



Fertilizer Ground Drive Update Kit  
**Yield-Pro Planters**

Used with:

- YP1225, YP1625 and YP2425 Planters without guarded ground drives
- 407-148A Ground Drive Kits without guards

**General Information**

These instructions explain how to install the Fertilizer Ground Drive Update Kit. This upgrade improves the reliability of the ground drive in conditions with high debris levels.

Note: If the existing ground drive has a guard over the bottom wheel arm, then it already has all the components in this kit.

These instructions apply to:

Update Package	Part Number
GRND DRIVE FERT WHL UPDATE KIT	407-194A

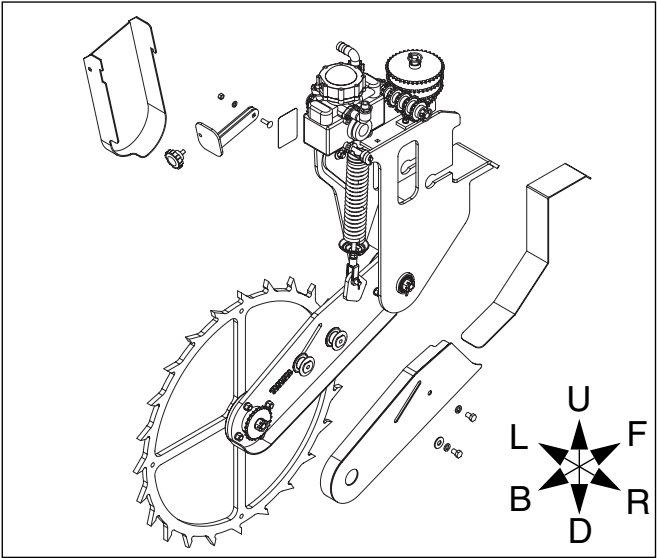


Figure 1  
Existing Drive, Kit Parts

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**Before You Start**

Each kit converts one ground drive. If your planter has two drives, you need two kits.

For each kit, inventory the contents per the “**Parts List**” on page 7.

Review the instructions, to make sure the steps are understood and what tools are expected.

Have the following items at hand:

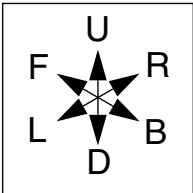
- Operator’s Manual for your drill
- Updated Parts Manual for your drill
- Basic hand tools

If necessary, move the planter to a dry well-lighted location suitable for disassembly.

1. Raise the planter and install any lift or transport locks. *Attempting this update with the planter lowered is not recommended.*
2. Secure the tractor if hitched.

**Notations and Conventions**

“Left” and “Right” are facing in the direction of machine travel. An orientation rose in the line art illustrations shows the directions of Left, Right, Front, Back, Up, Down.



- ① callouts identify components in the currently referenced Figure or Figures.
- ⑪ to ②⑥ callouts reference new parts from the list on page 7. The descriptions match those on the cartons, bags or item tags, as well as your updated Parts Manual.
- ⑤① to ⑤⑧ callouts reference affected existing parts. The descriptions match those in your updated Parts Manual.

## Exchange Drive Type Sprocket

### Locate Sprocket to Remove

Refer to Figure 1

3. Remove the pin from the end of the horizontal ① and vertical ② sprocket storage shafts, and remove all the sprockets.
4. Locate the existing 17-tooth sprocket:  
⑤② SPKT 40C17 X 7/8 HEX BORE

If this sprocket is not on either storage shaft, check the shaft of the upper drive chain.

The existing 17T sprocket is not re-used.  
Do not place it back on a working or storage shaft.

### Exchange Sprocket

5. Select one new:  
①④ 407-150H SPKT 40C13 X 7/8 HEX BORE
6. Place the new 13T sprocket ①④, and all the removed sprockets back onto the storage shafts and re-pin.

