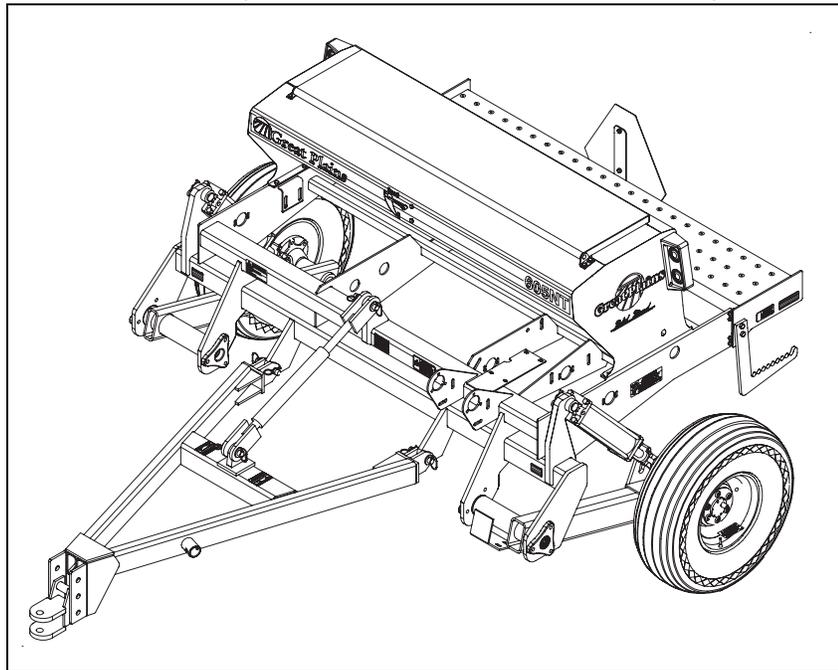


Pre-Delivery Manual

605NT and 606NT
6-Foot No-Till Drill



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.

ORIGINAL INSTRUCTIONS



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151-061Q

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Important Safety Information

For your safety, thoroughly read “Important Safety Information” in the 6-Foot No-Till Drill operator’s manual.

Safety Rules

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

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.





Introduction

Great Plains welcomes you to its growing family of new product owners. Your 6-Foot No-Till Drill 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 605NT and 606NT are towed seeding implements. This drill has a working width of 7.5 feet (1.9 m). The drill has straight arm, double disc 05 or 06 Series openers. The opener discs make a seed bed, and seed tubes mounted between the discs place seed in the furrow. Press wheels following the opener discs close the furrow and gauge opener seeding depth. A T-handle on the opener body makes seeding depth adjustments.

The metering system is driven from the gauge wheel (3-point), or from the left end wheel (pull-type). Seeding rates are set by rate adjustment handles and a Drive Type gearbox for the main seed box.

Intended Usage

Use this implement to seed production-agriculture crops in conventional or minimum tillage applications.

Models Covered

This manual applies to 6-Foot No-Till Drill models:

3P605NT-0975	9-row 7.5-inch (19.1 cm)
3P606NT-0975	9-row 7.5-inch (19.1 cm)
605NT-0975	9-row 7.5-inch (19.1 cm)
606NT-0975	9-row 7.5-inch (19.1 cm)

Standard 3P606NT or 605NT and 606NT Models have a main seed box. Native Grass and/or Small Seeds capability may be added.

