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!

Illustrations may show optional equipment not supplied with standard unit.
# Table of Contents

## Assembly
- Center Frame & Lift Assembly .................................. 7
- Center Transport ...................................................... 7
- Wing Stops & Fold Brackets ...................................... 8
- Valve Brackets & Valves ........................................... 10
- Valve Brackets & Hoses ........................................... 10
- Front Trusses & Level Bar ....................................... 11
- Hitch ........................................................................ 11
- Inside Wing & Lift Assembly ................................... 14
- Inside Wing Transport .............................................. 15
- Outside Wing & Lift Assembly 4000 ...................... 16
- Outside Wing Transport ......................................... 17
- Depth Stop & Angle Gauge ..................................... 18
- Hydraulic Hoses .................................................... 18
- Attach Hose Clamps and Hose Wraps .................... 19
- Hydraulic Hose Hookup .......................................... 19
- Hose Handles .......................................................... 20
- Purging Hydraulic System ...................................... 20
- Center Gang Bar ..................................................... 22
- Inside Wing Gang Bar ............................................ 24
- Outside Wing Gang Bar ....................................... 26
- Front Light Assembly ............................................ 28
- Rear Lights and SMV Assembly .............................. 29
- 3500 Wing Fold Assist ........................................... 29
- Proximity Sensor Adjustment .................................. 30
- Gang Cylinder Purging ........................................... 31
- Hose Routing Hitch ............................................... 32
- Gauge Wheel (optional) ........................................... 32
- Rolling Harrow (optional) ....................................... 32
- Reel Following Rolling Harrow (optional) ............ 34
- Install Rear Hitch (optional) .................................... 35
- Extended Rear Hitch .............................................. 35
- A-Frame Hitch ......................................................... 35
- Rear Stand ............................................................... 36
- Weight Package Assembly (Optional) .................. 36
- Completing Setup .................................................. 37

## Introduction
- Description of Unit ............................................. 4
- Models Covered .................................................... 4
- Document Family .................................................. 4
- Tools Required ....................................................... 4
- Pre-assembly Checklist ......................................... 4
- Using This Manual ............................................... 5
- Definitions ............................................................ 5
- Shipping Inventory ................................................ 5
- Unloading ............................................................... 6
- Unpacking Components ......................................... 6
- Unload Smaller Items First ..................................... 6
- Unpacking Boxes ................................................... 6
- Further Assistance .................................................. 6

## Appendix - Reference Information
- Torque Values Chart .............................................. 38
- Tire Inflation Chart ................................................ 38
- Hydraulic Connectors and Torque ......................... 39
- 3500TM Hydraulic Lift Layout ............................... 40
- 3500TM Hydraulic Lift Layout ............................... 41
- 4000TM Hydraulic Lift Layout ............................... 42
- 4000TM Hydraulic Lift Layout ............................... 43
- 3500TM Hydraulic Fold Layout ............................. 44
- 4000TM Hydraulic Fold Layout ............................. 46
- 4000TM Hydraulic Fold Layout ............................. 47
- 3500TM Hydraulic Gang Angle Layout (S/N GP-C6545H+) .............................................. 48
- 3500TM Hydraulic Gang Angle Layout (S/N GP-C6545H+) .............................................. 49
- 3500TM Hydraulic Gang Angle Layout (S/N GP-C6544H-) .............................................. 50
- 3500TM Hydraulic Gang Angle Layout (S/N GP-C6544H-) .............................................. 51
- 4000TM Hydraulic Gang Angle Layout (S/N GP-C6545H+) .............................................. 52
- 4000TM Hydraulic Gang Angle Layout (S/N GP-C6545H+) .............................................. 53
- 4000TM Hydraulic Gang Angle Layout (S/N GP-C6544H-) .............................................. 54
- 4000TM Hydraulic Gang Angle Layout (S/N GP-C6544H-) .............................................. 55
- 3500TM Machine Layout ......................................... 56
- 3500TM Machine Layout ......................................... 57
- 4000TM Machine Layout ......................................... 58
- 4000TM Machine Layout ......................................... 59
- 3500TM Rolling Harrow Layout ........................... 60
- 3500TM Rolling Harrow Layout ........................... 61
- 3500TM Heavy Reel Following Rolling Harrow Layout .............................................. 62
- 3500TM Heavy Reel Following Rolling Harrow Layout .............................................. 63
- 4000TM Rolling Harrow Layout ........................... 64
- 4000TM Rolling Harrow Layout ........................... 65
- 4000TM Heavy Reel Following Rolling Harrow Layout .............................................. 66
- 4000TM Heavy Reel Following Rolling Harrow Layout .............................................. 67
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 gangs 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.

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 Turbo Max using blocks and supports provided.
▲ Detach and store Turbo Max 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 Turbo Max 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 3500-4000TM Turbo Max is a three section “vertical” tillage tool. Working width ranges from 35 to 40 feet. The implement is designed to cut and size residue, till soil for faster seedbed warming, break up soil crust on hard dried fields while eliminating compaction layers. The front and rear gangs may be adjusted from 0-6 degree angle, depending on the aggressiveness desired. Various finishing attachments are also available to further smooth, redistribute residue, kill weeds, and break clods.

Models Covered

3500TM 35’ (7.5in) spacing
4000TM 40’ (7.5in) spacing

Document Family

586-537Q Pre-Delivery Manual
586-537M Operator Manual
586-537P Parts Manual
586-537Q-ENG Assembly Manual (this document)

Tools Required

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

Pre-assembly Checklist

❑ Before assembling, read and understand “Important Safety Information” in front part of this manual.
❑ Have at least two people on hand while assembling.
❑ Make sure area is level and free of obstructions (preferably an open concrete area).
❑ Have all major components
❑ 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.

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 Inventory

The machine will be shipped unassembled as shown in a big shipping rack and shipping boxes on pallets. The only parts that will be assembled are the gang assemblies, reel and rolling harrow attachment assemblies.

Refer to Figure 3

- All frame sections, hitch and torque tubes will be shipped in shipping container rack.
- Small parts and bolts will be shipped in boxes.
Refer to Figure 4

- Rear attachments and gang assemblies will be shipped in shipping container rack.
- Shipping containers or racks do not need to be returned to Great Plains.

Unloading
Once everything is unloaded from “storage pod” you may proceed with taking parts out of shipping containers. Carefully move everything to level site and prepare to unpack items.

Unpacking Components
Be sure you have read and understood the Important Safety Information, starting on page 1 of this manual, before you start unpacking components.

Centering components:
Be sure and center fork truck or chains (overhead hoist) on components so they won’t slide and cause injury.

Carefully un-band components.

Now unload individual components one at a time using a fork truck or overhead hoist.

Move each component out of the way so you have plenty of room to remove the next one.

Unload Smaller Items First
Unloading the frames is a potentially dangerous operation.

