

# SERIES 354 PRE-SEASON PLANTER PREPARATION



## SERVICE INFORMATION

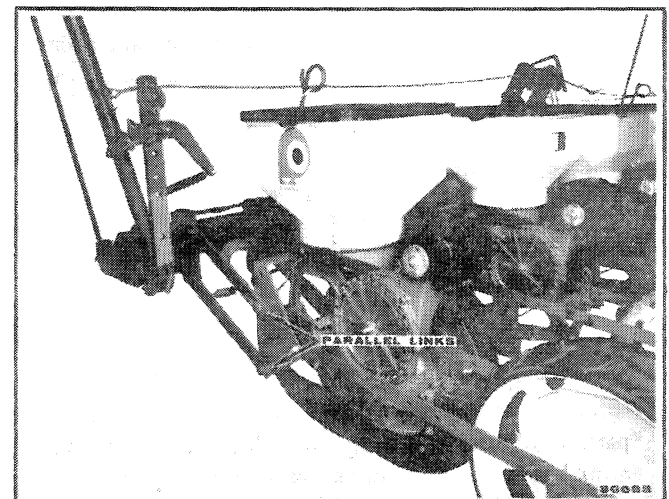
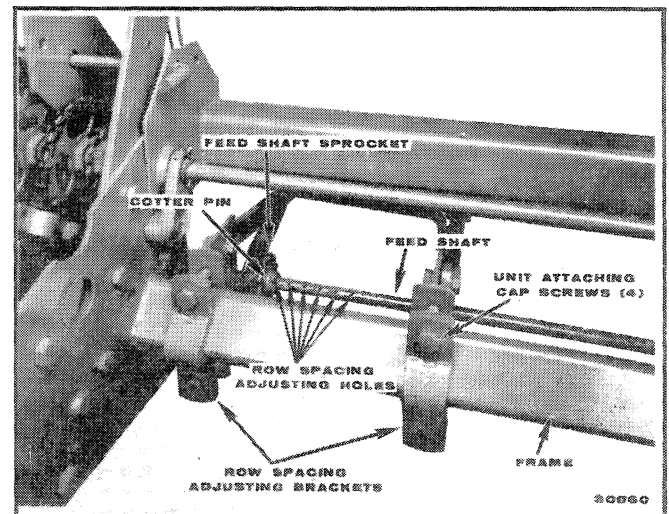
Following information lists a step-by-step procedure to be used as a guide for pre-season planter preparation. Also, this information can be used to recondition a used planter by a dealer and/or new personnel that may not be familiar with planter.

## PLANTER FRAME

1. Clean dirt, fertilizer and lubricant from planter frame.
2. Tighten all loose cap screws. Replace any missing or broken parts. Remove rust and repaint where required.
3. Inspect countershaft and feedshaft bearings for wear and replace as required. Check alignment of feedshafts and realign if required by moving feedshaft bearing brackets.
4. Parallel links should be free to allow planter units to float up and down. 246 941B Parallel Link Bushing overall length is .530-.540 inch.

Two sizes of shim washers may be used to obtain free movement of parallel link.

<u>Part Number</u>	<u>Description</u>	<u>Size</u>
T5534	Washer	28 ga. (.0149)
302 047B	Washer	20 ga. (.0359)

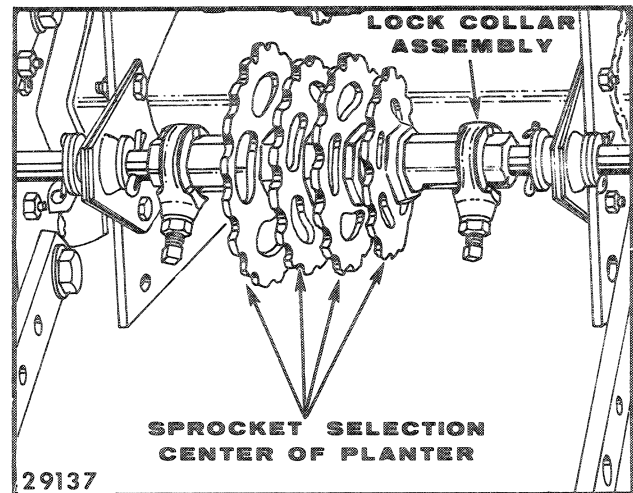


Sample of manual. Download All 20 pages at:

<https://www.arespairmanual.com/downloads/new-holland-ford-sereis-354-planter-preparation-manual/>

## PRE SEASON PLANTER PREPARATION

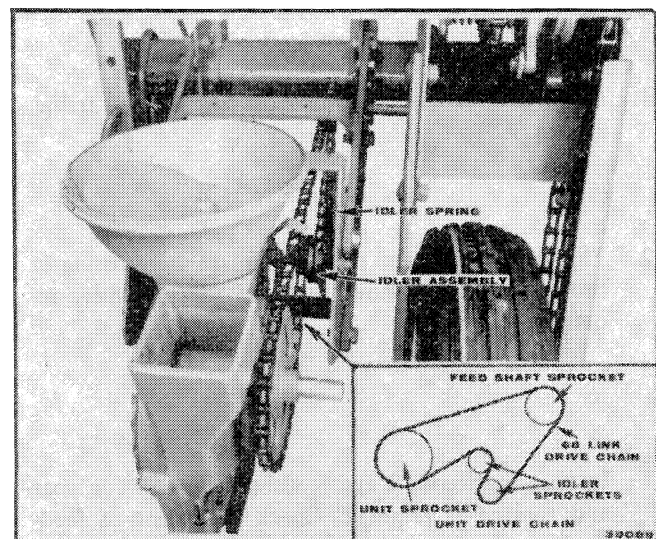
5. Check sprockets for wear and/or damage and replace as required.



