

# Operator's and Parts Manual

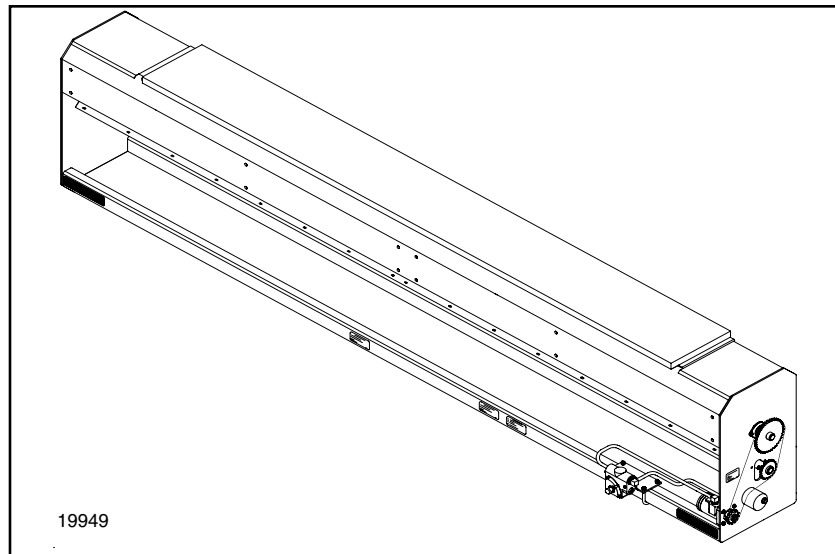
NG12  
12' Native Grass Seeder

 **Great Plains**  
Manufacturing, Inc.

[www.greatplainsmfg.com](http://www.greatplainsmfg.com)



*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!*



*Cover illustration may show optional equipment not supplied with standard unit.*



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## Important Safety Information

### Look for Safety Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution 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.

### Be Aware of Signal Words

Signal words designate a degree or level of hazard seriousness.

**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, typically for machine components that, for functional purposes, cannot be guarded.

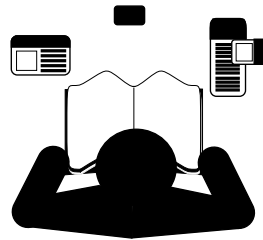
**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

**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.



## Be Familiar with Safety Decals

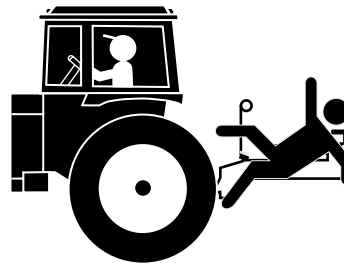
- ▲ Read thoroughly and understand “Safety Decals,” page 6.
- ▲ Read all instructions noted on decals.



## Keep Riders Off Machinery

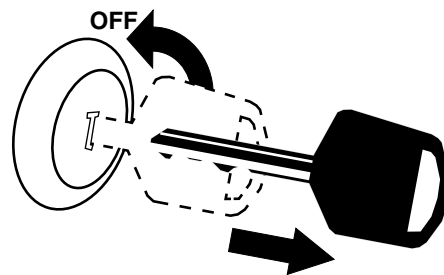
Riders obstruct operator's view. Riders could be struck by foreign objects or thrown from machine.

- ▲ Never allow children to operate equipment.
- ▲ Keep all bystanders away from machine during operation.



## Shutdown and Storage

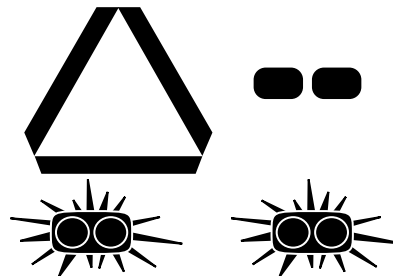
- ▲ Lower seeder, put tractor in park, turn off engine, and remove key.
- ▲ Store seeder in an area where children do not play.



## Use Safety Lights and Devices

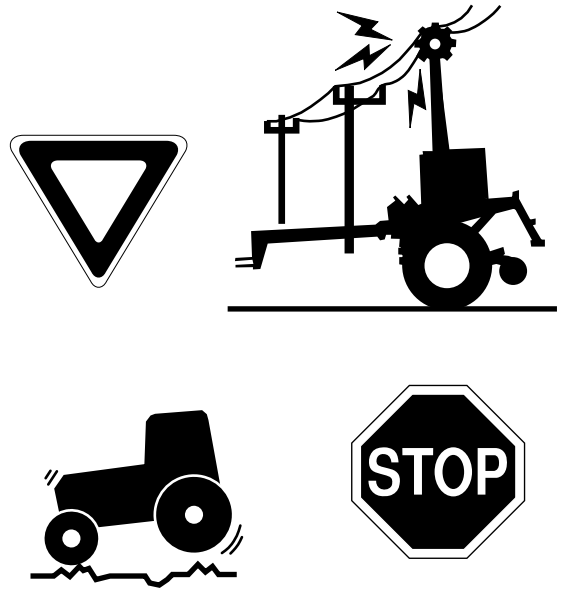
Slow-moving tractors and implements can create a hazard when driven on public roads. They are difficult to see, especially at night.

- ▲ Use flashing warning lights and turn signals whenever driving on public roads. Use lights and devices provided with seeder.



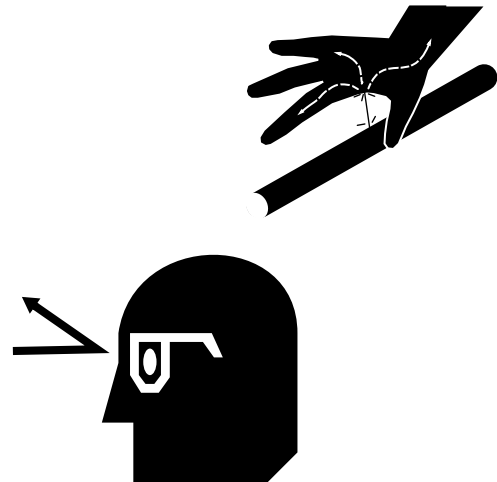
## Transport Machinery Safely

- ▲ Comply with state and local laws.
- ▲ Maximum transport speed for seeder is 20 mph. Do not exceed 20 mph. Never travel at a speed that does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- ▲ Check that your tractor has enough ballast to handle the weight of seeder. Refer to your tractor operator's manual for ballast requirements.
- ▲ Keep clear of overhead power lines and other obstructions when transporting. Refer to transport dimensions under "Specifications and Capacities," page 19.



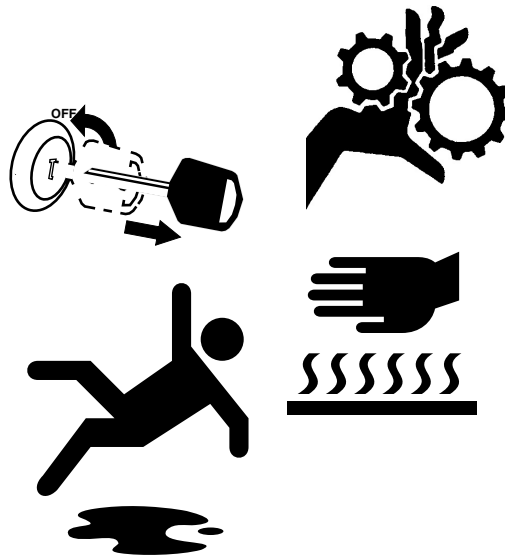
## Avoid High Pressure Fluids

- ▲ Escaping fluid under pressure can penetrate the skin, causing serious injury.
- ▲ Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.



## Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment. Refer to this manual for additional information.
- ▲ Work in a clean, dry area.
- ▲ Lower seeder, put tractor in park, turn off engine, and remove key before performing maintenance.
- ▲ Make sure all moving parts have stopped and all system pressure is relieved.
- ▲ Allow seeder parts to cool completely.
- ▲ Do not grease or oil seeder while it is in operation.
- ▲ Inspect all parts. Make sure parts are in good condition and installed properly.
- ▲ Remove buildup of grease, oil or debris.
- ▲ Remove all tools and unused parts from seeder before operation.



## Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.



## Wear Protective Clothing

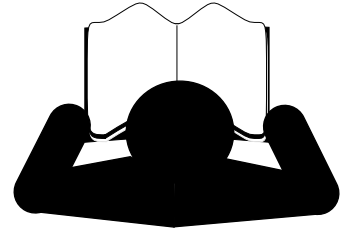
- ▲ Wear protective clothing and equipment.
- ▲ Wear clothing and equipment appropriate for the job. Avoid loose-fitting clothing.
- ▲ Because prolonged exposure to loud noise can cause hearing impairment or hearing loss, wear suitable hearing protection such as ear-muffs or earplugs.
- ▲ Because operating equipment safely requires your full attention, avoid wearing radio head-phones while operating seeder.



## Safety at All Times

Read thoroughly and understand instructions in this manual before operating seeder. Read all instructions noted on the safety decals.

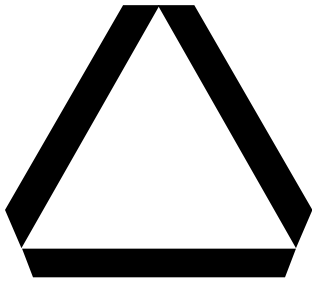
- ▲ Be familiar with all seeder functions.
- ▲ Operate seeder from the tractor driver's seat only.
- ▲ Do not leave seeder unattended with tractor engine running.
- ▲ Do not dismount a moving tractor. Dismounting a moving tractor could cause serious injury or death.
- ▲ Do not stand between the tractor and seeder during hitching.
- ▲ Keep hands, feet and clothing away from power-driven parts. Keep away from moving drive chain.
- ▲ Wear snug-fitting clothing to avoid entanglement with moving parts.
- ▲ Watch out for wires, trees and other obstacles when raising seeder.
- ▲ Make sure all bystanders are clear of working area before operating seeder.
- ▲ Watch your step when walking on seeder walkboard. Falling from seeder could cause severe injury or death.



## Safety Decals

Your seeder comes equipped with all safety decals in place. They were designed to help you operate your seeder safely.

- ▲ Read and follow decal directions.
- ▲ Keep all safety decals clean and legible.
- ▲ Replace all damaged or missing decals. Order new decals from your Great Plains dealer. Refer to this section for proper decal placement.



**818-055C**

Slow Moving Vehicle



**838-266C**

Red Reflectors

Reflector at both ends of drill; two reflectors total



**838-267C**

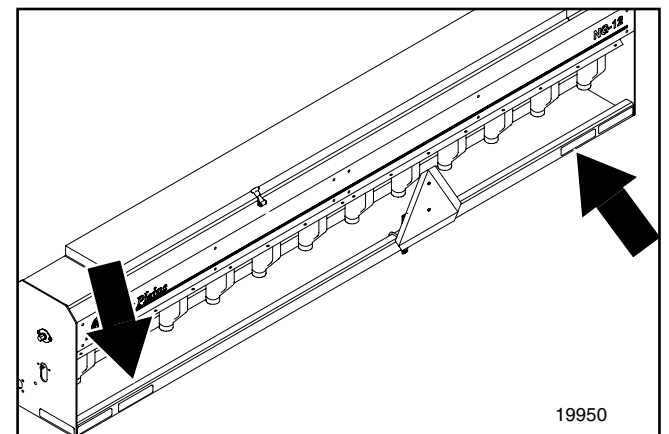
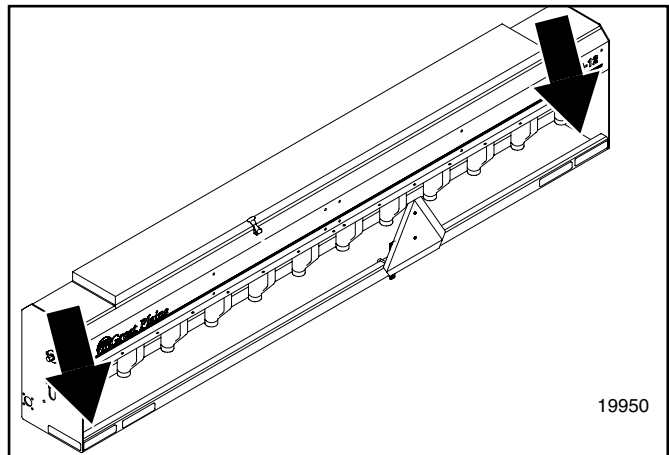
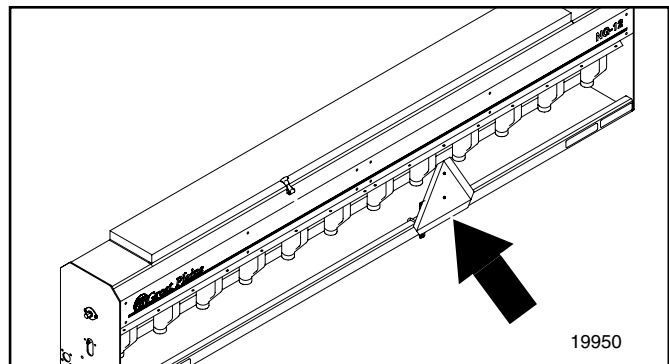
Daytime Reflectors

Reflector at both ends of drill; two reflectors total

- ▲ When ordering new parts or components, also request corresponding safety decals.

- ▲ To install new decals:

1. Clean area on which decal is to be placed.
2. Peel backing from decal. Press firmly on surface, being careful not to cause air bubbles under decal.

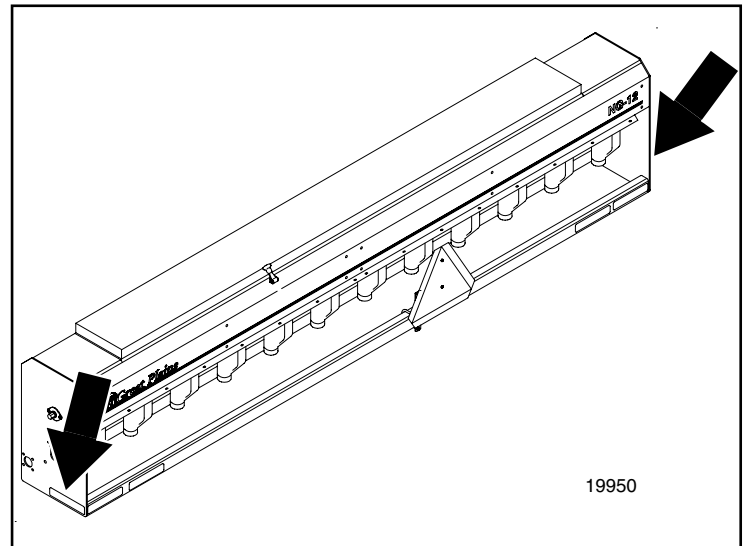
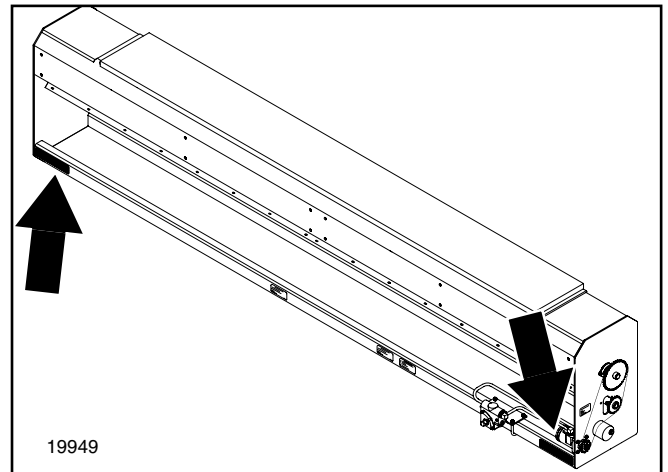