Document Family

151-061Q	Pre-Delivery Manual (this document)
151-061M	Operator Manual
151-061P	3P606NT, 606NT Parts Manual
151-061B	Seed Rate Manual



Figure 1
3P606NT Product

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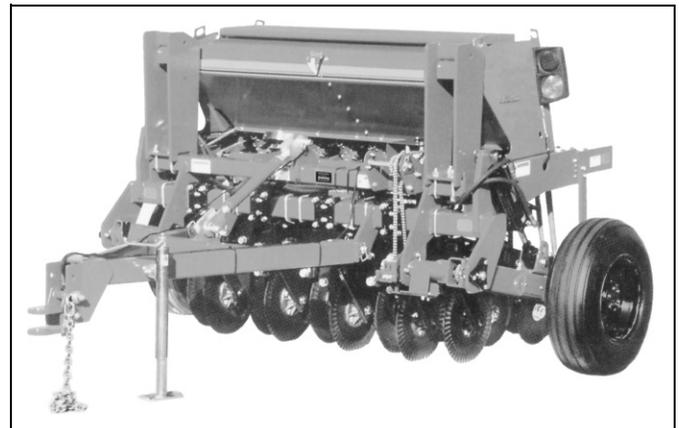


Figure 2
605NT and 606NT Product

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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.

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.

Definitions

The following terms are used throughout this manual.

NOTICE

A crucial point of information related to the preceding topic. Read and follow the directions to remain safe, avoid serious damage to equipment and ensure desired field results.

Note: Useful information related to the preceding topic.

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. An orientation rose in some line art illustrations shows the directions of: Up, Back, Left, Down, Front, Right.

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.

Further Assistance

Great Plains Manufacturing, Inc. wants you to be satisfied with your new product. If for any reason you do not understand any part of this manual or are otherwise dissatisfied, please contact:

Great Plains Service Department

1525 E. North St.

P.O. Box 5060

Salina, KS 67402-5060

Or go to www.greatplainsag.com and follow the contact information at the bottom of your screen for our service department.



Assembly

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

The drill 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 drill is on the truck.

Tools Required

- Fork-lift, overhead hoist or loader
- General hand tools

Pre-Assembly Checklist

1. Before assembling, read and understand “Important Safety Information,” beginning on page 1.
2. Have at least two people on hand while assembling.
3. Make sure 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 drill.

NOTICE

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 decals and reflectors are located correctly and legible. Replace if improperly located or damaged. Refer to “Safety Decals” in the operator’s manual.
10. Inflate tires to recommended pressure as listed on the “Tire Inflation Chart,” in operator’s manual. Tighten wheel bolts as specified on “Torque Values Chart,” in operator’s manual.

Tongue Assembly

Refer to Figure 3

1. With the aid of a fork-lift, overhead hoist or loader, lift the tongue ① into place to the mounting brackets ②.
2. Pin tongue to mountings with 1 x 3-3/8 inch hitch pins ③.
3. Pin hitch turnbuckle ④ to drill frame ⑤ with 1 x 3-3/8 inch hitch pins ⑥.

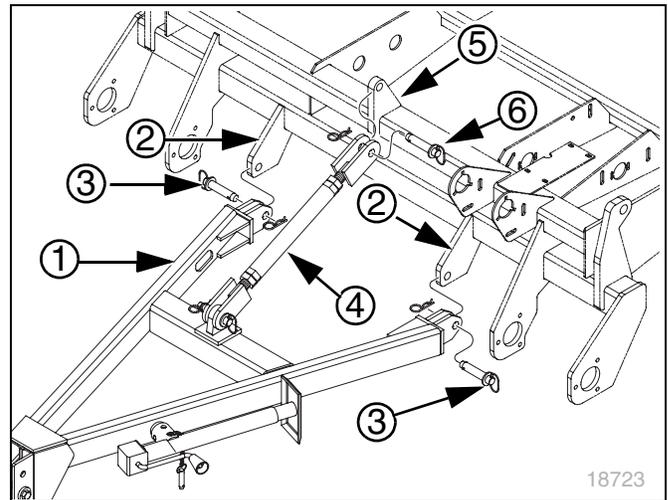


Figure 3
Tongue Installation

Hydraulic Hoses and Wiring

Refer to Figure 4

1. Unwind hydraulic hoses and light wiring harness from drill frame.
2. Remove hose plugs, fittings, and colored hose grips.
3. Route hydraulic hoses ① and light wiring harness ② inside tongue as shown.
4. After hydraulic hoses are routed through the tongue, connect hoses to the correct color hose grip and fittings. Retract hose connects to rod end of cylinder. Extend hose connects to the base end of cylinder.

