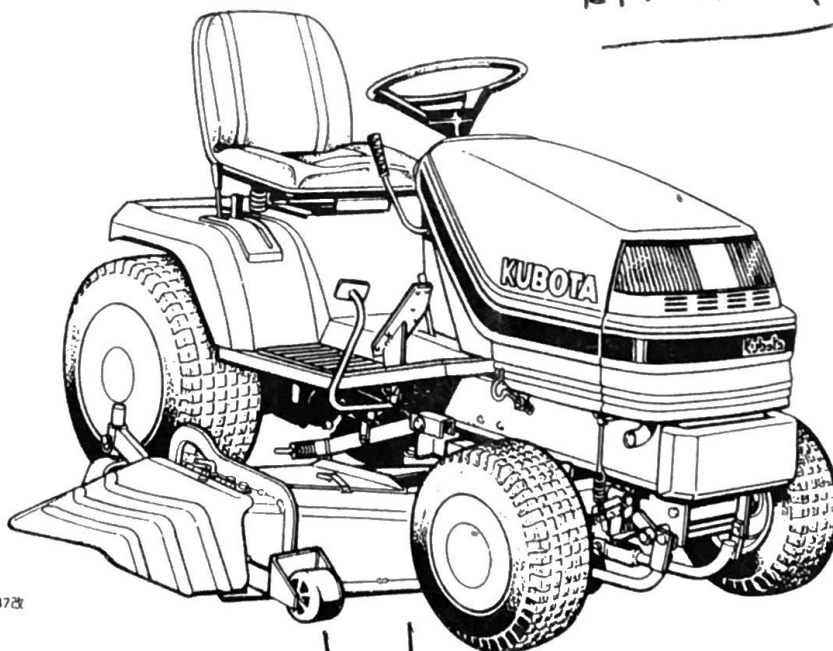


# ROTARY MOWER

MODELS RC44-G17 RC48-G20-S  
RC44-G17-S RC54-G20  
RC48-G20 RC60-G20

SN 11364



F-6047改

1260

READ AND SAVE THIS BOOK

Kubota

# ABBREVIATION LIST

| Abbreviations | Definitions                     |
|---------------|---------------------------------|
| PTO           | Power Take Off                  |
| SAE           | Society of Automotive Engineers |
| r/s           | Revolutions per second          |
| rpm           | Revolutions per minute          |
| fpm           | Feet per minute                 |
| m/s           | Meters per second               |
| RH            | Right Hand                      |
| LH            | Left Hand                       |
| 2WD           | Two Wheels Drive                |
| Hi-Lo         | High speed —Low speed           |

# FOREWORD

Thank you for your purchase of a new KUBOTA RC44-G17, RC44-G17-S, RC48-G20, RC48-G20-S, RC54-G20 or RC60-G20 Rotary Mower.

This new KUBOTA Mower has been developed to provide the optimum combination of power output and fuel economy with consideration for human requirements. As KUBOTA is constantly seeking ways to improve its products, the rotary mower which you have purchased may differ slightly from the specifications in this manual. Please make yourself familiar with this instruction manual before installing or operating your mower so that it will give you maximum service life and performance.

If you have any questions or problems regarding your mower, contact your nearest KUBOTA dealer.

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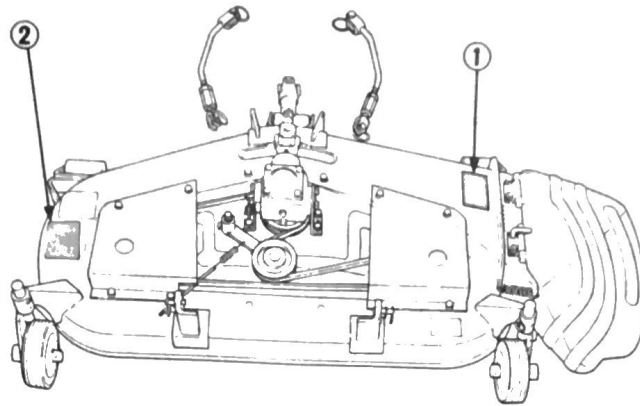


# SAFE OPERATION

Careful operation is your best insurance against an accident. Read this section carefully before operating the mower. All operators, no matter how much experience they may have had, should read this and other related manuals before operating mower. It is the owner's legal obligation to instruct all operators in safe operation.

1. Keep bystanders at a safe distance from the machine during operation.
2. Prior to mowing operation, clear area to be mowed of all objects which might be picked up and thrown by the mower. Mow only in daylight or in good artificial light.
3. Do not wear loose clothing while operating the mower. Loose clothing could become entangled in moving parts, causing personal injury.
4. Do not stand on the mower.
5. Before dismounting the vehicle:
  - a) Shut off the engine,
  - b) remove the key,
  - c) set the parking brake,
  - d) allow the blades to stop.
6. Securely tighten all hardware before operating the mower.
7. Read this manual and the vehicle operator's manual before operating mower. Allow only a properly trained person to operate the vehicle.
8. Before starting the engine, disengage the front PTO and sit on the seat.
9. Hillside operation is dangerous and is not recommended. If it is necessary to mow on a hillside, use extreme caution. Never mow across the face of a slope.
10. While making turns in rough terrain, reduce vehicle speed.
11. Upon striking a foreign object, stop and inspect the vehicle and the mower for damage. Repair the damage before resuming equipment operation.
12. If the mower discharge deflector becomes clogged, stop the vehicle; disengage the mower drive; shut off the engine and remove the key; and clean out the deflector after all moving parts have stopped.
13. Know how to stop the mower and engine quickly. Be prepared for any emergency situation.
14. When mowing in rough terrain or in high grass, set the mower at the highest cutting level to reduce the possibility of the mower striking debris or hidden objects.
15. Before operating the vehicle in reverse, look back to see if the area is clear of all objects.
16. Operate the mower with all shields and guards in place.
17. Never attempt to make adjustment or repairs of any kind while the vehicle and mower are running. Shut off the engine, remove the key and allow the blades to stop.
18. Replace damaged or illegible safety decals. See next page for required labels.
19. When handling the assist springs, the mower deck should be lifted in upper position.

## MOWER SAFETY LABELS



F-5434改

LABEL ① Part No. 66071-6178-1



LABEL ② Part No. 66071-6179-1



## CARE OF SAFETY SIGNS

- (1) Keep safety signs clean and free from obstructing material.
- (2) Clean safety signs with soap and water followed by drying with cloth.
- (3) Replace damaged or missing safety signs with new safety signs from your Kubota dealer.
- (4) If a component with safety sign(s) affixed is replaced with new part, make sure new safety sign(s) are attached in same location as replaced component.
- (5) Mount new safety signs by applying on clean dry surface and press any bubbles to outside edge.

# 1. SERVICING OF MOWER

- 1) When in need of parts or of service, give the serial number of the mower to the dealer.
- 2) The serial number is located on the right side of the deck.
- 3) For your reference, please record the serial number in the space provided.

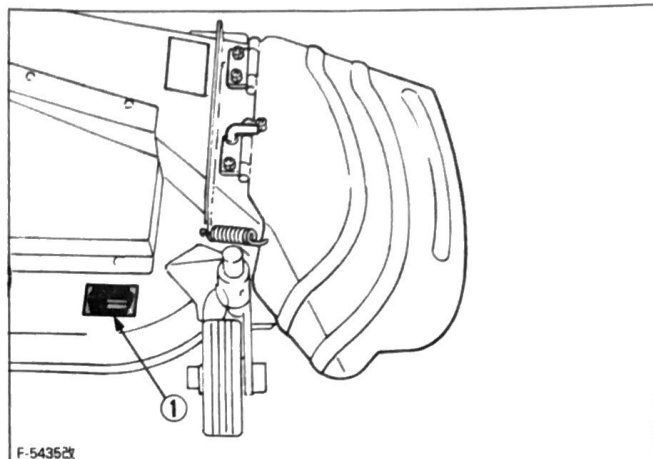
KUBOTA MOWER

MODEL \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

DATE OF PURCHASE \_\_\_\_\_

NAME OF DEALER \_\_\_\_\_



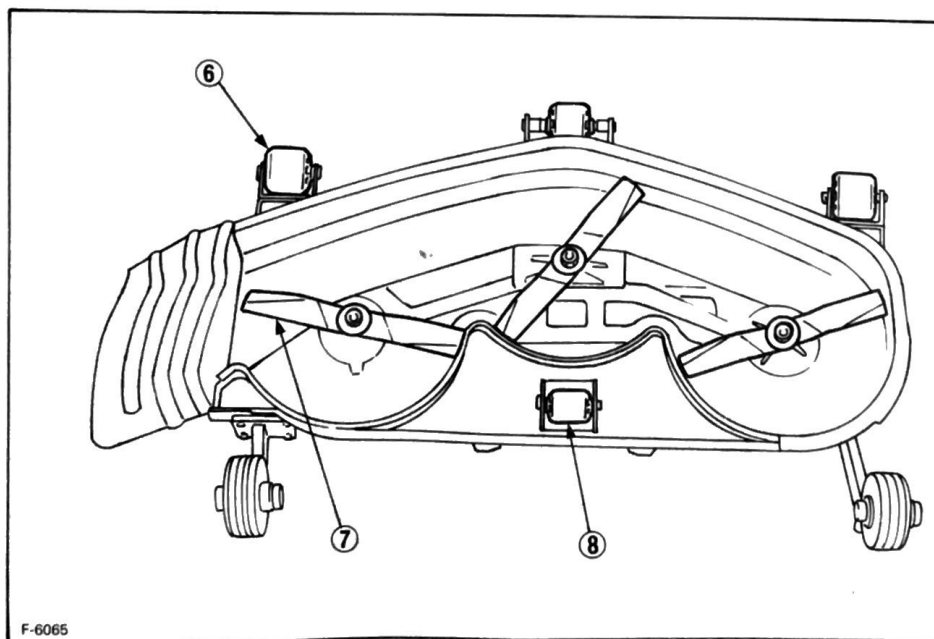
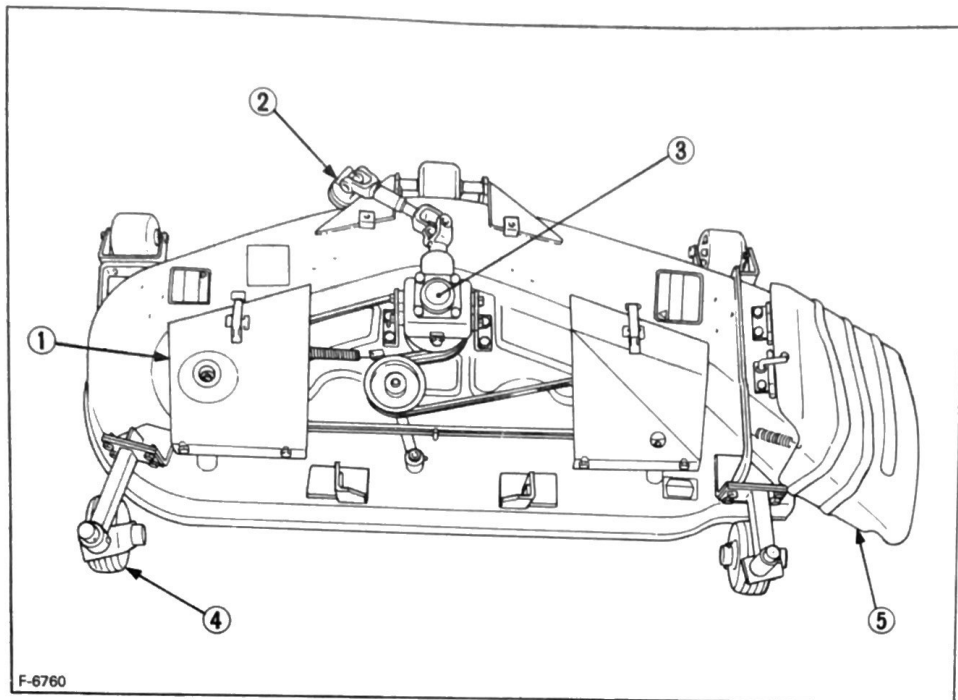
① Serial number

