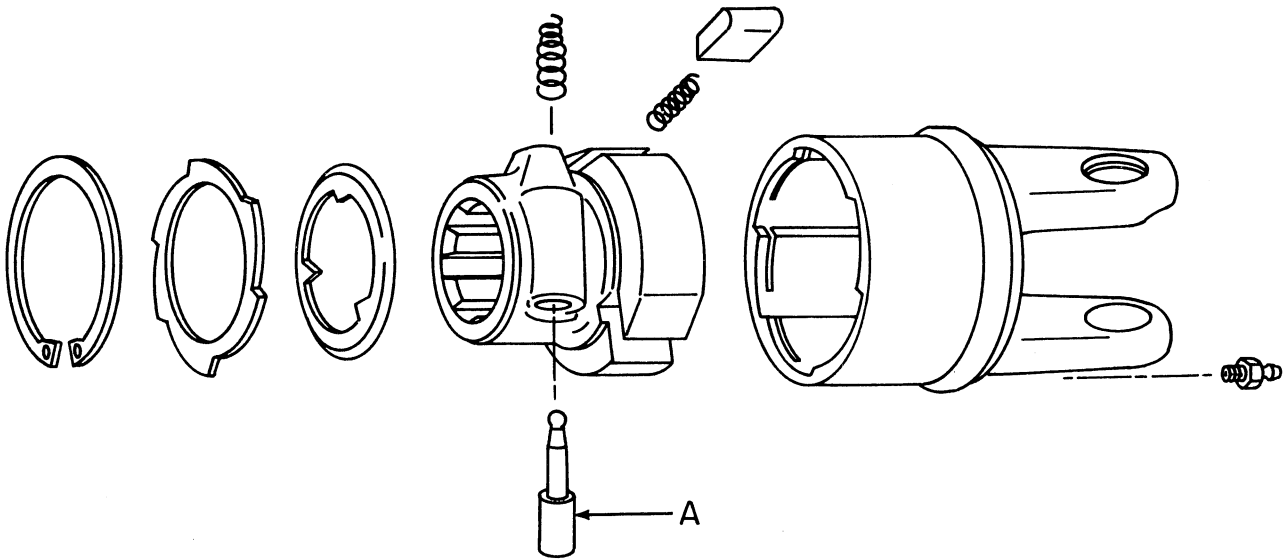


Figure 2-15

**OVERRUNNING CLUTCH (463 AND 465 ONLY)**

The Models 463 and 465 are equipped with an overrunning clutch. The latch pin, A, is serviced with a pin kit. The other parts are serviced with an assembly only.

**REPAIR TIME SCHEDULE**

Belt Adjustment	.25 Hr
Belt Replacement	.50 Hr
Adjust Breakaway Latch	.25 HR.



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# SECTION 3

## BEVEL GEARBOX

### BEVEL GEARBOX REMOVAL

**NOTE:** The cutter bar must be removed from the main frame for gearbox removal.

**NOTE:** These instructions pertain to all models unless noted otherwise.

**NOTE:** Thoroughly clean the cutter bar and gearbox area before removal.

1. Fold the front portion of the cover as shown and secure it with straps at, A.
2. Raise the mower frame with the tractor three point hitch and lower the parking stand.

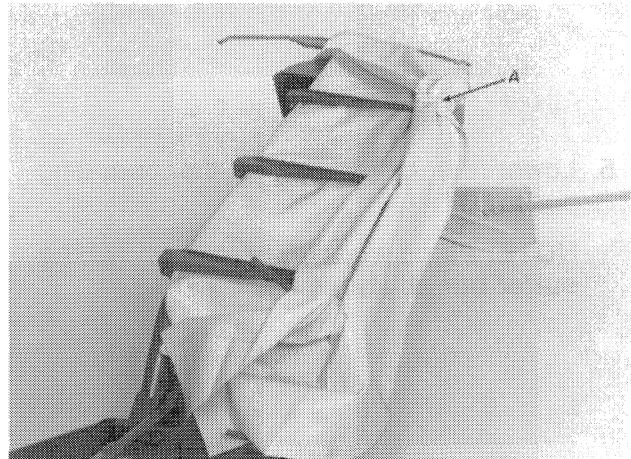


Figure 3-1

3. Raise the cutter bar to the transport position as shown and install the chain through the cutter bar support, B.



**WARNING: NEVER WORK AROUND THE MOWER WITH THE CUTTER BAR IN THE RAISED POSITION UNLESS THE CHAIN IS ATTACHED TO THE CUTTER BAR.**

