

# Predelivery Instructions

PT6030 and PT8030  
**Pull-Type Planter**

# Great Plains

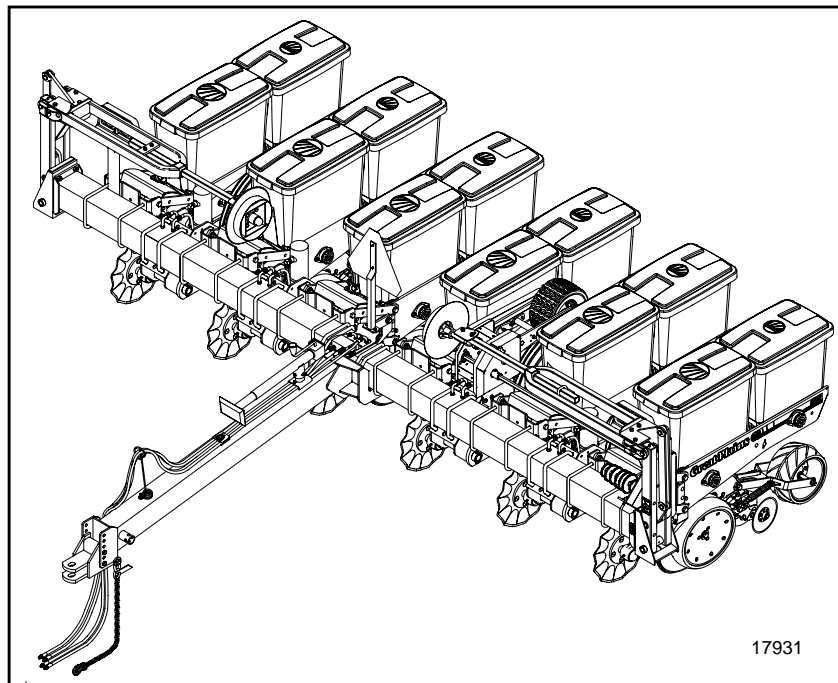
Manufacturing, Inc.

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



Read this 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 optional equipment not supplied with standard unit.*

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## Important Safety Information

For your safety, thoroughly read “**Important Safety Information**” and “**Operating Instructions**” in the operator’s manual before proceeding.

### Safety Notations

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 operator’s manual.

### 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.

### Safety Rules

Most accidents are the result of negligence, carelessness or failure to follow safety precautions. Though your implement is designed with many built-in safety features, safety precautions are mandatory to prevent accidents.

## Introduction

Great Plains Manufacturing wants you to be satisfied with any new machine delivered by the Great Plains Trucking network. To ease the assembly task and produce a properly working machine, read this entire manual before assembling or setting up new equipment.

### Description of Unit

The 6- and 8-row pull-type planter is a towed seeding implement. The frame consists of 7-by-7-inch tubing. Planting rates are adjustable by changing sprockets on the planter transmission or contact drive. Row units are mounted on the frame. Seed hoppers are standard on the row units; chemical hoppers and granular-chemical applicators are available. Springs on each row unit provide down pressure needed for the double-disk openers to make a seed trench. Finger-pickup meters singulate and dispense seed from the hopper and deliver it to the trench. Seeding depth is controlled by side gauge wheels on the openers. Closing wheels or disks close the trench. With an optional 5-by-7-inch fertilizer bar, the planter can be outfitted with dry or liquid fertilizer application and tillage attachments.

### Intended Usage

Use this implement for seeding row crops in large fields. Tow the implement behind an agricultural tractor at planting speed of 5 mph and at transport speeds of less than 20 mph. The unit is designed for conventionally tilled fields but can be used in no- or minimum-till conditions if outfitted with optional tillage attachments.

### Using This Manual

This manual was written to help you assemble and prepare the new machine for the customer. The manual includes instructions for assembly and setup. Read this manual and follow the recommendations for safe, efficient and proper assembly and setup.

An operator's manual is also provided with the new machine. Read and understand "**Important Safety Information**" and "**Operating Instructions**" in the operator's manual before assembling the machine. As a reference, keep the operator's manual on hand while assembling.

