

# Operator's/Parts Manual

3-Point Solid Stand Drills  
Pull Hitch Package

# Great Plains

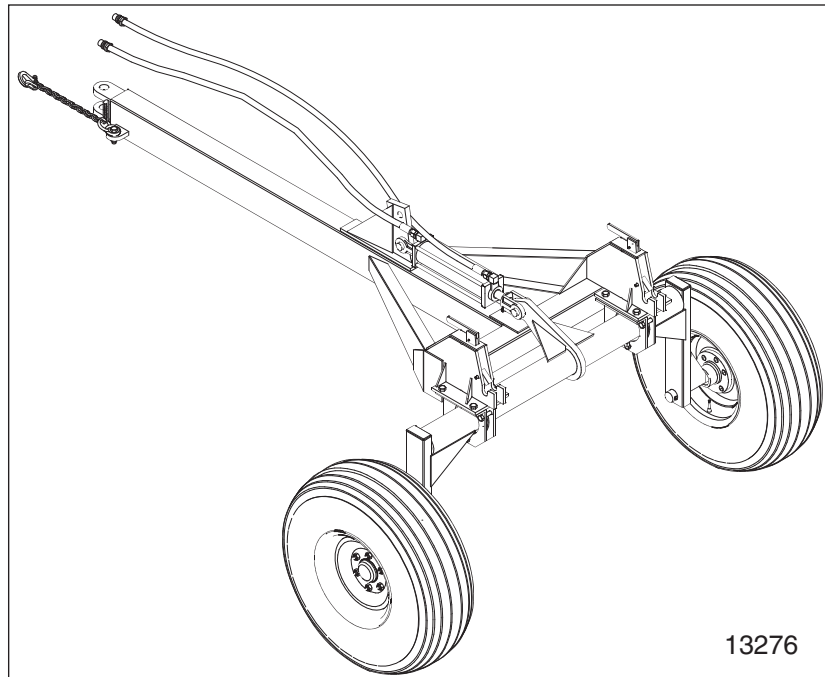
Manufacturing, Inc.

P.O. Box 5060 • Salina, Kansas 67402-5060



Read the operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

# Great Plains



*Cover illustration may show items not supplied with standard product.*

## General Information

### Important Notice

Great Plains Manufacturing, Inc. provides this publication "as is" without warranty of any kind, either express or implied, while every precaution has been taken in the preparation of this manual, Great Plains Manufacturing, Inc. assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. Great Plains Manufacturing, Inc. reserves the right to revise

and improve its products as it sees fit. This publication describes the state of this product at the time of its publication, and may not reflect the product at all times in the future. Printed in the United States of America.

For your convenience, record your Model Number and the Date Purchased in the spaces provided below. Have this information before you when calling Great Plains Manufacturing, Inc.

### This Operator's Manual applies to Pull Hitches for:

Part #	Description	Drill
124-025A	Pull Hitch Package	12' & 15' 3-Point Drill
124-027A	Pull Hitch Package	20' 3-Point Drill

### Owner's Information

Name: \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Name of Dealership \_\_\_\_\_

Dealer's Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Model Number \_\_\_\_\_

Date Purchased \_\_\_\_\_

### Using this Manual

For your safety and to help in developing a better understanding of your equipment we highly recommend that you read the operator sections of this manual. Reading these sections not only provides valuable training but also familiarizes you with helpful information and its lo-

cation. The parts sections are for reference only and don't require cover to cover reading. After reviewing the manuals store them in a dry, easily accessible location for your future reference.

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## Introduction

This manual has been prepared to instruct you in the safe and efficient operation of your Pull Hitch Package. Read and follow all instructions and safety precautions carefully.

The parts on your Pull Hitch Package have been specially designed and should only be replaced with genuine Great Plains parts. Therefore, should your Pull Hitch Package require replacement parts go to your Great Plains Dealer.

The right hand and left hand as used throughout this manual is determined by facing in the direction the machine will travel when in use unless otherwise stated.



The SAFETY ALERT SYMBOL indicates that there is a potential hazard to personal safety involved and extra safety precautions must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment; hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

**Watch for the following safety notations throughout your Operators Manual and/or on your Great Plains Drill:**



### **DANGER!**

*Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.*



### **WARNING!**

*Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.*



### **CAUTION!**

*Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.*

**NOTE:** Indicates a special point of information which requires your attention.

**IMPORTANT:** Indicates additional information is provided that is necessary to prevent possible damage to the equipment only.