Reduce risk and complication by first unloading
1. the tire wheel assemblies,
2. the smaller items

Place these components well out of the maneuvering area needed for unloading the gang assemblies and frames.

3. Carefully unload the frames and hitch out of shipping rack

Unpacking Boxes
1. Carefully remove banding and lids from boxes.
2. Locate and identify all components before assembling.

Further Assistance
Great Plains Manufacturing, Inc. wants you to be satisfied with your new Turbo Max. 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

Center Frame & Lift Assembly

Refer to Figure 5

Once the center frame has been uncrated and put on stands, the brace bar may be installed. See “Parts Manual” for part numbers and description of parts.

3. Align holes in plates of the center brace bar 1 with holes on front of center frame 2, with 3/4 x 2 hex bolts 3 (2 center plates and top holes of outside plates and 3/4 x 7 hex bolts 4 (outside plates, bottom holes), secure 3/4 lock washers and nuts.

4. Carefully lower the torque tube 5 with an overhead hoist until holes are aligned with the holes on top of center frame 2 and secure with 1 1/4 x 7 pins 6, 3/8 x 2 1/4 Gr. 8, special thread bolts 7 and 3/8 top lock nuts.

5. Align hole in lift strap 8 and cylinder mount plate 9 in proper orientation as shown. Secure lift strap 8 with 1 x 3 1/4 special thread hex bolts 10 and 1 lock nuts, rear of cylinder mount plate 9 to plates of torque tube 5 with 1 x 4 hex bolt 11 and 1 lock nut.

6. Install the cylinders 12 using 1 x 3 1/8 pins 13, 1.5 x 1.0 x .075 machine washers and 3/16 x 2 cotter pin.

7. Install cylinder transport locks 14 to cylinders 12 using 3/8 x 3 pins 15 and clip pins

8. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38.

Center Transport

The walking beam 4 may come pre-assembled to torque tube 13. If not pre-assembled start by assuring the bearings 1 and inside of torque tube is...
Refer to Figure 6

9. Once the bearings (1) are packed with grease, slide them (one on each side) into pre-installed bearing cup of torque tube (13). Slide seals (2) into torque tube (13). Slide spindle sleeve (3), one into inside of torque tube (15), through seal (2) and bearing (1), the other one over the pivot spindle (5). Slide the LH and RH walking beams (9) over torque tube (15) in orientation shown with spindle tubes offset towards top. Be sure holes are aligned and slide pivot spindle (6) through from outside of machine. Secure with two 2.25 x 1.50 x 10ga machine washers (6) and 1 1/2 slotted nut (7). Tighten 1 1/2 slotted nut (7) down snug, then back off 1/8 to 1/4 turn, enough to align slot with hole in pivot spindle and install 1/4 x 3 cotter pin (8). Bend cotter pin over to secure. Be sure walking beam (9) will pivot freely but there should be no endplay.

10. Grease zerk (11) sparingly but do not over grease.

11. Slide hub/spindle assembly (9) into walking beam (9) and align holes. Secure with 3/4 x 5 hex bolts (10) and 3/4 top lock nut.


13. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38.

Wing Stops & Fold Brackets

Refer to Figure 7

14. Attach front (1) and rear (2) fold brackets to center frame plates with 3/4 x 2 hex bolts (3), 3/4 lock washers and nuts.

15. Install double block tees (3) in locations shown below and the smv post (5) to back of rear fold bracket (2) with 5/16 x
5½ hex bolt Ø, 5/16 x 2½ hex bolt Ø, 5/16 x 4 hex bolt Ø.

5/16 lock washers and nuts.

16. Attach center wing stops Ø to center brace bar plates with 5/8 x 1½ hex bolts Ø, 5/8 lock washers and nuts.

17. Attach the 3/4 x 43/8 hitch pin to tube of wing stops Ø.

18. Attach rear wing stop Ø to center frame with 5/8 x 3½ x 5½ u-bolts Ø, 5/8 lock washers and nuts.

19. Bolts may be tightened to specs, See “Torque Values Chart” on page 38 and all cotter pins may be bent.

Figure 7
Wing Stops & Fold Brackets
Valve Brackets & Valves

Refer to Figure 8

20. Attach bypass and counterbalance valve bracket ① and lock valve bracket ② to center brace bar ③ in proper locations, shown, See “Valve Brackets & Hoses” below, with the same $\frac{1}{2} \times 3$ $\frac{1}{32}$ x 6-u bolts ④, $\frac{1}{2}$ lock washers and nuts.

21. Be sure hoses are routed as shown in, See “Valve Brackets & Hoses” below.

22. Install bypass valve ⑤ on top of valve bracket ① with $5/16$ x 3 Gr. 5 hex bolts ⑥, $5/16$ lock washers and nuts.

23. Fasten the counter balance valve ⑦ to side of valve bracket ① with $5/16$ x 4 Gr. 5 hex bolts ⑧, $5/16$ lock washers and nuts.

24. Install the lock valve ⑨ to the top of the valve bracket ② with $1/4$ x 2 Gr. 5 hex bolts ⑩, $1/4$ lock washers and nuts.

25. Attach depth control valve ⑪ to top of depth stop bracket (plunger forward), with $5/16$ x 2 Gr. 5 hex bolts ⑫ and $5/16$ lock washers.

26. Bolts may be tightened to specs, See “Torque Values Chart” on page 38.

Valve Brackets & Hoses

Refer to Figure 8

See hydraulic layout drawings in Appendix for complete routing of hoses. See hydraulic section in “Parts Manual” for complete fitting and hose part descriptions. The hose lengths will be marked on end of hoses. The wing fold two way ①, bypass ② and lock valve ③ will need mounted in proper location as shown and hoses routed correctly before front trusses ④ and hitch See “Hitch” on page 13, are installed so front weight kits may be installed or removed without taking hoses or valves loose. Install front trusses ④, See “Front Trusses & Level Bar” on page 11, on top of hoses as shown. Set plates in locations shown before tightening bolts. See “Valve Brackets & Valves” above, for proper mounting instructions.
Front Trusses & Level Bar
Refer to Figure 10

27. Install rear level bar ① to torque tube with 1 x 9\(\frac{1}{2}\) pins ②, \(\frac{3}{8}\) x 2\(\frac{1}{4}\), Gr. 8 hex bolts ③ and \(\frac{3}{8}\) nylon lock nut.

28. Install h-bracket assembly ④ to front of rear level bar ① with \(\frac{3}{4}\) x 2\(\frac{1}{2}\), Gr. 8 hex bolts ⑤, \(\frac{3}{4}\) lock washers and nuts.

29. Install bottom of h-bracket assembly ④ to center brace bar with 1 x 3\(\frac{1}{4}\) clevis pin ⑥, 1.5 x 1.00 x.075 machine washer ⑦ and \(\frac{3}{16}\) x 2 cotter pin.

