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!
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Printed in the United States of America
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.

Use Adequate Lifting Means

The frame sections and shanks of this machine are extremely heavy. If using multiple lifters, make sure each is rated for at least its share of the load.

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.

> 14,000 POUNDS
Be Familiar with Safety Decals

- Read and understand the “Safety Decals” section of the Operators Manual.
- Read all instructions noted on the decals.
- Keep decals clean. Replace damaged, faded and illegible decals.

Wear Protective Equipment

- 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 earmuffs or earplugs.
- Because operating equipment safely requires your full attention, avoid wearing entertainment headphones while operating machinery.

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, seek immediate medical assistance from a physician familiar with this type of injury.

Use Safety Lights and Devices

Slow-moving tractors and towed 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 implement

Keep Riders Off Machinery

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

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

Shutdown and Storage

- Lower implement, put tractor in park, turn off engine, and remove the key.
- Secure Ultra Chisel using blocks and supports provided.
- Detach and store Ultra Chisel in an area where children normally do not play.
Tire Safety

Tire changing can be dangerous and should be performed by trained personnel using correct tools and equipment.

▲ When inflating tires, use a clip-on chuck and extension hose long enough for you to stand to one side—not in front of or over tire assembly. Use a safety cage if available.
▲ When removing and installing wheels, use wheel-handling equipment adequate for weight involved.

Safety At All Times

Thoroughly read and understand the instructions in this manual before operation. Read all instructions noted on the safety decals.

▲ Be familiar with all machine functions.
▲ Operate machinery from the driver’s seat only.
▲ Do not leave machine unattended with tractor engine running.
▲ Do not stand between the tractor and machine during hitching.
▲ Keep hands, feet and clothing away from power-driven parts.
▲ Wear snug-fitting clothing to avoid entanglement with moving parts.
▲ Watch out for wires, trees, etc., when folding and raising machine. Make sure all persons are clear of working area.
Introduction

The 6539-6545UC Ultra Chisel has been designed with care and built by skilled workers using quality materials. Proper setup, maintenance, and safe operating practices will help the customer get years of satisfactory use from the machine.

Description of Unit

The 6539-6545UC Ultra Chisel, is a five-section primary tillage tool. Working width ranges from 39 to 45 feet. In todays environment, soil management is vital to maximizing yields. The Ultra Chisel provides producers with a unique tool to fracture the soil above 8" to remove density layers while leaving the residue mixed at the surface to reduce wind erosion and assist with water infiltration.

Models Covered

6539UC  39-Foot  5-section
6541UC  41-Foot  5-section
6543UC  43-Foot  5-section
6545UC  45-Foot  5-section

Document Family

562-339Q  Pre-Delivery Manual (this document)
562-339M  Operator Manual
562-339P  Parts Manual

Tools Required

- Basic Hand Tools
- Torque Wrench
- Fork Truck, Overhead Hoist or Loader

Pre-assembly Checklist

1. Before assembling, read and understand “Important Safety Information” in front part of this manual.
2. Have at least two people on hand while assembling.
3. Make sure area is level and free of obstructions (preferably an open concrete area).
4. Have all major componets
5. Have all fasteners and pins shipped with machine.
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 and parts 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. Refer to the parts manual for proper part's identification. As a reference, keep the operator's and part's manual on hand while assembling.

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

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.
Shipping

Refer to Figure 3 (Center Frame Shown)

The Ultra Chisel will be shipped partially assembled.

- The Ultra Chisel will be shipped with shipping stands that will not need to be returned to Great Plains.
- Wings will be stacked and have the shank upright assemblies already installed. The back row of shank assemblies will not have the shanks or sweeps installed. These will need to be installed into the uprights before assembly is completed.
- All hydraulics will be attached to the frame sections. Hydraulic systems will need to be connected, at bulkhead fitting brackets and charged and purged of any air.
- Hydraulic cylinders may be only partially installed and may need to be left unattached until after charging the hydraulic system.
- Shank mount upright assemblies will be attached to frames in proper locations, but may need to have the shanks and sweeps installed.
- Shank assemblies will be shipped in a box on a pallet.
- Finishing attachments (if equipped), will be pre-assembled and banded to a pallet. Some attachments will need drag arm extensions. See parts manual for proper identification.