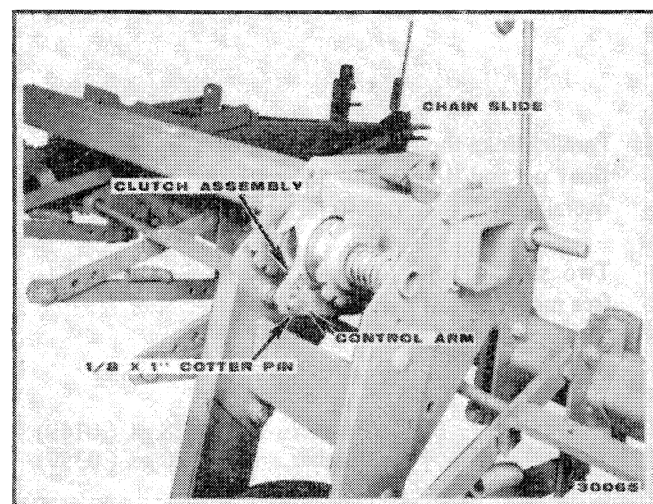
6. Check countershaft and feedshaft coupling clamps. Set screw in clamp should be tightened down on shaft and backed off 1/4 turn. Lock set screw with jam nut to permit shafts to float in coupling.

7. Inspect chains, idlers and idler sprockets for wear. Check chain link for free movement. Idler sprocket part number is 247 082B (7-tooth).

Check idler springs for stretched out of shape, broken or worn hooks. Replace 20-100 7319 Spring as required.



8. Check chain slides for proper chain tension and slide wear. Replace worn 247 445B Chain Slides as required.

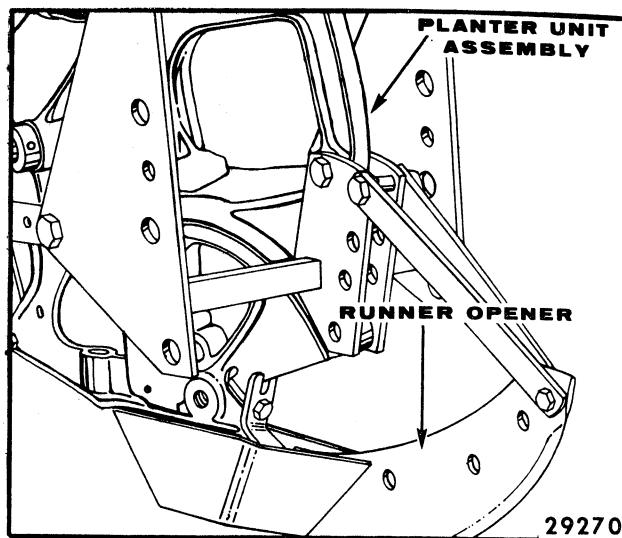


9. Inspect clutch assembly for wear and so that all parts engage and disengage smoothly. Clutch control arm should be snug against wheel arm but not tight to allow clutch to move in and out.