30. Attach front hitch trusses ⑧ with \(\frac{3}{4}\) x 2 hex bolt ⑨ (front and rear plates), \(\frac{3}{4}\) x 2\(\frac{1}{2}\) hex bolt ⑩ (middle plates), \(\frac{3}{4}\) lock washers and nuts.

31. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38.

Hitch
Refer to Figure 11

Figure 10
Front Trusses & Level Bar

43139
32. Bolt the hitch frame to front trusses with the 1\(\frac{1}{4}\) x 8 Gr. 8 bolts (3), 1\(\frac{1}{4}\) flat washer (3) (one side of uniball to take up space) and 1\(\frac{1}{4}\) top lock nuts. Tighten bolts snug, do not torque, as the hitch must pivot freely.

33. Install jack on front outside of hitch to support the front of hitch for the rest of assembly.

34. Attach h-bracket in orientation shown below with 1 x 2\(\frac{9}{64}\) clevis pins (6), 1.5 x 1.00 x 0.075 machine washers and 3/16 x 2 cotter pins.

35. Attach level bar tube with 1\(\frac{1}{4}\) x 8 1/2 Gr. 8 special thread bolts, rear bolt from left side, front bolt from right side and secure with 1\(\frac{1}{4}\) top lock nuts.

36. Attach rear of level turnbuckle with 1 x 8 Gr. 8 special thread bolt, front with 1 x 6, Gr. 8 special thread bolt and 1 lock nuts.

37. Attach two, 1\(\frac{3}{4}\) gang wrenches, one, 2\(\frac{5}{16}\)-1\(\frac{5}{16}\) turnbuckle wrench over pegs on back of hitch, secure with 3/16 w/cotter/chain.

38. Install the spring hose holder to welded nut on front of hitch with 1/2 x 1 Gr. 5 bolt, 1/2 lock washer and flat washer.

39. Align holes in hitch base with holes on front of hitch frame. Align holes of safety chain support in orientation shown, secure with two, 1 x 7\(\frac{1}{2}\) Gr. 8 special thread bolts (19), four, 1 flat washers (4 right side, 2 left side), 1 lock washers and 1 nuts.

40. Attach safety chain to bottom side of hitch frame, secure with 7/8 x 3 hex bolt, 7/8 flat washer, 7/8 lock washer and nut.

41. Mount manual pack with 1\(\frac{1}{4}\) x 1 hex bolts, mini end wheel press wheels, 1\(\frac{1}{4}\) lock washers and nuts.

42. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs. See “Torque Values Chart” on page 38.
Figure 11
Hitch
Inside Wing & Lift Assembly
Refer to Figure 12

43. Attach wing brace 1 to wing frame 2 with 3/4 x 2 hex bolts 3 and 3/4 x 7 hex bolts 4 (Model 4000 only), secure 3/4 lock washers and nuts.

44. Attach wing brace 1 and wing frame 2 to center frame with wing hinge pins 5, 1 1/4 flat washers 6 (rear side of wing hinge tubes only, do not use washer on wing brace bar) and 1 lock nuts.

45. Install LH and RH wing wheel arms 7 with 1 1/4 x 7 pins 8, 3/8 x 2 1/4, Gr. 8, special thread hex bolts 9 and 3/8 top lock nut. Be sure wing turnbuckle assembly 10 is preset at 40° before installing as shown below. See gang angle adjustment in "Operator Manual" before going to field.

46. Install wing wheel turnbuckles 10 and cylinder mount plate 11 in position shown with 1 x 4 hex bolts 12 and 1 lock nuts.

47. Install wing lift cylinders 13 with 1 x 3 1/8 pins 14, 1.5 x 1.00 x .075 machine washers and 3/16 x 2 cotter pin.

48. Now the base end of fold cylinders 15 may be hooked up with the 1 x 3 1/8 clevis pin 16, 1.5 x 1.00 x .075 machine washer and 3/16 x 2 cotter pin.

49. Do not hook up rod end of fold cylinder 15 until system is purged of air. See “Purging Hydraulic System” on page 20.

50. Attach front wing stop 16 and rear wing stop 17 to plates of wing frame 2 with 5/8 x 1 1/2 hex bolts 18, 5/8 lock washers and nuts.

51. Attach wing stop bracket 19 to plate of wing frame 2 with 5/8 x 1 1/2 hex bolts 18, 5/8 lock washers and nuts.

52. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38.
Inside Wing Transport

Refer to Figure 13

53. Slide hub/spindle assembly ① into torque tube ② and align holes. Secure with $\frac{5}{16} \times 3\frac{1}{2}$ hex bolts ③ and $\frac{5}{16}$ top lock nut.

54. Attach tire/wheel assembly ④ with $\frac{5}{8}$ lug nuts ⑤.

55. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38.
**Outside Wing & Lift Assembly 4000**

Refer to Figure 14

56. Attach wing brace 1 to wing frame 2 with 3/4 x 2 hex bolts 3, secure 3/4 lock washers and nuts.

57. Attach wing brace 4 and wing frame 5 to center frame with wing hinge pins 6, 1 1/4 flat washers 7 (rear side of wing hinge tubes only, do not use washer on wing brace bar) and 1 lock nuts.

58. Install LH and RH wing wheel arms 8 with 1 1/4 x 7 pins 9, 3/8 x 2 1/4, Gr. 8, special thread hex bolts 10 and 3/8 top lock nut.

Be sure wing turnbuckle assembly 11 is preset at 45 3/4” before installing as shown below. See gang angle adjustment in “Operator Manual” before going to field.

59. Install wing wheel turnbuckles 12 and cylinder mount plate 13 in position shown with 1 x 4 hex bolts 14 and 1 lock nuts.

60. Install wing lift cylinders 15 with 1 x 3 1/8 pins 16, 1.5 x 1.0 x .075 machine washers and 3/16 x 2 cotter pin.

61. Now the base end of fold cylinders 17 may be hooked up with the 1 x 3 1/8 clevis pin 18, 1.5 x 1.00 x .075 machine washer and 3/16 x 2 cotter pin.

62. Do not hook up rod end of fold cylinder 19 until system is purged of air. See “Purging Hydraulic System” on page 20.

63. Attach wing stop bracket 20 to plate of wing frame 21 with 5/8 x 1 1/2 hex bolts 22, 5/8 lock washers and nuts.

64. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38.

![Figure 14
Outside Wing & Lift Assembly 4000](image-url)
Outside Wing Transport

Refer to Figure 15

65. Slide hub/spindle assembly ① into torque tube ② and align holes. Secure with 5/16 x 3 1/2 hex bolts Gr. 8 ③ and 5/16 top lock nut.

66. Attach tire/wheel assembly ④ with 5/8 lug nuts ⑤.

67. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38.

