



Native Grass Rate Reduction Kit Great Plains 706NT/1006/1007NT No-Till Drills

Used with:

- All model year pull-type 706NT and 1006NT^a drills, with Series I or Series II Native Grass
- All 1007NT drills with Native Grass

General Information

These instructions explain Native Grass Rate Reduction Kit installation. This feature supports lower Native Grass rates than are possible with the standard drill. Each kit converts an entire drill.

These instructions apply to:

Kit	Product Description
202-581A	Native Grass Rate Reduction Kit

Tools Required

- Basic hand tools, including snap ring pliers
- Chain oil

Before You Start

Refer to *Figure 1*

Remove all contents of the kit case (the case is used to receive parts removed from the drill).

1. Inventory the new parts per “**Parts List**” on page 6.

Refer to the drill **Operator Manual** for these steps:

2. Hitch the drill to a suitable tractor.
3. Move the drill to a dry well-lighted location suitable for disassembly.
4. Lower the drill.
5. Disconnect hydraulic and electrical power to the drill.

Note: Whenever mounting a chain, make sure the clip at the removable link is oriented to minimize snags.

Install clip with open end facing away from direction of chain travel (shown by gray arrows in chain routing diagrams).

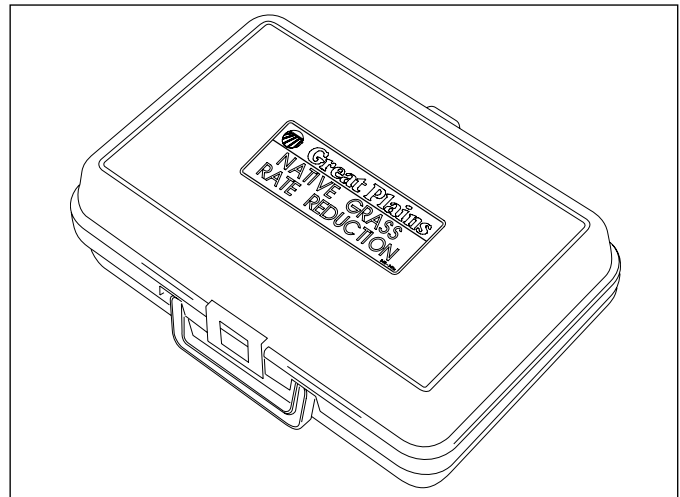
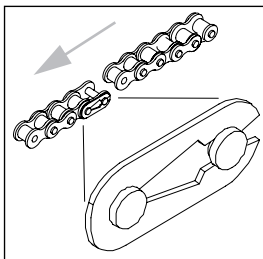
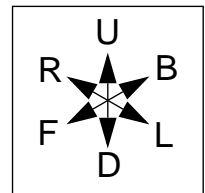


Figure 1
Kit Storage Case

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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: Up, Back, Left, Down, Front, Right.



- ① to ⑨ callouts identify components in the currently referenced Figure or Figures. These numbers may be re-used from page to page.
- ⑪ to ⑫ document-wide callouts reference existing parts exchanged or temporarily removed. The descriptions match those in a current drill Parts Manual.
- ⑮ to ⑯ document-wide callouts reference new parts from the list on page 6. The descriptions match those on the cartons, bags or item tags, as well the current Parts Manual.

a. 3-Point model 3P1006NT uses Rate Reduction kit 202-580A.

Installation

Remove Gearbox Cover

Refer to Figure 2 and Figure 3

6. At the right side (Native Grass) gearbox, remove and save one set:
 - ⑱ 802-300C HHCS 1/4-28X3/8 GR5
 - ⑲ 804-006C WASHER LOCK SPRING 1/4 PLT
 - ⑳ 804-007C WASHER FLAT 1/4 SAE PLT
 - ⑪ 120-237D GEARBOX SHIFT HANDLE
7. Remove and save two:
 - ⑰ 801-076C SCR SELF TAPPING 3/8X1 that attach the box cover ⑭ to the gearbox ①.
8. Remove and save the cover:
 - ⑭ 152-546D NG GEARBOX COVER