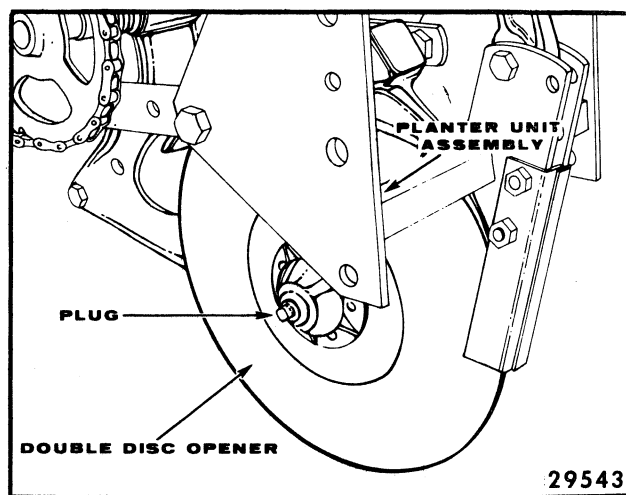
## PRE-SEASON PLANTER PREPARATION

### 10. Seed Openers

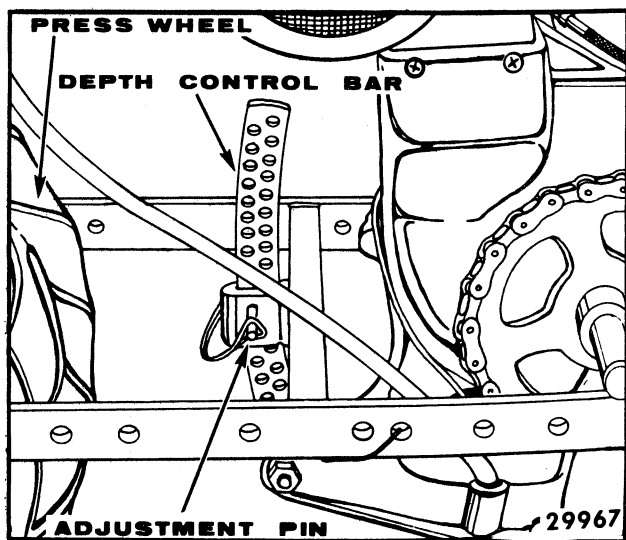
- A. Runner — Check runner opener for wear and replace as required. Replace 246 660B Runner Block when V-edge is worn for better penetration of runner.



- B. Double Disc — Check double disc openers for wear and replace as required. Lubricate discs that have cast hub and pipe plug using multi-purpose grease. Discs with stamped steel hubs have a permanent seal type bearing that does not require lubrication.



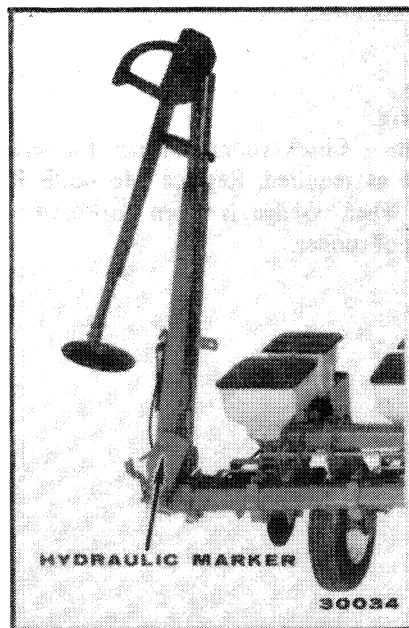
11. Check units to insure all have same depth control bar. Latest bar, (part number 247 543B), is curved and has 28 holes spaced 19/64 inch apart. Each unit depth bar must be adjusted individually under field conditions to achieve same planting depth. Planting depth is adjusted in 1/4 inch increments on 247 543B Bar.



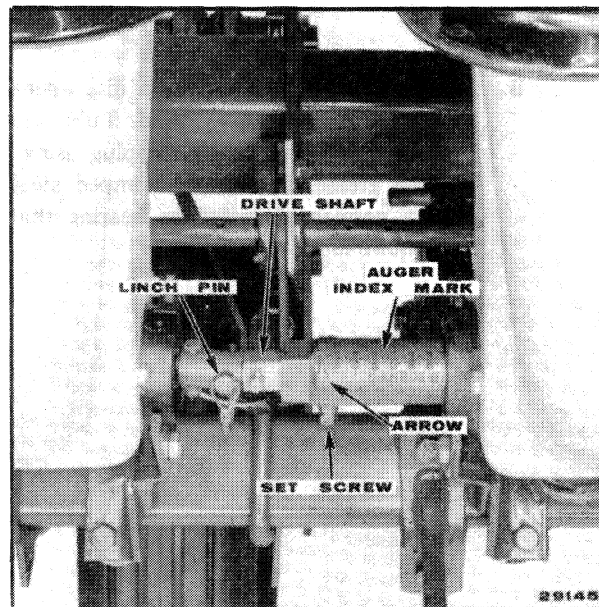


## PRE-SEASON PLANTER PREPARATION

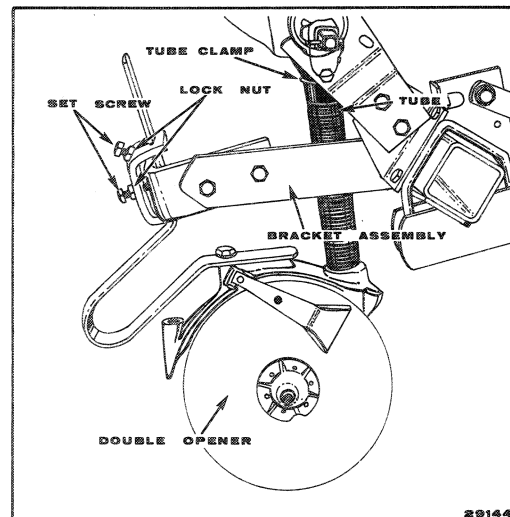
12. Operate rope, selectrip or hydraulic trip markers to insure all moving parts operate freely.