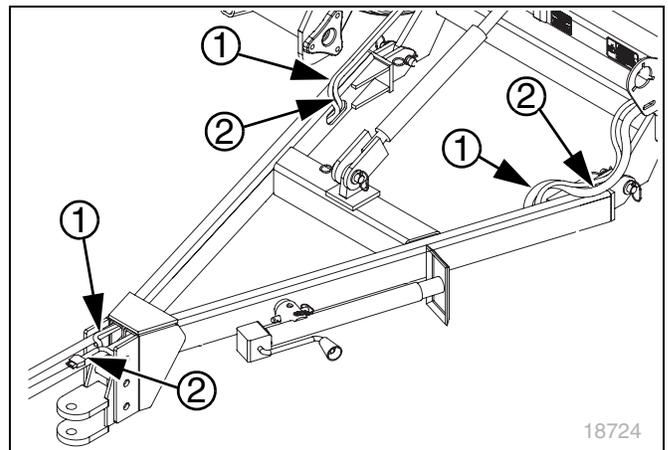


Figure 4
Hose and Wiring Routing

Refer to Figure 5

5. Plug in light harness extension ③ to wiring harness.

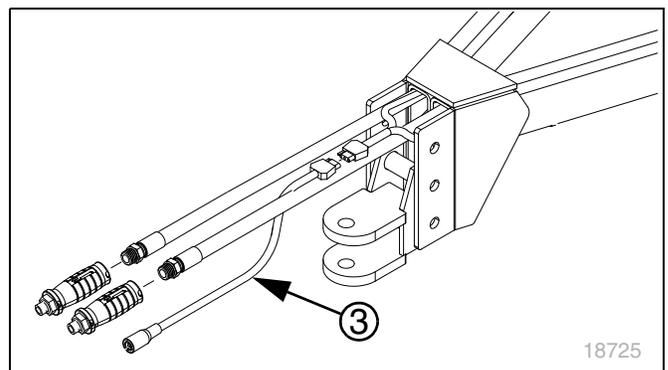


Figure 5
Hose and Wiring Routing



Setup

Hitching Tractor to Drill

⚠ DANGER

You may be severely injured or killed by being crushed between the tractor and drill. Do not stand or place any part of your body between drill and moving tractor. Stop tractor engine and set park brake before installing the hitch pin.

1. With drill lowered in field position and tongue jack mounted as shown in Figure 6, raise or lower tongue jack to level drill tongue.
2. With drill tongue level, adjust drill hitch on drill tongue to match your tractor-drawbar height. Refer to Figure 7. You can move the hitch up or down or turn it over for a total of four different hitch heights.
3. When drill hitch matches tractor-drawbar height, hitch drill to tractor.