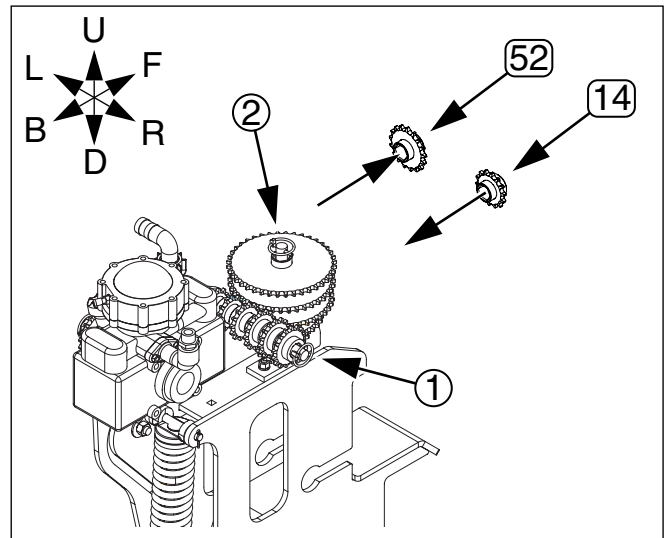


Figure 1  
Stored Sprocket Exchange

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## Exchange Wheel Output Sprocket

### Remove Existing Sprocket

7. Loosen bolt securing idler ② and slide it to the top/ front of its track.
  8. Dismount the lower primary drive chain  
⑤⑧ CHAIN ROLLER #40 PLATED  
(it is modified later before re-installation).
  9. Remove and save:  
⑤⑦ PIN COTTER 3/16 X 1 1/2 PLT  
⑤④ NUT HEX SLOTTED 3/4-16
  10. Remove sprocket weldment:  
⑤① FERT DRIVE SPKT WLMT  
This part is not re-used.
  11. Select one new:  
①③ 407-145H FERT DRIVE SPKT WLMT
  12. Install new sprocket ①③.  
Secure with nut ⑤④ and cotter pin ⑤⑦.
- Do not re-mount chain at this time.

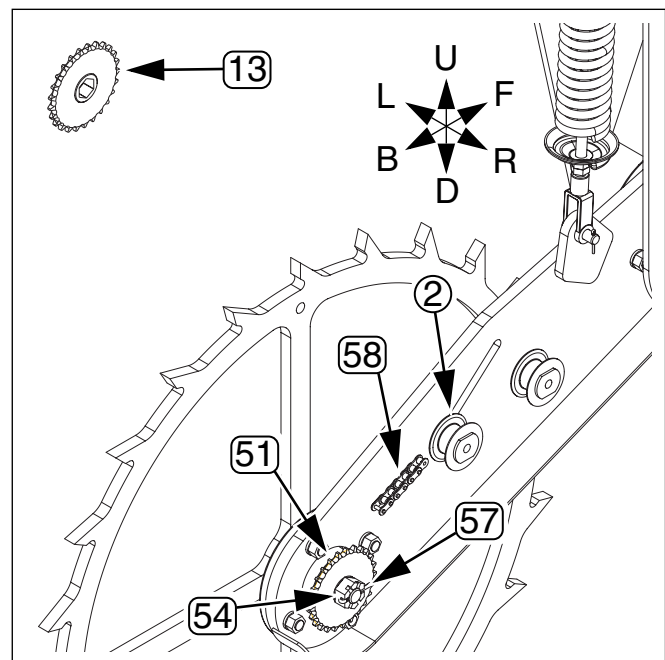


Figure 2  
Wheel Output Sprocket

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## Adjust Chain Length

### Refer to Figure 3

13. Return to dismantled chain  
**58** CHAIN ROLLER #40 PLATED
14. Locate the removable link **1** in the chain.  
 Remove and save the clip.
15. Select one new:  
**12** 136-098D CHAIN RL #40 4 PITCHES  
 This is a 4-pitch section of chain.
16. Remove the clip from the new chain segment **12**,  
 and add the new chain segment **12** to the existing  
 chain **58**.
17. Install both clips, making sure the open end of the  
 clip **2** is facing in the same direction on both remov-  
 able links.

### Refer to Figure 4

18. Re-mount the chain on the wheel output sprocket.  
 Make sure open clip ends point away from the direc-  
 tion of chain movement (to minimize capture of  
 debris in the clips).
19. Engage rear idler until there is  $\frac{1}{2}$  in slack in the bot-  
 tom chain span. Tighten idler bolt.