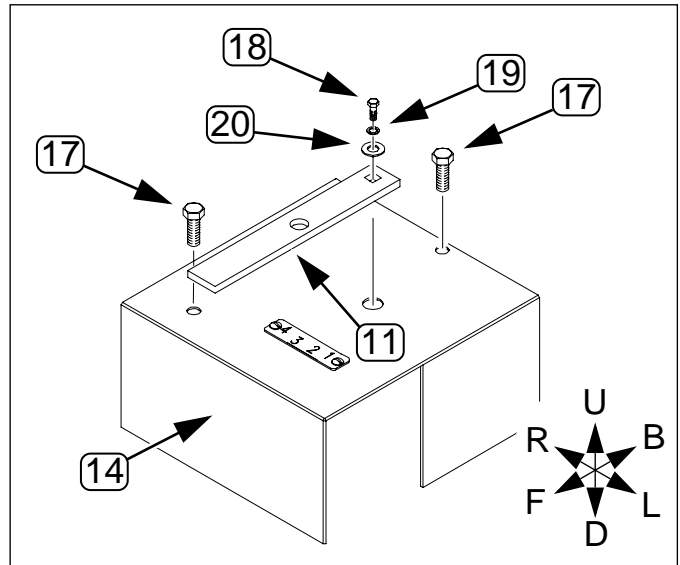


Figure 2
Remove Gearbox Cover

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Remove Old Gearbox Output Chain

Refer to Figure 3

9. Loosen the bolts and relax the idlers at ②.
10. Remove the existing 108-pitch chain:
 - ⑫ 136-150D CHAIN RL #40 108 PITCHES that loops around the 19T rear left hand gear sprocket ⑰, idlers ②, and the transmission sprocket ③. Store this chain in the kit case for future possible use. Do not remove transmission sprocket ③.

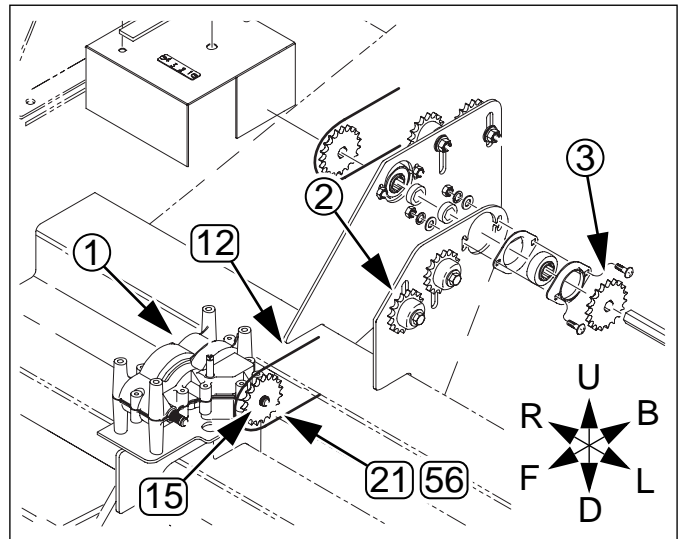


Figure 3
Gearbox Output Sprockets

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Exchange Gearbox Sprocket

Refer to Figure 4

11. Remove and save the snap ring:
 - ⑮ 800-141C SNAP RING EXT F/PEERLESS G.B. on the 19T rear left hand gear sprocket ⑳. The snap ring is re-used during this installation.
12. Remove and save 19T sprocket:
 - ⑳ 808-157C SPKT 40B19 X 36T SPLINE BORE
 Store the 19T sprocket in the kit case for future possible use.
13. Select one new 12T sprocket:
 - ⑯ 808-160C SPKT 40B12 X 36T SPLINE BORE
 Mount the 12T sprocket ⑯ in the rear left hand position formerly occupied by 19T sprocket ⑳. Secure with the snap ring ⑮.