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

### Definitions

Right and left 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 about the preceding topic. For safe and correct operation, read and follow the directions provided before continuing.

**NOTE:** Useful information about the preceding topic.

### Assembly and Setup Assistance

To order additional copies of dealer assembly instructions or operator's and parts manuals, write to the following address. Include model numbers in all correspondence.

If you do not understand any part of this manual or have other assembly or setup questions, assistance is available. Contact

### Product Support

Great Plains Mfg. Inc., Service Department  
P.O. Box 5060  
Salina, KS 67402-5060

## Assembly and Setup

The following headings are step-by-step instructions for assembling the planter. Begin with *Tools Required* and *Pre-Assembly Checklist* to make sure you have all necessary parts and equipment. Then proceed with *Planter Setup*. Follow each step to make the job as quick and safe as possible and produce a properly working machine.

The planter is shipped via flat bed truck. It is the dealer's responsibility to unload the new machine. Unload all equipment before beginning assembly. Do not attempt any assembly work while the planter is on the truck.

### Tools Required

- Forklift with 5,000 pound capacity
- Lifting chains
- General hand tools

### Pre-Assembly Checklist

1. Read and understand “**Important Safety Information**” on page 0 before assembling.
2. Have at least two people on hand while assembling.
3. Make sure the assembly area is level and free of obstructions (preferably an open concrete area).
4. Have all major components.
5. Have all fasteners and pins shipped with the drill.

**IMPORTANT:** If a pre-assembled part or fastener is temporarily removed, remember where it goes. Keep the parts separated.

6. Have a copy of the parts manual on hand. If unsure of proper placement or use of any part or fastener, refer to the parts manual.
7. Check that all working parts are moving freely, bolts are tight, and cotter pins are spread.
8. Check for proper tension and alignment on all drive chains.
9. Check that all safety labels and reflectors are correctly located and legible. Replace if improperly located or damaged. Refer to *Safety Decals*, “**Important Safety Information**” in the operator's manual.
10. Inflate tires to recommended pressure as listed on the *Tire Inflation Chart* on the “**Appendix**” on page 7. Tighten wheel bolts as specified on *Torque Values Chart* on the “**Appendix**” on page 7.

### Planter Setup

#### **DANGER!**

*Crushing hazard. You may be severely injured or killed if the planter falls. Securely attach planter to lifting equipment. Do not walk or place any body part under the planter while lifting. Keep all bystanders away. Do not remove shipping stands until tongue is installed and parking jack is lowered.*

#### **WARNING!**

*Lifting hazard. The weight of the planter could bend the forks or cause the forklift to tip over, which may lead to serious injury or death. Consider strength of the forks, the planter center of gravity and forklift balance. The forklift must be heavy enough to carry the load.*

#### **WARNING!**

*Obey all safety instructions from lifting equipment manufacturer. Be sure shipping stands are securely attached prior to lifting. Be sure lifting equipment has enough capacity to lift planter.*

1. Attach lifting chain to planter frame and forklift. Lift frame and stands. With stands off the ground, back up forklift. Chain should become taut.



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## Assembly and Setup

2. Lower and back up slowly as shown below.



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3. Block to a level position and remove chain.

4. Attach hitch to frame as shown.

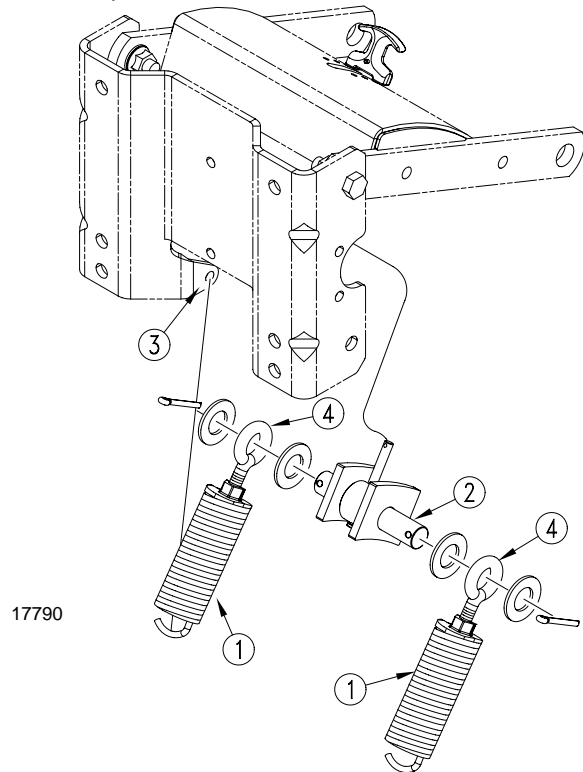


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5. Remove shipping stands and brackets.