## 2. INTRODUCTION

### 2.1 SPECIFICATIONS

| Model                        |              | RC44-G17<br>RC44-G17-S              | RC48-G20<br>RC48-G20-S | RC54-G20                             | RC60-G20             |
|------------------------------|--------------|-------------------------------------|------------------------|--------------------------------------|----------------------|
| Mounting method              |              | Parallel linkage                    |                        |                                      |                      |
| Adjustment of cutting height |              | Gauge wheel                         |                        |                                      |                      |
| Cutting width                |              | 1118 mm (44 in.)                    | 1224 mm (48 in.)       | 1372 mm (54 in.)                     | 1524 mm (60 in.)     |
| Cutting height               |              | 36 mm to 90 mm (1.4 in. to 3.5 in.) |                        | 38 mm to 102 mm (1.5 in. to 4.0 in.) |                      |
| Weight (Approx.)             |              | 87 kg (192 lbs.)                    | 94 kg (207 lbs.)       | 112 kg (247 lbs.)                    | 122 kg (269 lbs.)    |
| Deck thickness               |              | 2.6 mm (0.10 in.)                   | 3.3 mm (0.13 in.)      |                                      | 3.6 mm (0.14 in.)    |
| Blade spindle speed          |              | 62.53 r/s (3752 rpm)                | 58.63 r/s (3518 rpm)   | 52.50 r/s (3150 rpm)                 | 47.33 r/s (2840 rpm) |
| Blade tip velocity           |              | 76.8 m/s (15100 fpm)                | 78.3 m/s (15400 fpm)   | 78.3 m/s (15400 fpm)                 | 77.8 m/s (15300 fpm) |
| Blade length                 |              | 390 mm (15.3 in.)                   | 424 mm (16.7 in.)      | 475 mm (18.7 in.)                    | 523 mm (20.6 in.)    |
| Number of blades             |              | 3                                   |                        |                                      |                      |
| Dimensions                   | Total length | 851 mm (33.5 in.)                   | 914 mm (36.0 in.)      | 1019 mm (40.1 in.)                   | 1061 mm (41.8 in.)   |
|                              | Total width  | 1430 mm (56.3 in.)                  | 1535 mm (60.4 in.)     | 1737 mm (68.4 in.)                   | 1864 mm (73.4 in.)   |
|                              | Total height | 282 mm (11.1 in.)                   | 282 mm (11.1 in.)      | 304 mm (12.0 in.)                    | 287 mm (11.3 in.)    |

## 2.2 MOWER TERMINOLOGY



- |                   |                           |                          |
|-------------------|---------------------------|--------------------------|
| ① Shield          | ④ Rear gauge wheel        | ⑦ Blade                  |
| ② Universal joint | ⑤ Discharge deflector     | ⑧ Rear anti-scalp roller |
| ③ Gear box        | ⑥ Front anti-scalp roller |                          |

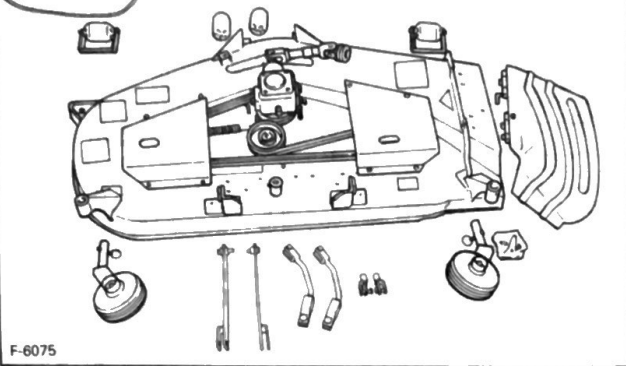
# 3. SETTING UP

When this Mower was shipped, some of the parts were removed and packed separately. Read the following procedure to properly assemble the mower.

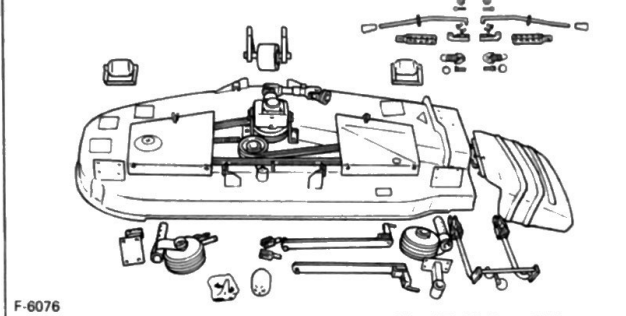
## 3.1 PRE-ASSEMBLY

Take out all mower components from the case and check the parts against the illustration.

RC44-G17, RC44-G17-S,  
RC48-G20, RC48-G20-S



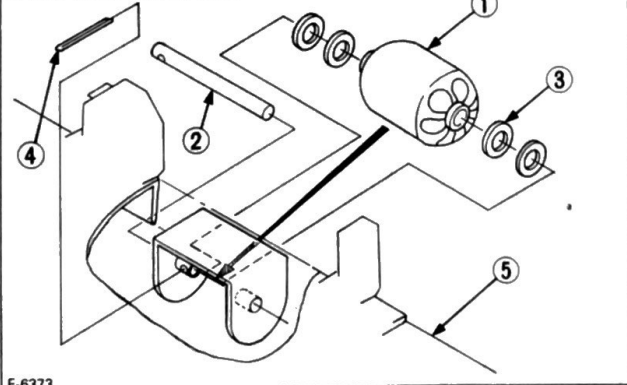
RC54-G20, RC60-G20



## 3.2 SETTING UP THE MOWER

(1) Attach the rear anti-scalp roller to the deck with roller pin, plain washer and cotter pin as illustrated.

RC54-G20, RC60-G20



- |                                |                |
|--------------------------------|----------------|
| ① Rear anti-scalp roller       | ③ Plain washer |
| RC54-G20 } Dia. 80mm (3.1 in.) | ④ Cotter pin   |
| RC60-G20 }                     | ⑤ Deck         |
| ② Roller pin                   |                |

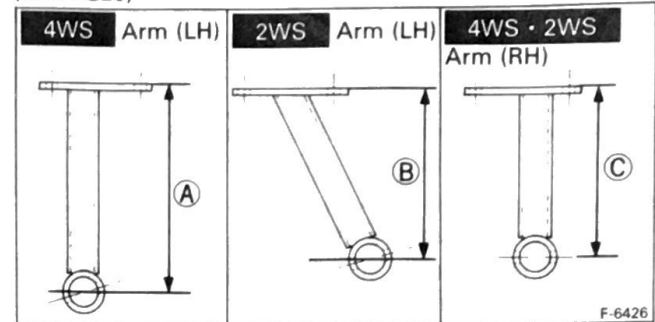
### NOTE

(RC54-G20, RC60-G20)

- Two kinds of left side arms are packaged.

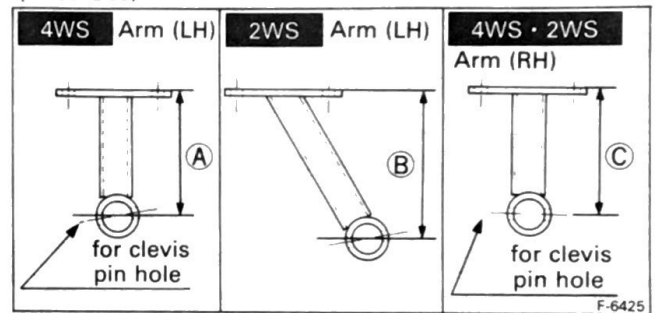
One is for 4WS and the other is for 2WS as illustrated.

(RC54-G20)



① 198mm (7.8in.) ② 163mm (6.4in.) ③ 160mm (6.3in.)

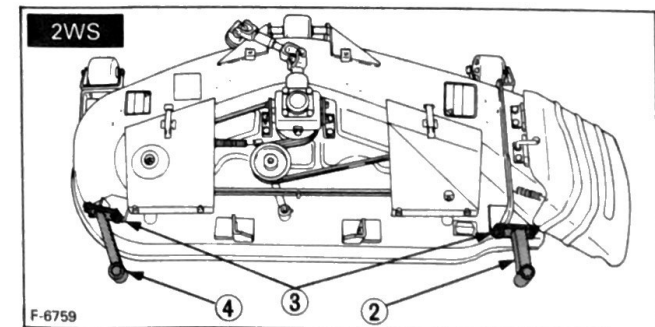
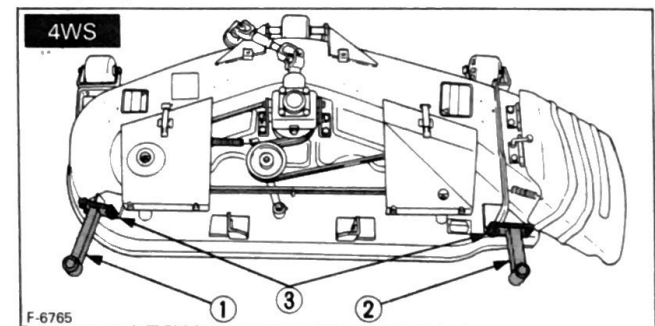
(RC60-G20)



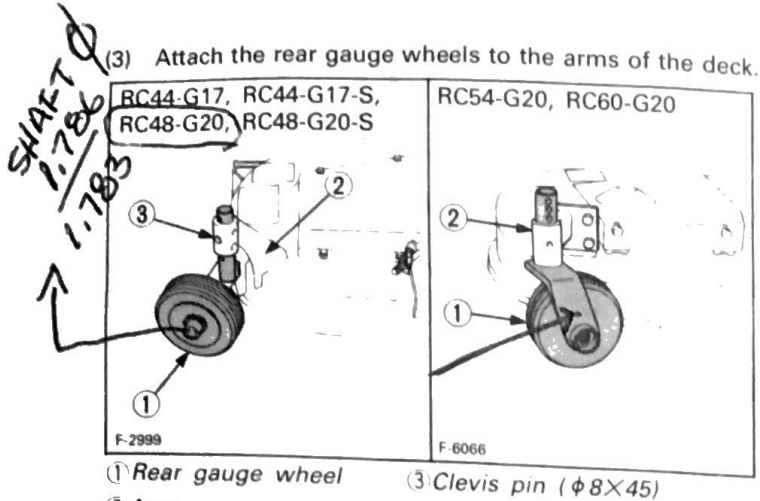
① 120mm (4.7in.) ② 140mm (5.5in.) ③ 120mm (4.7in.)

(2) (RC54-G20, RC60-G20)

Attach the arms to the mower deck with M10 bolts, spring washers and nuts as illustrated.



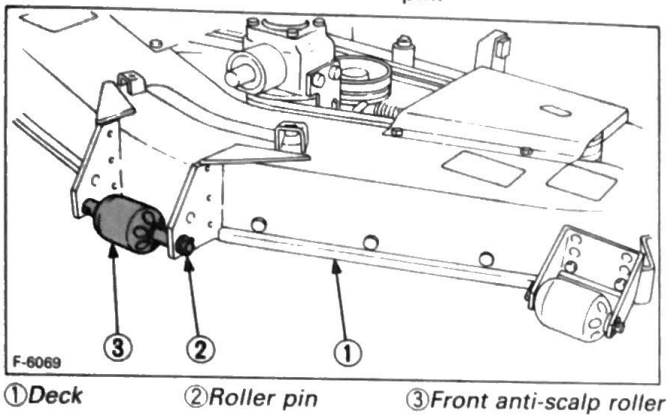
- |                    |                    |
|--------------------|--------------------|
| ① Arm (LH) for 4WS | ③ Bolt (M10)       |
| ② Arm (RH)         | ④ Arm (LH) for 2WS |



(4) Attach the front anti-scalp roller.

(RC48-G20, RC48-G20-S)

Attach the front anti-scalp roller to the deck with roller pin, plain washer and cotter pin.