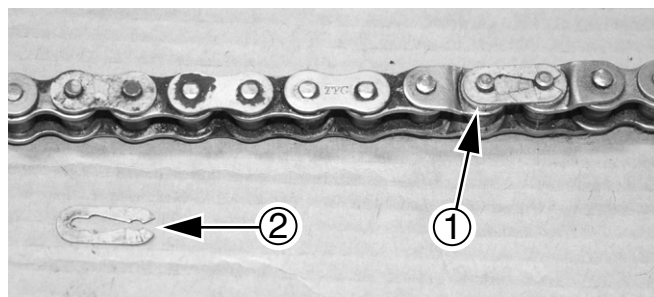


Figure 3  
Adding Links to Chain

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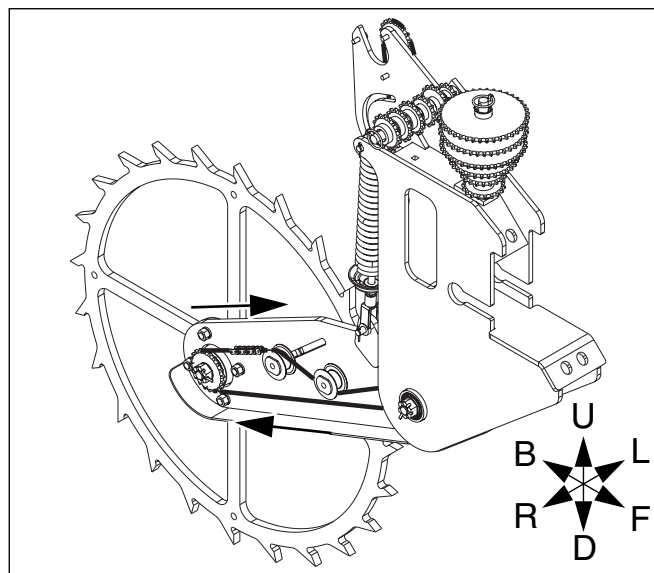


Figure 4  
Chain Direction

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## Install Lower Guard

Refer to Figure 5

20. Select two sets of new:
  - ⑲ 802-032C HHCS 1/2-13X3/4 GR5
  - ⑳ 804-015C WASHER LOCK SPRING 1/2 PLT
 and one each new:
  - ⑰ 407-193H CONTACT WHL DR SHLD LWR
  - ㉑ 804-017C WASHER FLAT 1/2 USS PLT
21. Align the hole and slot in the shield ⑰ with the fixed and moveable idler shafts, respectively.
22. Secure the shield with a screw ⑲ and lock washer ㉑ on the fixed idler, and a screw ⑲, lock washer ㉑ and flat washer ㉑ on the slotted idler.

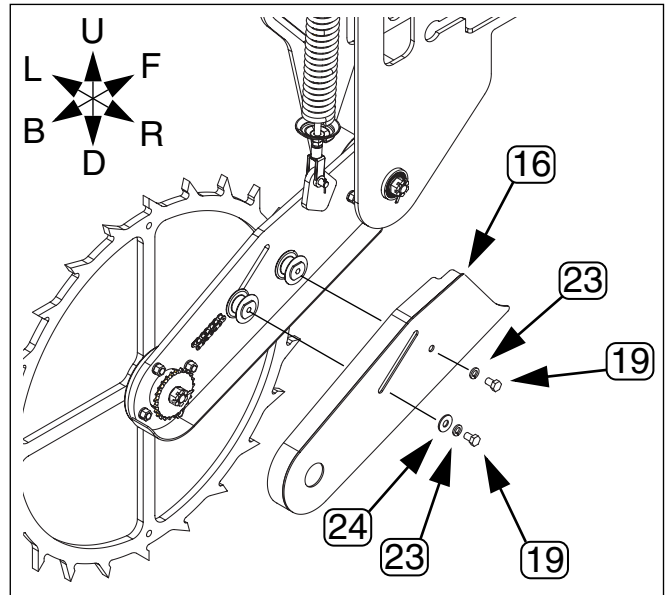


Figure 5  
Lower Chain Guard

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## Install Stalk Shield

### Remove Excess Washer

Refer to Figure 6

#### IMPORTANT !

Remove only the lower U-bolt fasteners, or the drive will fall from the tool bar.