### Row Unit Assembly

1. Disassemble row-unit springs (1) from mounting shaft (2) by removing cotter pins and washers.
2. Hook springs into row-unit mount (3).
3. Turn eye-bolts (4) so they are just below the mounting shaft (2), then turn eye-bolts back just enough so you can assemble eye-bolts on mounting shaft (2).
4. Secure springs to mounting shaft using washers and cotter pins.



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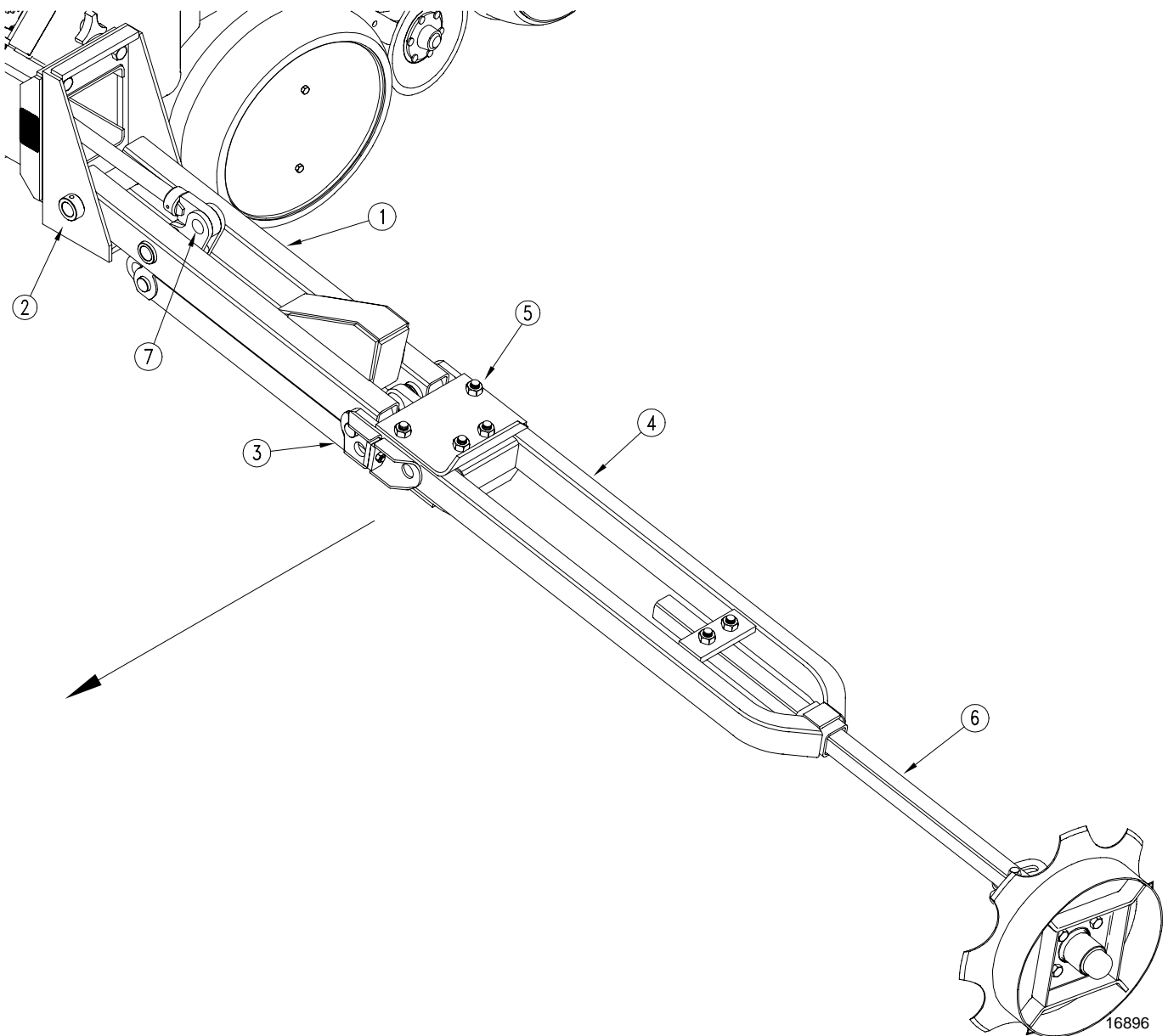
## Assembly and Setup