## 838-265C

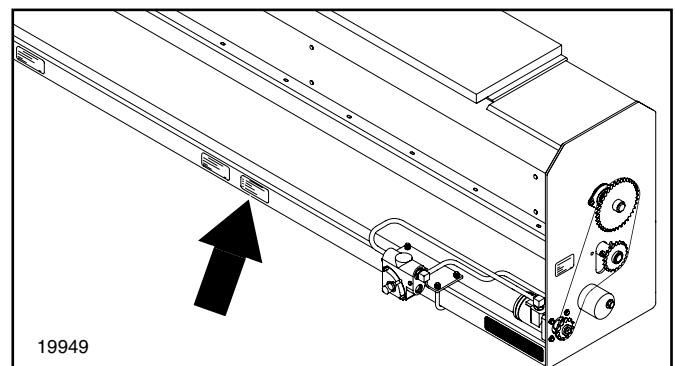
### Amber Reflectors

Reflectors on both left and right sides of seeder;  
four reflectors total



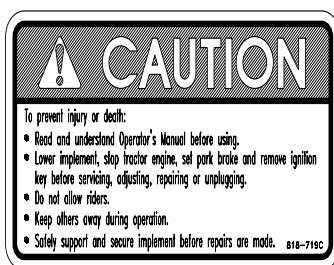
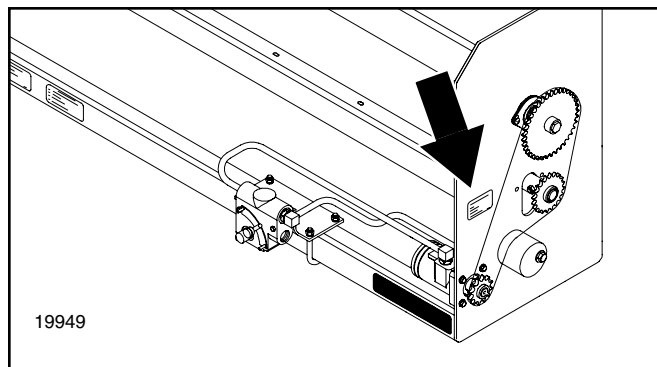
## 838-094C

### High Pressure

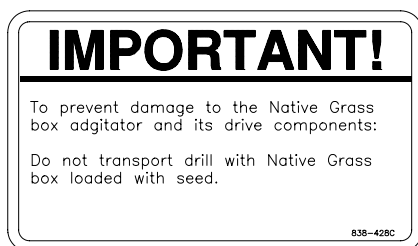
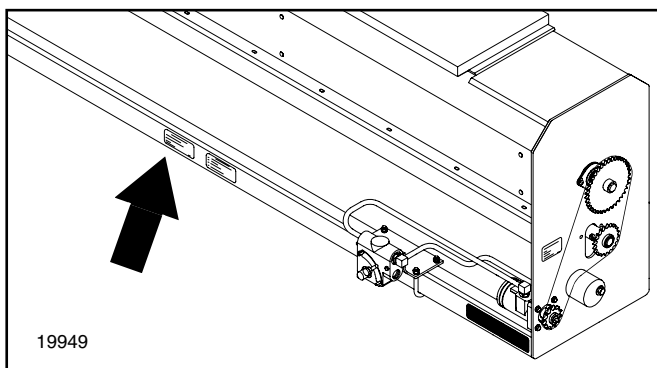


**818-860C**

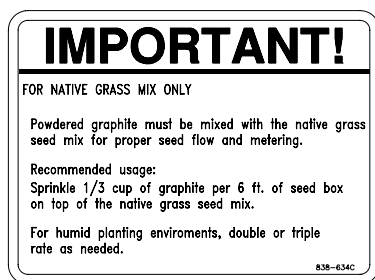
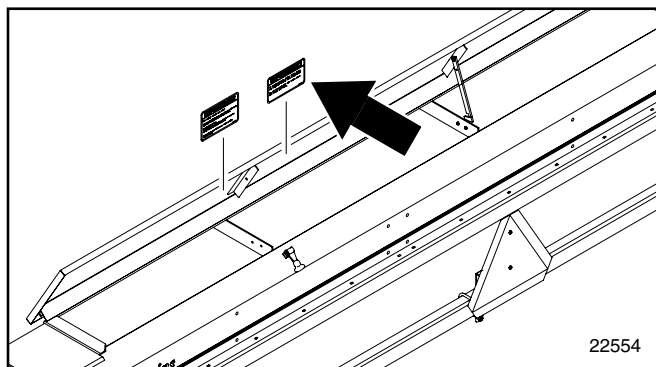
Moving Chain Hazard

**818-719C**

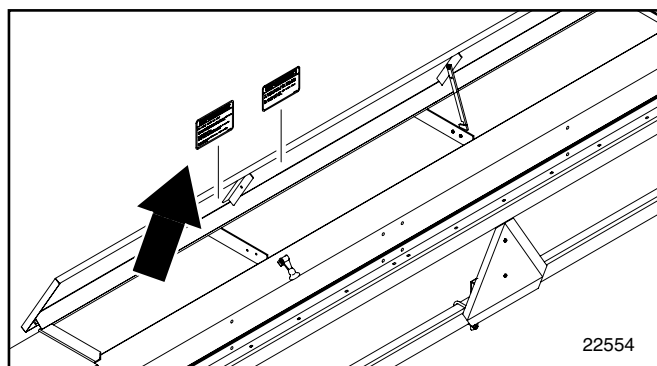
General Instructions

**838-428C**

Important to prevent damage

**838-634C**

Important for native grass mix only





# Introduction

Great Plains welcomes you to its growing family of new product owners. This seeder has been designed with care and built by skilled workers using quality materials. Proper setup, maintenance and safe operating practices will help you get years of satisfactory use from the machine.

## Description of Unit

The NG12 is a mounted seeding implement designed to seed native grasses. A variable-rate hydraulic motor drives seeding. Seeding rates are adjusted by varying the speed of the hydraulic motor and tractor speed.

### Intended Usage

Use this seeder to seed fluffy or native grasses in a wide variety of applications.

### Model Covered

NG12

## Using This Manual

This manual will familiarize you with safety, operation, adjustments, troubleshooting and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

The information in this manual is current at printing. Some parts may change to assure top performance.

### Definitions

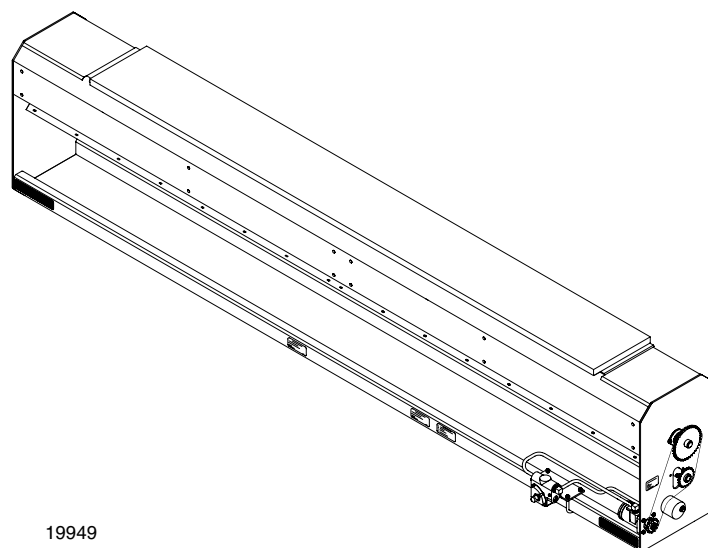
Right-hand and left-hand as used in this manual are determined by facing the direction the machine will travel while in use unless otherwise stated.

