



## Series II Native Grass Agitator Native Grass Vintage Drills

Used with:

- 705 and 1005 Native Grass Drills
- Some earlier Native Grass drills

## General Information

These instructions explain how to install a Series II Native Grass Agitator. These kits enhance your Great Plains Native Grass Drill for more consistent and efficient seeding of native grass. Kits are supplied for most Great Plains Native Grass Drills. If your drill is not listed above, have your dealer contact the factory, as a kit may be available.

These instructions apply to:

202-608A      NG SERIES II AGITATOR PER ROW

The agitators in this kit are only for drills with  $\frac{3}{4}$ in hexagonal agitator shafts in the seed box. If your drill does not have a  $\frac{3}{4}$ in hex shaft, a shaft update kit may be available.

202-610A      705 NG 3/4 HEX SHAFT KIT

202-611A      1005 NG 3/4 HEX SHAFT KIT

If your drill is a Series II, you already have the enhancement in this kit.

For a complete Series II enhancement, separately order seed sprocket kits below, and 2 decals:

202-597A      NG CUP ENHANCEMENT KIT  
(order one of these kits per row)

838-986C      DECAL NATIVE GRASS SERIES II

## Before You Start

Each kit converts one Native Grass seeding row. Order one kit per row that can accept an agitator. Make sure each row is not so close to a partition that no agitator can be installed there.

Due to interference with partitions, it may not be possible to install a full set of four agitators blades at all seed cups. Due to partition re-alignments over various model years, you may have blades left over after the upgrade.

Have the following at hand:

- Basic hand tools
- Updated Parts Manual for the drill
- Operator's Manual for the drill

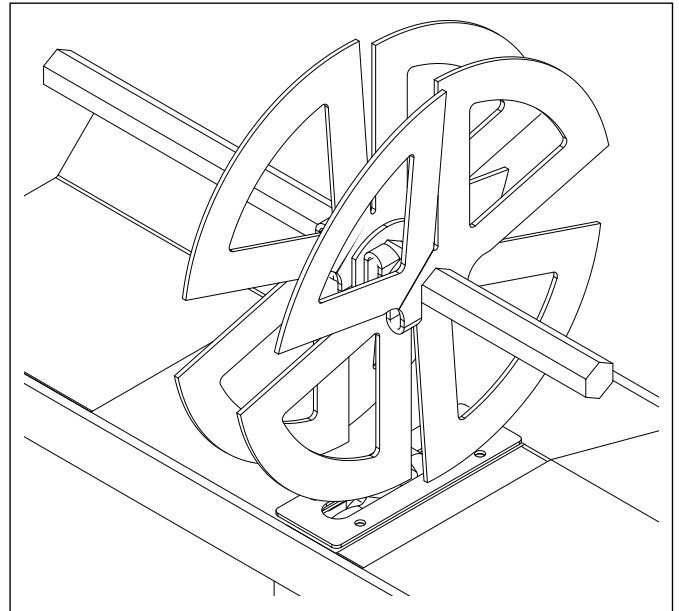


Figure 1  
Series II Agitator

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## Notations and Conventions

“Left” and “Right” are facing in the direction of machine travel.

- ① callouts identify components in the currently referenced Figure or Figures.
- ①1 to ①6 callouts reference new parts from the list on page 6. The descriptions match those on the cartons, bags or item tags, as well as your updated Parts Manual.
- ⑤1 to ⑤3 callouts reference existing parts. The descriptions match those in your Parts Manual.

## Installation

### Preparation

0. If performing a complete Series II upgrade, install the cup enhancements first.
1. Inventory the kit contents per the “**Parts List**” on page 6.

Examine the new parts, noting that they are color-coded for left hand (black) and right hand (plated or green) placement. The Left fan-shaped agitators are stamped “L”.

The (fan-shaped) Series II agitators each have two blades; one flat, and one bent out slightly. The bend will be away from the feeder sprocket in a correct installation. In the normal direction of rotation, these blades sweep seed toward the seed cup.

2. If you have just completed the Hex Shaft Update, your shaft has no agitators installed, and the drive chain is already dismounted. Skip to step 9.
3. Clean out any seed in box.
4. If necessary, move the drill to a dry well-lighted location suitable for disassembly. Park and secure the drill. Secure the tractor if left connected.

### Dismount Drive Chain

For access to all fasteners, old and new, the shaft needs to turn freely.