23. On the lower end of the U-bolts that secure the ground drive to the tool bar, remove two sets of:
  - ⑤③ NUT HEX 3/4-10 PLT NYLOCK
  - ⑤⑤ WASHER LOCK SPRING 3/4 PLT
  - ⑤⑥ WASHER FLAT 3/4 SAE PLT
 Save the nut ⑤③ and lock washer ⑤⑤. The flat washer ⑤⑥ is not re-used.

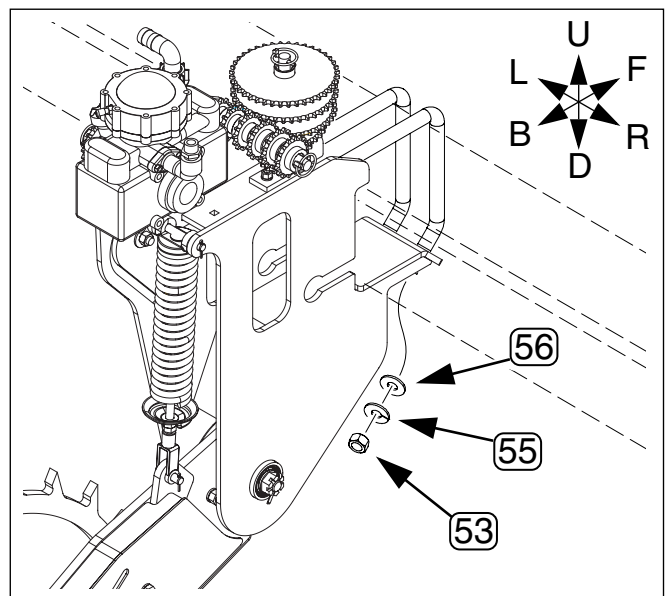


Figure 6  
U-Bolt Fasteners

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## Install Shield

Refer to Figure 7

24. Select one new:  
 (18) 407-289D FERT PUMP MNT STALK SHIELD  
 and two sets of the saved:  
 (53) NUT HEX 3/4-10 PLT NYLOCK  
 (55) WASHER LOCK SPRING 3/4 PLT
25. Secure the shield (18) to the lower ends of the U-bolts using the saved lock washer (55) and nut (53).

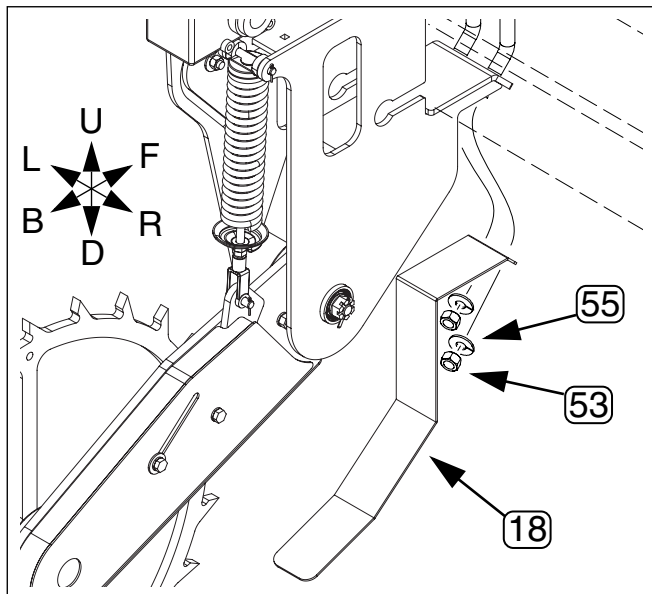


Figure 7  
Stalk Shield

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## Install Upper Guard

### Install Guard Mount

Refer to Figure 8,  
 which depicts the drive with Drive Type chain removed for  
 clarity. It is not necessary to dismount the chain for the task.