---

**IMPORTANT:** A crucial point of information related to the preceding topic. For safe and correct operation, read and follow the directions provided before continuing.

---

**NOTE:** Useful information related to the preceding topic.



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## Owner Assistance

If you need customer service or repair parts, contact a Great Plains dealer. They have trained personnel, repair parts and equipment specially designed for Great Plains products.

### *Refer to Figure 1*

Your machine's parts were specially designed and should only be replaced with Great Plains parts. Always use the serial and model number when ordering parts from your Great Plains dealer. The serial-number plate is shown.

Record your seeder model and serial number here for quick reference:

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

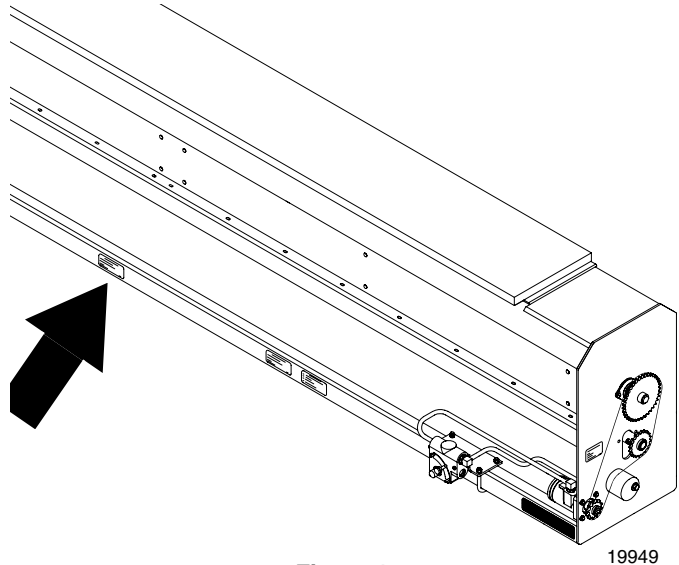
Serial Number: \_\_\_\_\_

Your Great Plains dealer wants you to be satisfied with your new machine. If you do not understand any part of this manual or are not satisfied with the service received, please take the following actions.

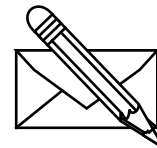
1. Discuss the matter with your dealership service manager. Make sure they are aware of any problems so they can assist you.
2. If you are still unsatisfied, seek out the owner or general manager of the dealership.
3. For further assistance write to:

### **Product Support**

**Great Plains Mfg. Inc., Service Department**  
PO Box 5060  
Salina, KS 67402-5060



**Figure 1**  
**Serial Number Plate**



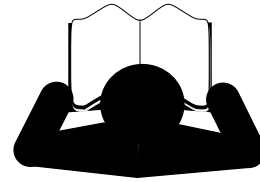


## Preparation and Setup

This section will help you prepare your tractor and seeder for use. Before field operation, you must hook-up the hydraulic hoses.

### Prestart Checklist

1. Read and understand "Important Safety Information," beginning on page 1.
2. Check that all working parts are moving freely, bolts are tight, and cotter pins are spread.
3. Check that all safety decals and reflectors are correctly located and legible. Replace decals if damaged. See "Safety Decals," page 6.



### Hydraulic Hose Hookup



#### WARNING

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

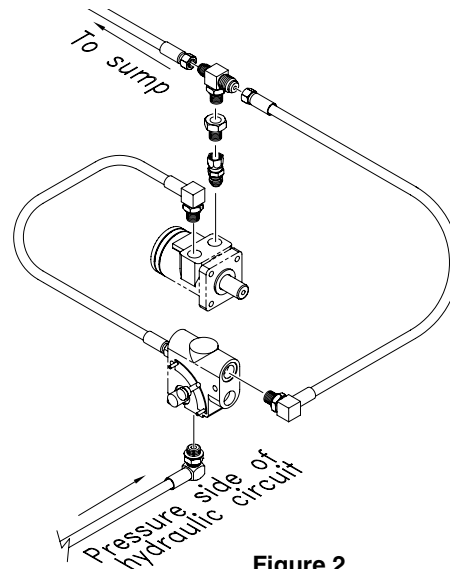
#### Refer to Figure 2

When hooking hydraulic hoses to tractor hook hose coming from flow-control valve on seeder to the pressurized side of the remote circuit. Hook return line to sump.

Check that seed-cup shaft on seeder is rotating in the correct direction. When standing on the left-hand side of seeder, the shaft should rotate counterclockwise. If necessary, switch hoses at outlets.

**NOTE: Customer must supply hoses to the sump and to the pressure side of the hydraulic circuit.**

**NOTE: For tractors with open center hydraulic systems, refer to your tractor manufacturer's recommendation before hooking up the hydraulics on this unit.**



**Figure 2**  
**Hydraulic Hookup**

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## Operating Instructions

This section covers general operating procedures. Experience, machine familiarity and the following information will lead to efficient operation and good working habits. Always operate farm machinery with safety in mind.

### Prestart Checklist



#### WARNING

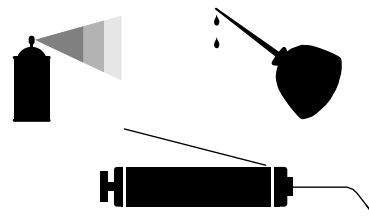
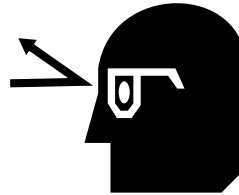
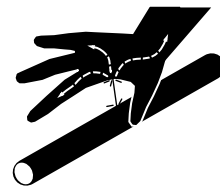
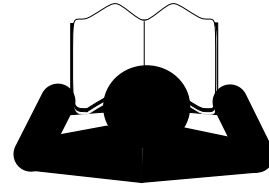
*Escaping fluid under pressure can have sufficient pressure to penetrate the skin. Check all hydraulic lines and fittings before applying pressure. Fluid escaping from a very small hole can be almost invisible. Use paper or cardboard, not body parts, and wear heavy gloves to check for suspected leaks.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

1. Read "Important Safety Information," page 1, carefully.
2. Check all bolts, pins and fasteners. Torque as specified on "Torque Values Chart," page 20.
3. Lubricate as recommended areas listed under "Lubrication," page 18.
4. Check seeder for worn or damaged parts. Repair or replace parts before going to the field.
5. Check hydraulic hoses and fittings for leaks. Repair or replace before going to the field.
6. Check that seed cups and drive are working properly and free from foreign material.



#### DANGER

*Watch your step when walking on seeder. Falling from seeder could cause severe injury or death.*



## Field Operation

Refer to Figure 3

1. Hook hydraulic hoses to tractor outlets.
2. Fill seeder box with clean seed.
3. Set and calibrate seeding rate as explained under "Seeding Rate Adjustment," page 14.
4. Pull forward, lower seeder, engage hydraulic drive and begin seeding.