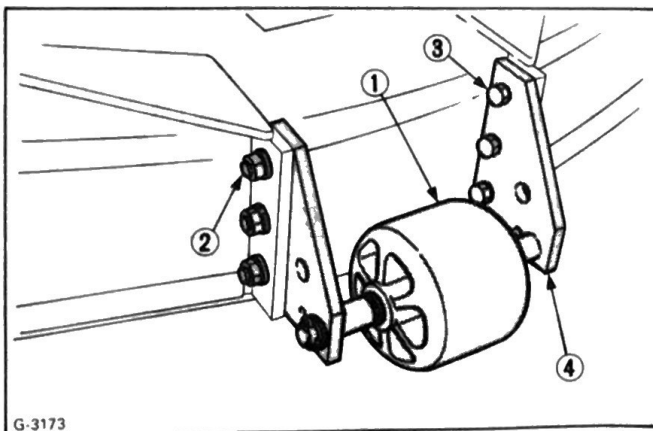


(RC44-G17, RC44-G17-S, RC54-G20, RC60-G20)

Attach the bracket to the deck with M10 bolts, spring washers and nuts.

#### NOTE

- Make sure the front anti-scalp roller rotate smoothly.



(5) The three mounting holes in the front anti-scalp roller bracket correspond to the cutting heights as shown in the figure below. Select the proper mounting holes to obtain the desired cutting height.

(RC44-G17, RC44-G17-S, RC48-G20, RC48-G20-S)

|                 | REAR WHEEL | ANTI-SCALP ROLLER |
|-----------------|------------|-------------------|
| CUTTING HEIGHT  |            |                   |
| 36 mm (1.4 in.) | X D        | ①                 |
| 45 mm (1.8 in.) | Y E        | ①                 |
| 54 mm (2.1 in.) | X C        | ①                 |
| 63 mm (2.5 in.) | Y D        | ②                 |
| 72 mm (2.8 in.) | X B        | ②                 |
| 81 mm (3.2 in.) | Y C        | ③                 |
| 90 mm (3.5 in.) | X A        | ③                 |

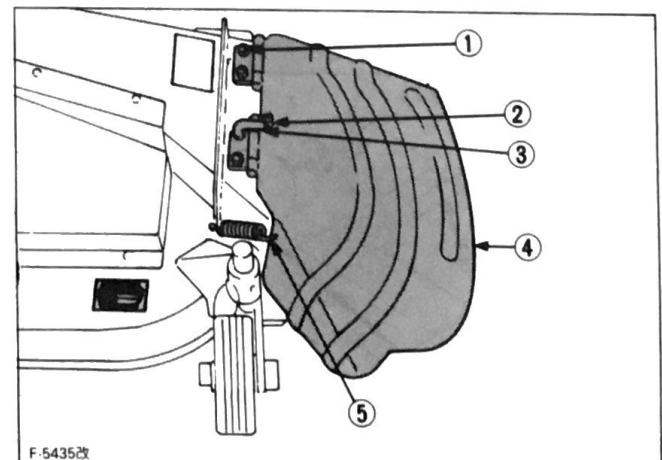
(RC54-G20, RC60-G20)

|                  | REAR WHEEL | ANTI-SCALP ROLLER | ASSIST SPRING |
|------------------|------------|-------------------|---------------|
| CUTTING HEIGHT   |            |                   |               |
| 38 mm (1.5 in.)  | Y-C        | ①                 | Y-C           |
| 51 mm (2.0 in.)  | X-B        | ①                 | X-B           |
| 64 mm (2.5 in.)  | Y-D        | ②                 | Y-D           |
| 76 mm (3.0 in.)  | X-C        | ②                 | X-C           |
| 89 mm (3.5 in.)  | Y-E        | ③                 | Y-E           |
| 102 mm (4.0 in.) | X-D        | ③                 | X-D           |

(6) Attach the discharge deflector and deflector stopper to the deck with M10 bolts, spring washers and nuts. Secure the spring to the discharge deflector as illustrated.

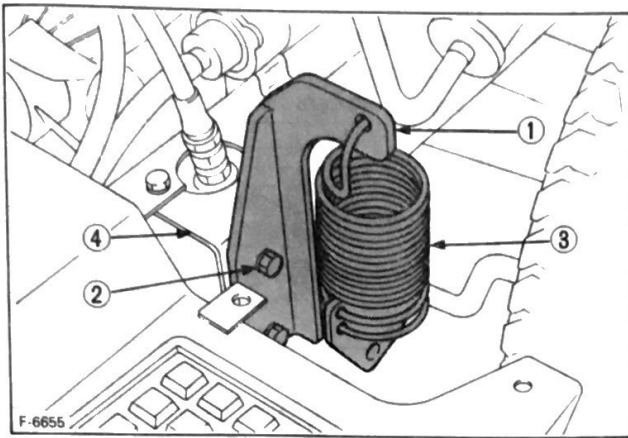
#### NOTE

- Deflector stopper should be set as shown for mowing operation.



## (7) (RC54-G20, RC60-G20)

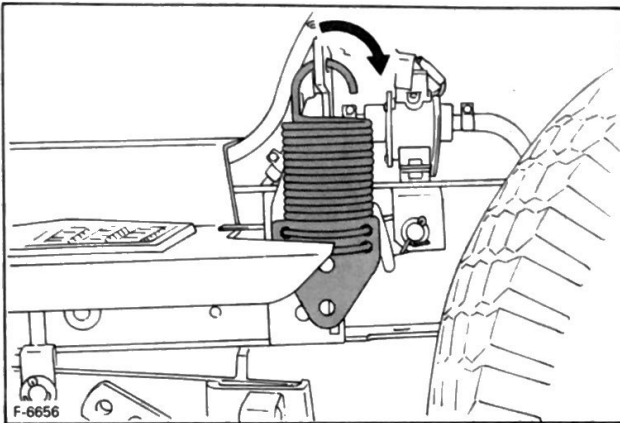
- 1) Attach the stay (right, left) ① to the bracket (frame) ④ with M8 bolts, and hang the spring to stay (right, left).



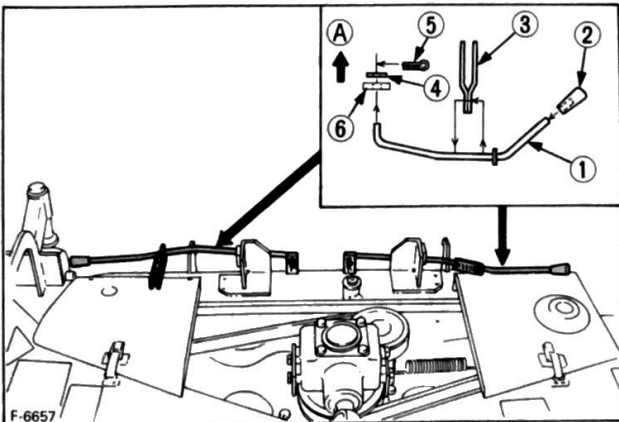
- ① Stay (RH, LH)    ③ Spring  
② Bolt (M8×18)    ④ Bracket (Frame)

**NOTE**

- Spring should be set as illustrated.



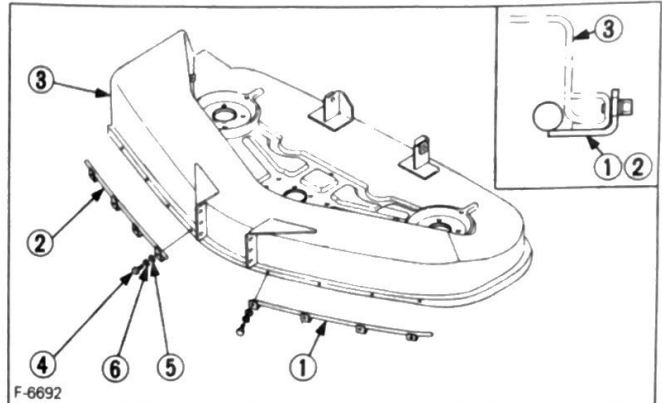
- 2) Attach the grips to the lever (right, left). And install the rod (adjustment) ③ to the lever ①, as illustrated. Then attach the lever to the mower deck with plain washer and split pin.



- ① Lever (RH, LH)    ⑤ Split pin  
② Grip    ⑥ Mower deck  
③ Rod (Adjustment)    A "Front"  
④ Plain washer

## (8) (RC54-G20, RC60-G20)

Attach the bar (front LH, RH) to the mower deck with M5-bolts, plain washers and spring washers.



- ① Bar (Front LH)    ④ M5-Bolt  
② Bar (Front RH)    ⑤ Plain washer  
③ Mower deck    ⑥ Spring washer

BEARDEN'S EQPT Co (RICKY)  
71832-3251

AT ROLLER REMOVAL

RR X-C { RF ② } HEIGHT ?  
LR Y-D { LF ② } OF CUT 2.5"

PRICE 2 GAGE ROLLERS

1 RIT / 1 LIT ~~GAGE ROLLER~~

GAGE ROLLER SHAFTS

10/8/12 OLD ROLLERS & NEW BLADES

2 1/8" BLADE  
GROUND

# 4. MOWER MOUNTING

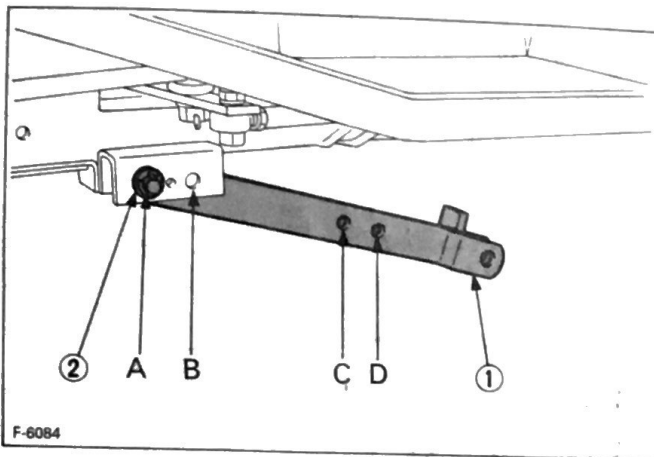
- (1) Park the vehicle on a level surface and place the mower at the right side of vehicle.



## CAUTION

- Shut off the engine and remove the key.

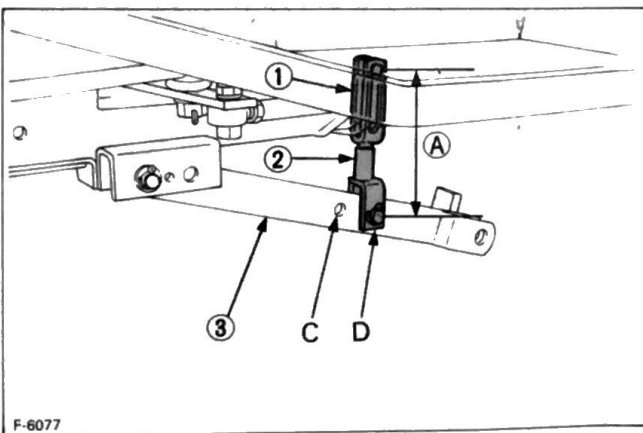
- (2) Attach both rear links to the vehicle (A or B) with clevis pins, plain washers and split pins as illustrated.



- ①Rear link    ②Clevis pin, Plain washer, Split pin

| Mower            | A | B | C | D |
|------------------|---|---|---|---|
| RC44-G17         |   |   |   |   |
| RC44-G17-S (4WS) | ○ |   |   | ○ |
| RC48-G20         |   |   |   |   |
| RC48-G20-S (4WS) | ○ |   |   | ○ |
| RC54-G20         |   | ○ | ○ |   |
| RC60-G20         |   | ○ | ○ |   |

- (3) Install the lift rods (2) to the lift rod (1) as illustrated. Length is 155mm (6.1 in.).

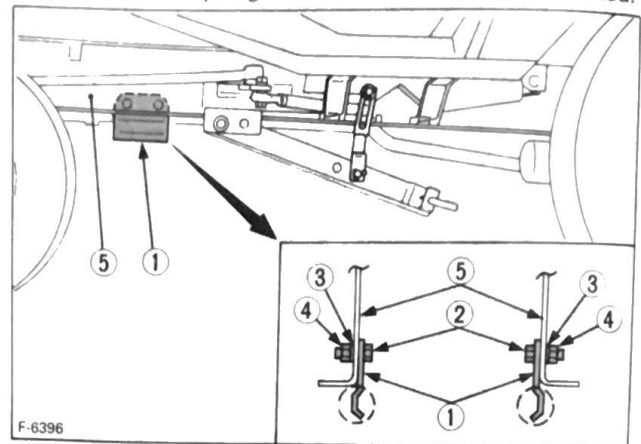


- ①Lift rod (1)    ③Rear link  
②Lift rod (2)    A 155mm (6.1 in.)