## Section 1 Safety Rules

Most accidents are the result of negligence and carelessness, usually caused by failure of the operator to follow simple but necessary safety precautions. The following safety precautions are suggested to help prevent such accidents. The safe operation of any machinery is a big concern to consumers and manufacturers. Your Pull Hitch Package have been designed with many built-in safety features. However, no one should operate this product before carefully reading this Operators Manual.

### General Operation & Repair

1. **NEVER** permit anyone near machinery while in operation.
2. **NEVER** exceed 20 MPH. Excessive speed can cause damage to drill and pull hitch package.
3. Reduce speed of the tractor when transporting over uneven or rough terrain. Avoid all chuck holes and washboard areas in roads.
4. Reduce speed of the tractor when transporting over hills or steep slopes.
5. **DO NOT** lubricate, adjust or repair the drill while it is in operation.

6. When in transport, use accessory lights and devices for adequate warning to operators of other vehicles and use safety hitch chain. Comply with all Federal, State and Local laws when traveling on public roads.
7. Use "Slow Moving Vehicle" emblem for warning vehicles approaching from the rear.
8. **DO NOT** permit smoking, sparks, or an open flame where combustible lubricants or liquids are being used.

9.  **CAUTION!** Escaping fluid under pressure can have sufficient force to penetrate the skin. Check all hydraulic lines and hoses before applying pressure. Fluid escaping from a very small hole can be almost invisible. Use paper or cardboard, not body parts, to check for suspected leaks. If injured, seek medical assistance from a doctor that is familiar with this kind of injury. Foreign fluids in the tissue must be surgically removed within a few hours or gangrene will result.

## Section 2 General Information

### Before You Start

Read and understand the owners manual for your Pull Hitch Package. A basic understanding of how the kit works will aid in the assembly, setup and operation of your drill.

Before attempting to assemble the Pull Hitch Package, use the following as a checklist. Having all the needed parts and equipment readily at hand will speed up your assembly task and will make the job as safe as possible.

1.  Check for all kit components and hardware.
2.  If a bolt, pin or other component has been removed, or if you are unsure about where it is used, refer to the parts section of this manual to identify it.

### 3-Point Pull Package Attachment




The Great Plains Pull Package is available to turn your 3-Point drill into a pull-type unit. It comes equipped with single wheels for a 12' and 15' drill and with dual wheels for a 20' drill.




### Tire Inflation Chart

Tire Size	Inflation PSI
7.50 x 20" 4-Ply Drill Rib	28
9.0 x 22.5 10-Ply Highway Service 70	70
9.0 x 24" 8-Ply Rib Implement	40
9.5L x 15" 6-Ply Rib Implement	32
9.5L x 15" 8-Ply Rib Implement	44
9.5L x 15" 12-Ply Rib Implement	60

Tire Size	Inflation PSI
11L x 15" 6-Ply Rib Implement	28
11L x 15" 12-Ply Rib Implement	52
12.5L x 15" 8-Ply Rib Implement	36
12.5L x 15" 10-Ply Rib Implement	44
16.5L x 16.1" 10-Ply Rib Implement	36
41 x 15" x 18 - 22-Ply Rib Implement	44

## Torque Values Chart

Bolt Size (Inches)	Bolt Head Identification					
	 Grade 2		 Grade 5		 Grade 8	
	N · m <sup>2</sup>	ft-lb <sup>3</sup>	N · m	ft-lb	N · m	ft-lb
in-tpi <sup>1</sup>						
1/4" - 20	7.4	5.6	11	8	16	12
1/4" - 28	8.5	6	13	10	18	14
5/16" - 18	15	11	24	17	33	25
5/16" - 24	17	13	26	19	37	27
3/8" - 16	27	20	42	31	59	44
3/8" - 24	31	22	47	35	67	49
7/16" - 14	43	32	67	49	95	70
7/16" - 20	49	36	75	55	105	78
1/2" - 13	66	49	105	76	145	105
1/2" - 20	75	55	115	85	165	120
9/16" - 12	95	70	150	110	210	155
9/16" - 18	105	79	165	120	235	170
5/8" - 11	130	97	205	150	285	210
5/8" - 18	150	110	230	170	325	240
3/4" - 10	235	170	360	265	510	375
3/4" - 16	260	190	405	295	570	420
7/8" - 9	225	165	585	430	820	605
7/8" - 14	250	185	640	475	905	670
1" - 8	340	250	875	645	1230	910
1" - 12	370	275	955	705	1350	995
1-1/8" - 7	480	355	1080	795	1750	1290
1 1/8" - 12	540	395	1210	890	1960	1440
1 1/4" - 7	680	500	1520	1120	2460	1820
1 1/4" - 12	750	555	1680	1240	2730	2010
1 3/8" - 6	890	655	1990	1470	3230	2380
1 3/8" - 12	1010	745	2270	1670	3680	2710
1 1/2" - 6	1180	870	2640	1950	4290	3160
1 1/2" - 12	1330	980	2970	2190	4820	3560