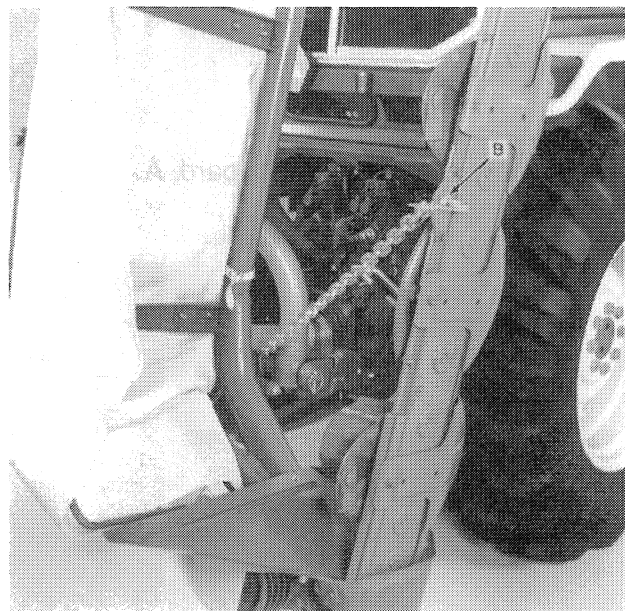


Figure 3-2

4. All Models - Disconnect the flotation system by moving the pin from location, A, to location B.

Model 465 - Also remove the flotation spring, C, from the frame.

**NOTE: These steps must be performed with the cutter bar raised.**

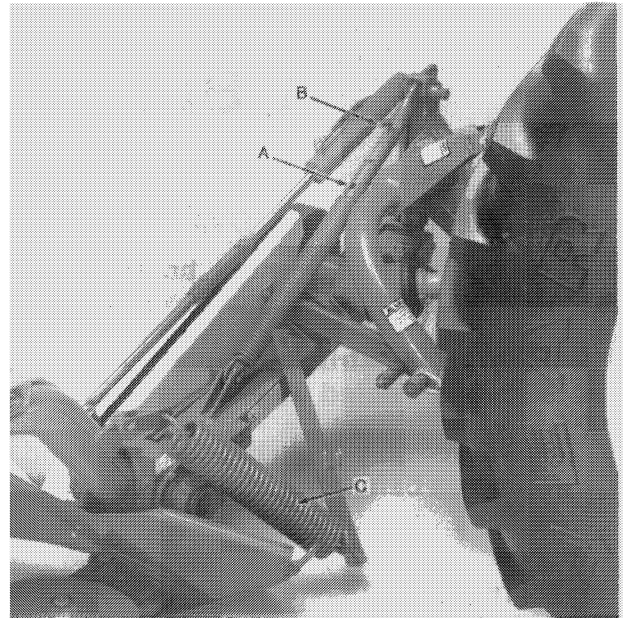


Figure 3-3

5. Lower the cutter bar to the operating position.

**NOTE: Place wooden blocks under the cutter bar as shown.**

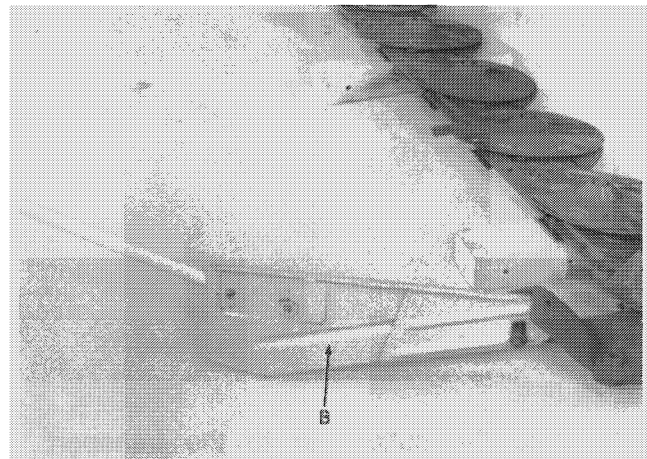


Figure 3-4

6. Remove the inner swathboard, A.

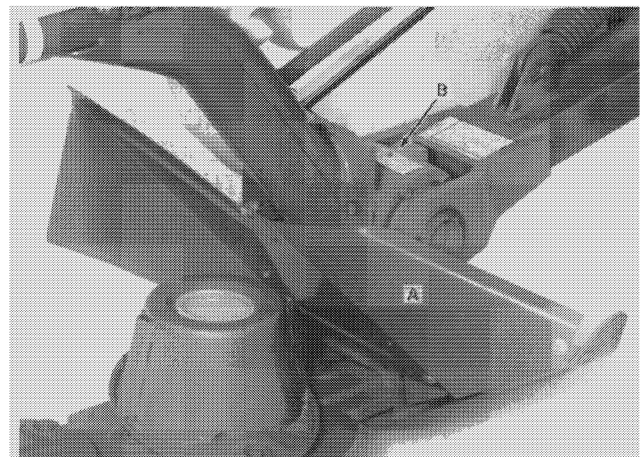


Figure 3-5