Figure 15
Outside Wing Transport
Depth Stop & Angle Gauge

Refer to Figure 16

See machine layout drawings in Appendix for proper gang gauge placement for each model.

68. Slide depth stop tube ① from rear of machine under left wing stop through square hole on depth control bracket on center wing brace. Align rear holes over lever on torque tube, secure with 1/2 x 3 hex bolt ②, 1/2 top lock nut.

69. Fasten depth stop assembly ③ on top of depth stop tube with 1/2 x 2 1/2 hex bolts ④, 1/2 lock washers and nuts.

70. Attach angle gauge bracket assembly ⑤ to front of center frame with 1/2 x 3 1/32 x 5 u-bolts ⑥, 1/2 lock washers and nuts.

71. Attach gauge link ⑦ to gauge bracket assembly ⑤, secure with 3/8 x 1 1/4 hex bolts ⑧ and 3/8 top lock nuts. Do not attach other end of gauge link ⑨ until gang assemblies are installed.

72. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38.

Figure 16
Depth Stop & Angle Gauge

Hydraulic Hoses

The hydraulic hoses will be routed and fastened to the frames, cylinders, valves and double block tees. The hoses will simply need to be connected at the bulkhead fittings. The hose ends and fittings on at the bulkhead plates will
also have color coded plastic ties to help get the hoses hooked up correctly as it is very important to get them hooked up correctly or hydraulic system will not function properly. Be sure hose ends and fittings are clean before assembling hoses. Be sure 196-430D orifice is installed on rod end outside gang cylinder between cylinder port and 811-063C elbow.

Do not over tighten hoses as this could cause damage to valves, See “Hydraulic Connector ID” on page 39.

Attach Hose Clamps and Hose Wraps

Refer to hydraulic layouts in “Appendix” section of this manual for proper lift and fold hose routing on center and wings. Do not clamp hoses on hitch until gang hoses are hooked up, See “Gang Cylinder Purging” on page 31. See “Hydraulic Connector ID” on page 39 for proper fitting installation.

Refer to Figure 17

73. When all the lift and fold hoses are hooked up and tightened properly, put hose clamps on hoses as shown.

74. Install hose wraps on hoses as needed.

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

75. 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>Red</td>
<td>Gang Adjustment (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 18

76. 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.

77. Once all hoses are tightened, hook hoses to tractor.

Purging Hydraulic System

When lift and fold hoses are routed and hooked up to cylinders and valves the systems will need purged of air. Purging the lift and fold system now will allow the wings to be folded and unfolded. The machine may also be raised up or down for ease of gang assembly installation.

Refer to Figure 19

78. Charge the lift system first. Extend the lift cylinders (black handles) until the center section is fully raised. Remove the cylinder transport locks and store on lift straps. Raise and lower the lift system several times to purge air from system. Watch for leaks and retighten fittings if necessary.

79. You may now charge the fold system. Before charging the inside wing, fold cylinders and outside wing (Model 4000 only), fold cylinders make sure the rod end of the cylinders are un-bolted or un-pinned and block is placed under cylinders as shown, so that when the rod is extended, it will clear the wing fold brackets.Extend the fold cylinders (green ends) completely and then close them. Extend and retract the cylinders several times to purge air from the system.

80. Now the rod end of fold cylinders and may be hooked up to wings with the 1 x 3/16 usable pin, 1.5 x 1.0 x.075 machine washer and 3/16 x 2 cotter pin. Bend cotter pin over to secure.
Figure 19
Purging Hydraulic System
**Center Gang Bar**

Refer to center gang bar assembly in “Parts Manual” for correct part numbers of all components. Refer to machine layout drawings in this manual for correct gang assembly placement.

Refer to Figure 20

81. Position gang assemblies ① in proper locations. Install the gang pivot bolt ② through tubes of gang bars and tubes on center frame, secure with $1\frac{1}{4}$ flat washers ③ (one on top and one on bottom), $1\frac{1}{4}$ slotted nuts ④ (one on top and one on bottom). Tighten bolts snug, torque to 350 to 400ft-lbs. Install the $\frac{3}{16} \times 2$ cotter pins ⑤ through $1\frac{1}{4}$ slotted nuts ⑥ and bend over to secure.

Be sure turnbuckle assembly ⑥ is preset at 91” before installing as shown. See gang angle adjustment in “Operator Manual” before going to field.

82. Install turnbuckle assembly ⑥, adjustable end on ear on front of rear gang bars and fixed end on ear of front gang bars. Secure with 1 x $3\frac{1}{4}$ clevis pin ⑦, 1.5 x 1.00 x .075 machine washer ⑧ and $\frac{3}{16} \times 2$ cotter pin ⑨.

83. Install the round tubes ⑩ between bottom front plate ⑪ (slotted hole toward rear), rear plates ⑫ and plates on center frame. Install the $\frac{3}{4} \times 6$ hex bolts ⑬, $\frac{3}{4}$ lock washers and nuts. Attach other end of plates ⑫ to bottom of center frame with $\frac{3}{4} \times 2$ hex bolts ⑭ and $\frac{3}{4}$ lock washers.

84. Install bracket ⑱ on bottom side of gang bar plate, secure with $\frac{5}{8} \times 3\frac{1}{2}$ hex bolts ⑲, $\frac{5}{8}$ lock washers and nuts.

85. Now the gang cylinders ⑳ may be hooked up with the 1 x $3\frac{1}{8}$ clevis pin ⑳, 1.5 x 1.00 x .075 machine washer ⑳ and $\frac{3}{16} \times 2$ cotter pin ⑳.

86. Bolts may be tightened to specs, See “Torque Values Chart” on page 38 and all cotter pins may be bent.
Figure 20
Center Gang Bar
Inside Wing Gang Bar

Refer to center gang bar assembly in “Parts Manual” for correct part numbers of all components. Refer to machine layout drawings in this manual for correct gang assembly placement.

Refer to Figure 21

87. Position gang assemblies 🌼 in proper locations. Install the gang pivot bolt 🌼 through tubes of gang bars and tubes on center frame, secure with 1 1/4 flat washers 🌼 (one on top and one on bottom), 1 1/4 slotted nut 🌼 (one on top and one on bottom). Tighten bolts snug, torque to 350 to 400ft-lbs. Install the 3/16 x 2 cotter pins 🌼 through 1 1/4 slotted nuts 🌼 and bend over to secure.

Be sure turnbuckle assembly 🌼 is preset at 82 1/2” before installing as shown below. See gang angle adjustment in “Operator Manual” before going to field.

88. Install turnbuckle assemblies 🌼, adjustable end on ear on front of rear gang bars and fixed end on ear of front gang bars. Secure with 1 x 3 1/4 clevis pins 🌼, 1.5 x 1.00 x .075 machine washer 🌼 and 3/16 x 2 cotter pin 🌼.