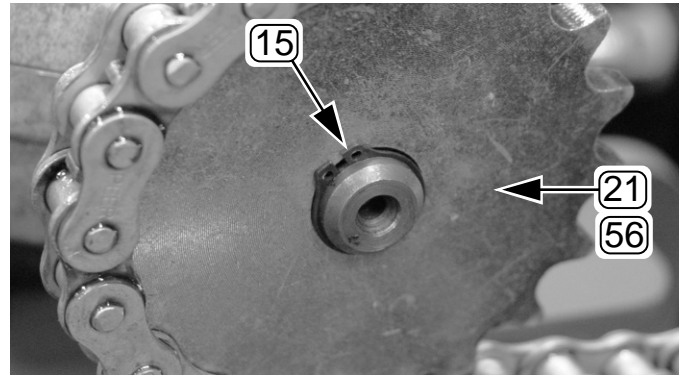


Figure 4
Output Sprocket Snap Ring

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Install New Gearbox Chain

Refer to Figure 5

14. Select one new:
 - ⑯ 136-080D CHAIN RL #40 105 PITCHES
 Mount this chain around the new sprocket ⑯, idlers ②, and the transmission sprocket ③.
15. Adjust idlers ② to remove all but $\frac{7}{8}$ in (22mm) of slack in the longest span of the chain ⑯ just mounted. Tighten bolts.

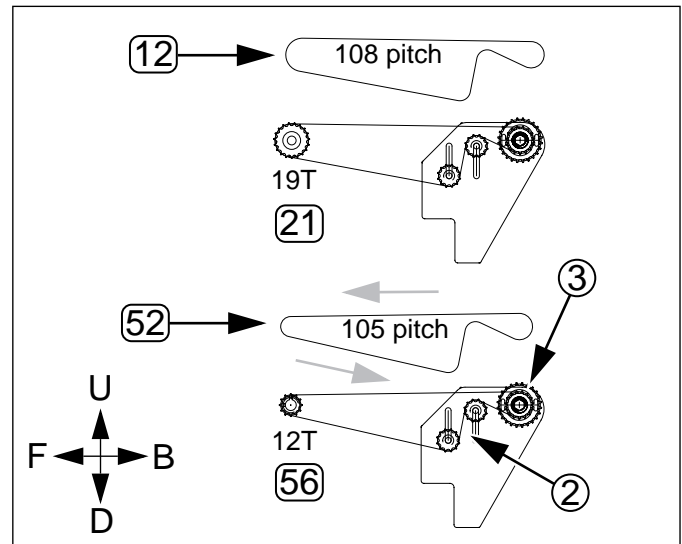


Figure 5
Gearbox Old Chain (Top)
Gearbox New Chain (Bottom)

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Remove Old N.G. Chain

Refer to Figure 6 and Figure 8 on page 4

16. Loosen the bolts and relax the idlers at ④.
17. Remove the existing 176-, 179- or 180--pitch chain:
 - ⑬ 136-168D CHAIN RL #40 176 PITCHES
 - ⑬ 136-211D CHAIN RL #40 179 PITCHES W/CON that loops around the 24T auxiliary shaft sprocket ⑳, forward idlers ④, aft idlers ⑦ and the final drive sprocket ⑧ at the native Grass box. Store this chain in the kit case for future possible use.

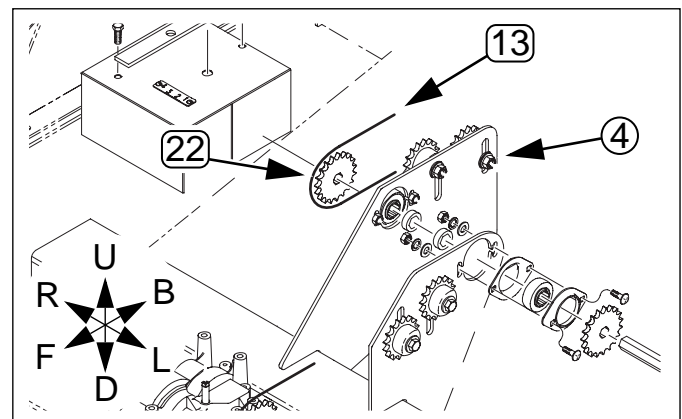


Figure 6
Native Grass Sprocket

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4 | Native Grass Rate Reduction Kit

Exchange N.G. Sprocket*Refer to Figure 7*

18. Loosen the two set screws:
 - ①⑥ 801-035C SCREW SET 5/16-18 SKT KP X 3/8 retaining 24T auxiliary shaft drive sprocket ②②.
19. Remove the sprocket:
 - ②② 808-356C SPKT 40B24 7/8 HEX BORE W/SS
 Store this sprocket and its set screws in the kit case for possible future use.