Then attach the lift rod (2) to the rear link (C or D) with clevis pins, plain washers and split pins as illustrated.

- (4) (RC54-G20, RC60-G20)

Attach both mower swing stoppers to the vehicle with M10 bolts, spring washers and nuts as illustrated.



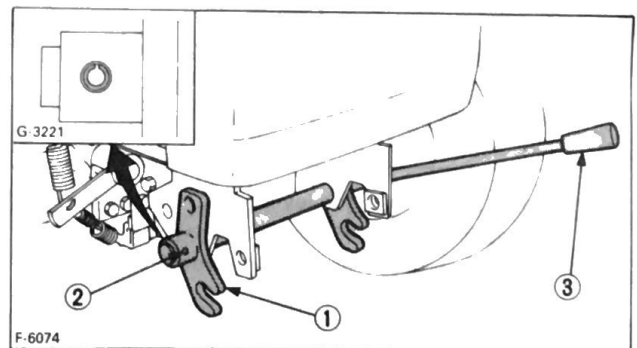
- ①Mower swing stopper    ②Bolt (2—M10×25)  
③Spring washer    ④Nut    ⑤Frame

## NOTE

- Make sure both mower swing stoppers attached as illustrated.

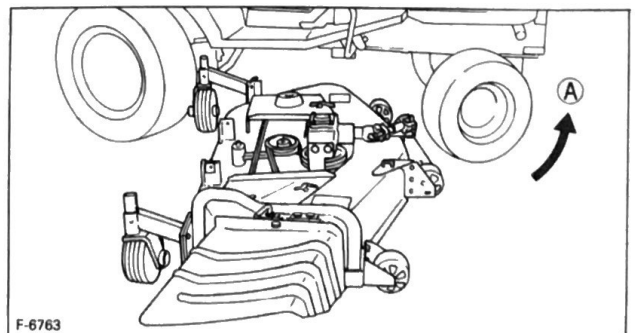
- (5) (RC54-G20, RC60-G20)

Insert the link fixing lever from the left of the stay and mount the link fulcrum in position with the spring pin at the right of the stay.



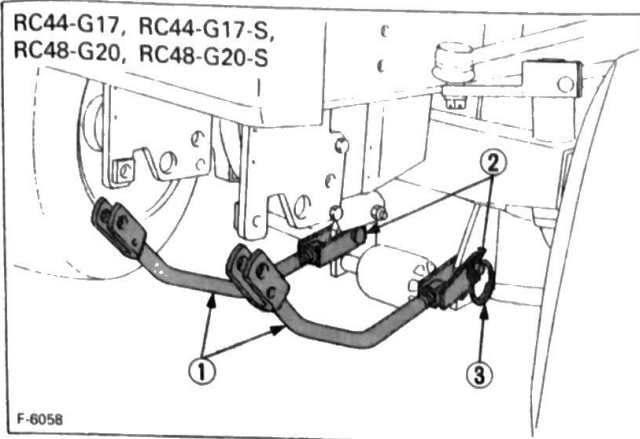
- ①Link fulcrum    ②Spring pin    ③Link fixing lever

- (6) Turn the front wheels to the left. Pull the mower under the vehicle from the left, then return the front wheels straight.

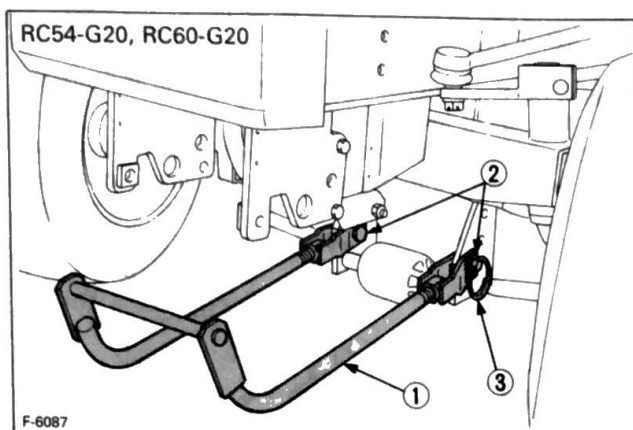


A "LEFT"

- (7) Attach front link to the mower deck with clevis pins, plain washers and snap rings as illustrated.



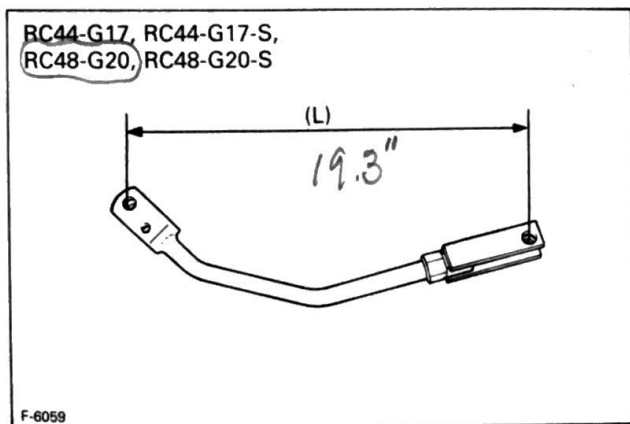
① Front link    ② Clevis pin    ③ Snap ring



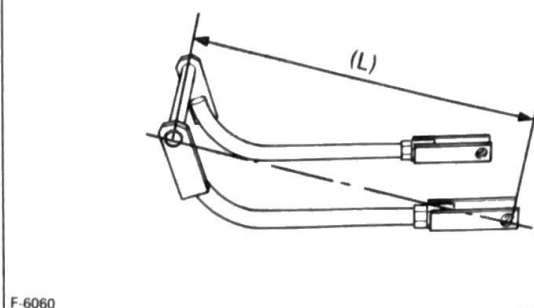
① Front link    ② Clevis pin    ③ Snap ring

#### NOTE

- Make sure the length (L) of the front link is like shown in the chart below.



RC54-G20, RC60-G20



| Mower                         | Front link (L)    |
|-------------------------------|-------------------|
| RC44-G17-S<br>RC48-G20-S +4WS | 400 mm (15.7 in.) |
| RC44-G17<br>RC48-G20 +2WS     | 490 mm (19.3 in.) |
| RC54-G20                      | 390 mm (15.4 in.) |
| RC60-G20                      | 390 mm (15.4 in.) |

- (8) Mounting the universal joint.

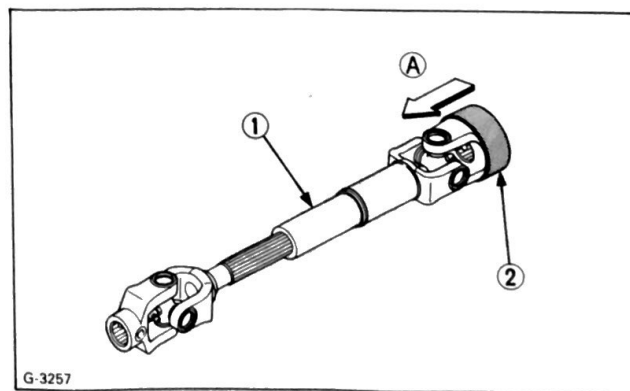
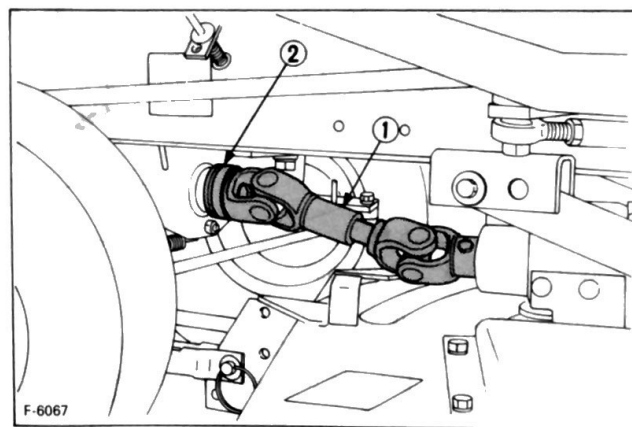
Pull back coupler of the universal joint.

Push the universal joint onto the PTO shaft until the coupler locks.

Slide the universal joint back and forward to make sure the universal joint is locked securely.

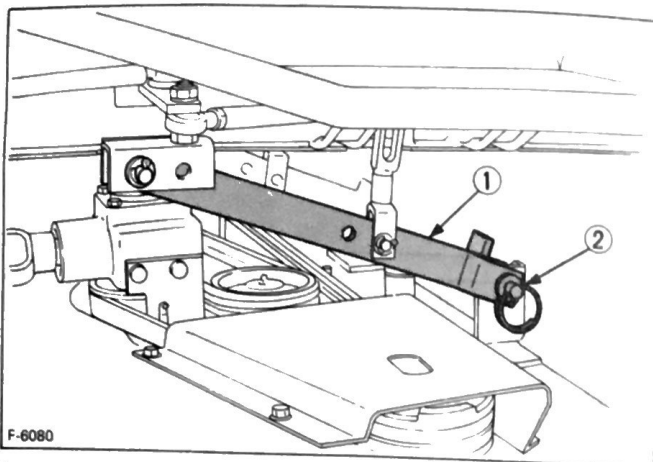
#### IMPORTANT

- Finally pull the universal joint to see if it is tight in position.



① Universal joint    ② Coupler    A "PULL"

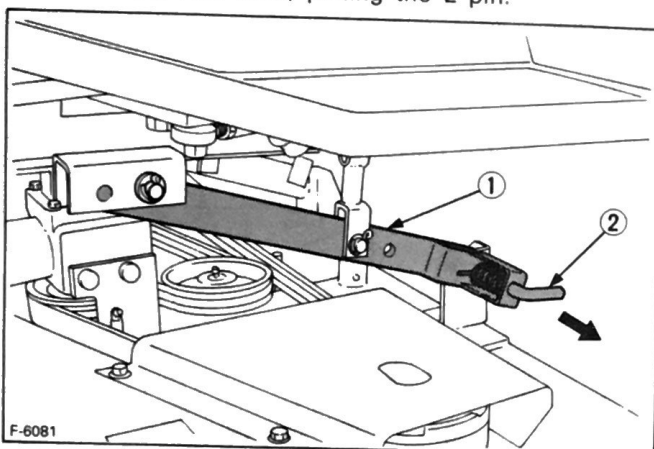
- (9) Mounting the rear link to the mower deck.  
(RC44-G17, RC44-G17-S, RC48-G20, RC48-G20-S)  
Attach the rear links to the mower deck with clevis pins, plain washers and snap rings.



①Rear link    ②Clevis pin, Plain washer, Snap ring  
(RC54-G20, RC60-G20)

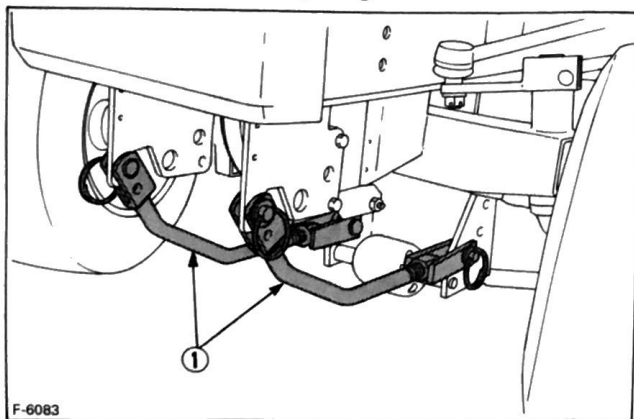
Push down the vehicle's control lever to lower the rear links.

Attach the rear links, pulling the L pin.