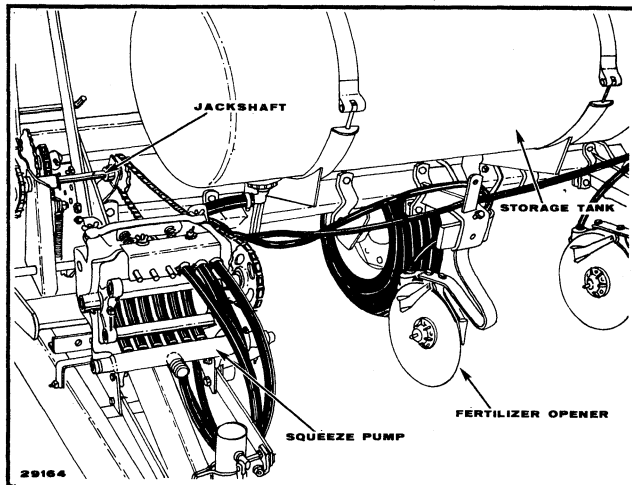
13. Planters with Dry Fertilizer
- A. Check all fertilizer adjustments to insure all moving parts are free.
  - B. Check fertilizer tubes for holes and correct assembly to hoppers and openers.



- C. Check openers for wear and freeness. Replace worn inside (247 460B) and outside (247 461B) scrapers. Lubricate discs that have cast hub, with a pipe plug, using multi-purpose grease. Discs with stamped steel hubs have a permanent seal type bearing that does not require lubrication.

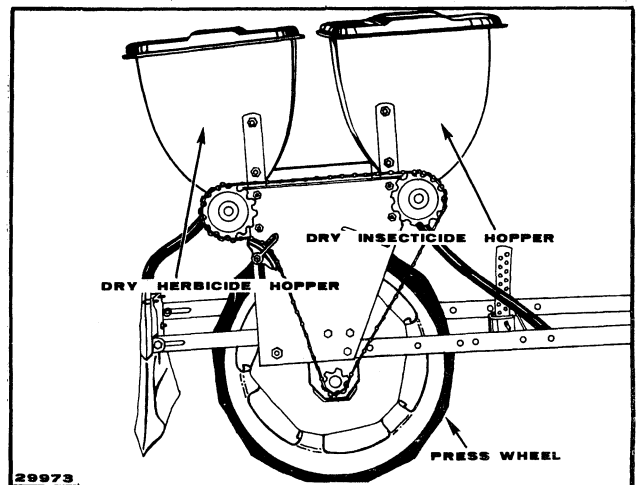
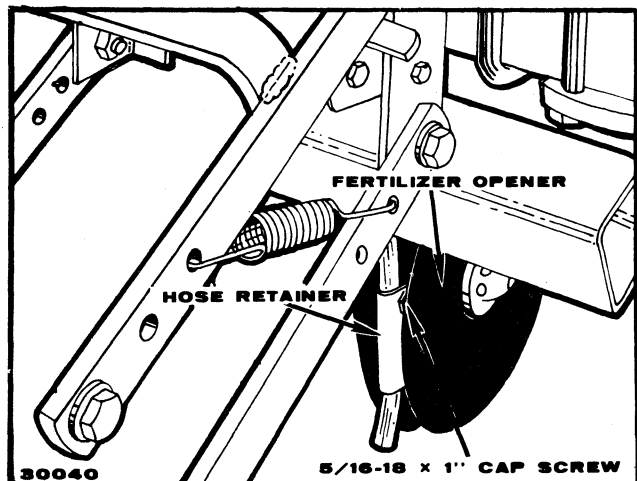


# PRE-SEASON PLANTER PREPARATION



## 14. Planters with Liquid Fertilizer

- A. Check screens in tanks and clean if required.
- B. Inspect squeeze pump hoses for wear or cracks that could allow fertilizer leaks.
- C. Check delivery hoses for defects and make sure they are tightly secured to squeeze pump and openers. Hose should extend four to six inches behind opener.
- D. Check openers for wear and freeness. Replace worn inside (247 460B) and outside (247 461B) scrapers. Lubricate discs with cast hub and pipe plug, using multi-purpose grease. Discs with stamped steel hubs have a permanent seal type bearing that does not require lubrication.