### Marker Installation

1. Lower the planter to the planting position. Remove the frame cap if applicable.
2. Block up the marker cylinders inside the frame tube so the rod ends will not contact anything when extended.
3. Extend and retract the marker cylinders several times to remove any air from the system and check that the hydraulics are operating properly.
4. Assemble the first stage arms (1) onto the planter using the pivot pins that are wired into the marker mounts (2). Secure pivot pins with roll pins.

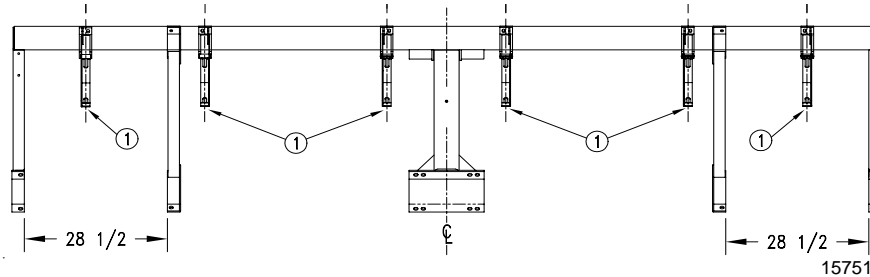
NOTE: Assemble markers so shear pin (3) faces forward.

5. Assemble second-stage arms (4) onto the end of the first-stage arms. To assemble, remove 1/2-by-3 1/2-inch pivot bolt and nut (5) then secure second-stage arm with pivot bolt and 5/16-inch shear bolt (3).
6. Assemble extension tubes (6) onto second-stage arms.
7. Start tractor and slowly extend one cylinder 6 inches. Shut tractor off. Pin the cylinder to the pivot link (7).
8. Tighten all hardware on the marker to specification. Refer to *Torque Vales Chart, Appendix*, page 7.
9. Start tractor and fold marker into the storage position.
10. Repeat steps 7 through 9 for other marker.

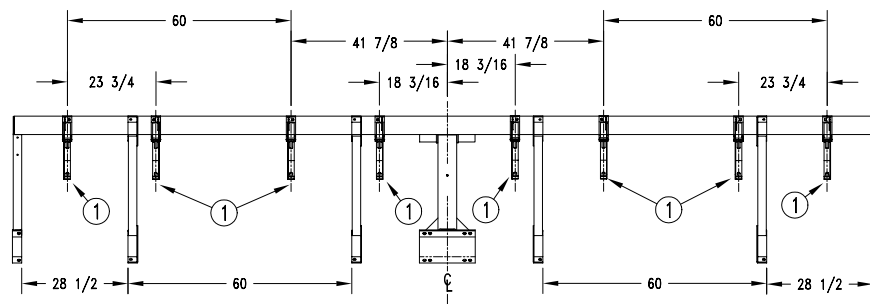


## Dry Fertilizer Assembly

1. Reposition hopper supports (1) on the fertilizer bar so the hoppers can be bolted to the supports. Refer to the drawing for approximate dimensions in inches. You may need to re-adjust the supports again when mounting the hoppers.