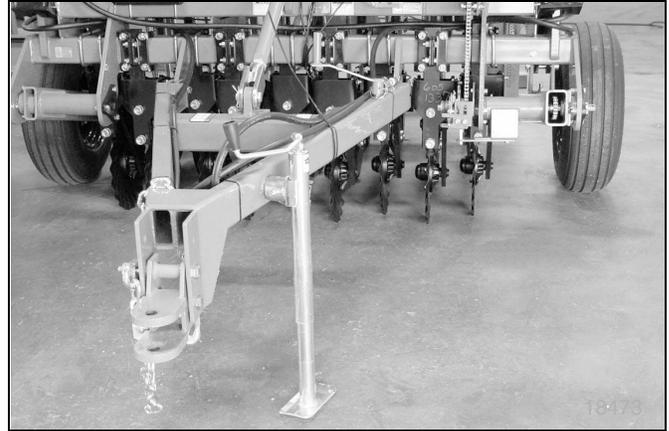


Figure 6
Tongue Jack

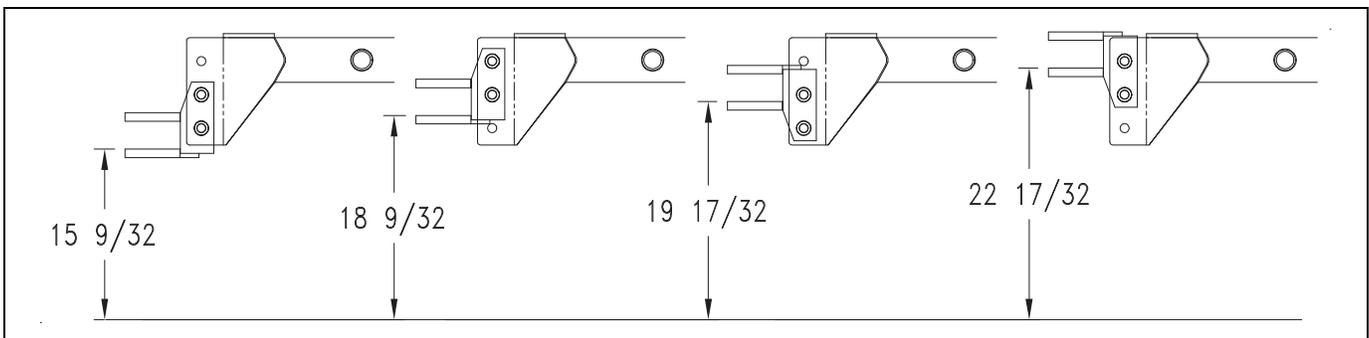


Figure 7
Hitch Height Adjustment

4. Securely attach drill safety chain to an anchor on tractor capable of pulling drill.

Note: When hitching drill to a different tractor, check for a difference in drawbar heights. If heights are different, readjust hitch height accordingly.

Hydraulic Hose Hookup

WARNING

High Pressure Fluid Hazard:

Shut down tractor before making hydraulic connections. Only trained personnel should work with system hydraulics. Escaping fluid under pressure can have sufficient pressure to penetrate the skin causing serious injury. Use paper or cardboard, **NOT BODY PARTS**, to check for leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. If an accident occurs, seek immediate medical assistance from a physician familiar with this type of injury.

Refer to Figure 8

Hydraulic hoses have directional handles and are color coded to help you hookup hoses to your tractor outlets. Hoses that go to the same remote valve pair are marked with the same color.

Color	Hydraulic Function
Blue	Transport Lift Cylinders

To distinguish hoses on the same hydraulic circuit, refer to the symbols on the handles. Hose under extended-cylinder symbol feeds cylinder base ends. Hose under retracted-cylinder symbol feeds cylinder rod ends.

Rephasing Cylinders

The lift cylinders may, after a period of time, get out of time or phase. The effects of this can be seen when one side of the drill is running too low or too high because its lift cylinder is either over extended or not retracted compared to the other lift cylinder.

To rephase the cylinders, raise drill completely and hold tractor hydraulic lever on for a few seconds to give cylinders time to rephase.

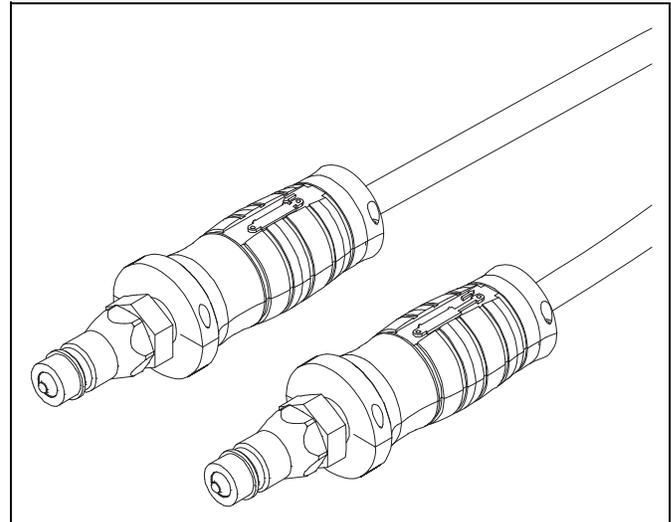


Figure 8
Hose Handles

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Each time drill is raised out of ground momentarily reverse hydraulic lever immediately after rephasing to allow cylinders to retract about 1/2 inch. This will help in maintaining a level drill.