89. Install the round tubes 🌼 between bottom front plate 🌼 (slotted hole toward rear), rear plates 🌼 and plates on wing frame. Install the 3/4 x 6 hex bolts 🌼, 3/4 lock washers and nuts. Attach other ends of plates 🌼 to bottom of wing frame with 3/4 x 2 hex bolts 🌼 and 3/4 lock washers.

90. Install bracket 🌼 on bottom side of gang bar plate, secure with 5/8 x 3 1/2 hex bolts 🌼, 5/8 lock washers and nuts.

91. Now the gang cylinders 🌼 may be hooked up with the 1 x 3 1/8 clevis pin 🌼, 1.5 x 1.00 x 0.075 machine washer 🌼 and 3/16 x 2 cotter pin 🌼.

92. Hook gang cylinder hoses to gang cylinders, be sure all fittings are tightened to specs, See “Hydraulic Connector ID” on page 39. Now the gang system may be purged of air, See “Purging Hydraulic System” on page 21.

93. Bolt may be tightened to specs, See “Torque Values Chart” on page 38 and all cotter pins may be bent.
Figure 21
Inside Wing Gang Bar
Outside Wing Gang Bar

Refer to center gang bar assembly in “Parts Manual” for correct part numbers of all components. Refer to machine layout drawings in this manual for correct gang assembly placement.

Refer to Figure 22

94. Position gang assemblies ① and rear ② in proper locations. Install the gang pivot bolt ③ through tubes of gang bars and tubes on center frame, secure with 1 1/4 flat washers ④ (one on top and one on bottom), 1 1/4 slotted nut ⑤ (one on top and one on bottom). Tighten bolts snug, torque to 350 to 400 ft-lbs. Install the 3/16 x 2 cotter pins ⑥ through 1 1/4 slotted nut ⑤ and bend over to secure.

Be sure turnbuckle assembly ⑦ is preset at 62” before installing as shown below. See gang angle adjustment in “Operator Manual” before going to field.

95. Install turnbuckle assemblies ⑦, adjustable end on ear on front of rear gang bars and fixed end on ear of front gang bars. Secure with 1 x 3 1/4 clevis pin ⑧, 1.5 x 1.00 x .075 machine washer ⑨ and 3/16 x 2 cotter pin ⑩.

96. Install the round tubes ⑪ between bottom front plate ⑫ (slotted hole toward rear), rear plates ⑬ and plates on wing frame. Install the 3/4 x 6 hex bolts ⑭, 3/4 lock washers and nuts. Attach other ends of plates ⑬ to bottom of wing frame with 3/4 x 2 hex bolts ⑮ and 3/4 lock washers and nuts.

97. Install bracket ⑯ on bottom side of gang bar plate, secure with 5/8 x 3 1/2 hex bolts ⑰, 5/8 lock washers and nuts.

98. The gang cylinders ⑱ may be hooked up with the 1 x 3 1/8 clevis pin ⑲, 1.5 x 1.00 x 0.075 machine washer ⑳ and 3/16 x 2 cotter pin ⑳.

99. Hook gang cylinder hoses to gang cylinders, be sure all fittings are tightened to specs, See “Hydraulic Connector ID” on page 39. Now the gang system may be purged of air. See “Purging Hydraulic System” on page 21.

100. Bolt may be tightened to specs, See “Torque Values Chart” on page 38 and all cotter pins may be bent.
Figure 22
Outside Wing Gang Bar
Front Light Assembly

Refer to Figure 23

101. Fasten LH () and RH () light brackets to center brace bar with \( \frac{1}{2} \times 3\frac{1}{32} \times 6 \) u-bolts (), \( \frac{1}{2} \) lock washers and nuts.

102. Route light harness lead w/valve () from front of hitch (tractor plug to front), along same route as hydraulic hose (fasten in same clamps and hose wraps as hoses) to center brace bar. Plug one end of enhance light harness () to small end of light harness lead w/valve (). Plug bigger end of light harness dual amber () into other end of enhance light module (). Route shorter leads over towards (marked left and right) the front light mounting brackets as shown. Route long lead () along hoses on center frame tube to rear of machine. This lead will be hooked up as shown in, See “Rear Lights & SMV” on page 29.

103. Mount amber lamp lights () to top of light brackets () and (), with \( \frac{1}{4} \times 1 \) Gr. 5 hex bolts () and \( \frac{1}{4} \) lock nuts. Plug lead of amber lamp lights () into leads of light harness dual amber ()

104. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs, See “Torque Values Chart” on page 38. Be sure and get all wiring harnesses fastened up securely with hose wraps or clamps (if routed close to hydraulic hoses) or use cable ties ().
Rear Lights and SMV Assembly
Refer to Figure 24

105. Fasten LH ① and RH ② light brackets to rear of center frame ⑤ or center drag frame ⑥ (if equipped) with 3/4 x 31/32 x 6 u-bolts ④ or 3/4 x 31/32 x 4 u-bolts ④ (rear drag frame), 3/4 lock washers and nuts.

106. Route light harness dual amber ⑦ along rear tube of center frame and outer amber leads to light brackets (either on rear of center frame or center drag frame).

107. Mount amber lamp lights ⑧ to top of light brackets ① and ②, with 1/4 x 1 Gr. 5 hex bolts ⑨ and 1/4 lock nuts. Plug leads of amber lamp lights ⑧ to amber leads of light harness dual amber ⑦.

108. Mount red lamp lights ⑩ to center frame plates with 1/4 x 1 Gr. 5 hex bolts ⑨ and 1/4 lock nuts. Plug leads of red lamp lights ⑩ to red leads of light harness dual amber ⑦.

109. Attach smv sign ⑪ to back side of smv mount ⑫, secure with 1/4 x 3/4 pan head screws ⑬, 1/4 lock washers and nuts.

110. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs. See “Torque Values Chart” on page 38. Be sure and get all wiring harnesses fastened up securely with hose wraps or clamps (if routed close to hydraulic hoses) or use cable ties ⑭.

3500 Wing Fold Assist
Refer to Figure 25
Wings need to be folded up when installing the proximity sensor to prevent damage to sensor and brackets. Be sure wing safety lock pins are installed.

111. Slide proximity mount bracket over hinge pin in orientation shown, secure with 1 lock nut. Tighten 1 lock nut snug but do not torque.

112. Slide proximity sensor through inside, big hole of proximity mount bracket from rear. Be sure there is a nut on back side of bracket and secure with a nut on front side. Route leads of proximity sensor towards center of machine on front tube of center frame as shown.

113. Plug short leads of the fold assist harness, one end to the light harness lead w/valve and the other end into the lead from the bypass down pressure valve solenoid.

114. Route the rest of fold assist harness as shown back to front tube of center frame and attach plugs to the proximity sensor leads.