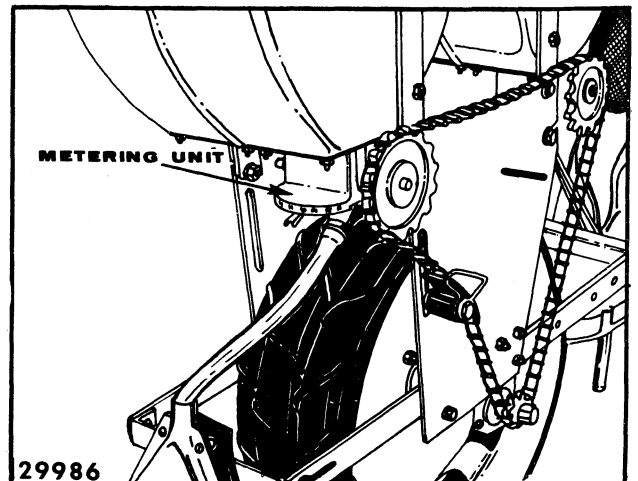


## 15. Planters with Dry Herbicide and/or Insecticide

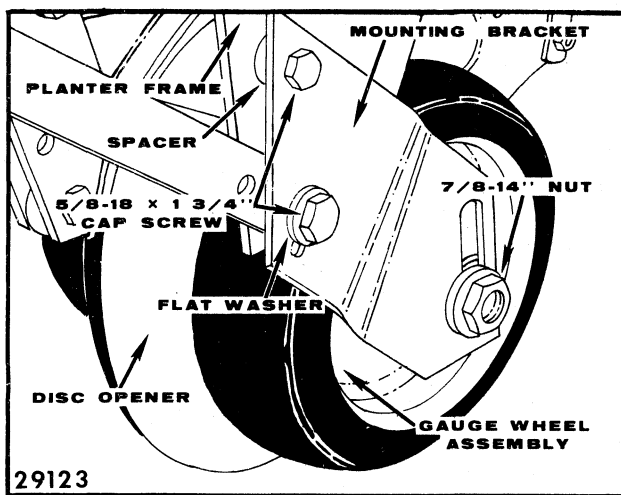
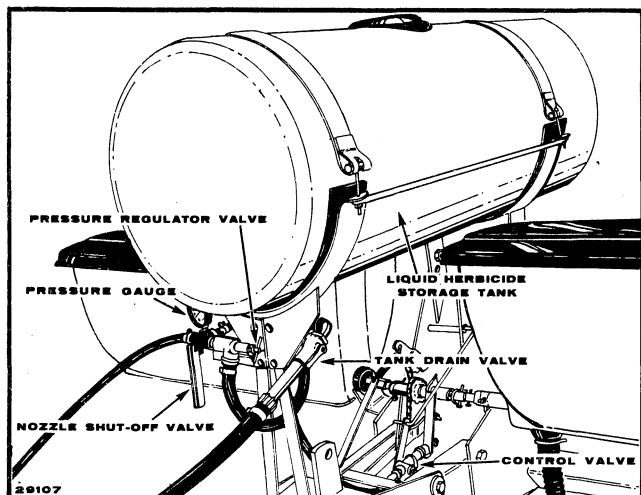
- A. Clean leftover chemicals from hoppers. Do not use water or oil on metering unit.
- B. Check drive chain making sure all links are free and chain tension is set properly.
- C. Rotate metering unit shaft to check for freeness.
- D. Check spreaders for leftover chemicals. Be sure all dividers are clean to allow even chemical spreading.



**CAUTION: AGRICULTURAL CHEMICALS CAN BE DANGEROUS. FOLLOW INSTRUCTIONS CAREFULLY AND USE CARE WHEN HANDLING. KEEP AWAY FROM FACE.**



# PRE-SEASON PLANTER PREPARATION



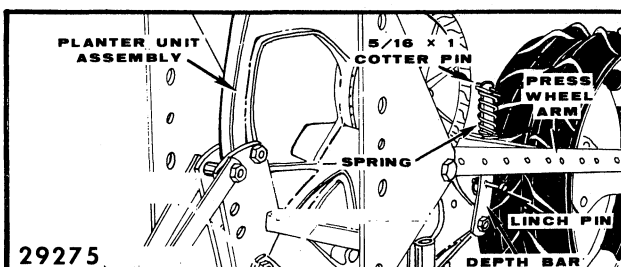
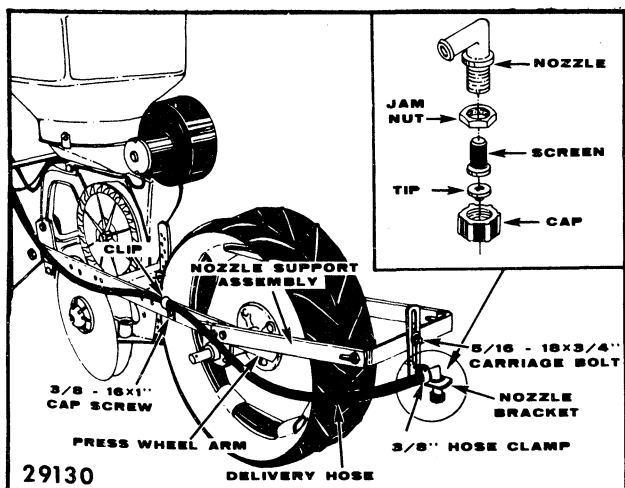
## 16. Planters with Liquid Herbicide

- A. Clean tank, hoses and pump.
- B. Inspect all hoses for damage or cracks. Check all hose connections.
- C. Clean nozzle screens and tips. Check tip size so that it matches chemical to be used.

## 17. Double Gauge Wheels

Double gauge wheels require a compression spring on depth bar to carry approximately 50 percent of planter unit weight. 247 109B Compression Spring with .225 diameter wire replaces SP-524A Compression Spring with .162 diameter wire. For best field operation, SP-524A should be replaced with 247 109B Compression Spring.

Spring tension is adjusted on depth bar by raising or lowering cotter pin located at top of spring. Use linch pin to hold press wheel frame up against spring. Do not pin press wheel frame to depth bar.