## Transporting



### WARNING

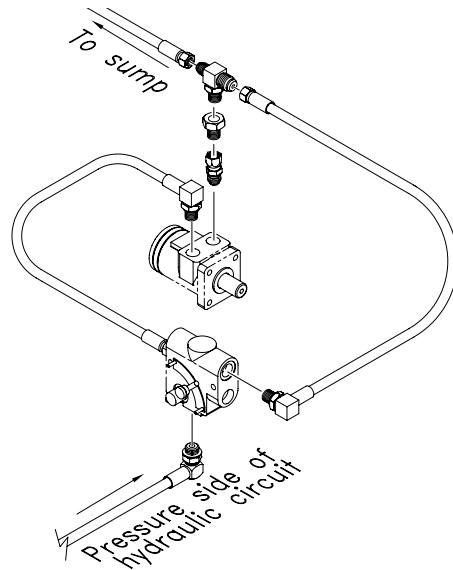
Transporting seeder at high speeds or with a tractor without enough ballast could lead to loss of vehicle control. Loss of vehicle control could lead to serious road accidents, injury and death. Do not exceed 20 mph. Check that your tractor has enough ballast. Refer to tractor operator's manual for ballast requirements.

Before transporting seeder, follow and check these items:

**Unload seeder box.** The seeder can be transported with a full box of grain, but the added weight will increase stopping distance and decrease maneuverability. Unload seeder box before transporting if at all possible.

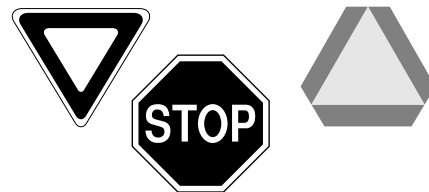
**Road rules.** Comply with all federal, state and local laws when traveling on public roads.

**Clearance.** Remember that the seeder is wider than the tractor. Allow for safe clearance.



17992

Figure 3  
Hydraulic Hookup





## Adjustments

### Seeding Rate Adjustment

To calibrate the seeding rate, the seeder must be hooked to the tractor that will be used in the field and the hydraulic drive must be hooked to the tractor remotes.

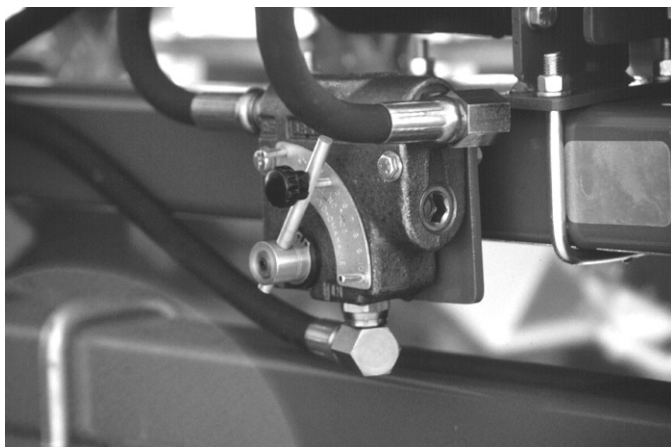
#### Calibrating the Hydraulic Drive, Drop Seeder box

1. Determine your desired planting ground speed in mph and your seeding rate in lbs/acre.
2. Look at the seed rate chart for your desired planting speed, and choose the seed cup shaft rpm for the desired rate.
3. With the tractor parked and in neutral, adjust tractor throttle to field rpm and engage hydraulic drive.
4. Set the seed cup shaft rpm on your Drop Seeder box using a tachometer.
5. Place the desired seed for calibration over 5 seed cups in your Drop Seeder box. Place catch containers below the five seed cups.
6. Run the seed drive for a known amount of time (i.e. 5 minutes) or until you catch a weighable seed sample. Record the time. Weigh the total amount of seed caught from the 5 seed cups in pounds using an accurate scale.
7. Determine the actual seeding rate of the caught seed using the equation at the bottom of this page.

*Refer to Figure 4*

8. Stop hydraulic drive. If shaft is turning too slowly or quickly, loosen black knob and adjust flow control on hydraulic drive. Move lever down to increase rpms. Move lever up to reduce rpms.
9. When satisfied with flow-control setting, lock black knob.

Note: If the actual seeding rate is not equivalent to your desired seeding rate, increase or decrease the seed cup shaft rpm accordingly. Repeat steps 3 thru 6 until desired seeding rate is achieved.



**Figure 4**  
**Flow Control Dial**

18164

$$\text{Seeding rate (lbs/acre)} = \frac{(\text{Weight of seed caught in lbs.}) \times (115.5)}{(\text{Amount of time to catch seed in minutes}) \times (\text{Planting ground speed in mph})}$$

## Seeding Rate Chart

Ground Speed (MPH)	Native Grass Seed Rate Chart* (Pounds/Acre) Seed Cup Shaft (rpm)									
	5	10	15	20	25	30	35	40	45	50
2	10.2	20.4	30.6	40.8	51.0	61.3	71.5	81.7	91.9	102.1
3	6.8	13.6	20.4	27.2	34.0	40.8	47.6	54.5	61.3	68.1
4	5.1	10.2	15.3	20.4	25.5	30.6	35.7	40.8	45.9	51.0
5	4.1	8.2	12.3	16.3	20.4	24.5	28.6	32.7	36.8	40.8
6	3.4	6.8	10.2	13.6	17.0	20.4	23.8	27.2	30.6	34.0
7	2.9	5.8	8.8	11.7	14.6	17.5	20.4	23.3	26.3	29.2
8	2.6	5.1	7.7	10.2	12.8	15.3	17.9	20.4	23.0	25.5
9	2.3	4.5	6.8	9.1	11.3	13.6	15.9	18.2	20.4	22.7
10	2.0	4.1	6.1	8.2	10.2	12.3	14.3	16.3	18.4	20.4

\*This chart is based upon a native grass mix of: 18% Big Bluestem, 14% Sideoats Grama, 10% Indian grass, 18% Little Bluestem, 10% Canadian Wild rye, 4% Switchgrass 8% Virginia Wild rye and 18% Wheatgrass.

### IMPORTANT!

To prevent damage to the Native Grass box agitator and its drive components:

Do not transport drill with Native Grass box loaded with seed.

### IMPORTANT!

#### FOR NATIVE GRASS MIX ONLY

Powdered graphite (PN: 821-042C) must be mixed with the native grass seed mix for proper seed flow and metering.

#### Recommended usage:

Sprinkle 1/3 cup of graphite per 6 ft. of seed box on top of the native grass seed mix.

For humid planting environments, double or triple rate as needed.



## Troubleshooting

Problem	Solution
Actual metering rate is different than desired	Check seed-rate chart for proper seed-cup-shaft rpms for your seeding rate. Refer to “Seeding Rate Chart,” page 15.
	Adjust flow control on hydraulic drive. Refer to “Seeding Rate Adjustment,” page 14.
	Calibrate flow to hydraulic drive when drill box is full of seed.
	Refer to “Seeding Rate Adjustment,” page 14.
	Check that seed-cup shaft is rotating in the correct direction. If not, reverse direction of flow to hydraulic drive by switching hoses at tractor outlets. Refer to “Hydraulic Hookup,” page 11.
	Add powdered graphite to the seed mixture. This helps the seed flow more uniformly.



## Maintenance and Lubrication

### Maintenance

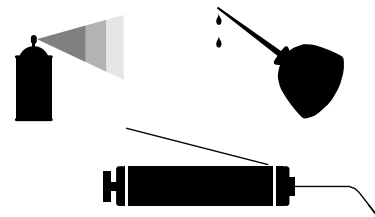
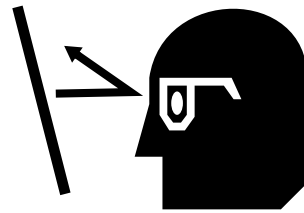
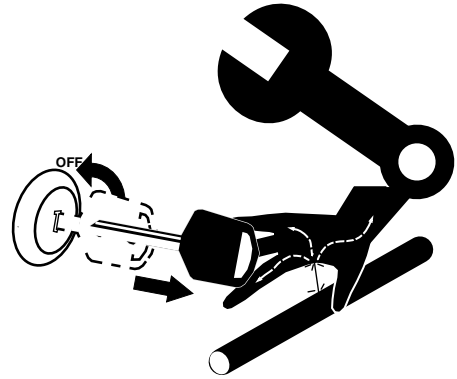
Proper servicing and maintenance is the key to long seeder life. With careful and systematic inspection, you can avoid costly maintenance, downtime and repair.