①Mower's rear link    ②L pin

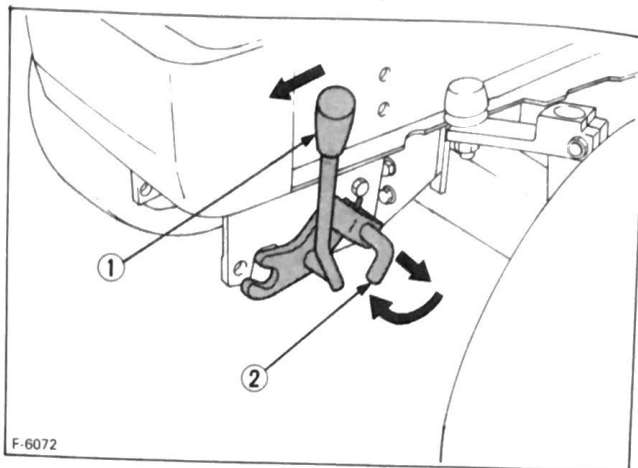
- (10) Mounting the front link.  
(RC44-G17, RC44-G17-S, RC48-G20, RC48-G20-S)  
Attach the front links to the vehicle with clevis pins, plain washers and snap rings.



①Front link

(RC54-G20, RC60-G20)

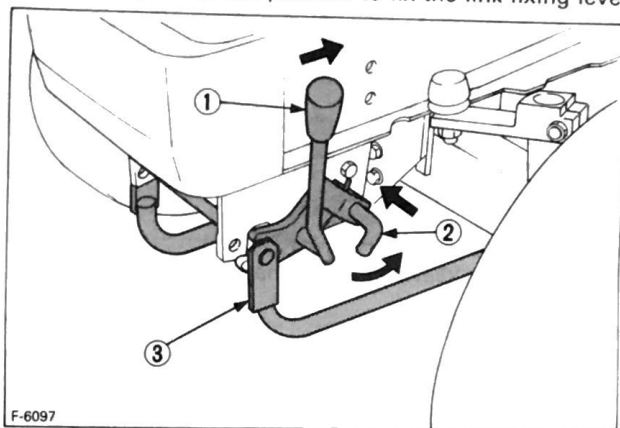
- 1) Pull the lever fulcrum fixing pin and turn it clockwise to release the lock.
- 2) Push down the link fixing lever.



①Link fixing lever    ②Lever fulcrum fixing pin

- 3) Hook the front link to the lever fulcrum, and turn the link fixing lever.

- 4) Turn the lever fulcrum fixing pin counterclockwise and push it into position to fix the link fixing lever.



①Link fixing lever    ②Lever fulcrum fixing pin  
③Front link

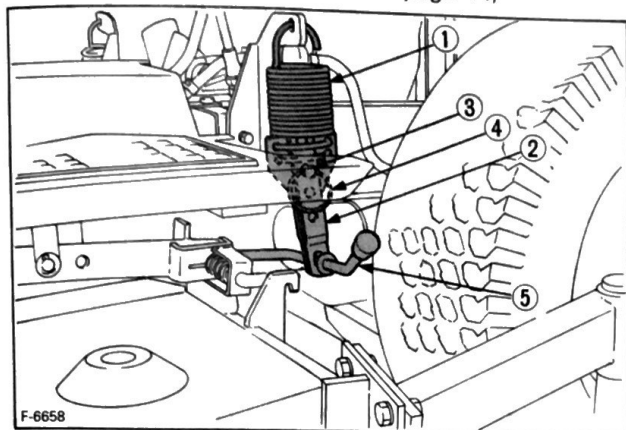
(11) (RC54-G20, RC60-G20)

**IMPORTANT**

- Park the vehicle on a level surface and push up the vehicle's hydraulic lift lever to upper the mower deck.

1) Install the spring to the rod (adjustment) with clevis pin and ring as illustrated.

Select the proper installing holes to obtain the desired cutting height. (see page 14)

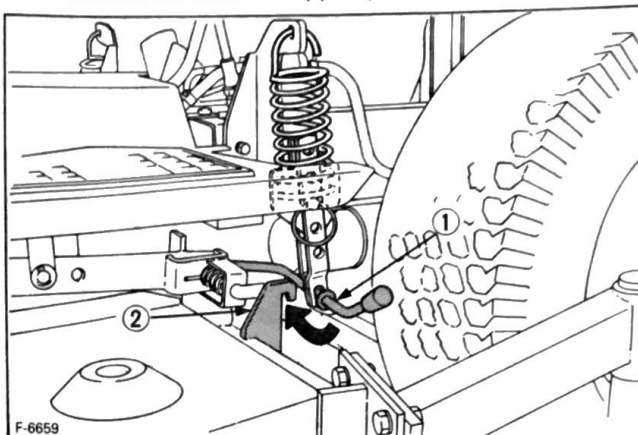


- |                    |                  |
|--------------------|------------------|
| ① Spring           | ④ Snap ring      |
| ② Rod (Adjustment) | ⑤ Lever (RH, LH) |
| ③ Clevis pin       |                  |

2) Then hang the lever on hook as illustrated.

**NOTE**

- When hang the lever on hook, the mower deck should be lifted in upper position.



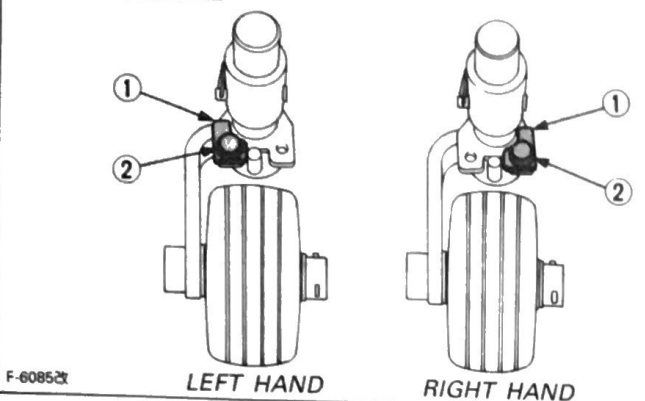
- |                  |
|------------------|
| ① Lever (RH, LH) |
| ② Hook           |

# 5. MOWER ADJUSTMENTS

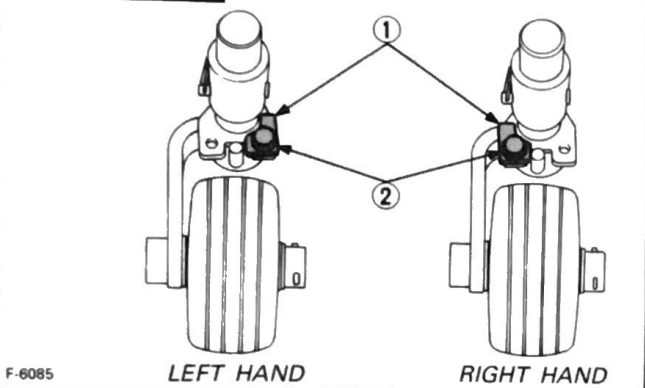
## 5.1 ATTACHING THE STOP GUIDE (RC60-G20)

Install both stop guide with M10 bolts as illustrated.

RC60-G20 2WS



RC60-G20 4WS



① Stop guide ② Bolt

## 5.2 ADJUSTING THE PARALLEL LINKAGE

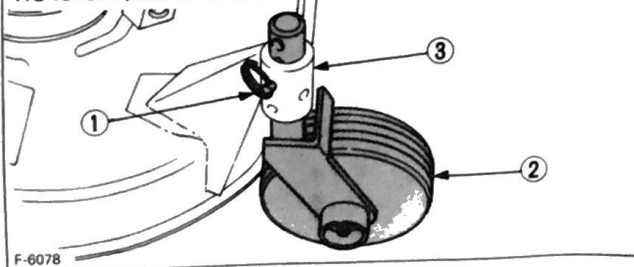


### CAUTION

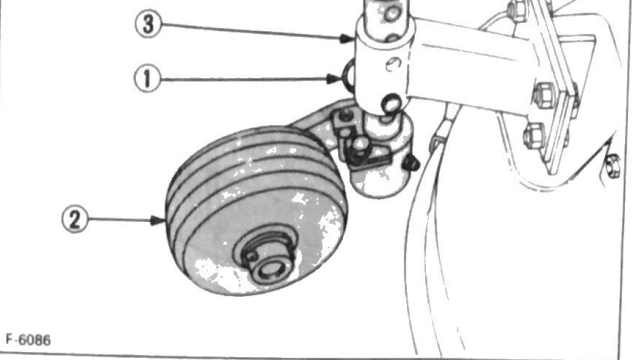
● Shut off the engine and allow the blades to stop before making adjustments.

- (1) Park the vehicle on a level surface.
- (2) Reattach the rear gauge wheels to the arms of the deck with the clevis pins and snap rings as illustrated.

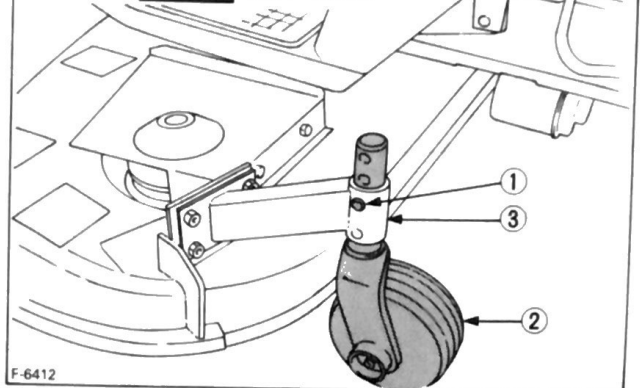
RC44-G17, RC44-G17-S,  
RC48-G20, RC48-G20-S



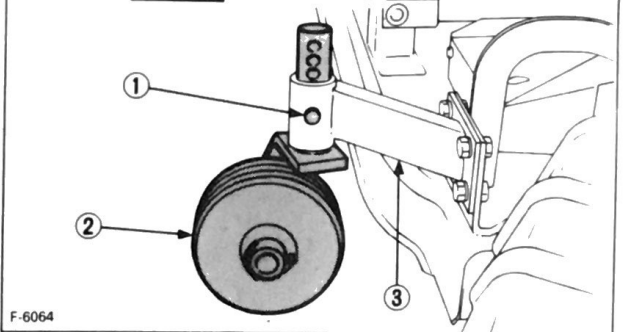
RC60-G20



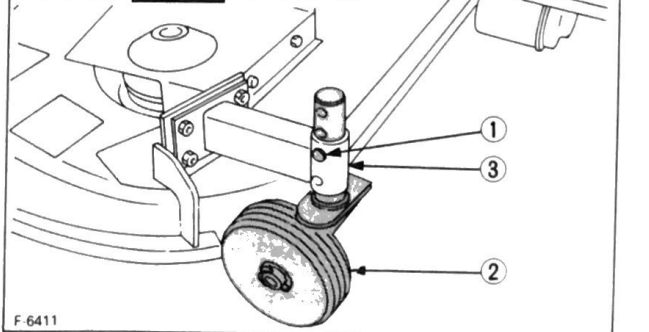
RC54-G20 2WS LEFT HAND



RC54-G20 2WS RIGHT HAND

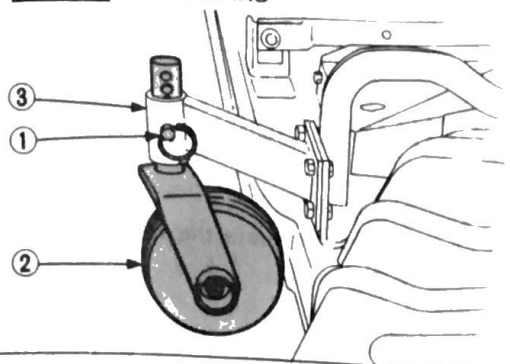


RC54-G20 4WS LEFT HAND



① Clevis pin, snap ring ② Gauge wheel ③ Arm

## RC54-G20 4WS RIGHT HAND



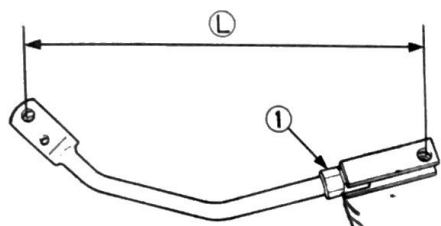
① Clevis pin, snap ring ② Gauge wheel ③ Arm

- (3) Make sure the mower blades are level in the way mentioned below. then tighten the lock nuts securely. (RC54-G20, RC60-G20)

Adjust  $\odot$  of front links with turnbuckles so that A is 0.3in. (8mm).  $A = (X) - (Y)$