# PRE-SEASON PLANTER PREPARATION

## PLANT/AIRE UNIT

1. Remove seed disc and clean old seed, dirt and grease from unit.
2. Check wear strips for wear and replace as required. For glue-on strips, order one 247 398BS Strip Package per two rows and one 247 551B Silaprene Adhesive Tube per twenty rows. For screw-on strips, order one 247 381BS Strip Package per two rows. Inner radius of wear strips must not protrude inside inner radius of planter unit. Wear strips must not overlap where two strips join.
3. Remove seed disc shaft and clean. Shaft should be replaced when shaft has grooves and ridges or outside diameter of shaft in bearing area is less than 0.8700 inch. New 247 542B Shaft outside diameter is 0.8725-0.8735 inch.

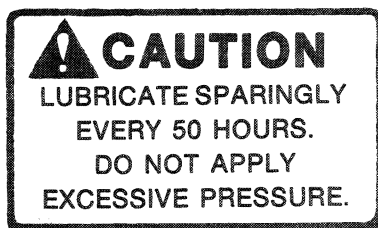
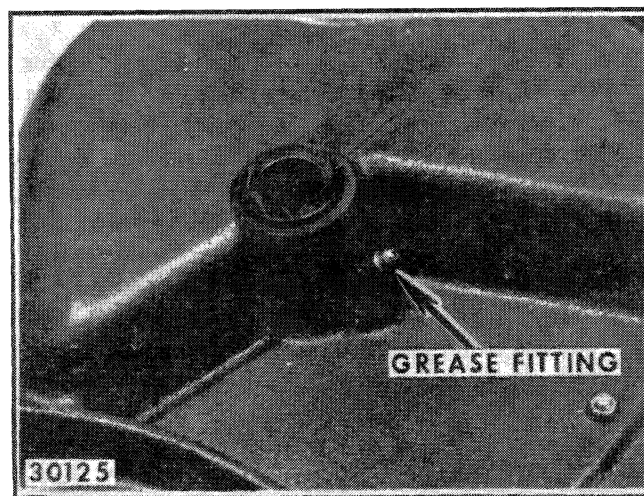
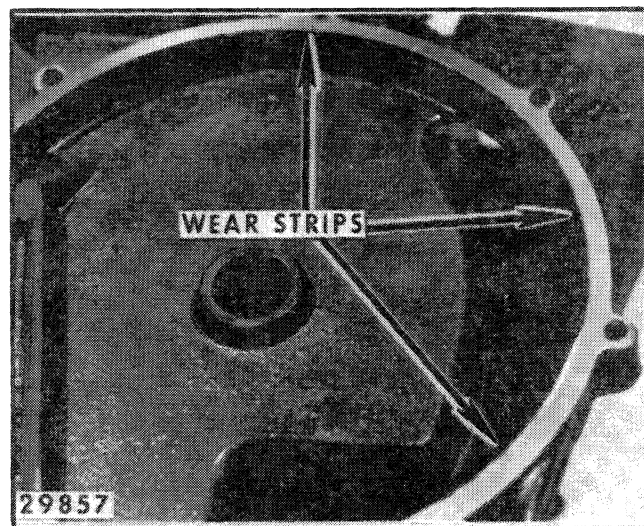
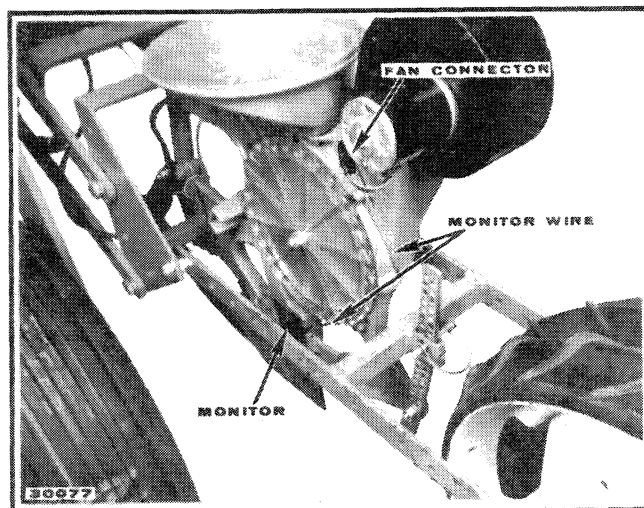
4. Clean grease from seed disc shaft bearings. Maximum allowable clearance between seed disc shaft and bearings is 0.010 inch. Excessive clearance between shaft and bearings will allow disc to tip away from wear strips causing erratic spacing. Part number for right-hand bearing is 247 230B and left-hand bearing is 247 216B.

NOTE: If new bearings fit loose in casting bore, install using bearing mount Loctite.

5. Replace 247 162B Seal if lip is damaged or worn.
6. Reassemble seed disc shaft in planter unit.
7. Lubricate shaft with Molybdenum Disulfide grease. Check left side of casting and remove all grease that emerges from left-hand bearing.