115. Be sure and get all wiring harnesses fastened up securely with hose wraps or clamps (if routed close to hydraulic hoses) or use cable ties.

Proximity Sensor Adjustment
Refer to Figure 26

Wings need to be folded up when adjusting the proximity sensor to prevent damage to sensor and bracket. Be sure wing safety lock pins are installed and adjust proximity sensors before unfolding. Be sure wing safety lock pins are installed.
116. Loosen nuts (one on front and one on back side of sensor bracket, adjust the proximity sensor to 1/8” to 1/4”, from front of proximity sensor to rear of wing tube as shown.

117. Re-tighten nuts to secure proximity sensor.

Gang Cylinder Purging

Refer to Figure 27

Refer to hydraulic layouts in “Appendix” section of this manual for proper gang hose routing on center and wings. See “Hydraulic Connector ID” on page 39 for proper fitting installation. See “Hose Clamp Assembly” on page 19 for proper clamping of hoses.

118. Retract and extend the gang system (Red Handles) several times to purge air from system. Watch for leaks and retighten fittings if necessary.
Hose Routing Hitch

Refer to Figure 28

119. Route hydraulic hoses ① from valves ②, on center brace bar, gang hoses and light harness, under manual pak bracket ③, under front of hitch turnbuckle ④ along all hose clamp blocks and through spring hose holder loop ⑤ to front of hitch ⑥ as shown. Secure hoses with hose clamps ⑦, 5/16 hex bolts and 5/16 lock washers.

Be sure all hose clamp bolts are tight. Attach hose wraps ⑧ as needed. Check that all hoses on machine are fastened properly and they won’t get pinched at hinge points or drag on ground. Check all connections again for leaks.

Gauge Wheel (optional)

Refer to Figure 29

**CAUTION**

Lower machine until coulters are on ground and pressure is off leveling system.

Up to 2 sets of weights (4 weights) may be installed in positions shown.

120. Install wheel arm mount ① to wing frame with 5/8 x 3 1/32 x 6 1/2 u-bolts ②, secure with 5/8 lock washers and nuts.

121. Attach screw jack ③ to wheel arm mount ① with 1/2 x 1 1/4 hex bolts ④, 1/2 top lock nuts.

122. Slide gauge wheel spindle receiver ⑤ into wheel arm mount ①, secure with 3/4 x 4 hex bolt ⑥, 3/4 lock washers and nuts. Install the 5/8 x 1 1/4 hex bolts ⑦ to the wheel arm mount ①.

123. Align hole in 6-bolt hub/spindle assembly ⑧ with hole in gauge wheel spindle receiver ⑤, secure with 5/16 x 2 1/16 clevis pin ⑨ and 1/8 x 1 cotter pin.

124. Attach wheel/tire assembly ⑩ to 6-bolt hub/spindle assembly ⑪ with 9/16 lug nuts ⑫.

125. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs. See “Torque Values Chart” on page 38.

Rolling Harrow (optional)

It is very important to install the rolling harrow assembly in the order shown below and go to the rolling harrow placement drawing, see “Layout Section” of this manual.
for proper dimensions where it is marked xxx in drawing below. The rolling harrow bracket 3 dimensions are coming off of rear, front tube of drag frame 1 to front of plate of rolling harrow bracket 3. The ball joint bracket 5 is dimensioned off of end of rolling spike tube 3 to side of plate on ball joint bracket 5 (dimensions in layout drawings may come off either end of tube). For complete parts breakdown see “Attachment Section” of Parts Manual.

Refer to Figure 30

126. Start by installing the drag frames 1 with 3/4 x 2 hex bolts 2, 3/4 lock washers and nuts. Torque bolts to 265 ft-lb.

127. Attach rolling harrow brackets 3 in appropriate location with 5/8 x 3 1/32 x 4 1/2 u-bolts 4, secure with 5/8 lock washers and 5/8 nuts. Adjust the bracket to dimensions shown in layout drawings and torque u-bolts to 150 ft-lb.

128. Attach ball joint brackets 6 and 7 to rolling spike tube assembly 8 with 5/8 x 3 1/32 x 4 1/2 u-bolts 4, secure with 5/8 lock washers and nuts. Place left ball joint brackets 6 in proper location from layout drawing and torque u-bolts to 150 ft-lb. Leave right ball joint bracket 7 loose, as it may need move a little to bolt up to right rolling harrow bracket 3.

129. Align ball joint brackets 6 and 7 to rolling harrow brackets 3, secure with 1 x 4 hex bolts 5 and 1 nylon lock nut. Torque bolts to 645 ft-lb. Also torque the 5/8 x 3 1/32 x 4 1/2 u-bolts 4 in right ball joint brackets 7 to 150 ft-lb.

130. Tighten all bolts with lock nuts snug, but do not torque. The rest of the bolts may be tightened to specs. See “Torque Values Chart” on page 38.
Reel Following Rolling Harrow (optional)

It is very important to install the reel assembly in the order shown below and go to the rolling harrow placement drawing, see “Layout Section” of this manual for proper dimensions where it is marked xxx in drawing below. The reel arm assemblies ① dimensions are coming off of rear tube of drag frame to side of plate of reel arm assemblies ②. The reel tube assemblies ③ are dimensioned off of end of reel tube to side of plate on reel arm assembly ① (dimensions in layout drawings may come off either end of tube). For complete parts breakdown see “Attachment Section” of Parts Manual.

Refer to Figure 31

131. Install mounting reel arm assemblies ① in position shown in reel following rolling harrow placement drawing with \( \frac{5}{8} \times 3\frac{1}{32} \times 4\frac{1}{2} \) u-bolts ②, \( \frac{5}{8} \) lock washers and nuts. Torque u-bolts to 150ft-lb.

132. Attach reel tube assemblies ③ in direction shown in circle and place them in position shown (with arrow towards machine) with \( \frac{5}{8} \times 2\frac{17}{32} \times 3\frac{1}{2} \) u-bolts ④, secure with \( \frac{5}{8} \) lock washers and nuts. Torque u-bolts to 150ft-lb.

133. Check to see that all bolts have been tightened to specs. See “Torque Values Chart” on page 38.

Figure 31
Reel Following Rolling Harrow
Install Rear Hitch (optional)

Carefully un-band the components. There are two different types of rear hitches, rear hitch extended or a-frame style. See appropriate mounting directions listed below.

Extended Rear Hitch

Refer to Figure 32

134. Attach middle of rear hitch arms ① to rear tube of drag frame with $\frac{5}{8} \times 3/32 \times 4\frac{1}{2}$ u-bolts ②, $\frac{5}{8}$ lock washers and nuts. Attach front plates of rear hitch arms ① to rear tube of center frame with $\frac{3}{4} \times 5\frac{1}{32} \times 4\frac{1}{2}$ u-bolts ③, $\frac{3}{8}$ lock washers and nuts.