Always turn off and remove tractor key before making any adjustments or performing any maintenance.

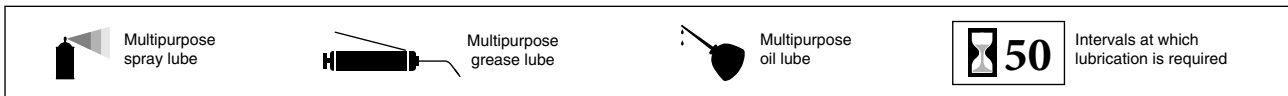
### WARNING

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

1. After using seeder for several hours, check all bolts to be sure they are tight. Adjust idlers to remove excess slack from drive chain.
2. Lubricate areas listed under “Lubrication,” page 18.
3. Replace any worn, damaged or illegible safety decals. Order new decals from your Great Plains dealer. Refer to “Safety Decals,” page 6.



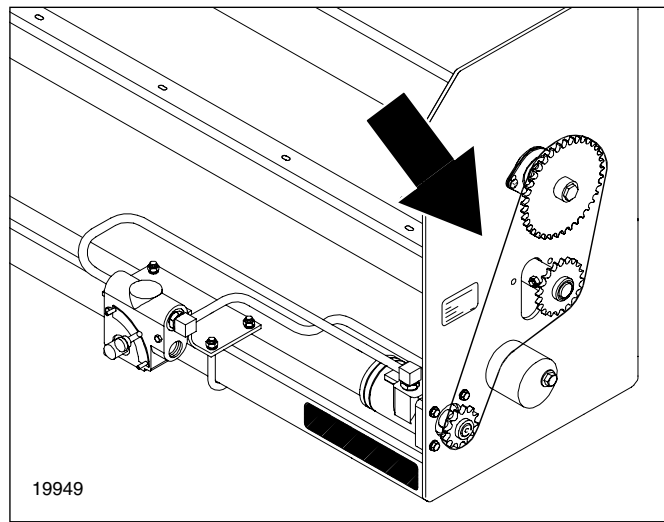
## Lubrication



### Drive Chain

Type of Lubrication: Chain lube

Quantity = Coat thoroughly



## Storage



### WARNING

*Always park seeder away from areas where children play.*

If possible, store seeder inside for longer life.

1. Clean seeder as necessary. Be sure the seed box is cleaned completely before storing.
2. Lubricate as indicated under "Lubrication," page 18.






## Specifications and Capacities




NG12	
<b>Seed Cups per Seeder</b>	14
<b>Weight, Native Grass Seeder Alone</b>	1,000 pounds (appx.)
<b>Working Width</b>	12 feet
<b>Transport Width</b>	12 feet 1 inches
<b>Height, Native Grass Seeder Alone</b>	30 inches
<b>Box Capacity</b>	12 bushels
<b>Tractor Requirements</b>	One hydraulic remote



# Appendix

## Torque Values Chart

Bolt Size (Inches)	Bolt Head Identification					
	 Grade 2		 Grade 5		 Grade 8	
in-tpi <sup>1</sup>	N · m <sup>2</sup>	ft-lb <sup>3</sup>	N · m	ft-lb	N · m	ft-lb
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	
mm x pitch <sup>4</sup>	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
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 = nominal thread diameter in inches-threads