Unloading

Be sure the truck is on level ground, preferably concrete.

Centering components:
The Ultra Chisel is very heavy, be sure the machinery you are using to unload the sections is rated for its share of the load. Be sure and center fork truck or chains (overhead hoist) on components so they won’t slide and cause injury.

Unload Smaller Items First

Unloading the Ultra Chisel is a potentially dangerous operation.

Note: Place smaller components well out of the maneuvering area needed for unloading the Ultra Chisel

Reduce risk and complications by first unloading:

6. finishing attachments
7. misc. boxes
8. gauge wheel assemblies
9. Place these components well out of the maneuvering area needed for unloading the Ultra Chisel
10. Ultra Chisel (described in next section).
Unload Ultra Chisel
11. Double-check that all chains and tie-down straps have been released and stowed.
12. Set parking brake on trailer tractor
13. Place the Ultra Chisel sections close to the assembly area.
14. Slowly lift the Ultra Chisel off the trailer bed using two fork lifts
15. Stop lifting about 12” above the bed
16. Have the truck driver slowly pull the trailer straight out from under the Ultra Chisel.
17. Making sure to keep the sections level front to back and side to side, slowly lower the Ultra Chisel.
18. Lower the Ultra Chisel down until the machine is resting on the shipping stands.
19. Sections will be stacked, place bottom section on the ground before unbolting the top section, and setting it on the ground.
20. Repeat steps 17-20 with wing stacked sections.

Unpacking Boxes
Note: Position boxes in area that you can maneuver components up to machine for assembly.
21. Carefully remove banding from boxes.
22. Carefully remove banding from finishing attachments.
23. Locate and identify all components before assembling.

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

   Great Plains Service Department
   1525 E. North St.
   PO 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

Note: Your Ultra Chisel should be shipped with the Center Torque Tube, Walking Beams and Center Fold Brackets installed.

24. Install rear shank uprights, shanks and sweeps to the center frame section and any missing shanks and sweeps from the center brace bar, See "Install Spring Shanks" on page 8. Remove shipping stands.

25. Maneuver center frame, and center brace bar and bolt the frames together, See "Install Spring Shanks" on page 8, leave bolts loose.

Install Spring Shanks

Refer to Figure 4

26. The rear shank mounts will not be installed. Refer to Appendix Section for Machine layouts. Install any other missing shanks.

Note: If shank is not installed, the 1 x 7 Gr. 5 bolt will be tightened just enough to keep parts from shifting during shipping.

27. Locate shank assemblies, the 5/8 x 4 1/2 Gr. 5 bolt, the 1/2 x 3 Gr5 Special Thread Bolt and shank bolt spacers, 1 washer, and necessary lock nuts from the misc. box.

28. Loosen 1 x 7 Gr. 5, Slide shank assembly through shank cradle in shank mount and align holes as shown.

29. Install 5/8 x 4 1/2 Gr. 5 bolt, 1/2 x 3 Gr. 5 bolt secure with 5/8 lock nuts.

WARNING

If the following step is not followed serious equipment failure, or breakage can occur.

30. Tighten the 1 x 7 Gr. 5 bolt, until the bottom of the Spring Cap contacts the spring guide, located inside of the spring. This will compress the spring.

31. Repeat same procedure for rest of shanks.

32. Bolts may be tightened to specs, See “Torque Values Chart” on page 18

33. Some shanks uprights may be installed but the shanks may be tripped forward for shipping. To reset the shank in the correct position, remove the 1/2 x 3 Gr. 5 bolt, 5/8 flat washer and 5/8 lock nut and lift the shank into the correct position and reinstall the hardware.
Install Frame Sections

Refer to Figure 5

34. Center and Wing frame sections will need to be bolted together.

35. With the center brace bar (17) and center frame section (18) maneuvered together, use 3/4 x 2 Gr. 5 hex bolt (19), 3/4 lock washer, and 3/4 hex nut to secure the front and rear sections of the frames together. Leave bolts loose until after the equalizer and gauge wheels are installed. Repeat for both wings.

36. Bolts may be tightened to specs, See “Torque Values Chart” on page 18

Install Frame Trusses & Wing Stops

Refer to Figure 6

37. The frame trusses (10) are the same for both sides on models 6321, 6324, 6327 & 6329. On models 6330 & 6333 the trusses are specific to the side of the machine they belong on. See parts manual for part numbers and placement.