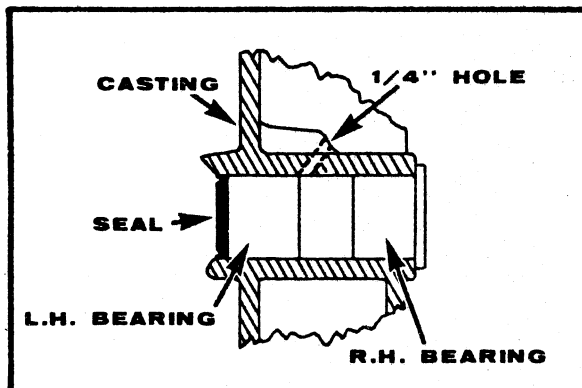
NOTE: If planter unit does not have a grease fitting on right-hand side, a grease fitting may be installed using following instructions.

- A. Remove seed disc shaft.



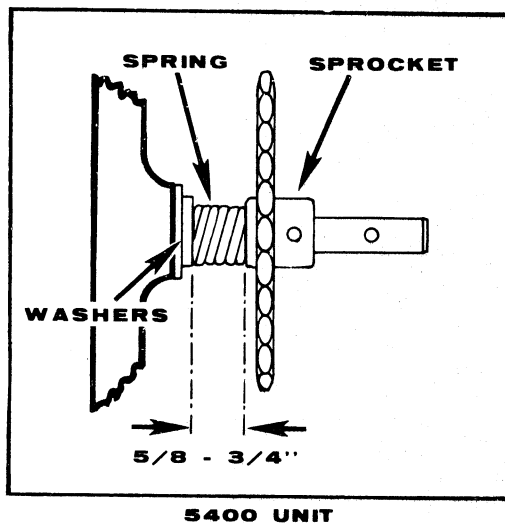
# PRE-SEASON PLANTER PREPARATION

B. Drill a 1/4-inch hole through boss on right-hand side of casting into seed shaft bore.



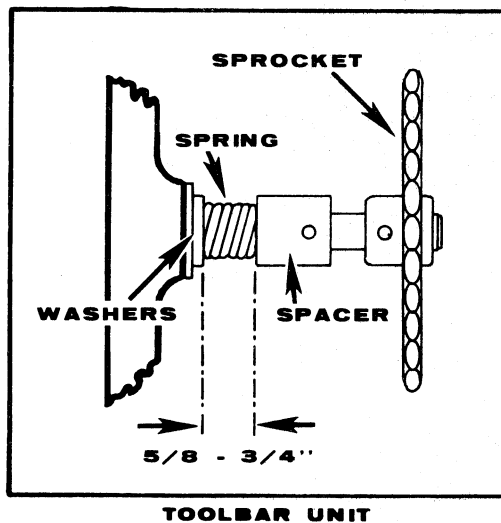
C. Install a drive-in grease fitting in 1/4-inch hole or tap hole and use a threaded fitting.

D. Clean all drill filings from bore and bearings.



E. Install seed disc shaft and lubricate.

8. Assemble 247 594B Chrome Plated Spring, spacer (3400 units only), and 22-tooth sprocket. If unit has black painted spring, replace black spring with chrome plated spring. Compressed length of spring with seed disc installed is 5/8 to 3/4 inch. To decrease spring length, add washers between spring and casting. To increase length of spring, grind sprocket or spacer (3400 units only). Install cotter pin in sprocket and roll pin in spacer (3400 units only). Make sure roll pins and cotter pins do not interfere with press wheel arm.



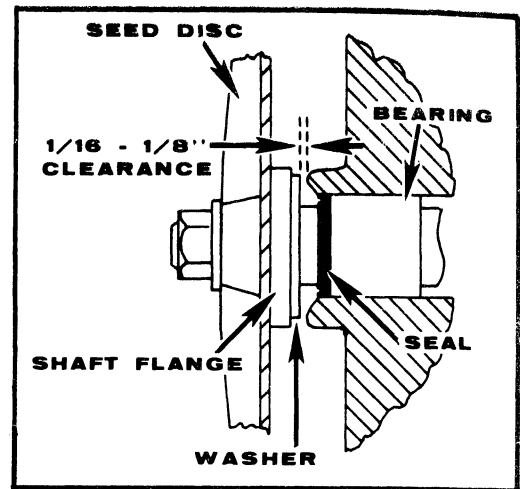


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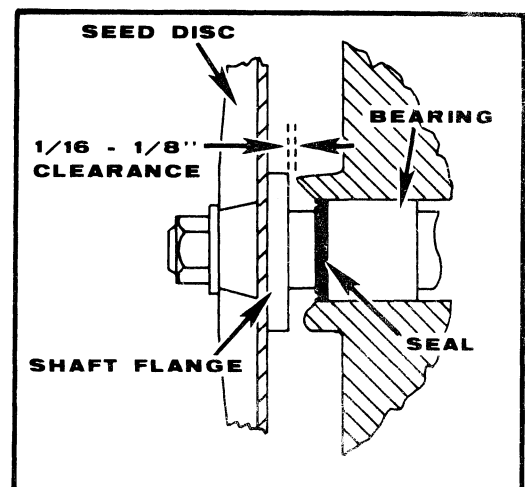
9. After spring length is set, apply pressure on nut end of seed disc shaft. Seed disc should deflect and shaft move through bearings  $1/16$  to  $1/8$  inch.