26. Select one each new:  
 (17) 407-195H FERT PUMP UPPER SHLD MNT WLMT  
 (20) 802-155C RHSNB 3/8-16X1 1/4 GR5  
 (22) 804-013C WASHER LOCK SPRING 3/8 PLT  
 (21) 803-014C NUT HEX 3/8-16 PLT
27. Orient the base plate of the shield mount (17) so that the base plate with the thread hole extends to the left.
28. Slide the mount (17) ears over the left plate of the main drive mount until the plate cutout is visible through the ear holes.
29. Insert bolt (20) from the right and seat its square shank in the square hole of the mount ears.
30. Secure the mount (17) with a washer (22) and nut (21).

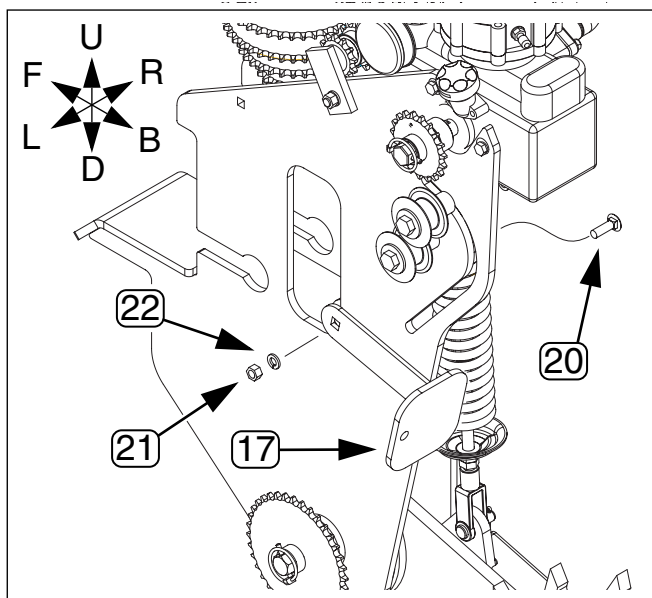


Figure 8  
Upper Guard Mount

26318

## 6 | Fertilizer Ground Drive Update Kit

### Install Guard

*Refer to Figure 9*

Note: If you removed the chain for the mount installation, re-install it. Make sure the open end of the clip ① in the removable link is oriented away from the direction of chain travel.

31. Select one each new:  
 ⑮ 407-192H CONTACT WHL DR SHLD UPPER  
 ⑳ 817-358C KNOB 3/8-16 MALE THD 2 3/8OD
32. Place the upper shield ⑮ forward of the guard mount base plate ⑰. The base plate hole is clear. The shield hole is threaded to accept the knob.
33. Secure the shield ⑮ to the mount ⑰ with knob ㉑.