Refer to Figure 2

5. On the left (drive) end of the Native Grass seed box, flip out the snap fasteners ①. Lift the access panel up and out, and save it.

Refer to Figure 3

6. Loosen the idlers ①.
7. Remove the chain ② from the drive sprocket ③ and let it hang toward the idlers.

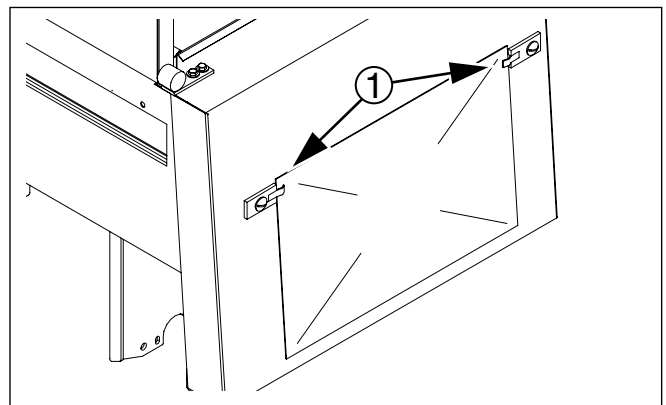


Figure 2  
Remove Access Panel

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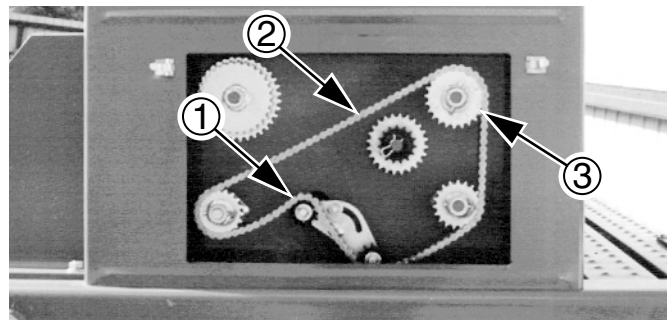


Figure 3  
Dismount Chain

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## Remove Existing Agitators

Refer to Figure 4

8. At each row, remove two each existing:
  - ⑤③ NUT HEX NYLOCK 5/16-18 PLT
  - ⑤② HFSS 1/4-20X2 GR5
  - ⑤① NG AGITATOR PADDLE
 These parts are not re-used.

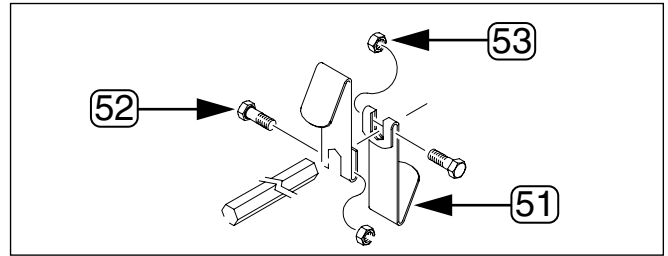


Figure 4  
Remove Old Paddles 25125

## Apply new Decals

Refer to Figure 5

The new Warning decal location is on the stiffener rib on the underside of the Native Grass box lid. Do not cover any existing decals.

Note: Your kit includes one decal per row. As you will have more than two decals per box, not all are needed for the drill update.

9. Place two decals ①⑥ in each lid, or a foot or two from each end of the lid.
10. Clean the location(s) for the Crush warning decal(s). Peel the release paper backing from the decal, align and apply it. Smooth it with a clean rag to remove bubbles.