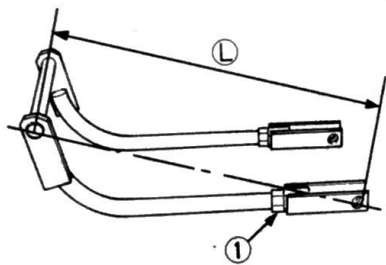
(RC44-G17, RC44-G17-S, RC48-G20, RC48-G20-S)

Adjust  $\odot$  of front links with turnbuckles so that A is 0.4in. (11mm).  $A = (X) - (Y)$

RC44-G17, RC44-G17-S,  
RC48-G20, RC48-G20-S

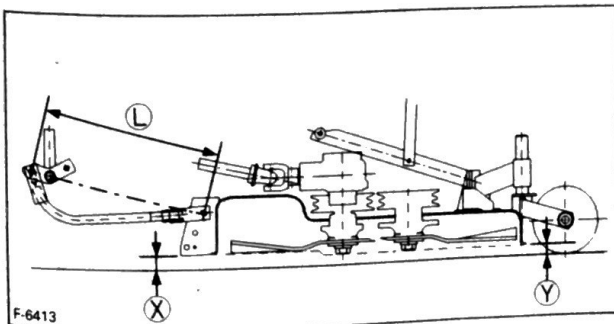
F-6059

## RC54-G20, RC60-G20



F-6060

## ① Lock nut



F-6413

## NOTE

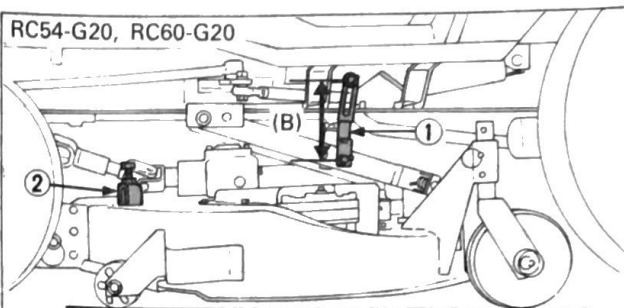
- Be sure that both gauge wheels height setting are equal.

- (4) Raise the hydraulic lift lever to maximum lifting position, then make sure the stoppers just contact to vehicle's frame.

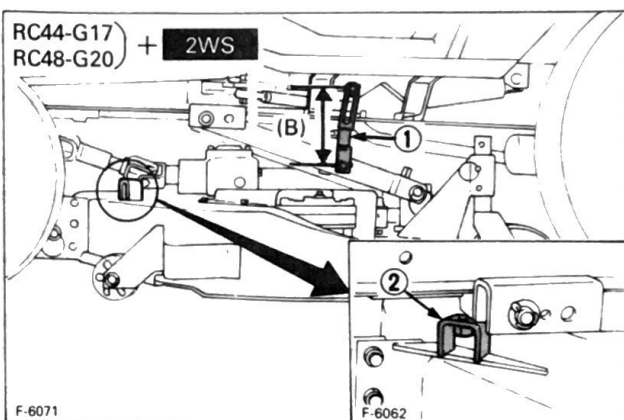
## NOTE

- If do not the stoppers just contact, adjust the length of (B) with rift rods until the stoppers just contact to vehicle's frame.

## RC54-G20, RC60-G20

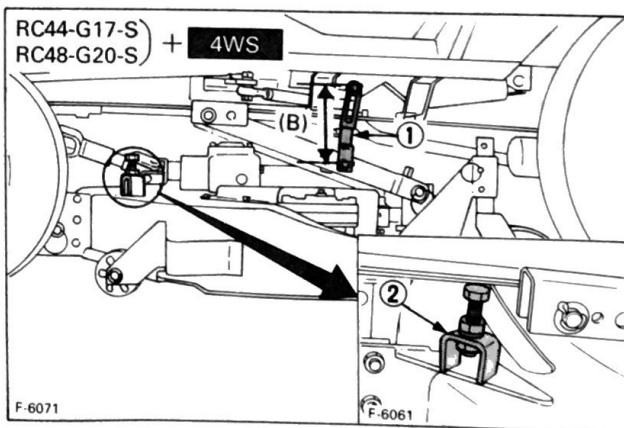


F-6071

RC44-G17 + 2WS  
RC48-G20

F-6071

F-6062

RC44-G17-S + 4WS  
RC48-G20-S

F-6071

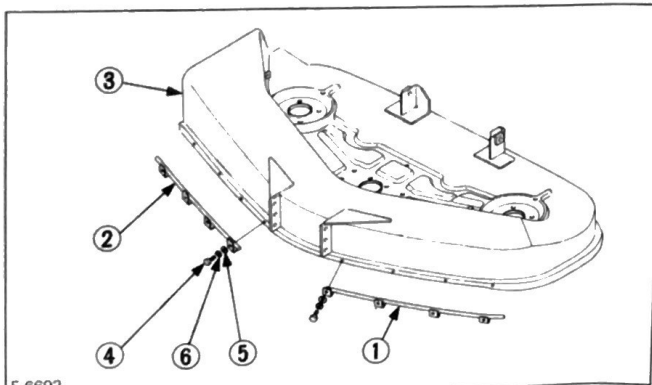
F-6061

- ① Lift rod ② Stopper  
(B) 155mm (6.1 in.)

# 6. OPERATION

## 6.1 MAKING THE MOST OF YOUR MOWER

- (1) When using your mower for the first time, choose a smooth level area and cut in straight and slightly overlapping strips.
- (2) The size and type of the area to be mowed will determine the proper mowing pattern. Take into account obstructions, such as trees, fences and buildings. To keep grass cuttings off fences, sidewalks, etc., it is advisable to go over the outside of the area to be mowed several times in a clockwise direction. To mow the area remaining, work in a counterclockwise direction so the cuttings are dispersed onto the previously cut area.
- (3) Always keep the left side of the mower toward trees, posts or other obstacles on the first trip around the obstacle.
- (4) Most lawns should be mowed to approximately 50 to 80 mm (2 to 3 in.) high. Best results are obtained by cutting often and not too short. To keep a green lawn, never mow more than one third off the height of the grass or a maximum of 25 mm (1 in.) in one mowing. For extremely tall grass, set the cutting height at maximum for the first mowing, then reset to the desired height and mow again. Allow the grass to grow to three inches, then cut off only the top inch.
- (5) On thick or springy grass or soft ground, the mower rollers may sink into the ground giving too low a cut. Adjust the cutting height to get the desired height of cut.
- (6) For best appearance, grass should be cut in the afternoon or evening when it is free of moisture.
- (7) (RC54-G20, RC60-G20)  
Remove the front bars or cut grass twice, if the streaking of the uncut grass is occurred.



- F-6692
- |                  |                 |
|------------------|-----------------|
| ① Bar (Front LH) | ④ M5-Bolt       |
| ② Bar (Front RH) | ⑤ Plain washer  |
| ③ Mower deck     | ⑥ Spring washer |

## 6.2 CUTTING HEIGHT



### DANGER

- Never operate the mower in transport position.

### IMPORTANT

- To set the cutting height, adjust both of the rear gauge wheels, the front anti-scalp rollers and assist springs (only RC54-G20, RC60-G20) as shown in the figure below, otherwise it may cause premature wear due to the continuous contact of the anti-scalp rollers to the ground. (RC44-G17, RC44-G17-S, RC48-G20, RC48-G20-S)

Cutting height can be adjusted from 36 mm to 90 mm (1.4 in. to 3.5 in.). The recommended cutting height is approximately 54 mm (2.1 in.).

|                 | REAR WHEEL | ANTI-SCALP ROLLER |
|-----------------|------------|-------------------|
| CUTTING HEIGHT  |            |                   |
| 36 mm (1.4 in.) | X—D        | ①                 |
| 45 mm (1.8 in.) | Y—E        | ①                 |
| 54 mm (2.1 in.) | X—C        | ①                 |
| 63 mm (2.5 in.) | Y—D        | ②                 |
| 72 mm (2.8 in.) | X—B        | ②                 |
| 81 mm (3.2 in.) | Y—C        | ③                 |
| 90 mm (3.5 in.) | X—A        | ③                 |

(RC54-G20, RC60-G20)

Cutting height can be adjusted from 38 mm to 102 mm (1.5 in. to 4 in.). The recommended cutting height is approximately 51 mm (2 in.).

|                  | REAR WHEEL | ANTI-SCALP ROLLER | ASSIST SPRING |
|------------------|------------|-------------------|---------------|
| CUTTING HEIGHT   |            |                   |               |
| 38 mm (1.5 in.)  | Y—C        | ①                 | Y—C           |
| 51 mm (2.0 in.)  | X—B        | ①                 | X—B           |
| 64 mm (2.5 in.)  | Y—D        | ②                 | Y—D           |
| 76 mm (3.0 in.)  | X—C        | ②                 | X—C           |
| 89 mm (3.5 in.)  | Y—E        | ③                 | Y—E           |
| 102 mm (4.0 in.) | X—D        | ③                 | X—D           |

## 6.3 OPERATING MOWER



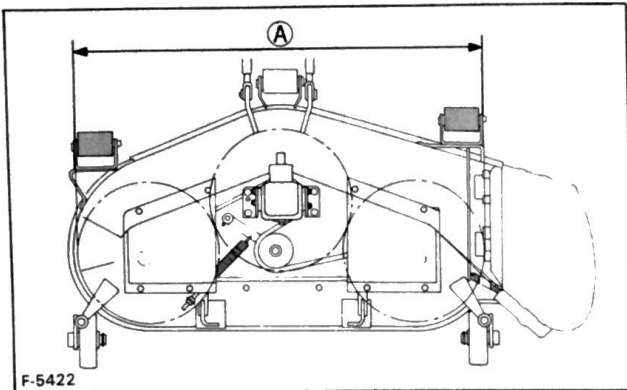
### DANGER

- Do not operate mower without discharge deflector properly bolted in place.



### CAUTION

- (1) Clear the work area of objects which might be picked up and thrown by blades.
  - (2) Do not direct the opening of the deflector towards bystanders or animals. Thrown objects may cause injury. Plan your mowing carefully before starting operations.
  - (3) Keep bystanders and animals away from the mowing area.
  - (4) Be sure to disengage the front PTO and sit on the seat before starting the vehicle engine.
- 
- (1) Keep the engine running at full throttle for best results. Control ground speed by using the control pedal of the vehicle.
  - (2) During heavy duty use, operate the vehicle at a slower ground speed or go over the area twice.
  - (3) Keep the mower deck and gauge wheels in the raised position when the mower is not being used.
  - (4) The mower will not cut cleanly if the ground speed is too high or if the blade speed drops due to an overload.
- NOTE**
- To prevent the engine from overheating, keep the radiator and radiator net clean.
- (5) Cutting width is the outside of the front anti-scalp roller.



Ⓐ Cutting width

# 7. MAINTENANCE

## 7.1 DAILY CHECK

To prevent trouble from occurring, important to know the conditions of the machine well. Check before starting.



### CAUTION

- Be sure to check and service the machine on a level surface with the engine shut off and the parking brake on.

| No. | Check item                                   | Reference page |
|-----|----------------------------------------------|----------------|
| 1   | Anything unusual in previous day's operation | —              |
| 2   | Oil leakage check                            | —              |
| 3   | Make sure blade capscrews are tight          | —              |
| 4   | Blade wear check                             | 18, 19         |
| 5   | All hardware check                           | 18             |
| 6   | Make sure all pins are in place              | —              |
| 7   | Mower deck cleaning                          | —              |
| 8   | Gear box oil check                           | —              |
|     |                                              | 16             |

## 7.2 MAINTENANCE CHECK LIST

| No. | Items             | Period | Every 50 Hr<br>(2 weekly) | Use hours since initial |     |     |                             | Reference page |
|-----|-------------------|--------|---------------------------|-------------------------|-----|-----|-----------------------------|----------------|
|     |                   |        |                           | 50                      | 200 | 350 | After since<br>every 150 Hr |                |
| 1   | Gear box oil      | change |                           | ○                       | ○   | ○   |                             | 16             |
| 2   | Greasing          |        | ○                         |                         |     |     |                             | 17             |
| 3   | Gear box oil seal | change |                           |                         |     |     | every 2 year                | —              |

Note: The maintenance indicated by ○ must be done respectively.