38. Install the two frame trusses (10) to the center frame (11), using 3/4 x 2 hex bolt (11), 3/4 lock washer, and 3/4 hex nut.

39. Install the front and back wing stops (13) to the center frame. Use the same 3/4 x 2 hex bolts, 3/4 lock washers and 3/4 hex nuts to secure to frame.

40. Bolts may be tightened to specs, See “Torque Values Chart” on page 18
Install Level Bar & Equalizer

*Refer to Figure 7*

41. The level bar (14) and equalizer (15) will be partially installed on the center frame of the machine. You will need to attach the gauge wheel arms (16) to the equalizer (15).

42. The level bar (14) and equalizer (15) will be attached to the rear section of the center frame, the gauge wheel arms (16) will be attached to the lift rockers (17) on the center brace bar section. Use 1 x 3.63 snap ring pin (18), 1.5 x 1 machine washer, and 1” heavy snap ring to attach the gauge wheel arms (14) to the equalizer (15).

![Figure 7](43662)

Level Bar & Equalizer

Install Hitch Assembly

*Refer to Figure 8*

43. Attach hitch assembly (22) to center frame with 1 1/4 flat washers (14) (one on each side of hitch, both sides), 1 1/4 x 7 Gr. 8 hex bolt (15) and 1 1/4 top lock nut.

44. Attach hitch jack (18) to front jack tube as shown to support front of tongue.

45. Install hose loop (23) on hitch assembly, and route light harness (17) and hydraulic hoses (18) thru the loop. If not already installed, secure with Stauff hose clamps (19), 5/16 x 1 1/4 hex bolts (21) and 2 stauff stacking bolts (20) for three clamps (5/16 x 1 1/4 and 1 stauff stacking bolts for two clamps or 5/16 x 1 1/4 for one clamp). See “Attach Hose Clamps and Hose wraps” on page 15

46. Attach bulkhead fittings at bracket that is located on the front section of the center frame with the depth stop tube.

47. Bolts may be tightened to specs, See “Torque Values Chart” on page 18

![Figure 8](43521)

Hitch
Install Gauge Wheels

Refer to Figure 9

Note: The Ultra Chisel will be shipped without gauge wheels installed. Gauge Wheels may be assembled and you will simply have to install them on the front of the machine. See “Tire Inflation Chart” on page 19, for proper tire sizes for tire/wheel assembly.

48. Start by installing the brackets onto the frames with 3/4 x 2 Gr 5 bolts, 3/4 lock nuts, and 3/4 hex nuts.
   Note: Leave mounting brackets loose until arms are attached to frame tresses and turnbuckles.

49. Install the LH or RH gauge wheel arm with lever and gauge wheel arm to the brackets, with 1 x 12 1/4 Gr 8 bolts, or 1 x 7 Gr 5 bolts, 1 flat washers, 1 lock washers and 1 nuts. If gauge wheels are not fully assembled you will need to drive caster inner pivot tubes, into the brackets and thru the gauge wheel arms before installing bolts.

50. Fasten turnbuckle assembly to gauge wheel arms with 1 x 3 snap ring pins, 1 machine washer and 1 snap ring.

51. Attach the caster pivot arm assembly to gauge wheel arms and, drive inner pivot tubes into brackets and gauge wheel arms before securing with 1 x 10 Gr 5 bolts, 1 hex nuts, 1 flat washers, and 1 lock washers.

52. Slide 6-bolt hub assembly into pivot mount assembly, align holes, secure with 5/16 x 3 1/2 Gr 8 hex bolt and 5/16 lock nut.

53. Attach the wheel/tire assembly to 6-bolt hub assembly and secure with 5/16 lug nuts.

54. Tighten bolts to specs, See “Torque Values Chart” on page 18.

55. See “Operator’s Manual” for proper adjustment of gauge wheel assembly.
Inside Wing Assembly

Note: Pins must be installed so the pin spirol is in the pin stop as shown in inset picture 1.

Refer to Figure 10

56. With the center frame stands removed, the center frame sweeps should be resting on the floor and the frame should be supported by the center transport tires.