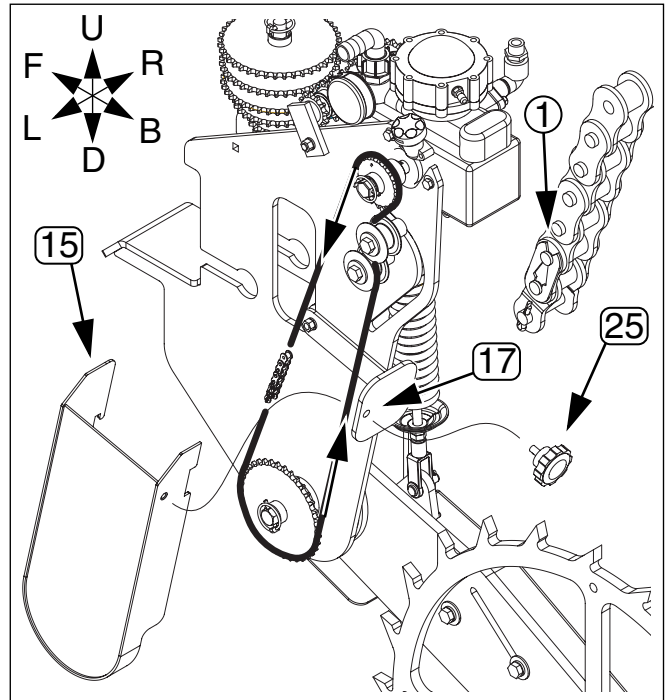


Figure 9  
Upper Guard

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### Apply Decal

*Refer to Figure 10*

34. Clean and de-grease the forward outside surface ① of the left plate of the ground drive weldment. Make sure the area is completely dry before applying the decal.
35. Select one new:  
 ㉔ 848-095C DECAL FERT DRIVE
36. Peel the release paper from the back of the decal. Apply the decal to the ground drive. Smooth out any air bubbles with a soft cloth.

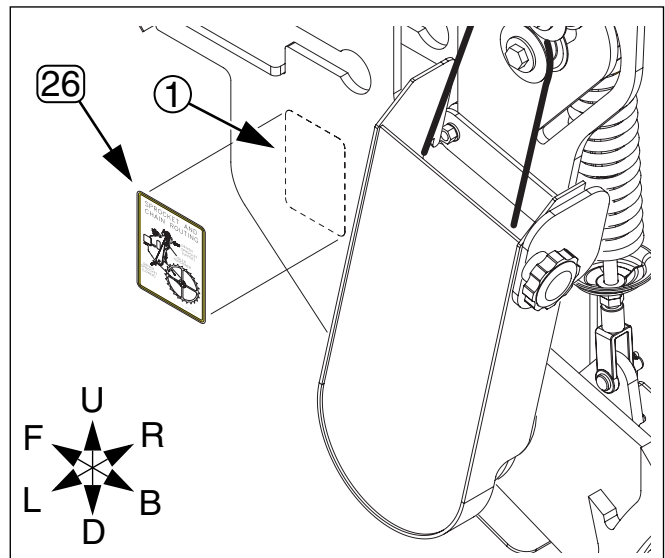


Figure 10  
Decal Location

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## Parts List

### New Parts Included in the 407-194A Fertilizer Ground Drive Update Kit:

Callout	Quantity	Part Number	Part Description
11	1	407-196M	This manual
12	1	136-098D	CHAIN RL #40 4 PITCHES
13	1	407-145H	FERT DRIVE SPKT WLMT
14	1	407-150H	SPKT 40C13 X 7/8 HEX BORE
15	1	407-192H	CONTACT WHL DR SHLD UPPER
16	1	407-193H	CONTACT WHL DR SHLD LWR
17	1	407-195H	FERT PUMP UPPER SHLD MNT WLMT
18	1	407-289D	FERT PUMP MNT STALK SHIELD
19	2	802-032C	HHCS 1/2-13X3/4 GR5
20	1	802-155C	RHSNB 3/8-16X1 1/4 GR5
21	1	803-014C	NUT HEX 3/8-16 PLT
22	1	804-013C	WASHER LOCK SPRING 3/8 PLT
23	2	804-015C	WASHER LOCK SPRING 1/2 PLT
24	1	804-017C	WASHER FLAT 1/2 USS PLT
25	1	817-358C	KNOB 3/8-16 MALE THD 2 3/8OD
26	1	848-095C	DECAL FERT DRIVE

## Reference Information

### Abbreviations

<b>DR</b>	Drive
<b>FERT</b>	Fertilizer
<b>GR5</b>	Grade 5
<b>HHCS</b>	Hex Head Cap Screw (Bolt)
<b>LWR</b>	Lower
<b>MNT</b>	Mount
<b>PLT</b>	Plated
<b>RHSNB</b>	Round Head Shank Neck Bolt
<b>RL</b>	Roller
<b>SAE</b>	Society of Automotive Engineers (standard)
<b>SHLD</b>	Shield
<b>SPKT</b>	Sprocket
<b>THD</b>	Thread
<b>USS</b>	United States Standard (heavy-duty)
<b>WHL</b>	Wheel
<b>WLMT</b>	Weldment

Torque Values		
Fastener/Fitting	N-m	Ft-Lbs
3/8-16 GR5	42	31
1/2-13 GR5	105	76
3/4-10 GR5	360	265
3/4-16 GR5	405	295

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