Bolt Size (Metric)	Bolt Head Identification					
	 Class 5.8		 Class 8.8		 Class 10.9	
	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
mm x pitch <sup>4</sup>						
M 5 X 0.8	4	3	6	5	9	7
M 6 X 1	7	5	11	8	15	11
M 8 X 1.25	17	12	26	19	36	27
M 8 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

<sup>1</sup> in-tpi = bolt size in inches-threads per inch

<sup>2</sup> N · m = newton-meters

<sup>3</sup> ft-lb = foot pounds

<sup>4</sup> mm x pitch = millimeters x thread pitch

## Section 3 Operations

### 3-Point Pull Package Operation

The Pull Package attaches to the drill with a quick coupling hitch and comes equipped with a telescoping top link or a threaded top link. The threaded top link is used to adjust your drill in order to allow it to run horizontal to the ground when drilling. The telescoping top link will allow your drill to float front to back in order to follow the ground contour. When hooking up to drill, be sure that the quick hitches are latched securely.

**Note:** When in field position, transport wheels should be raised off the ground to insure proper operation of your drill.

### Transporting

Your pull hitch comes equipped with a 90 degree turn valve located at the hydraulic cylinder rod end port, allowing you to turn the hydraulic oil off from your lift cylinder when in raised position for transporting.

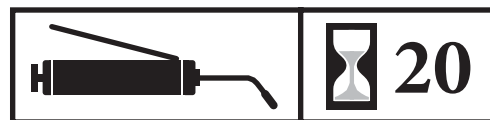
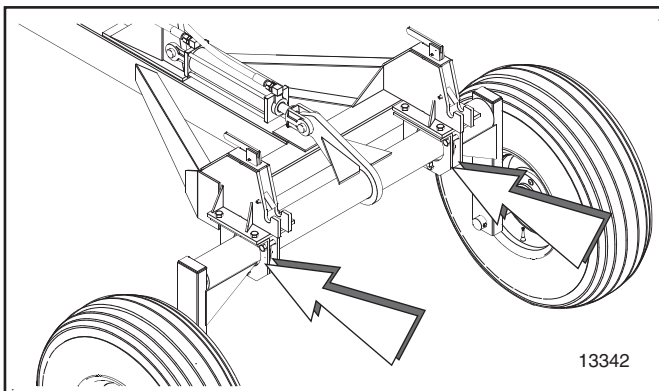


#### CAUTION!

*This drill with hitch package should never be pulled faster than 20 miles per hour!*

## Section 4 Maintenance & Lubrication

1. Be sure tires have the proper inflation. Refer to "**Tire Inflation Chart**" on page 2.
2. Grease axle bearings every 20 -25 hours of operation



### Axle Bearings

Type of Lubrication: Universal Multipurpose Grease

*Notes:*

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## Section 5 Frame Assembly

Ref.	Part No.	Part Description
1.	124-002H	Axle Weldment 12', 14' & 15'
2.	803-027C	Nut, Hex 3/4"-10
3.	804-023C	Washer, Lock 3/4"
4.	802-024C	Bolt, Hex 3/8"-16 x 3" Long
5.	812-005C	Casting, Main Axle Bearing
6.	803-021C	Nut, Hex 5/8"-11
7.	804-022C	Washer, Lock 5/8"
8.	802-060C	Bolt, Hex 5/8"-11 x 4" Long
9.	126-001K	Axle Bearing Assembly. Includes 2 Each Of Item 21; And, 2 Each Of Items 4, 5, 10, & 11.
10.	804-013C	Washer, Lock 3/8"
11.	803-014C	Nut, Hex 3/8"-16
12.	124-020H	Frame
13.	124-018H	Pin, Lock
14.	124-105D	Pin, Lock Pivot
15.	124-017H	Spring Lever Weldment
16.	807-007C	Spring, Lever
17.	805-037C	Pin, Spiral 1/2" x 2 1/2" Long
18.	802-065C	Bolt, Hex 3/4"-10 x 2 1/4" Long
19.	805-044C	Pin, Roll 1/4" x 1" Long
20.	124-016H	Lock Handle
21.	800-001C	Zerk, Straight 1/4"-28
22.	805-088C	Pin, Hair Cotter 3/16"
23.	805-090C	Pin, Clevis 1" x 3 3/16" Long
24.	810-001C	Hydraulic Cylinder 4" x 14" Stroke
25.	811-213C	Hydraulic Fitting 1/2" MNPT x 3/8" MNPT 90°
26.	811-215C	Hydraulic Hose 3/8" x 144" Long
27.	811-301C	Hydraulic Fitting 1/2" MNPT x 3/8 FNPT 90°
28.	124-014H	Connect Tube - Upper
29.	124-015H	Connect Tube
30.	803-032C	Nut, Jam 1 1/4"-7
31.	111-002H	Adjustment Clevis
32.	805-004C	Pin, Upper Link With Clips
33.	124-019K	Upper Assembly. Includes 1 Each Of Items 28 Through 32.
34.	810-076C	Valve, Ball 3/8" NPT x 90°
35.	890-182C	Safety Chain 10,000 Pound Capacity
36.	124-116D	Safety Chain Washer
37.	802-181C	Bolt, Hex 1"-8 x 3" Long
38.	804-027C	Washer, Lock 1"
39.	803-031C	Nut, Hex 1"-8
40.	818-019C	DECAL WARNING NEG TONGUE WT
41.	805-016C	PIN COTTER 3/16 X 1 1/4 PLT
42.	804-029C	WASHER FLAT 1 SAE