57. Install the rear wing frame section to the center frame first using wing hinge pins 1, 7/8 flat washer, and 7/8 lock nut, then attach the wing brace 3/4 x 2 Gr. 5 hex bolts 2.

58. If the wing fold brackets 3 are not installed, use 3/4 x 2 Gr. 5 hex bolts 2 and 3/4 x 5 hex bolts 4, 3/4 lock washer, and 3/4 hex nut, to secure them to the wing frames.

59. After installing the wing fold brackets 3, install the H-brackets 5 to the outside of the wing frame using 1 x 9 Gr. 8 special thread bolt 6 and 1 top lock nut. These H-brackets need to go over top of the wing fold brackets.

60. Connect the wing level bar 8 to the lift rocker using 1 x 5.13 snap ring pin 9, and the torque tube using 1 x 3.00 pin-snap ring 10, both pins use 1.5 x 1.00 x .075 machine washer, and 1” heavy snap ring.

61. If the outside wing hinge bracket 11 is not installed used 3/4 x 2 Gr. 5 hex bolts 2, 3/4 x 4 1/32 x 5 3/4 u-bolt 12, and secure with 3/4 lock washer, and 3/4 hex nut.

62. On models 6539 & 6541 you will need to attach wing stop 13, and wing lock 14. Use 3/4 x 5 1/2 bolt 15 and 3/4 top lock nut.

Note: On models 6543 & 6545 there will not be a wing stop it is built into the wing fold bracket but you will need to attach the wing lock using the same hardware at stated in step 63.

63. Install the turnbuckle 17, using 1 x 4 Gr. 8 SPTHD hex bolts 18, and 1” top locks.

Note: Do not hook up rod end of fold cylinder until system is purged of air. See “Purging Hydraulic System” on page 16.

64. Tighten all bolts to specs, See “Torque Values Chart” on page 18.

65. Install the wing gauge wheels, See “Install Gauge Wheels” on page 11.

66. Repeat the same procedure for the other wing.
Figure 10
Wing Assembly
Outside Wing Assembly

Refer to Figure 11

Note: Hinge pins 11 must be installed so that the bent part of the pin sits in the slot of the wing hinge brackets.

67. If the outer wing 180° hinge bracket 11 is not installed use 3/4 x 2 Gr. 5 hex bolts 12, 3/4 x 4 1/32 x 5 3/4 u-bolt 13, and secure with 3/4 lock washer, and 3/4 hex nut.

68. Install the rear outside wing frame section to the inside wing frame using 1 1/4 hinge pin 16, 1 1/4 flat washer, and 1 1/4 heavy snap ring.

69. Attach the front outside wing brace to the rear outside wing frame section using 3/4 x 2 Gr. 5 hex bolts 12, 3/4 lock washer, and 3/4 hex nut.

70. Install the wing hinge pins 11 as indicated by inset drawing.

71. Install wing fold linkage 14 into the outer wing 180° hinge bracket 11 with 1 x 5.38 snap ring pin 15, 1” flat washer, and 1” heavy snap ring.

Note: Do not hook up rod end of fold cylinder until system is purged of air. See "Purging Hydraulic System" on page 16. Which means you can not hook up the H-bracket yet either.

Connect the wing level bar to the lift rocker using 1 x 5.13 snap ring pin 16, and the torque tube using 1 x 3.00 pin-snap ring 17, both pins use 1.5 x 1.00 x .075 machine washer, and 1” heavy snap ring.

73. Install the turnbuckle 18, using 1 x 4 Gr. 8 SPTHD hex bolts 19, and 1” top locks.

74. Depending on the model of machine you will need to install wing lock t brackets 20. See Parts Manual for break down.

75. Tighten all bolts to specs, See "Torque Values Chart" on page 18.

76. Install the wing gauge wheels, See “Install Gauge Wheels” on page 11.

77. Repeat the same procedure for the other wing.

78. Tighten bolts to specs, See "Torque Values Chart" on page 18.
Attach Hose Clamps and Hose wraps

Refer to Figure 12

79. Make sure all Stauff Clamps are tight and that hoses are routed correctly. If not install hose clamps on hoses as shown.

80. Install hose wraps on hoses as needed.

Note: Be sure and get hoses and light wiring harness fastened properly so they do not drag. Check to be sure there is enough slack in hinge area when folding machine the first time.