Early production planter units have a washer installed between seed disc shaft flange and casting to prevent seed wedging and to hold seed disc away from wear strips. Later castings have a cast lip on upper side of boss to prevent seed wedging and do not require a washer.

If shaft will not move on units equipped with an inside washer between seed disc shaft flange and casting, replace washer with a thinner washer. On units with a cast lip in casting, remove part of cast lip with a file until shaft is free to slide.

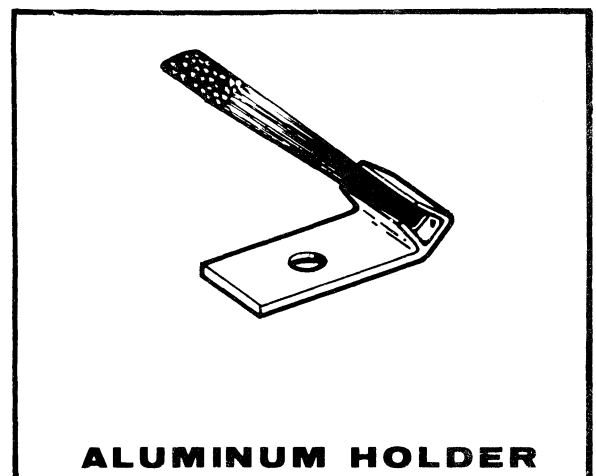


EARLY PRODUCTION



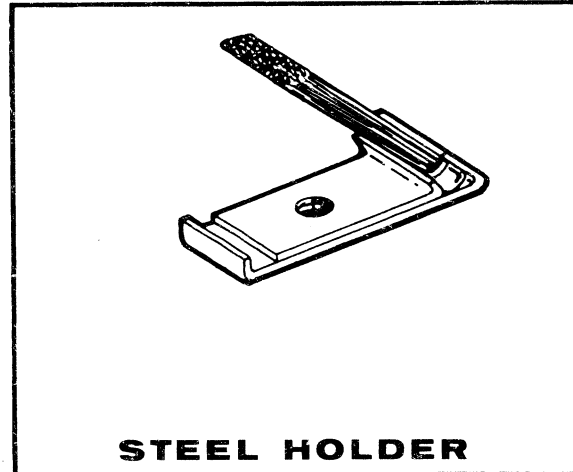
LATE PRODUCTION

10. Inspect brush cut-off for wear and fraying. Make sure it has a steel holder. Aluminum holder can cause seed to wedge between seed disc and holder causing disc to pop and seed to fall out of cells. Brush (steel holder) part number is 247 478B.



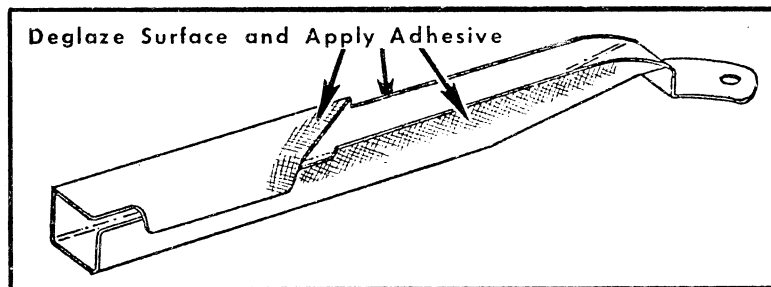
## PRE-SEASON PLANTER PREPARATION

11. On Plant/Aire units without orte piece sensor-liner, inspect seed chute for protrusions and casting ridges. If seed chute area is not smooth and cannot be smoothed out with file or grinder, install 247 161B Plastic Seed Chute Liner. Plastic liner will provide smooth surface for seed to fall through, reduce ricochets and improve seed spacing.

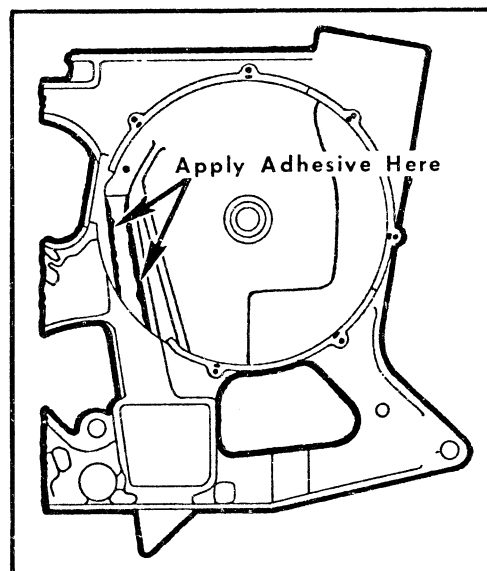


12. Liner Installation

- A. Inspect seed chute in boot casting for roughness or obstructions. Remove obstructions with chisel and square file.



- B. Deglaze outer surface of right-hand side, left-hand side and folding front wall of seed chute liner using fine grade sandpaper.



- C. Apply thin coat of 247 551B Silaprene Adhesive to outer surface of right-hand side, left-hand side and folding front wall of seed chute liner. Adhesive should be spread evenly approximately 1/32 inch thick. One 12 oz. tube of adhesive will secure liners on twenty castings.