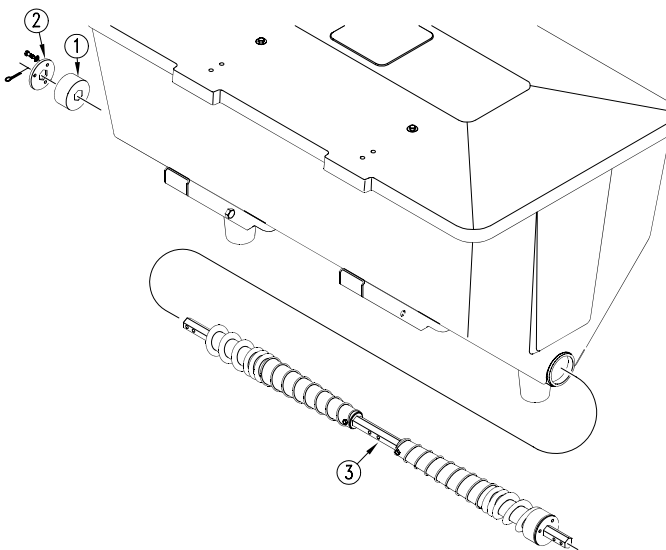


6 Row Planter



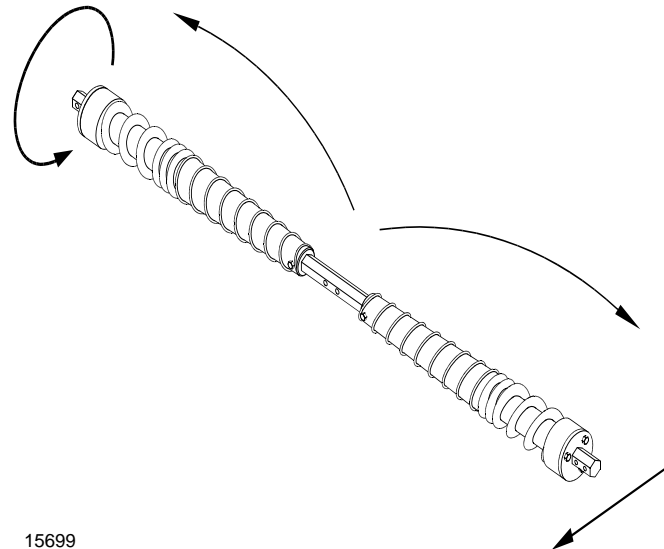
8 Row Planter

2. Remove a bearing (1) and retainer washer (2) from one end of the auger shaft.
3. Slide auger assembly (3) through hopper and fertilizer outlets. Replace bearing (1) and retainer washer (2).



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4. Make sure auger is assembled correctly. Tilt the hopper so you can see the auger. Using a wrench to rotate the shaft, turn the shaft in the same direction the drill will travel. Watch that the auger rotates so fertilizer will be pushed to the outside. If fertilizer will be pulled to the center of the hopper, remove auger shaft and re-assemble properly.