Hydraulic Hose Hookup

81. Great Plains hydraulic hoses are color coded to help you hookup hoses to your tractor outlets. Hoses that go to the same remote valve are marked with the same color.

<table>
<thead>
<tr>
<th>Color</th>
<th>Hydraulic Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Lift (2 hoses)</td>
</tr>
<tr>
<td>Green</td>
<td>Fold (2 hoses)</td>
</tr>
<tr>
<td>Yellow</td>
<td>Auxiliary (Optional 2 Hoses)</td>
</tr>
</tbody>
</table>

WARNING

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

Hose Handles

Refer to Figure 13

82. To distinguish hoses on the same hydraulic circuit, refer to hose handles. The hose under an extended-cylinder symbol feeds a cylinder base end. The hose under a retracted-cylinder symbol feeds a cylinder rod end.

83. Once all hoses are tightened, hook hoses to tractor...
Purging Hydraulic System

Refer to Figure 14

84. Charge the lift system first, extend the lift cylinders (black handles) until the center section is fully raised. Hold lever back so the lift cylinders will be filled with oil. Remove the cylinder transport locks and store on frame plate. Watch for leaks and re-tighten fittings if necessary.

85. You may now charge the fold system. Before charging the fold cylinders, make sure the rod end of the cylinders are un-bolted or un-pinned and a block is under the cylinders as shown, so that when the rod is extended, it will clear the wing fold brackets. Extend the fold cylinders (green handles) completely and then close them. Extend and retract the cylinders several times to purge air from the system. Now the cylinders may be extended far enough to be connected to the wing fold brackets.

86. The fold cylinders may now be connected to the wing fold brackets. Use the 1” x 5.38” snap ring pin, 1” washers, and 1” heavy snap rings provided.

87. The unit may now be folded. Once unit is raised completely, slowly fold the machine, watching that hoses do not get pinched, etc. Once machine is fully folded, install the transport locks and wing pins. Now the unit is in transport mode.

88. Tighten all bolts to specs, See “Torque Values Chart” on page 18.
Completing Setup

89. If the Ultra Chisel is equipped with an optional finishing attachment, refer to “Parts Manual” for parts breakdown.

90. Once the options are installed, fold the Ultra Chisel to check for clearance and interferences. Slowly fold Ultra Chisel while watching that hoses and wiring harnesses do not become pinched or kinked while watching for interferences.

Note: Double check that all bolts are tightened to specs, See “Torque Values Chart” on page 18. Consult the operating instructions, “Operator’s Manual”, for the first time field adjustments before going to the field.
# Appendix - Reference Information

## Torque Values Chart

<table>
<thead>
<tr>
<th>Bolt Size</th>
<th>Bolt Head Identification</th>
<th>Grade 2</th>
<th>Grade 5</th>
<th>Grade 8</th>
<th>Bolt Size</th>
<th>Bolt Head Identification</th>
<th>Class 5.8</th>
<th>Class 8.8</th>
<th>Class 10.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>in-tpia</td>
<td>N-m b ft-lb d</td>
<td>N-m</td>
<td>ft-lb</td>
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<td>110</td>
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<td>240</td>
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<td>3/8&quot;-10</td>
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<td>360</td>
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<td>510</td>
<td>375</td>
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<td>3/8&quot;-16</td>
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<td>190</td>
<td>405</td>
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<td>420</td>
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<td>7/16&quot;-9</td>
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<td>820</td>
<td>605</td>
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<td>7/16&quot;-14</td>
<td>250</td>
<td>185</td>
<td>640</td>
<td>475</td>
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<td>1-8</td>
<td>340</td>
<td>250</td>
<td>875</td>
<td>645</td>
<td>1230</td>
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<td>705</td>
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<td>995</td>
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<td>1/8&quot;-7</td>
<td>480</td>
<td>355</td>
<td>1080</td>
<td>795</td>
<td>1750</td>
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<tr>
<td>1/8&quot;-12</td>
<td>540</td>
<td>395</td>
<td>1210</td>
<td>890</td>
<td>1960</td>
<td>1440</td>
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<tr>
<td>1/4&quot;-7</td>
<td>680</td>
<td>500</td>
<td>1520</td>
<td>1120</td>
<td>2460</td>
<td>1820</td>
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</tr>
<tr>
<td>1/4&quot;-12</td>
<td>750</td>
<td>555</td>
<td>1680</td>
<td>1240</td>
<td>2730</td>
<td>2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/8&quot;-6</td>
<td>890</td>
<td>655</td>
<td>1990</td>
<td>1470</td>
<td>3230</td>
<td>2380</td>
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<td>5/8&quot;-12</td>
<td>1010</td>
<td>745</td>
<td>2270</td>
<td>1670</td>
<td>3680</td>
<td>2710</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2&quot;-6</td>
<td>1180</td>
<td>870</td>
<td>2640</td>
<td>1950</td>
<td>4290</td>
<td>3160</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2&quot;-12</td>
<td>1330</td>
<td>980</td>
<td>2970</td>
<td>2190</td>
<td>4820</td>
<td>3560</td>
<td></td>
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</tr>
</tbody>
</table>