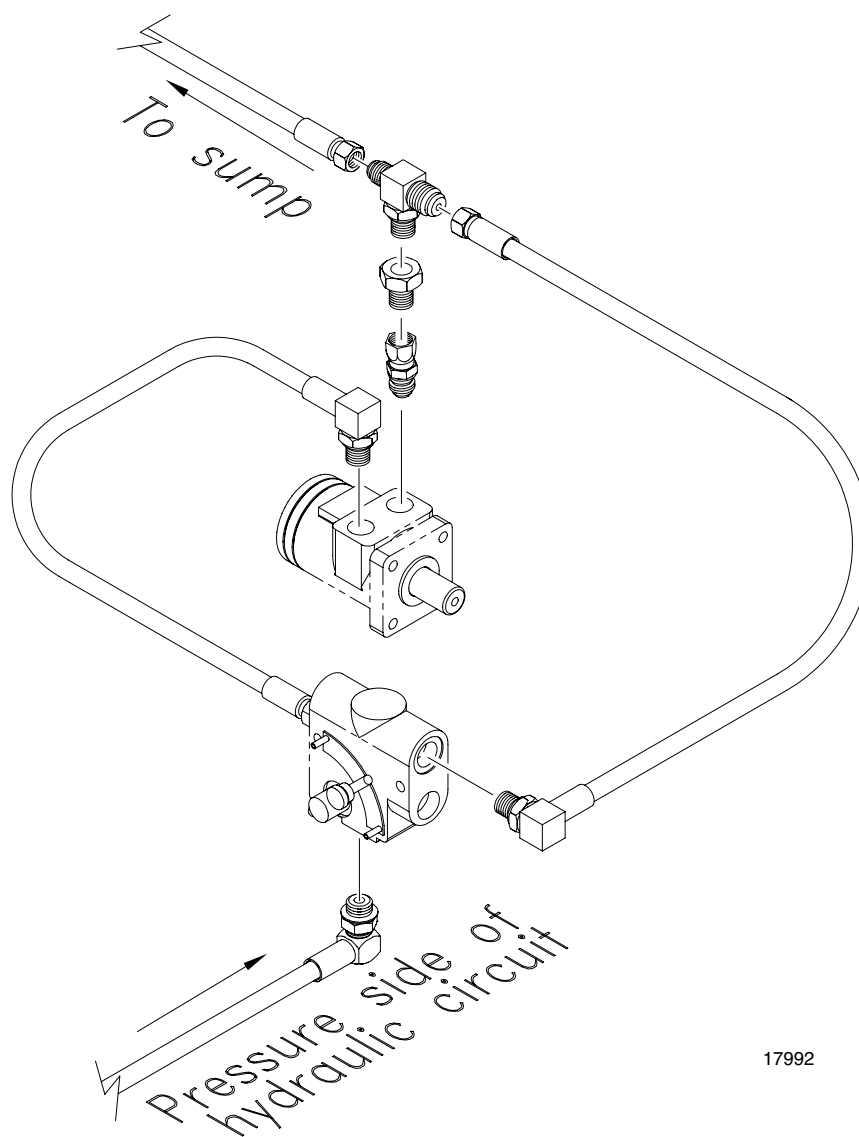
<sup>2</sup> N · m = newton-meters

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

<sup>4</sup> mm x pitch = nominal thread diameter in millimeters

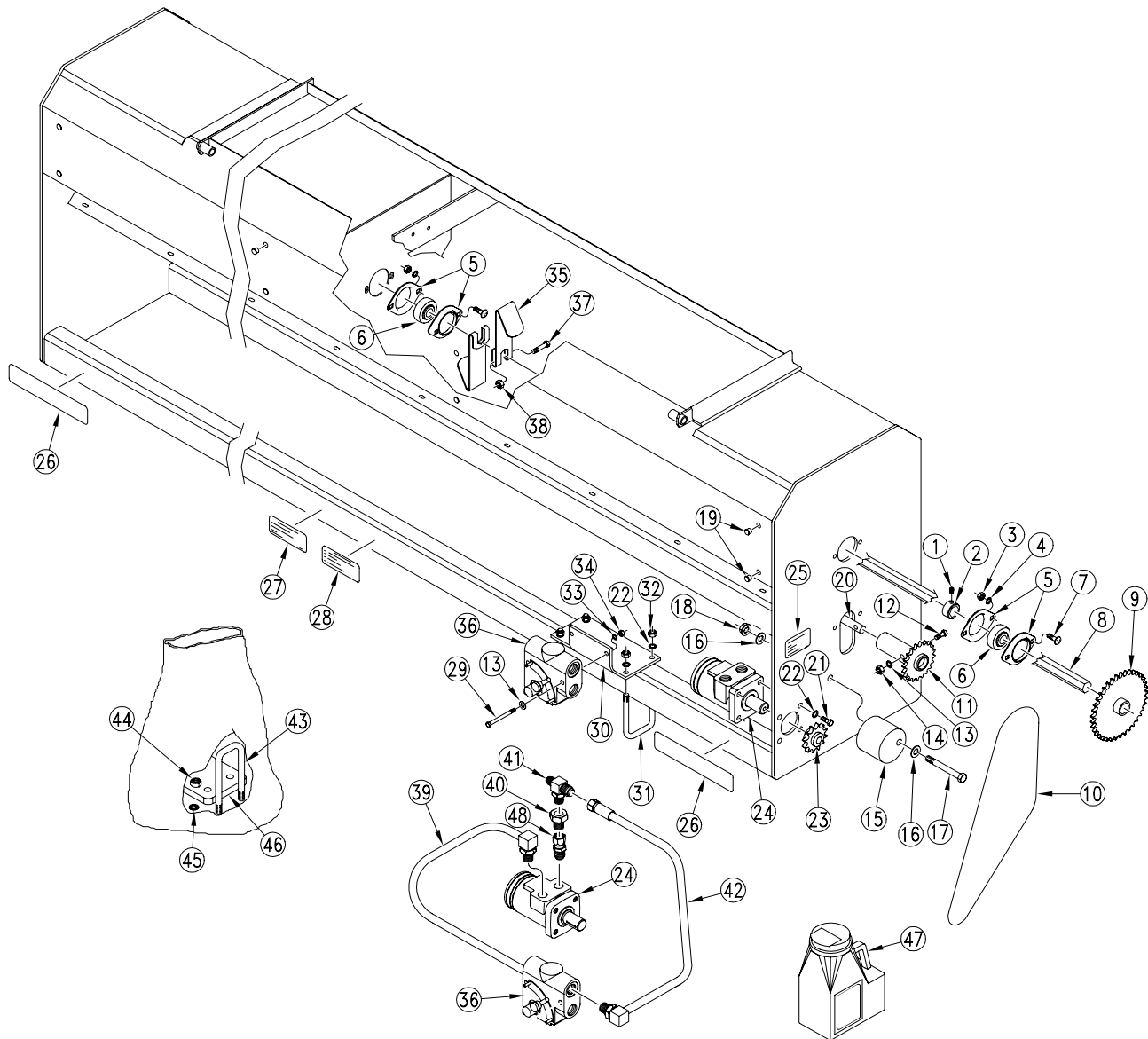
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

## Hydraulic Schematics



Note: Customer must supply hoses to the sump and to the pressure side of the hydraulic circuit.