Note: If there is insufficient clearance to remove the sprocket ②② from the shaft end (or install the new sprocket ⑤④), it may be necessary to loosen the set screws at a bearing lock collar ⑤, and temporarily slide the shaft ⑥ left.

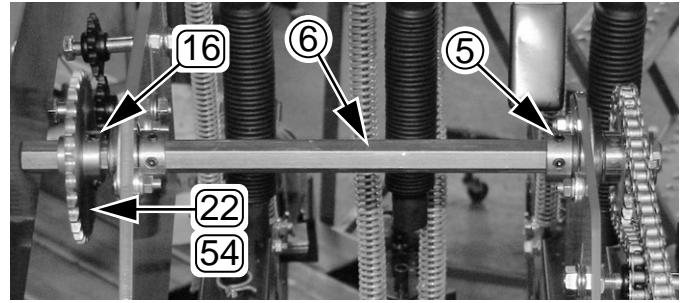


Figure 7
Native Grass Jackshaft

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Refer to Figure 8

20. Select one new:
 - ⑤④ 202-282D SPKT 40B17 7/8 HEX W/SS
 and two new:
 - ⑤⑤ 801-035C SCREW SET 5/16-18 SKT KP X 3/8
 Mount 17T sprocket ⑤④ at the location of the 24T sprocket ②② removed at step 19. Secure the new sprocket with the two set screws ⑤⑤.

If shaft was moved, re-seat it to the right, and secure the loosened collar.

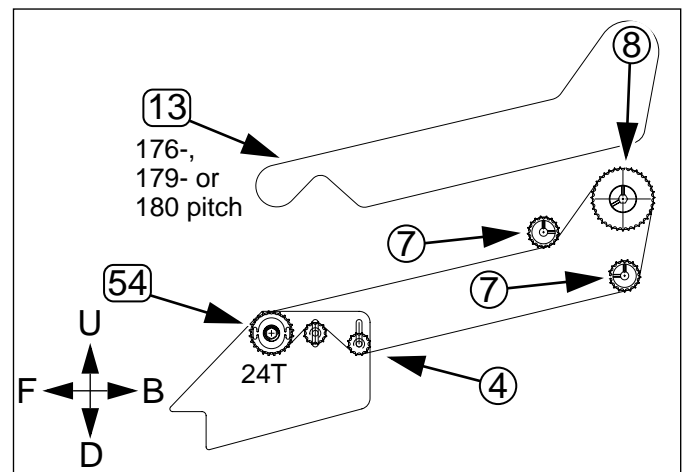


Figure 8
Native Grass Old Chain

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Install New N.G. Chain*Refer to Figure 9*

21. Select one new:
 - ⑤③ 136-204D CHAIN RL #40 178 PITCHES
 Mount this chain around the new sprocket ⑤④, idlers ④ and ⑦, and the native grass box sprocket ⑧.
22. Adjust forward idlers ④ to remove all but $1\frac{1}{8}$ in (29mm) of slack. Tighten bolts.
23. Apply some chain oil to all new chains.

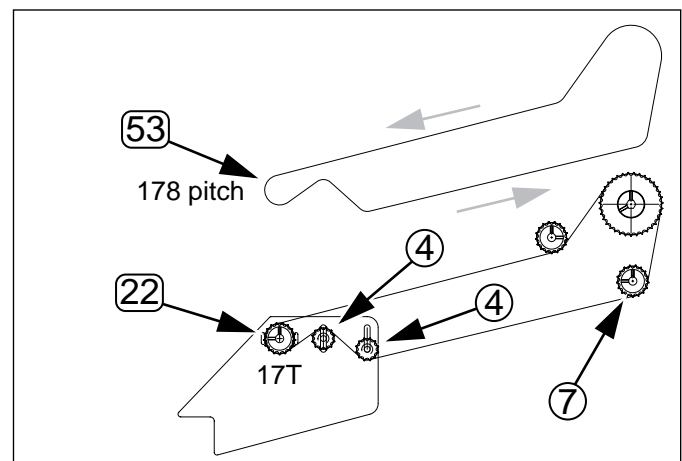


Figure 9
Native Grass New Chain (Bottom)

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Closeout

Refer to Figure 10

24. Replace gear box cover (14) and install the two $\frac{3}{8}$ in self-tapping screws (17).
25. Place the gear box handle (11) so that the sight hole is over the Drive Type plate, and secure handle with $\frac{1}{4}$ -28 bolt (18), washer (20) and lock washer (19).
26. Return these instructions to the kit case. Store the case for future use.