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.
Tire Inflation Chart

<table>
<thead>
<tr>
<th>Wheel</th>
<th>Tire Size</th>
<th>Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing</td>
<td>12.5L x 15</td>
<td>52 psi</td>
</tr>
<tr>
<td></td>
<td>12-Ply RI</td>
<td>(358 kPa)</td>
</tr>
<tr>
<td>Center</td>
<td>380/55 R 16.5</td>
<td>73 psi</td>
</tr>
<tr>
<td></td>
<td>LD F</td>
<td>(503 kPa)</td>
</tr>
<tr>
<td>Gauge Wheel</td>
<td>11L x 15SL</td>
<td>52 psi</td>
</tr>
<tr>
<td></td>
<td>12-Ply RI</td>
<td>(358 kPa)</td>
</tr>
</tbody>
</table>

Hydraulic Connectors and Torque

Refer to Figure 15 (a hypothetical fitting)

Leave any protective caps in place until immediately prior to making a connection.

NPT - National Pipe Thread
- Note tapered threads, no cone/flare, and no O-ring.
- Apply liquid pipe sealant for hydraulic applications.
- Do not use tape sealant, which can clog a filter and/or plug an orifice.

JIC - Joint Industry Conference (SAE J514)
- Note straight threads \( \text{\textcircled{1}} \) and the 37\( ^\circ \) cone \( \text{\textcircled{5}} \) on "M" fittings (or 37\( ^\circ \) flare on "F" fittings).
- Use no sealants (tape or liquid) on JIC fittings.

ORB - O-Ring Boss (SAE J514)
- Note straight threads \( \text{\textcircled{5}} \) and elastomer O-Ring \( \text{\textcircled{7}} \).
- Prior to installation, to prevent abrasion during tightening, lubricate O-Ring with clean hydraulic fluid.
- Use no sealants (tape or liquid) on ORB fittings.
- ORB fittings that need orientation, such as the ell depicted, also have a washer \( \text{\textcircled{8}} \) and jam nut \( \text{\textcircled{9}} \) ("adjustable thread port stud"). Back jam nut away from washer. Thread fitting into receptacle until O-Ring contacts seat. Unscrew fitting to desired orientation. Tighten jam nut to torque specification.

Manufacturer Web site
- Firestone: www.firestoneag.com
- Gleason: www.gleasonwheel.com
- Titan: www.titan-intl.com
- Galaxy: www.atgtire.com
- BKT: www.bkt-tire.com

Tire Warranty Information

All tires are warranted by the original manufacturer of the tire. Tire warranty information is found in the brochures included with your Operator’s and Parts Manuals or online at the manufacturer’s websites listed below. For assistance or information, contact your nearest Authorized Farm Tire Retailer.

Wing
- 12.5L x 15
- 12-Ply RI
- 52 psi
- (358 kPa)

Center
- 380/55 R 16.5
- LD F
- 73 psi
- (503 kPa)

Gauge Wheel
- 11L x 15SL
- 12-Ply RI
- 52 psi
- (358 kPa)