## 7.3 CHECK AND MAINTENANCE

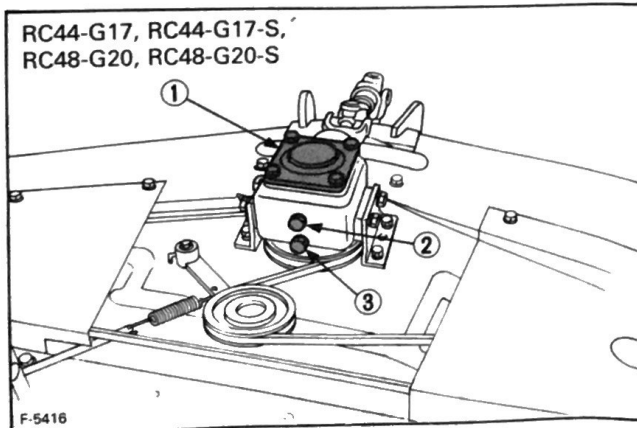


### CAUTION

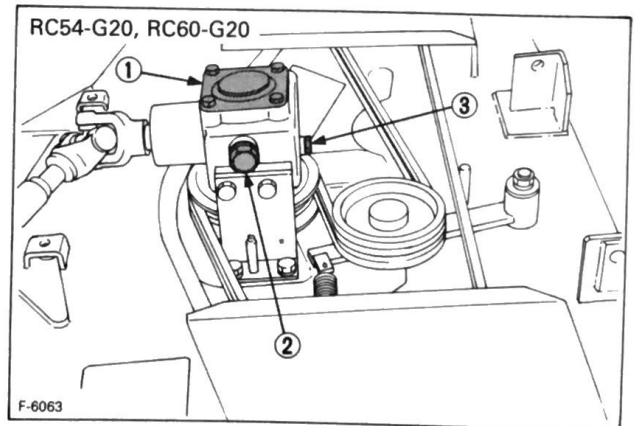
- Stop engine and remove the key.

### ■ Gear box oil

- To check the oil level, remove the check plug (bolt).
  - Place mower on a level surface.
  - Loosen check plug-oil should seep from the opening. If low remove lubrication cap and add oil. (Use SAE 90 gear oil)



①Lubrication cap ②Check plug (Bolt) ③Drain plug (Bolt)

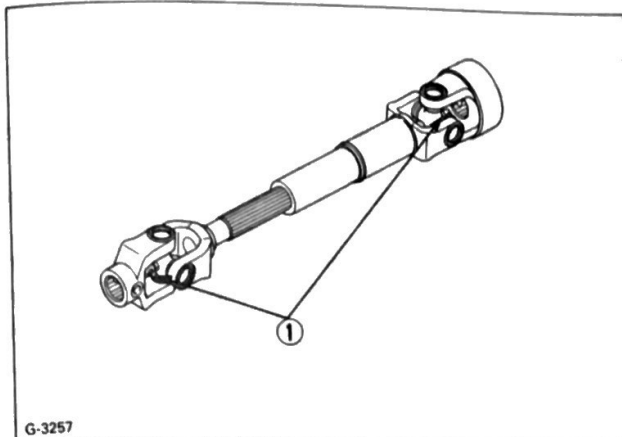


①Lubrication cap ②Check plug (Bolt) ③Drain plug (Bolt)

- Change gear oil, remove lubrication cap and drain plug and drain oil.
- Refill gear case.
  - RC54-G20, RC60-G20..... 0.4 l (0.42 qts.)
  - RC44-G17, RC44-G17-S..... 0.3 l (0.32 qts.)
  - RC48-G20, RC48-G20-S

## ■ Greasing (Use SAE multipurpose grease.)

(1) Universal joint.



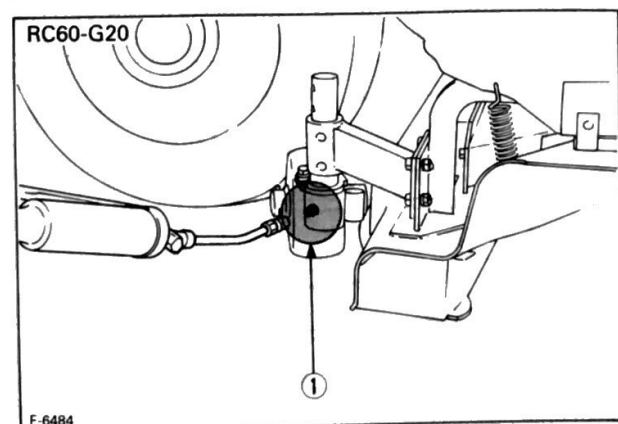
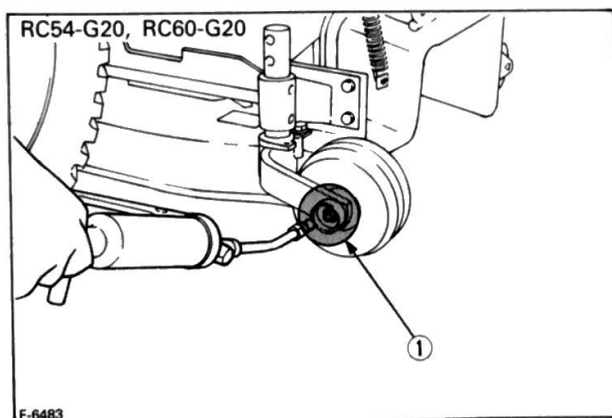
① Grease nipple

(2) Rear gauge wheel brackets.  
Rear gauge wheels.

### NOTE

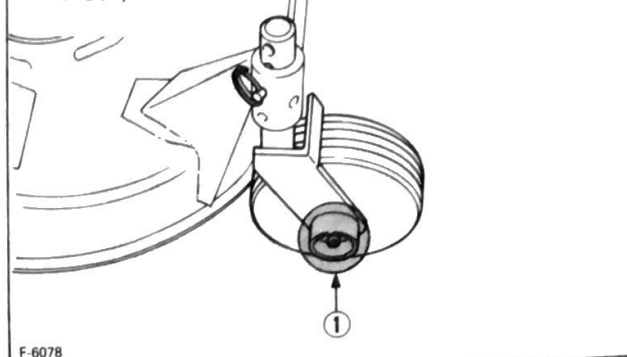
(RC54-G20, RC60-G20)

- To grease the gauge wheels and wheel brackets, remove the clevis pins and turn the gauge wheels as shown below:



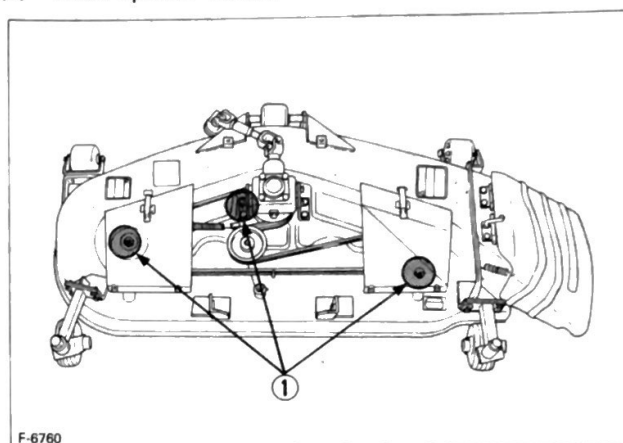
① Grease nipple

RC44-G17, RC44-G17-S,  
RC48-G20, RC48-G20-S



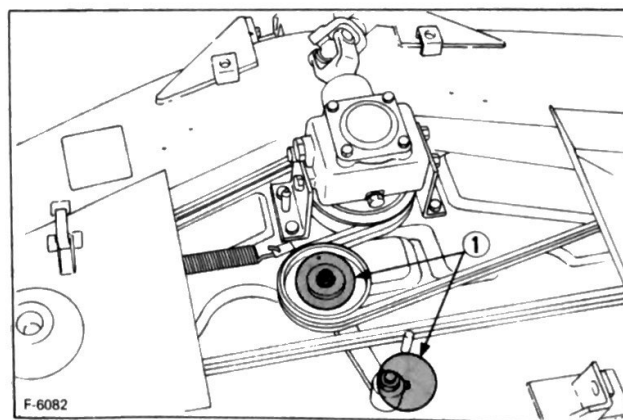
① Grease nipple

(3) Three spindle shafts.



① Grease nipple

(4) Belt tension pivot and tension pulley.



① Grease nipple

### NOTE

- (1) Use SAE 90 gear oil in all seasons.
- (2) Change oil in gear box after first 100 hrs. and every 200 hrs. there after.
- (3) After checking above items, replace any worn, damaged or missing parts.
- (4) Dry deck completely before storage, or pulley belt damage can result.

## 7.4 BLADE REPLACEMENT

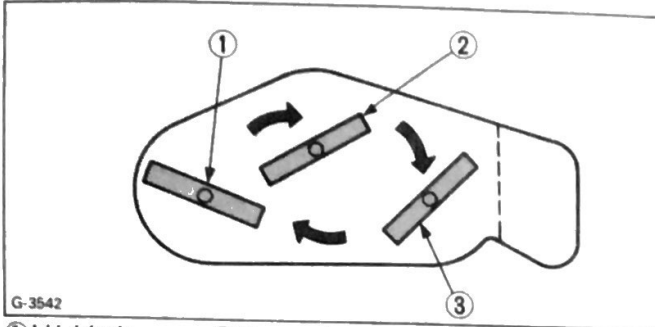


### CAUTION

- Always handle the blades with care to avoid injury.

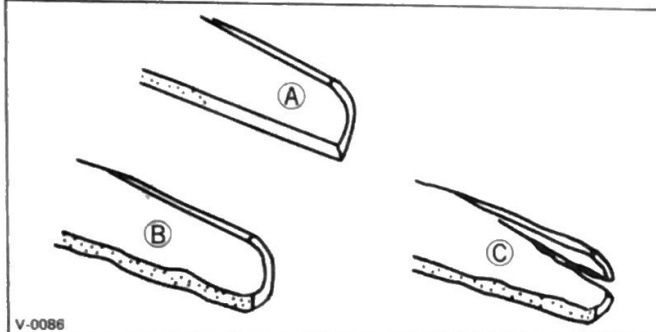
### IMPORTANT

- The bolt (blade) has R.H. threads. Turn it counterclockwise to loosen.
- To prolong the service life of the blade, reposition its sections each other as shown in the figure below.



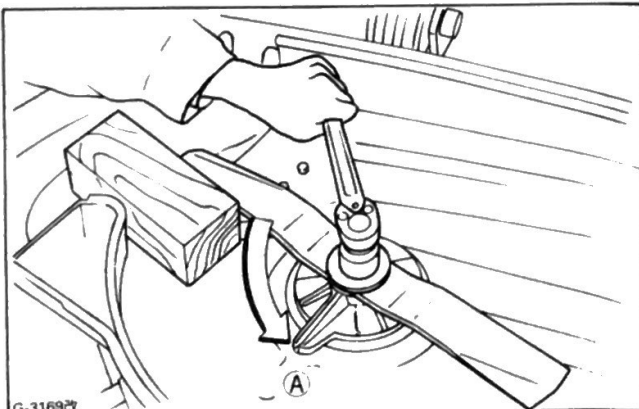
① LH blade    ② Center blade    ③ RH blade

The blade cutting edges should be kept sharp at all times. Sharpen the cutting edges, if they resemble the blade in figure B. Replace the blades if they appear similar to the blade as shown in figure C.



A "NEW BLADE" B "WORN BLADE" C "CRACKED BLADE"

- Remove the mower from the vehicle and turn it over to expose the blades.
- Wedge a block of wood between the blade and mower housing or install box wrench over pulley nut to prevent spindle from rotating while removing blade bolts, then loosen the blade bolt as illustrated.