Note: Understand that having cylinders become gradually out of time is different than having air trapped in the system from improper bleeding. Each condition is corrected differently.

Bleeding Hydraulics

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.

Check that tractor hydraulic reservoir is full.

The drill lifting system is equipped with rephasing type hydraulic cylinders that require a special procedure for bleeding air from the hydraulic circuits. Read and follow this procedure carefully. Rephasing type cylinders will not function properly with air in hydraulic circuit.

1. Check hydraulic fluid in tractor reservoir and fill reservoir to proper level. Drill-system capacity is about 1 gallon. Add fluid to system as needed. A low reservoir level may draw air back into the system, causing jerky or uneven cylinder movements.
2. With drill attached to tractor, jack drill up and support frame at ends near gauge wheels.
3. With drill raised and supported, unpin cylinders from gauge wheel arms and frame. Turn cylinders "rod end up". Wire or otherwise safely support rod ends higher than base ends.

Note: NOTE: In order to prevent trapped air pockets, rod end must be higher than any other part of cylinder during bleeding operation.

4. With tractor engine idling, engage tractor hydraulics to extend cylinder rods. When cylinder rods are completely extended, hold remote lever on for one minute.
5. Retract cylinders. Extend cylinders again and hold remote lever on for one more minute. Repeat this step two more times to completely bleed system.
6. Pin cylinders to drill frame and gauge wheel arm with transport cylinder locks in place. If any air still is trapped in either cylinder, the cylinder will have a spongy, erratic movement and drill will not raise evenly. If necessary, repeat bleeding process.
7. Refill tractor hydraulic fluid reservoir to its proper level.

Note: After the drill is raised, a slight settling will occur due to the action of the rephasing cylinders.



Appendix

Bolt Size	Bolt Head Identification						Bolt Size	Bolt Head Identification					
													
	Grade 2		Grade 5		Grade 8			Class 5.8		Class 8.8		Class 10.9	
in-tpi ^a	N-m ^b	ft-lb ^d	N-m	ft-lb	N-m	ft-lb	mm x pitch ^c	N-m	ft-lb	N-m	ft-lb	N-m	ft-lb
1/4-20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4-28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16-18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16-24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8-16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8-24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16-14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16-20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2-13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2-20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16-12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16-18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8-11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8-18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4-10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4-16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8-9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8-14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1-8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1-12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1 1/8-7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 1/8-12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 1/4-7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
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							