135. Attach 46” cross arm ④ to bottom side of rear hitch truss plates with $\frac{5}{8} \times 3/32 \times 4\frac{1}{2}$ u-bolts ②, secure with $\frac{5}{8}$ lock washers and nuts.

Do not tighten any bolts until every thing is installed.

136. The bolt on sleeve assembly with rigid ⑥ or flex slide ⑤ may be fastened using $\frac{5}{8} \times 3/32 \times 4\frac{1}{2}$ u-bolt ②, secure with $\frac{5}{8}$ lock washers and nuts.

137. If machine is equipped with rolling harrow only, attach rigid or flex slide ⑤ to rear tube of drag frame, with $\frac{5}{8} \times 3\frac{1}{32} \times 4\frac{1}{2}$ u-bolts ②, secure with $\frac{5}{8}$ lock washers and nut.

138. Tighten all bolts to specs, See “Torque Values Chart” on page 38.

A-Frame Hitch

Refer to Figure 33

139. Attach rear mounting bar ① to rear of center frame with $\frac{3}{4} \times 2$ bolts ②, $\frac{3}{4}$ lock washers and nuts.

140. Attach a-frame hitch ③ to rear of center frame with $\frac{5}{8} \times 4\frac{1}{32} \times 4\frac{1}{4}$ u-bolts ④, $\frac{5}{8}$ lock washers and nuts.

141. Hitch will have either the flex slide assembly ⑤ or the rigid slide assembly ⑥. There will be a $\frac{3}{4} \times 1\frac{1}{2}$ hex bolt ⑦ and $\frac{3}{4}$ jam nut in front hole of assembly to keep the slide assembly from sliding clear out.

142. If machine is equipped with optional rear hitch accessory kit, it may be installed as shown in “Parts Manual”.

143. Tighten all bolts to specs, See “Torque Values Chart” on page 38.

144. Route hoses and light harness along hitch and frame with hose clamps and hose wraps, provided.

Be sure hoses and light harness are fastened securely so they don’t drag or get pinched.
Rear Stand
Refer to Figure 34

**NOTICE**

If machine is equipped with a rear attachment, be sure you install the rear jack stand so machine doesn’t tip backwards when unhooking machine from tractor.

145. Attach the rear stand bracket \( \textcircled{①} \) to the center of the rear tube of the drag frame with \( \frac{3}{8} \times 3\frac{1}{4} \times 3\frac{1}{4} \times 2 \) u-bolts \( \textcircled{②}, \) \( \frac{1}{2} \) lock washers and nuts.

146. Tighten u-bolts specs, See “Torque Values Chart” on page 38.

147. Slide the rear stand \( \textcircled{③} \) through the rear stand bracket \( \textcircled{①}, \) secure with the \( \frac{3}{4} \times 5\frac{1}{4} \) pin \( \textcircled{④} \) and retainer.

148. Once the options are installed, fold the Turbo Max to check for clearance and interferences, also watch that hoses do not get pinched.

\[ \text{Double check that all bolts are tightened to specs, See "Torque Values Chart" on page 38. Consult the "Operator’s Manual", for the first time field adjustments before going to the field.} \]

Weight Package Assembly (Optional)
Refer to Figure 35

**CAUTION**

Lower machine until coulters are on ground and pressure is off leveling system.

\[ \text{Up to 2 sets of weights (4 weights) may be installed in positions shown.} \]

149. Start by removing the \( \frac{3}{4} \times 2 \) Gr. 8 bolts \( \textcircled{①} \) from level bar assembly.

150. Pivot level bar \( \textcircled{②} \) up so there will be clearance to set the 750 pound weight assemblies \( \textcircled{③} \) into place.

151. Pivot level bar spring assembly \( \textcircled{②} \) forward.

152. Carefully lower the 750 pound weight assemblies \( \textcircled{③} \) (4 maximum) onto center frame trusses \( \textcircled{⑤} \), two on front side of fold cylinders and two on rear side of fold cylinders.

153. Slide rear weights as far forward as possible and install weight box stops \( \textcircled{⑥} \) on inside of trusses as close to weight as possible (rear weights), secure with \( \frac{1}{2} \times 4\frac{1}{2} \times 3\frac{1}{4} \times 2 \) u-bolt \( \textcircled{⑥} \), \( \frac{1}{2} \) lock washers and nuts.

154. Torque bolts to 85 ft-lbs.
Refer to Figure 36

155. Pivot level bar ① and the level bar spring assembly ② until holes in plates are aligned.

156. Re-install ¾ x 2 Gr. 8 bolts ①, secure with ¾ lock washers and nuts.

157. Torque ¾ x 2 Gr. 8 bolts ① to 375 ft-lbs to be sure bolts do not work loose and cause damage to machine.

**Completing Setup**

158. The decals may now be installed.

159. See appropriate pages for decals in the “Parts Manual” for decal placement.

160. To install new decals:
   
a. Clean the area on which the decal is to be placed.
   
b. Peel backing from decal. Press firmly on surface, being careful not to cause air bubbles under decal.
   
c. Slowly peel away top protective covering being careful not to pull decal from implement.

161. Be sure to consult the operating instructions, in “Operator’s Manual”, for the first time field adjustments before going to the field.
# Appendix - Reference Information

## Torque Values Chart

<table>
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<th>Bolt Size</th>
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Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

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Tire Inflation Chart

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Hydraulic Connectors and Torque

Refer to Figure 37 (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 \( \text{①} \) and the 37° cone \( \text{⑤} \) on “M” fittings (or 37° flare on “F” fittings).
Use no sealants (tape or liquid) on JIC fittings.

ORB - O-Ring Boss (SAE J514)
Note straight threads \( \text{⑤} \) and elastomer O-Ring \( \text{⑦} \).
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 \( \text{⑩} \) and jam nut \( \text{⑨} \) (“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.

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 web sites listed below. For assistance or information, contact your nearest Authorized Farm Tire Retailer.