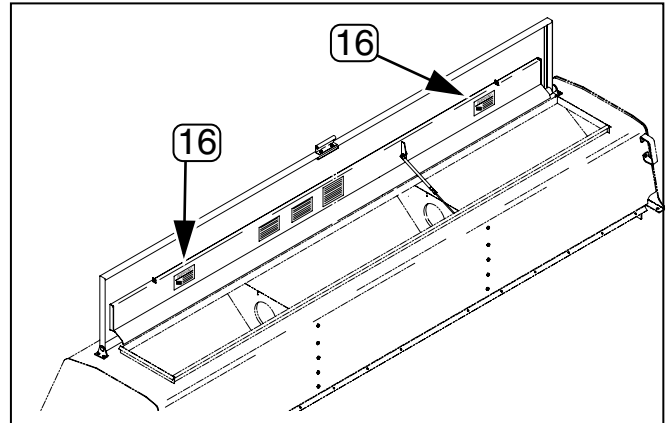


Figure 5  
Warning Decal Location 26290

## Install New Agitators

### Mount Blades

Refer to Figure 6

11. Pick a starting feeder cup row that is not adjacent to a seed box partition (to assure a starting example using all four blades).
12. Select one each new:
  - ①③ 202-281D LH NG SERIES 2 AGITATOR
  - ①④ 802-448C HFSS 1/4-20 X 2 GR5
  - ①⑤ 803-088C NUT HEX LOCK 1/4-20 FLG
13. Position the (black, fan-shaped) Left Series II agitator ①③ to the left of a feeder sprocket ①. The slot in the agitator fits over the drive shaft ②. The short side of the "U" bend faces the sprocket.
14. Loosely attach the agitator to the shaft with a screw ①④ and nut ①⑤.
15. Rotate the shaft 180°.
16. Select one each new:
  - ①② 202-280D RH NG SERIES 2 AGITATOR
  - ①④ 802-448C HFSS 1/4-20 X 2 GR5
  - ①⑤ 803-088C NUT HEX LOCK 1/4-20 FLG

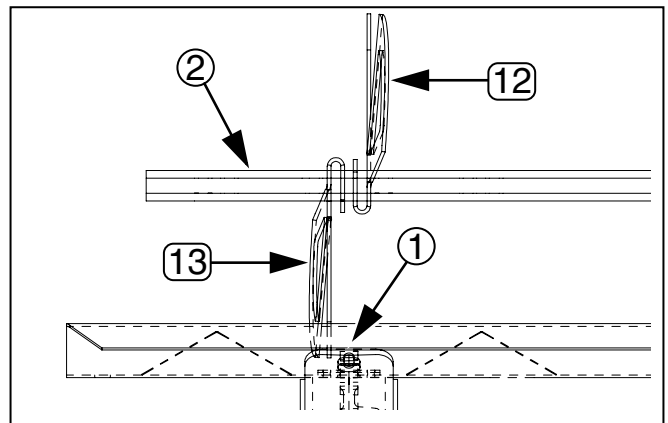


Figure 6  
Agitator Inside Blades  
(viewed from back of drill) 25126

## 4 | Series II Native Grass Agitator

17. Position the (plated, fan-shaped) Right Series II agitator (12) to the right of the Left agitator (13) just placed. The slot in the agitator fits over the shaft. The short side of the "U" bend faces the sprocket. Align it on the opposite shaft faces from the Left agitator.
18. Loosely attach the agitator to the shaft with a screw (14) and nut (15).

Refer to Figure 7

19. Select one each new:
  - (13) 202-281D LH NG SERIES 2 AGITATOR
  - (14) 802-448C HFSS 1/4-20 X 2 GR5
  - (15) 803-088C NUT HEX LOCK 1/4-20 FLG
20. Rotate the shaft 180°. Position a Left agitator (13) to the left of the previous Left agitator (1) (away from the sprocket (2)). The short side of the "U" bend faces the sprocket. Loosely assemble.
21. Select one each new:
  - (12) 202-280D RH NG SERIES 2 AGITATOR
  - (14) 802-448C HFSS 1/4-20 X 2 GR5
  - (15) 803-088C NUT HEX LOCK 1/4-20 FLG
22. Rotate the shaft 180°. Position a Right agitator (12) to the right of the previous Right agitator (3) (away from the sprocket (2)). The short side of the "U" bend faces the sprocket. Loosely assemble.

### Position Blades

Refer to Figure 8

23. Slide the inner-most Left agitator (1) so that there is  $\frac{1}{4}$ in clearance between the flat blade and the nearest side of the seed sprocket (2). Tighten the screw and nut (not shown).
24. Slide the inner-most Right agitator (3) so that there is  $\frac{1}{4}$ in clearance between the flat blade and the nearest side of the seed sprocket (2). Tighten screw & nut (not shown).