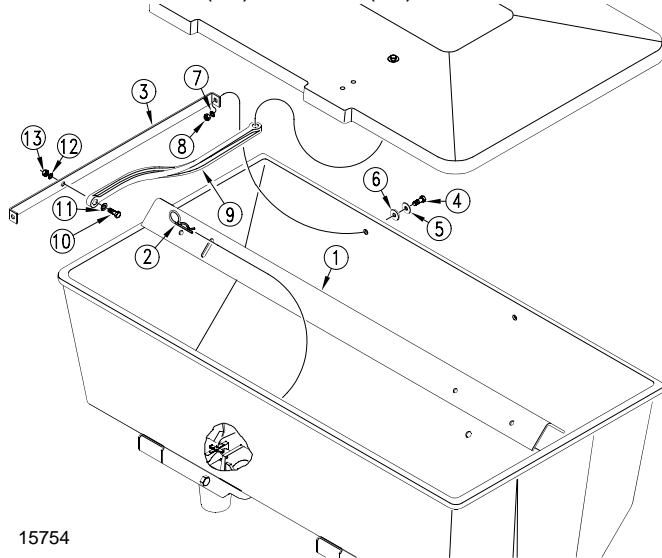


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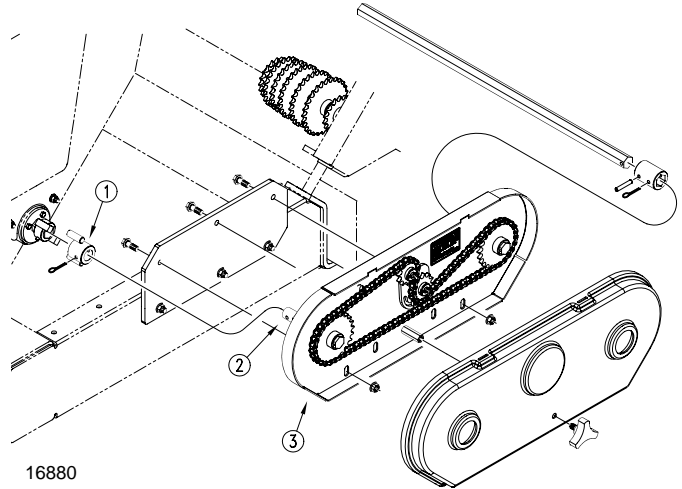
## Assembly and Setup

5. Place flow divider (1) over fertilizer outlets. Use hair-pin cotter keys (2) to pin flow divider to fertilizer outlet.
6. Attach metal straps (3) to hopper with 5/16-by-1-inch bolts (4), fender washers (5), rubber washers (6), lock washers (7) and nuts (8).
7. Attach tarp straps (9) to hopper lid and metal strap with 5/16-by-1 1/2-inch bolts (10), flat washers (11), lock washers (12) and nuts (13).



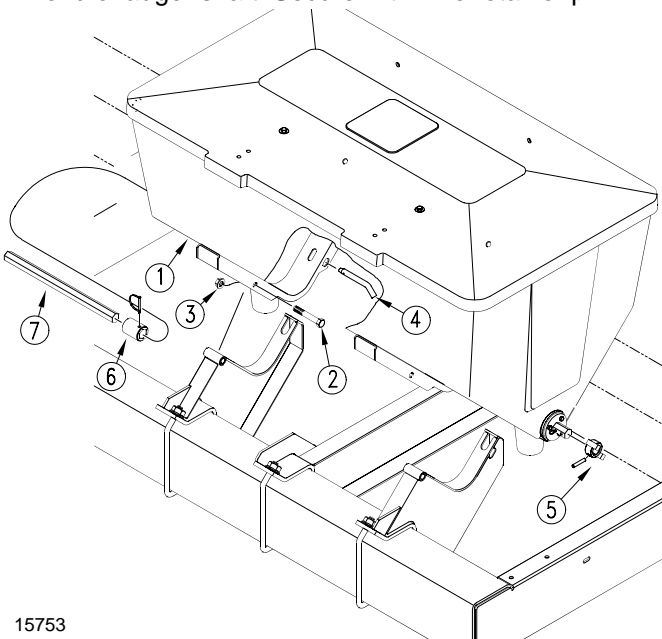
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10. Connect far-left hopper to the drive by installing drive coupler (1) on the fertilizer drive shaft (2). You may need to adjust the hopper or fertilizer drive (3).



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8. Mount the far-left hopper on the fertilizer-bar assembly. Place hopper (1) on supports and attach with 1/2-by-3-inch bolts (2) and lock nuts (3). Pin the rear of hopper to supports with bent pins (4). You may need to loosen the hopper supports to mount the hopper.
9. On the far-left hopper, assemble drive coupler (5) on the left end of the auger shaft. Secure with roll pin. Assemble coupler (6) and coupler shaft (7) on right-hand end of auger shaft. Secure with wire retainer pin.






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


11. When you are satisfied that the far left-hopper is properly mounted, mount remaining hoppers, moving to the right. Connect each hopper to the next with couplers, coupler shafts and wire retainer pins as you go. You may need to reposition hopper supports slightly for hoppers to connect.

# Appendix

## Torque Values Chart for Common Bolt Sizes

Bolt Size (Inches) in-tpi <sup>1</sup>	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
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) mm x pitch <sup>4</sup>	Bolt Head Identification					
	 Class 5.8		 Class 8.8		 Class 10.9	
	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 dia.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 = nominal thread dia. in millimeters x thread pitch

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

## Tire Inflation Chart

Tire Size	Inflation PSI
7.50 x 20" 4-Ply 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
21.5 x 16.1" SC 10-Ply Rib Implement	28

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