A "LOOSEN"

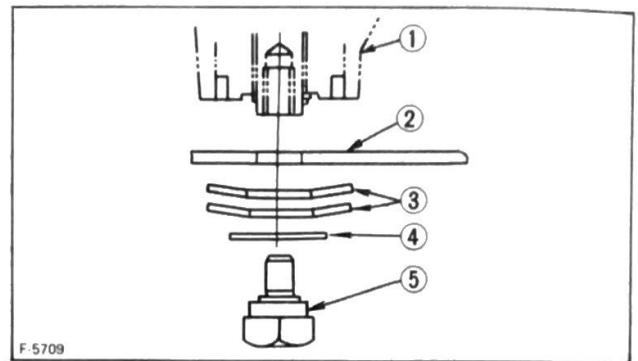


### CAUTION

- Wear heavy gloves when removing blades.

### NOTE

- Use the proper metric size box or socket wrench to tighten or loosen the blade mounting bolt.
- To sharpen the blades, clamp the blade securely in a vise. Use a large mill file and file along the original bevel until sharp.
  - To check the blade for balance, place a small rod through the center hole. The blade should balance on this rod. If the blade is not balanced, file the heavy side of the blade until balance is achieved.
  - (RC44-G17, RC44-G17-S, RC48-G20, RC48-G20-S) To attach the center blade, be sure to install the friction washer and two cup washers between the blade and bolt head.



① Spindle holder    ③ 2-Cup washers    ⑤ Bolt  
② Blade (Center)    ④ Friction washer

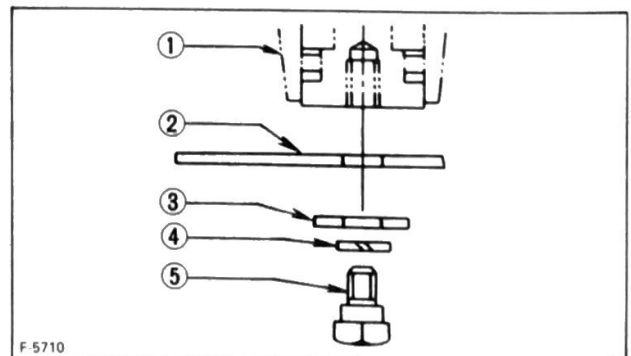
### NOTE

- Make sure the cup washer is not flattened out or worn, causing blade to slip easily. Replace both cup washers and friction washer if either is damaged.

### IMPORTANT

- Tighten the bolt of center blade to 10 to 12 kgf.m (72 to 87 ft.lbs.) of torque.

To attach outer blades, be sure to install the plain washer and spring washer between the blade and bolt head.



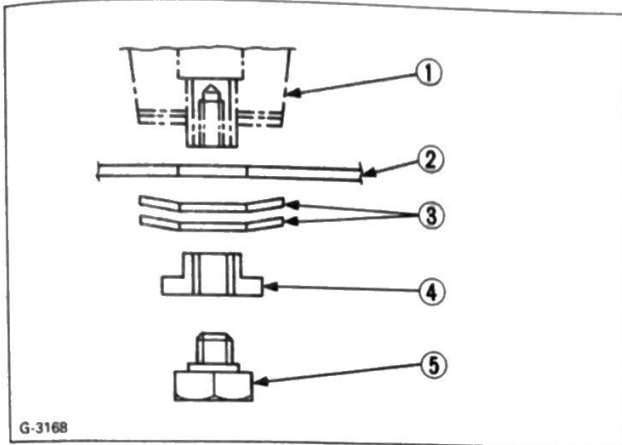
① Spindle holder    ③ Plain washer    ⑤ Bolt  
② Blade    ④ Spring washer

### IMPORTANT

- Tighten the bolt of the outer blades to 12.6 to 15 kgf.m (91 to 109 ft.lbs.) of torque.

(RC54-G20, RC60-G20)

Pass the spline boss through the blade and 2 cup washers, and tighten the bolt.



- ① Spindle holder    ③ 2-Cup washers    ⑤ Bolt  
② Blade    ④ Spline boss

#### NOTE

- Make sure the cup washer is not flattened out or worn, causing blade to slip easily. Replace 2 cup washers if either is damaged.

#### IMPORTANT

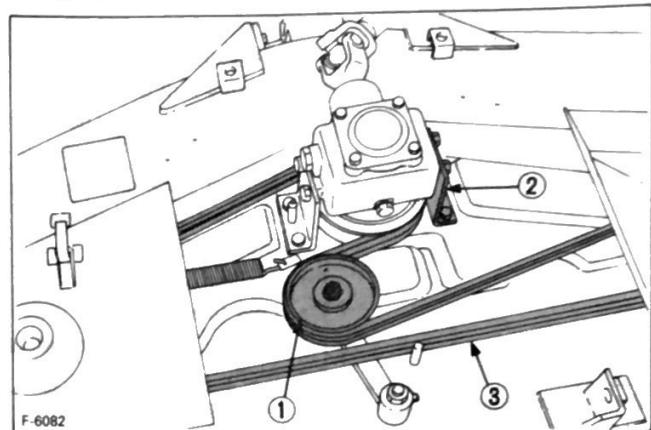
- Tighten the three bolts (blade) to 10 to 12 kgf.m (72 to 87 ft.lbs.) of torque.

## 7.5 BELT REPLACEMENT

- (1) Remove the mower from the vehicle.
- (2) Remove the left and right hand shield from the mower deck.
- (3) Clean around the gear box.
- (4) Remove the right hand bracket which mounts the gear box to the mower deck.
- (5) Remove the belt from the tension pulley. Slip the belt over the top of the gear box.
- (6) To install a new belt, reverse the above procedure.

#### NOTE

- Tighten bracket bolts securely.



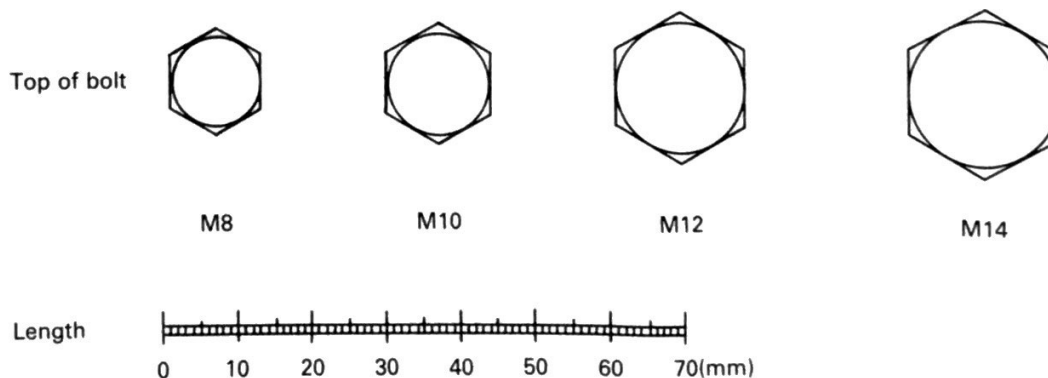
- ① Tension pulley    ② Bracket (RH)    ③ Belt

## 7.6 TIGHTENING TORQUE CHART

| Size | No mark      |                |                | 7T            |                |                |
|------|--------------|----------------|----------------|---------------|----------------|----------------|
|      | ft·lbs       | N·m            | kgf·m          | ft·lbs        | N·m            | kgf·m          |
| M 8  | 13.0 to 15.2 | 17.7 to 20.6   | 1.80 to 2.10   | 17.4 to 20.3  | 23.5 to 27.5   | 2.40 to 2.80   |
| M10  | 28.9 to 33.3 | 39.2 to 45.1   | 4.00 to 4.60   | 35.4 to 41.2  | 48.1 to 55.9   | 4.90 to 5.70   |
| M12  | 46.3 to 53.5 | 62.8 to 72.6   | 6.40 to 7.40   | 57.1 to 66.5  | 77.5 to 90.2   | 7.90 to 9.20   |
| M14  | 79.6 to 92.6 | 107.9 to 125.5 | 11.00 to 12.80 | 91.1 to 108.5 | 123.6 to 147.1 | 12.60 to 15.00 |

#### NOTE

- (1) Figure "7" on the top of the bolt indicates that the bolt is of special material.
- (2) Before tightening, check the figure on the top of bolt.



# 8. TROUBLESHOOTING

Any service item refer to operator's manual for proper maintenance procedure.

| Trouble                   | Cause                                                                                                                                                                                                                                           | Remedy                                                                                                                                                                                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Discharge chute plugged.  | <ul style="list-style-type: none"> <li>Grass too wet.</li> <li>Grass too long.</li> <li>Cutting too low.</li> <li>Engine rpm too low.</li> <li>Ground speed too fast.</li> </ul>                                                                | <ul style="list-style-type: none"> <li>Wait for grass to dry.</li> <li>Raise cutting height and cut grass twice.</li> <li>Raise cutting height.</li> <li>Mow at full throttle.</li> <li>Slow down.</li> </ul>                                                                |
| Streaking of grass uncut. | <ul style="list-style-type: none"> <li>Ground speed too fast.</li> <li>Engine rpm too low.</li> <li>Grass too long.</li> <li>Blades dull or damaged.</li> <li>Debris in mower deck.</li> </ul>                                                  | <ul style="list-style-type: none"> <li>Slow down.</li> <li>Mow at full throttle, check and reset engine rpm.</li> <li>Remove front bar (RC54-G20, RC60-G20) and cut grass twice.</li> <li>Replace blades or have blades sharpened.</li> <li>Clean mower deck.</li> </ul>     |
| Uneven cut.               | <ul style="list-style-type: none"> <li>Mower deck not level.</li> <li>Ground speed too fast.</li> <li>Blades dull.</li> <li>Blades worn.</li> <li>Low tire inflation.</li> <li>Caster wheel not adjusted correctly.</li> </ul>                  | <ul style="list-style-type: none"> <li>Level mower deck.</li> <li>Slow-down.</li> <li>Have blades sharpened.</li> <li>Replace blades.</li> <li>Add air to correct.</li> <li>Adjust caster wheels.</li> </ul>                                                                 |
| Blades scalping grass.    | <ul style="list-style-type: none"> <li>Cutting height too low.</li> <li>Turning speed too fast.</li> <li>Ridges in terrain.</li> <li>Rough or uneven terrain.</li> <li>Caster wheels not adjusted correctly.</li> <li>Bent blade(s).</li> </ul> | <ul style="list-style-type: none"> <li>Raise cutting height.</li> <li>Reduce speed on turns.</li> <li>Change mowing pattern.</li> <li>Adjust caster wheels and antiscalp rollers.</li> <li>Adjust caster wheels and antiscalp rollers.</li> <li>Replace blade(s).</li> </ul> |
| Belt slipping.            | <ul style="list-style-type: none"> <li>Mower deck plugged.</li> <li>Debris in pulleys.</li> <li>Worn belt.</li> </ul>                                                                                                                           | <ul style="list-style-type: none"> <li>Unplug and clean mower deck.</li> <li>Clean pulleys.</li> <li>Replace belt.</li> </ul>                                                                                                                                                |
| Excessive vibration.      | <ul style="list-style-type: none"> <li>Debris on mower deck or in pulleys.</li> <li>Damaged drive belt.</li> <li>Damaged pulleys.</li> <li>Pulleys out of alignment.</li> <li>Blades out of balance.</li> </ul>                                 | <ul style="list-style-type: none"> <li>Clean mower deck and pulleys.</li> <li>Replace drive belt.</li> <li>Replace pulleys.</li> <li>See your KUBOTA dealer.</li> <li>Have blades balanced.</li> </ul>                                                                       |
| Mower loads down tractor. | <ul style="list-style-type: none"> <li>Engine rpm too low.</li> <li>Ground speed too fast.</li> <li>Debris wrapped around mower spindles.</li> </ul>                                                                                            | <ul style="list-style-type: none"> <li>Mow at full throttle, check and reset engine rpm.</li> <li>Slow down.</li> <li>Clean mower.</li> </ul>                                                                                                                                |

## 9. LONG-TERM STORAGE

### 9.1 WINTER STORAGE

On completion of the grass cutting season you are advised to carry out the following on the mower cutting deck.

- (1) Remove the mower deck covers.
- (2) Slacken off the drive belt tensioner and remove the drive belt.
- (3) Clean all pulleys and wipe with a dry cloth.
- (4) Clean all grass and dirt from the mower deck top.

#### NOTE

- If you refit the drive belt do not adjust the tensioner to tighten the drive belt. Leave the drive belt slack. Readjust prior to the next grass cutting season.

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