Fittings Torque Values

<table>
<thead>
<tr>
<th>Dash Size</th>
<th>Fitting</th>
<th>N-m</th>
<th>Ft-Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4</td>
<td>1/4-18 NPT</td>
<td>1.5-3.0 turns past finger tight</td>
<td></td>
</tr>
<tr>
<td>-5</td>
<td>1/4-20 JIC</td>
<td>19-20</td>
<td>14-15</td>
</tr>
<tr>
<td>-5</td>
<td>1/4-20 ORB w/jam nut</td>
<td>12-16</td>
<td>9-12</td>
</tr>
<tr>
<td>-5</td>
<td>1/4-20 ORB straight</td>
<td>19-26</td>
<td>14-19</td>
</tr>
<tr>
<td>-6</td>
<td>5/16-18 JIC</td>
<td>24-27</td>
<td>18-20</td>
</tr>
<tr>
<td>-6</td>
<td>5/16-18 ORB w/jam nut</td>
<td>16-22</td>
<td>12-16</td>
</tr>
<tr>
<td>-6</td>
<td>5/16-18 ORB straight</td>
<td>24-33</td>
<td>18-24</td>
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<tr>
<td>-8</td>
<td>3/4-16 JIC</td>
<td>37-53</td>
<td>27-39</td>
</tr>
<tr>
<td>-8</td>
<td>3/4-16 ORB w/jam nut</td>
<td>27-41</td>
<td>20-30</td>
</tr>
<tr>
<td>-8</td>
<td>3/4-16 ORB straight</td>
<td>37-58</td>
<td>27-43</td>
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</tbody>
</table>
5-Section Hydraulic Lift Layout
5-Section Hydraulic Lift Layout
5-Section Hydraulic Fold Layout

From Base end of Center Cyl to Rear Center Bulkhead fitting thru top hose tray to front wing Bulkhead fitting to Base end of Cyl

To Left Hand Bulkhead fitting to Bottom Rear Port of Double Tee Block

TP-69057
5-Section Hydraulic Fold Layout
6539UC Machine Layout (9” Spacing)
6539UC Machine Layout (12” Spacing)
6541UC Machine Layout (9” Spacing)
6541UC Machine Layout (12” Spacing)
6543UC Machine Layout (9” Spacing)
6543UC Machine Layout (12” Spacing)
6545UC Machine Layout (9” Spacing)
6545UC Machine Layout (12” Spacing)
6539UC Heavy Coiltine Layout (9” Spacing)
6539UC Heavy Coiltine Layout (12” Spacing)
6539UC Coiltine & Reel Layout (9” Spacing)
6539UC Coiltine & Reel Layout (12” Spacing)
6539UC 5 Row HR Spike Drag (9” Spacing)
6539UC 5 Row HR Spike Drag (9” Spacing)
6539UC 5 Row HR Spike Drag (12” Spacing)
6539UC 5 Row HR Spike Drag (12” Spacing)
6541UC Coiltime Layout (12" Spacing)
6541UC Coiltine & Reel Layout (9” Spacing)
6541UC Coiltine & Reel Layout (12” Spacing)
6541UC 5 Row HR Spike Drag (9” Spacing)
6541UC 5 Row HR Spike Drag (9” Spacing)
6541UC 5 Row HR Spike Drag (12” Spacing)
6541UC 5 Row HR Spike Drag (12” Spacing)
6543UC Heavy Coiltine Layout (9” & 12” Spacing)
6543UC Heavy CoilTine Layout (9” & 12” Spacing)
6543UC Heavy Coiltine & Reel (9” & 12” Spacing)
6543UC 5 Row Spike Drag HR Layout (9” & 12” Spacing)
6543UC 5 Row Spike Drag HR Layout (9” & 12” Spacing)
6545UC Heavy Coiltine Layout (9” Spacing)
6545UC Heavy Coiltine Layout (9” Spacing)
6545UC Heavy CoilTine Layout (12” Spacing)
6545UC Heavy Coiltine Layout (12” Spacing)
6545UC Heavy Coiltie & Reel Layout (9” Spacing)
6545UC Heavy Coiltine & Reel Layout (9” Spacing)
6545UC Heavy Coiltine & Reel Layout (12” Spacing)
6545UC Heavy Coiltine & Reel Layout (12” Spacing)
6545UC 5 Row Spike Drag HR Layout (9” Spacing)
6545UC 5 Row Spike Drag HR Layout (9” Spacing)
6545UC 5 Row Spike Drag HR Layout (12” Spacing)
6545UC 5 Row Spike Drag Layout (12” Spacing)
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6545UC Machine Layout (9" Spacing) ...

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