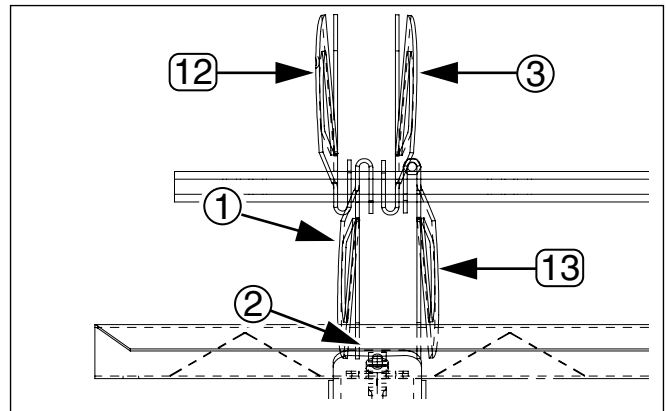


Figure 7  
Agitator Outside Blades  
(viewed from back of drill)

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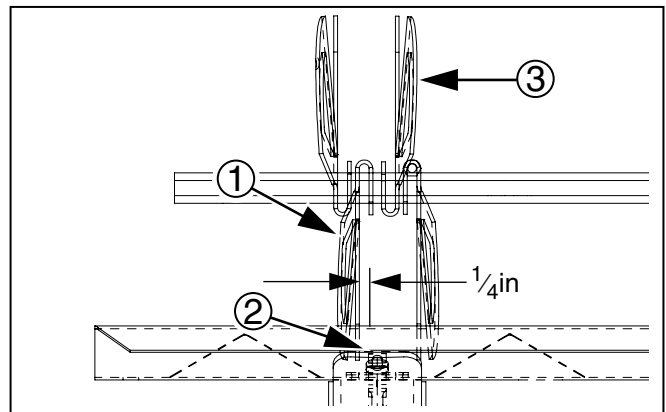


Figure 8  
Agitator Blade Placement  
(viewed from back of drill)

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Refer to Figure 9

25. Slide the outer-most Left agitator ① close to the inner-most Left agitator ②, leaving  $\frac{1}{8}$ in clearance between them (about the thickness of an agitator). Tighten screw and nut (not shown).
26. Slide the outer-most Right agitator ③ close to the inner-most Right agitator ④, leaving  $\frac{1}{8}$ in clearance between them (about the thickness of an agitator). Tighten screw and nut (not shown). Spin the shaft for a few turns to check clearances.
27. Repeat step 12 through step 26 for each seeder row.

Note: On rows adjacent to partitions, it may not be possible to install all agitators and still have at least  $\frac{1}{8}$ in clearance from the partition. In those cases, do not install blades that would not have clearance.

## Closeout

Refer to Figure 3 on page 2 and Figure 2 on page 2

28. Re-mount the drive chain on the agitator sprocket.
29. Engage the idlers. Adjust the idlers to remove all but  $\frac{1}{2}$ in of slack in the longest span, and tighten.
30. Install the access panel door and close snaps.

Changing to Series II agitators does not materially change seed rates. Changing to Series II seed sprocket does affect seed rates, and new charts are included in the instructions for that kit.

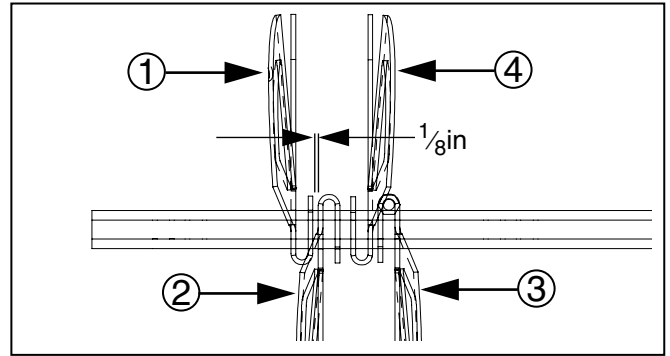


Figure 9  
Agitator Spacing  
(viewed from back of drill)

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## Parts List

### New Parts Included in the 202-610A and -611A Series II Native Grass Agitator:

Callout	Qty	Part Number	Part Description
⑪	1	202-609M	This manual
⑫	2	202-280D	RH NG SERIES 2 AGITATOR
⑬	2	202-281D	LH NG SERIES 2 AGITATOR
⑭	2	802-448C	HFSS 1/4-20 X 2 GR5
⑮	2	803-088C	NUT HEX LOCK 1/4-20 FLG
⑯	1	838-611C	DECAL WARNING HAND CRUSHING

## Reference Information

### Abbreviations

<b>FLG</b>	Flanged
<b>GR5</b>	Grade 5
<b>HFSS</b>	Hex Flange Serrated Screw
<b>LH</b>	Left Hand
<b>NG</b>	Native Grass
<b>PLT</b>	Plated
<b>RH</b>	Right Hand

### Torque Values

Fastener/Fitting	N-m	Ft-Lbs
1/4-20 GR5	11	8

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