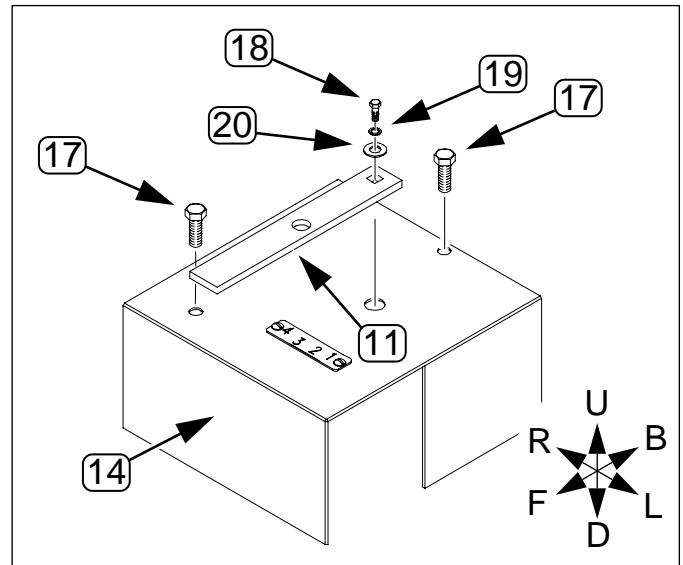


Figure 10
Install Gearbox Cover

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Using Reduced Seed Rate

The components installed reduce the population rate, for Native Grass only, by 55%, which is an adjustment factor of 0.45.

The Seed Rate Reduction kit does *not* affect the population rates of:

- main seed box
- small seeds box

Not all Seed Rate manuals include both standard and Reduced Rate charts.

Use your existing Seed Rate charts for native grass, and apply the correction factor.

For Series I Native Grass Seeding

The chart rates, in pounds-per-acre, need to be adjusted by multiplying by 0.45.

$$\text{ReducedPoundsPerAcre} = \text{ChartPoundsPerAcre} \times 0.45$$

For Series II Native Grass Seeding

The chart rates, in cup-revolutions-per-acre, need to be adjusted by multiplying by 0.45.

$$\text{ReducedCupRevsPerAcre} = \text{ChartCupRevsPerAcre} \times 0.45$$

Maintenance

Re-check chain slack after first few hours or operation, due to seating.

The installation of this kit requires no other changes to the regular maintenance of the drill as specified in the Operator's Manual.

Appendix

Parts List

202-581A Native Grass Rate Reduction Kit

Your kit includes:

Callout	Part Number	Quantity	Description
51	202-582M	1	MANUAL 706/1006 RATE REDUCTION (this manual)
52	136-080D	1	CHAIN RL #40 105 PITCHES
53	136-204D	1	CHAIN RL #40 178 PITCHES
54	202-282D	1	SPKT 40B17 7/8 HEX W/SS
55	801-035C	2	SCREW SET 5/16-18 SKT KP X 3/8
56	808-160C	1	SPKT 40B12 X 36T SPLINE BORE
57	817-814C	1	CASE, PLASTIC 12X8X3 3/4
58	817-814C	1	DECAL, NG RATE REDUCTION

Abbreviations

CON	Connector	RL	Roller
EXT	External	SAE	Society of Automotive Engineers (standard)
GR5	Grade 5	SCR	Screw
HHCS	Hex Head Cap Screw	SKT	Socket
KP	Knurled cup Point	SPKT	Sprocket
KW	Keyway	SS	Set Screw
NG	Native Grass	W/	with
PLT	Plated	X	by

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