a. in-tpi = nominal thread diameter in inches-threads per inch

b. N·m = newton-meters

c. mm x pitch = nominal thread diameter in mm x thread pitch

d. ft-lb = foot pounds

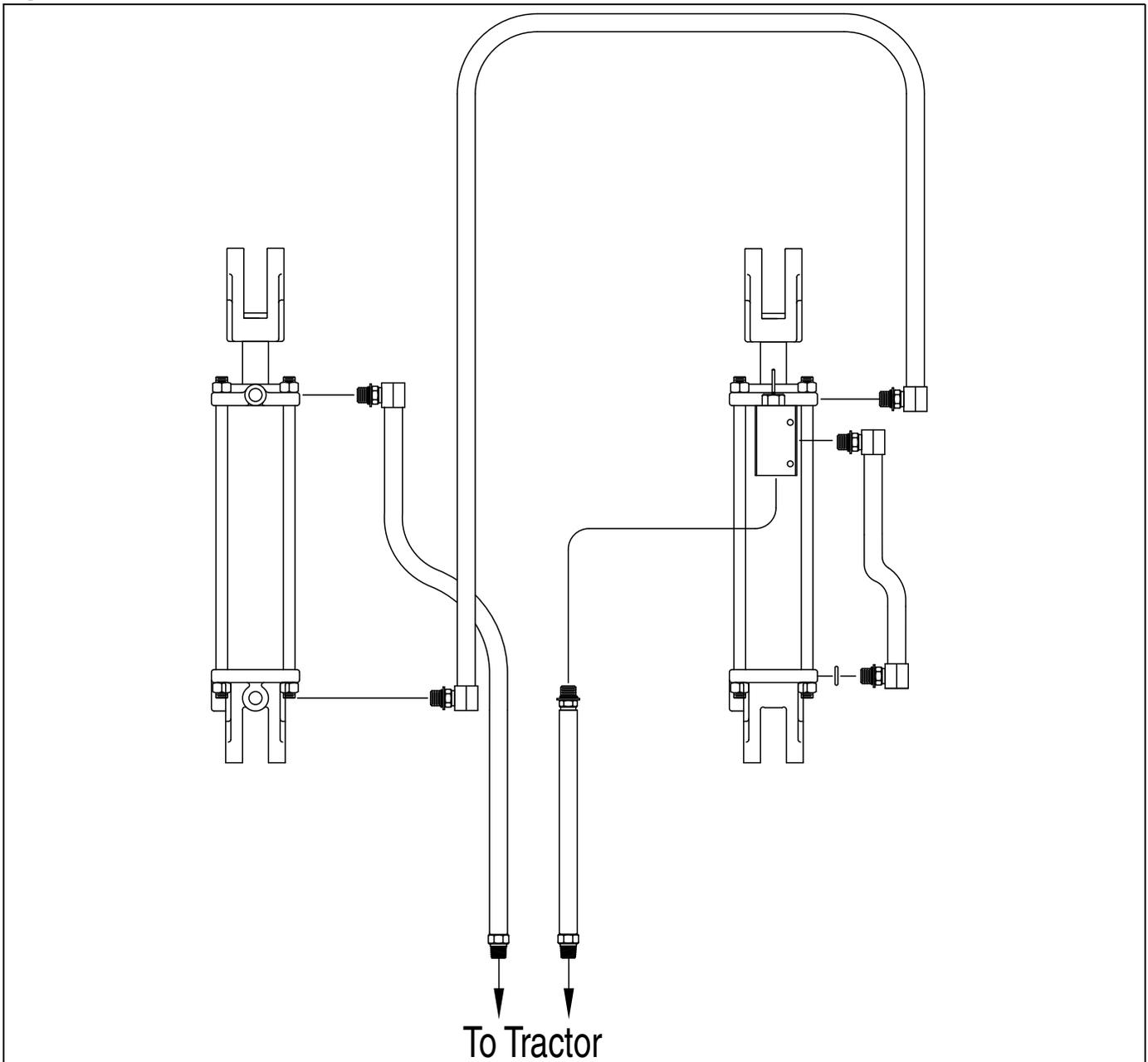
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

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Tire Inflation Chart

Tire Size	Inflation PSI	Tire Size	Inflation PSI
7.50 x 20" 4-Ply Drill Rib	28	11L x 15" 6-Ply Rib Implement	28
9.0 x 22.5 10-Ply Highway Service 70	70	11L x 15" 12-Ply Rib Implement	52
9.0 x 24" 8-Ply Rib Implement	40	12.5L x 15" 8-Ply Rib Implement	36
9.5L x 15" 6-Ply Rib Implement	32	12.5L x 15" 10-Ply Rib Implement	44
9.5L x 15" 8-Ply Rib Implement	44	16.5L x 16.1" 10-Ply Rib Implement	36
9.5L x 15" 12-Ply Rib Implement	50	41 x 15" x 18 - 22-Ply Rib Implement	44

Hydraulic Schematic



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