# NG-12 Drop Seeder Components



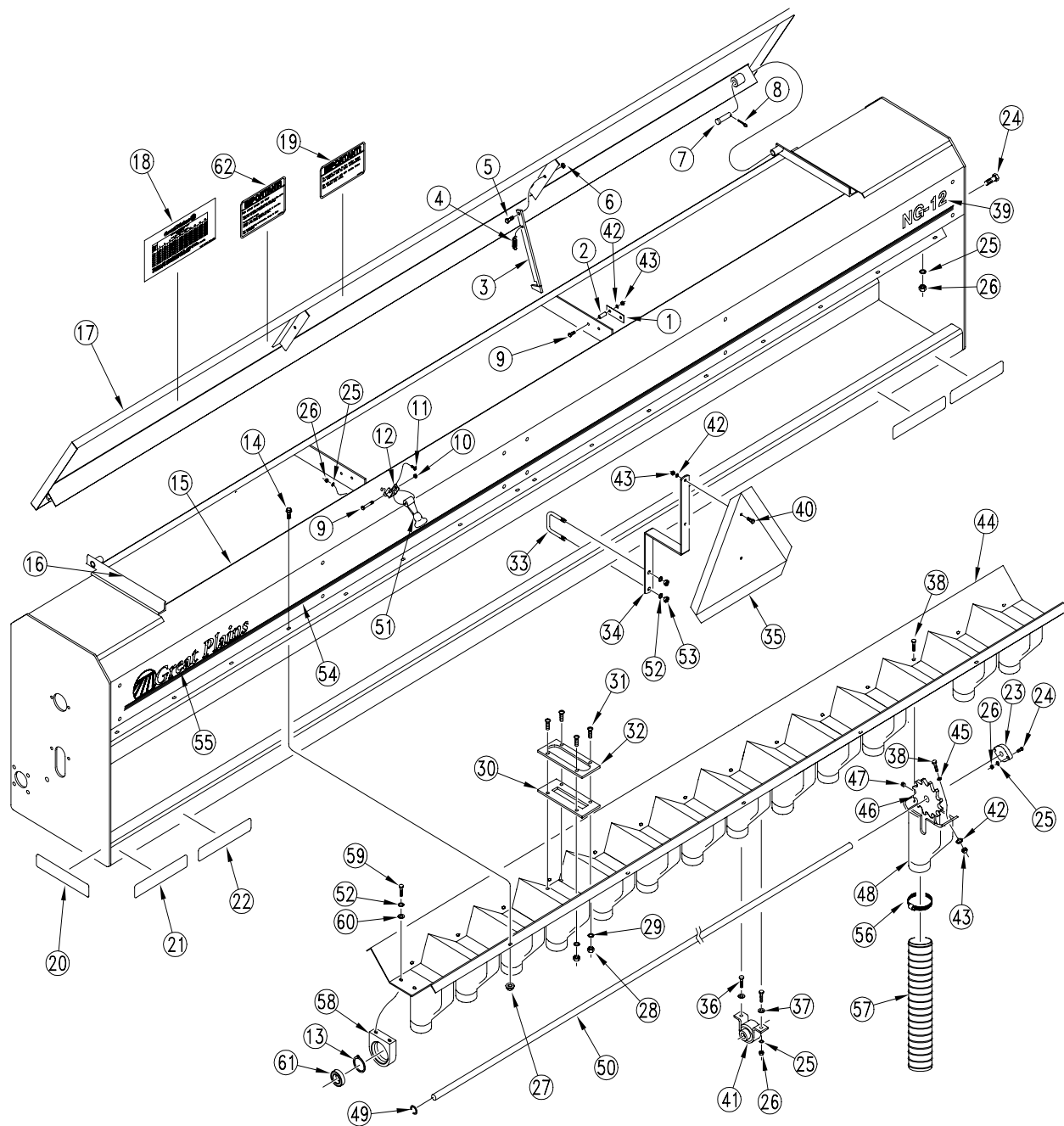
19945

## NG-12 Drop Seeder Components

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1.	801-035C	SCREW SET 5/16-18 SKT KP X 3/8
2.	118-494D	LOCK COLLAR 3/4 HEX BORE
3.	803-008C	NUT HEX 5/16-18 PLT
4.	804-009C	WASHER LOCK SPRING 5/16 PLT
5.	822-041C	FLANGETTE 47 MST
6.	822-128C	BEARING 3/4HEX B 47MM SPHER OD
7.	802-282C	RHSNB 5/16-18X1 GR5
8.	202-205D	NG ADGITATOR SHAFT
9.	808-086C	SPKT 40B30 X 3/4 HEXBORE W/ SS
10.	136-054D	CHAIN RL #40 89 PITCHES
11.	202-456H	NG SPROCKET WELDMENT
12.	802-152C	HHCS 1/4-20X2 GR5
13.	804-006C	WASHER LOCK SPRING 1/4 PLT
14.	803-006C	NUT HEX 1/4-20 PLT
15.	817-499C	NATIVE GRASS IDLER
16.	804-016C	WASHER FLAT 1/2 SAE PLT
17.	802-044C	HHCS 1/2-13X4 GR5
18.	803-169C	NUT HEX FLG. LOCK 1/2-13 PLT.
19.	817-500C	PLASTIC HOLE PLUG 7/16
20.	202-204D	NG CUP SHAFT
21.	802-017C	HHCS 3/8-16X1 GR5
22.	804-013C	WASHER LOCK SPRING 3/8 PLT
23.	808-272C	SPKT 40B16 X 1 W/KW & SS
24.	810-407C	HYD MOTOR EATON
25.	818-860C	DECAL WARNING MOVING CHAIN
26.	838-265C	DECAL REFLECTOR AMBER 1 1/2X9
27.	818-719C	DECAL CAUTION GENERAL INSTR
28.	838-094C	DECAL WARNING HYD PRESS LONG
29.	802-097C	HHCS 1/4-20X2 1/2 GR5
30.	202-202D	FLOW CONTROL MOUNT
31.	806-001C	U-BOLT 3/8-16 X 2 X 4
32.	803-014C	NUT HEX 3/8-16 PLT
33.	804-016C	WASHER FLAT 1/2 SAE PLT
34.	803-006C	NUT HEX 1/4-20 PLT
35.	202-185D	NG ADGITATOR PADDLE
36.	810-405C	FLOW CONTROL VALVE 8 GPM
	117-285D	REP BY 810-405C
37.	802-448C	HFSS 1/4-20X2 GR5
38.	803-088C	NUT HEX LOCK 1/4-20 FLG
39.	811-758C	HH1/2R2 024 7/8MORB 7/8MORB90
40.	811-502C	AD 7/8MORB 3/4FJIC
41.	811-078C	TE 3/4MJIC
42.	811-761C	HH1/2R2 020 7/8MORB90 3/4FJIC
43.	806-168C	U-BOLT 1/2-13 X 2 1/32 X 4 1/2
44.	803-020C	NUT HEX 1/2-13 PLT
45.	804-015C	WASHER LOCK SPRING 1/2 PLT
46.	202-203D	MOUNT PLATE
47.	821-042C	POWDERED GRAPHITE 1 LB BOTTLE
48.	841-059C	AD 3/4 MJIC 3/4 FJIC

# NG-12 Drop Seeder Components Cont.



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## NG-12 Drop Seeder Components Cont.

1.	110-015D	LID LATCH STRAP
2.	110-016D	LID HINGE STRAP SPACER
3.	119-224D	LID LATCH
4.	807-001C	SPRING EXT LID HING
5.	802-007C	HHCS 5/16-18X3/4 GR5
6.	803-001C	NUT HEX 10-24 PLT
7.	805-014C	PIN CLEVIS.491 X 2 49/64 USEL
8.	805-019C	PIN COTTER 5/32 X 1 PLT
9.	802-167C	HHCS 1/4-20X1 1/2 GR5
10.	803-007C	NUT LOCK 1/4-20 PLT
11.	801-028C	SCREW RD HD 5/16-18 X 1/2 PLT
12.	890-015C	ANCHOR BRACKET
13.	800-107C	SNAP RING INT 2.165
14.	802-196C	HFSS 1/4-20X5/8 GR5
15.	816-004C	VINYL SEAL 3/8 X 1/2 (PER FT)
16.	816-001C	VINYL SEAL 3/8 X 5/8/FT
17.	119-146H	12' BOX LID WELDMENT
18.	838-442C	DECAL NATIVE GRASS SEED RATE
19.	838-428C	DECAL NATIVE GRASS IMPORTANT
20.	838-265C	DECAL REFLECTOR AMBER 1 1/2X9
21.	838-266C	DECAL REFLECTOR RED 1 1/2X9
22.	838-267C	DECAL REFLECTR DAYTIME 1 1/2X9
23.	822-071C	BEARING CAST 3/4 - 2 BOLT
24.	802-010C	HHCS 5/16-18X1 1/4 GR5
25.	804-009C	WASHER LOCK SPRING 5/16 PLT
26.	803-008C	NUT HEX 5/16-18 PLT
27.	803-088C	NUT HEX LOCK 1/4-20 FLG
28.	803-001C	NUT HEX 10-24 PLT
29.	804-004C	WASHER INTERNAL STAR #10 PLT
30.	816-051C	GASKET GRASS SEED METER WHEEL
31.	801-003C	SCREW RD HD SLT 10-24X1/2 PLT
32.	202-055D	GRASS SEED METER WHEEL COVER
33.	806-132C	U-BOLT 3/8-16 X 3 1/32 X 2 3/4
34.	123-563D	SMV MOUNT BRACKET
35.	818-055C	DECAL SLOW MOVING-GALV. BACKED
36.	802-159C	HHCS 5/16-18X1 GR5
37.	804-010C	WASHER FLAT 5/16 USS PLT
38.	802-005C	HHCS 1/4-20X1 GR5
39.	838-441C	DECAL NG-12
40.	801-018C	SCREW RD HD 1/4-20 X 5/8
41.	822-057C	BEARING PILLOW BLK PB 3/4W/HSG
42.	804-006C	WASHER LOCK SPRING 1/4 PLT
43.	803-006C	NUT HEX 1/4-20 PLT
44.	202-453K	12' NG TRAY ASSEMBLY
45.	804-007C	WASHER FLAT 1/4 SAE PLT
46.	202-007D	GRASS METER SPROCKET
47.	801-023C	SCREW SET SH 3/8-16X3/8 TYPE C
48.	812-054C	CASTING GRASS SEED FEEDER CUP
49.	800-004C	SNAP RING EXT BASIC 1.880
50.	202-183D	NG BOX SHAFT
51.	816-008C	RUBBER LID LATCH
52.	804-013C	WASHER LOCK SPRING 3/8 PLT
53.	803-014C	NUT HEX 3/8-16 PLT
54.	838-160C	DECAL 3 COLOR STRIPE 2.50 WIDE
55.	838-161C	DECAL LOGO&GP F/STRIPE 4 X 24
56.	800-144C	CLAMP WRM DRV #40 SS (2.06-3)
57.	202-206D	NG SEEDER HOSE
58.	202-207D	NG BEARING HOUSING
59.	802-014C	HHCS 3/8-16X3/4 GR5
60.	804-012C	WASHER FLAT 3/8 SAE PLT
61.	822-103C	BRG 30MM B X 55MM OD
62.	838-634C	DECAL GRAPHITE W/NATIVE GRASS

## Warranty

Great Plains Manufacturing, Incorporated warrants to the original purchaser that this seeding equipment will be free from defects in material and workmanship for a period of one year from the date of original purchase when used as intended and under normal service and conditions for personal use; 90 days for commercial or rental purposes. This Warranty is limited to the replacement of any defective part by Great Plains Manufacturing, Incorporated and the installation by the dealer of any such replacement part. Great Plains reserves the right to inspect any equipment or part which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Great Plains' judgement shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. This Warranty shall not apply if the product is towed at a speed in excess of 20 miles per hour.

Claims under this Warranty must be made to the dealer which originally sold the product and all warranty adjustments must be made through such dealer. Great Plains reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Great Plains liable for damages of any kind, direct, consequential, or contingent, to property. Furthermore, Great Plains shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, losses caused by harvest delays or any expense or loss for labor, supplies, rental machinery or for any other reason.

**No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.**

This Warranty is not valid unless registered with Great Plains Manufacturing, Incorporated within 10 days from the date of original purchase.



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