## Section 5 Hub & Tire Assembly

Ref.	Part No.	Part Description	
1.	201-008D	5 BOLT HUB SPINDLE	
2.	802-099C	HHCS 1/2-13X3 1/4 GR5	
3.	804-015C	WASHER LOCK SPRING 1/2 PLT	
4.	803-020C	NUT HEX 1/2-13 PLT	
5.	816-017C	HUB SEAL 5 BOLT	
6.	822-034C	BEARING CONE LM-48548	
7.	201-009D	6 BOLT SINGLE ENDED SPINDLE	
8.	802-135C	HUB STUD 1/2-20X1 5/8 GR5	
9.	⊗ ② ③ 815-082C	HUB 6 BOLT 4 5/8 PILOT W/ CUPS	8/1/1996↔12/31/1997. If replacing old hub order bolts P/N 802-399C item 25.
9	② 200-037V	REPLACED BY 815-082C	1991↔8/1/96.
9	● ① 200-006S	REPL BY 200-037V	
10.	124-118D	5 BOLT WHEEL REINFORCING RING	
11.	② 200-036V	5 BOLT WHEEL HUB & CUP ASSY	
11	● ① 200-005S	REPL BY 200-036V	
12.	822-021C	BEARING CONE LM-67048	
13.	804-055C	WASHER SPINDLE - 7/8	
14.	200-001D	HUB GREASE CAP	
15.	109-058K	GAUGE WHEEL & TIRE - TUBELESS	Includes items 16, 17 and 18.
16.	814-026C	TIRE 9.5L X 15 6 PLY RIB IMP	
17.	814-005C	WHEEL 6 X 15 X 5 BOLT	
18.	816-035C	VALVE STEM TR415X.625X1 1/4 LG	
19.	803-017C	NUT LUG 1/2-20X90DEG PLT 13/16	
20.	102-006K	TIRE/WHEEL ASSY 9.5LX15 12 PLY	Includes items 18, 21 and 22.
21.	814-009C	TIRE 9.5L X 15-12 PLY-TUBELESS	
22.	814-008C	WHEEL 8 X 15 X 6 BOLT	
23.	152-215D	WHEEL REINFORCING RING	
24.	② 815-077C	HUB 6 BOLT 4 5/8 PILOT 3600 LB	Includes items 9, 12, 14, 26, 27, 28 and 29.
24	① 200-001S	REPLACED BY 815-077C	Includes items 9, 12, 14, 25, 26 and 27.
25.	⊗ ① ② 802-399C	HFS 1/2-20X1 1/2 GR5	8/1/1996↔12/31/1997.
25	① 802-104C	BOLT WHEEL 1/2-20X1 90-DEG	1991↔8/1/96.
26.	822-018C	BEARING CONE LM-29749	
27.	816-011C	SEAL 2.56X1.625X.438 CR16289	
28.	803-029C	NUT HEX SLOTTED 7/8-14 PLT	
29.	② 805-246C	PIN COTTER 5/32 X 1 3/4 LG	
29	① 805-016C	PIN COTTER 3/16 X 1 1/4 PLT	Replaced by 805-246C.
30.	124-021H	AXLE ASSEMBLY	
31.	822-020C	BEARING CUP LM-67010	
32.	822-019C	BEARING CUP LM-29710	
33.	822-033C	BEARING CUP LM-48510	
34.	200-004S	5 BOLT HUB & SPINDLE PACKAGE	Includes items 1, 5, 6, 8, 11, 12, 13, 14, 19, 28 and 29

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