Firesstonewww.firestoneag.com
Gleasonwww.gleasonwheel.com
Titanwww.titan-intl.com
BKTwww.bkt-tire.com
Galaxywww.atgtire.com

Gauge Wheel
9.5L x 15” 8-Ply
44 psi (303 kPa)

Transport/ Wings
12.5L x 15” 12-Ply
55 psi (379 kPa)

Transport/ Center
440/55R18 Load 159A8/B Titan
73 psi (503 kPa)

Tire Inflation Chart

<table>
<thead>
<tr>
<th>Fitting</th>
<th>N-m</th>
<th>Ft-Lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-18 NPT</td>
<td>1.5-3.0 turns past finger tight</td>
<td></td>
</tr>
<tr>
<td>1/2-20 JIC</td>
<td>19-20</td>
<td>14-15</td>
</tr>
<tr>
<td>1/2-20 ORB w/jam nut</td>
<td>12-16</td>
<td>9-12</td>
</tr>
<tr>
<td>1/2-20 ORB straight</td>
<td>19-26</td>
<td>14-19</td>
</tr>
<tr>
<td>9/16-18 JIC</td>
<td>24-27</td>
<td>18-20</td>
</tr>
<tr>
<td>9/16-18 ORB w/jam nut</td>
<td>16-22</td>
<td>12-16</td>
</tr>
<tr>
<td>9/16-18 ORB straight</td>
<td>24-33</td>
<td>18-24</td>
</tr>
<tr>
<td>3/4-16 JIC</td>
<td>37-53</td>
<td>27-39</td>
</tr>
<tr>
<td>3/4-16 ORB w/jam nut</td>
<td>27-41</td>
<td>20-30</td>
</tr>
<tr>
<td>3/4-16 ORB straight</td>
<td>37-58</td>
<td>27-43</td>
</tr>
</tbody>
</table>
3500TM Hydraulic Lift Layout
3500TM Hydraulic Lift Layout
4000TM Hydraulic Lift Layout
4000TM Hydraulic Lift Layout
3500TM Hydraulic Fold Layout
4000TM Hydraulic Fold Layout
3500TM Hydraulic Gang Angle Layout (S/N GP-C6545H+)}
3500TM Hydraulic Gang Angle Layout (S/N GP-C6545H+)
3500TM Hydraulic Gang Angle Layout (S/N GP-C6544H-)

Diagram of hydraulic gang angle layout with annotations for various parts and connections.
3500TM Hydraulic Gang Angle Layout (S/N GP-C6544H-)

The diagram shows various components and connections related to the hydraulic system, including:
- **Leak Valve**
- **Double Tee**
- **Hose Wrap**
- **Center Cylinder Rod End**
- **Inner Cylinder Rod End**

The text is not provided in the image.
4000TM Hydraulic Gang Angle Layout (S/N GP-C6545H+)
4000TM Hydraulic Gang Angle Layout S/N GP-C6545H+}

![Diagram of 4000TM Hydraulic Gang Angle Layout S/N GP-C6545H+](TP-69095)
4000TM Hydraulic Gang Angle Layout (S/N GP-C6544H-)
4000TM Hydraulic Gang Angle Layout (S/N GP-C6544H-)

![Diagram of 4000TM Hydraulic Gang Angle Layout](42879)
3500TM Machine Layout

43071
3500TM Machine Layout
4000TM Machine Layout
4000TM Machine Layout
3500TM Rolling Harrow Layout
3500TM Rolling Harrow Layout
3500TM Heavy Reel Following Rolling Harrow Layout
3500TM Heavy Reel Following Rolling Harrow Layout
4000TM Rolling Harrow Layout

43227
4000TM Rolling Harrow Layout
4000TM Heavy Reel Following Rolling Harrow Layout
4000TM Heavy Reel Following Rolling Harrow Layout
# Index

## A
- address, Great Plains .................................................. 6
- angle gauge ........................................................................... 18

## B
- banding .................................................................................... 6

## C
- CAUTION, defined ............................................................... 1
- center frame assembly ............................................................ 7
- children .................................................................................... 2
- clothing ..................................................................................... 2
- color code, hose ....................................................................... 19
- components .............................................................................. 6
- contact Great Plains ............................................................... 6
- covered models ....................................................................... 4
- cylinders
  - center lift ............................................................................ 7

## D
- DANGER, defined .................................................................... 1
- decals ....................................................................................... 1, 37
- definitions ................................................................................ 5
- depth stop ................................................................................ 18
- directions ................................................................................... 5

## E
- electrical hookup ....................................................................... 7
- email, Great Plains ............................................................... 6

## F
- fire ............................................................................................ 1
- fork truck ................................................................................... 6
- frames ....................................................................................... 6

## H
- headphones ................................................................................ 2
- hearing ....................................................................................... 2
- high pressure fluids .................................................................. 2
- hose clamps ............................................................................... 19
- hose handles ............................................................................. 20
- hydraulic connectors ................................................................. 39
- hydraulic hoses ......................................................................... 19
- hitch .......................................................................................... 32
- hydraulic safety ........................................................................ 2

## I
- IMPORTANT!, defined .............................................................. 5
- inflation ...................................................................................... 39

## J
- JIC ............................................................................................. 39
- Joint Industry Conference .......................................................... 39
- J514 ........................................................................................... 39

## L
- layout
  - 3500TM Heavy Reel Following Rolling Harrow ......................... 62, 63
  - 3500TM Hydraulic Fold ............................................................ 44
  - 3500TM Hydraulic Gang Angle 50, 51
- leaks .......................................................................................... 2
- left-hand, defined ........................................................................ 5
- lifters .......................................................................................... 1
- light brackets
  - front ......................................................................................... 28
  - rear .......................................................................................... 29
- light harness
  - enhance .................................................................................. 28
  - lead w/valve ............................................................................ 28
- lights ........................................................................................... 2
  - amber lamp ............................................................................. 28, 29
  - red lamp .................................................................................. 29
- medical assistance ...................................................................... 2, 19

## M
- National Pipe Thread ................................................................. 39
- Note, defined ............................................................................. 5
- NPT ............................................................................................ 39
- NTA907HD-4875 ......................................................................... 4

## O
- ORB ............................................................................................ 39
- orientation rose .......................................................................... 5
- O-Ring Boss ............................................................................... 39
- protective equipment ................................................................. 2
- purging
  - fold system ............................................................................ 20
  - lift system ................................................................................ 20

## P
- rear tow hitch ........................................................................... 35
- riders ........................................................................................... 2
- right-hand, defined ..................................................................... 5
- rolling harrow ............................................................................ 34
- rose, orientation ......................................................................... 5

## S
- SAE J514 ..................................................................................... 39
- safety symbol .............................................................................. 1
- shutdown ..................................................................................... 2
- smaller items ............................................................................. 6
- SMV ........................................................................................... 29
- storage ......................................................................................... 2
- storage pod ................................................................................ 6
- support ........................................................................................ 6
- symbol, safety ............................................................................ 1
- tables
  - document family .................................................................... 4
  - fittings torque ........................................................................ 39
  - hose color code ........................................................................ 19
  - models covered ....................................................................... 4
  - torque values .......................................................................... 38
  - tire inflation ............................................................................. 39
  - tire wheel assembly .................................................................. 6
  - tires .......................................................................................... 3
  - torque tube
    - center .................................................................................. 7
  - torque value chart ................................................................... 38
  - torque values chart (wheel bolts) ......................................... 38
- URLs, tires ................................................................................ 39
- WARNING, defined ................................................................... 1
- warranty .................................................................................... 39, 56, 57, 62
- weight package ......................................................................... 36
- www ............................................................................................ 39

## Numerics
- 586-537M, manual .................................................................. 4
- 586-537P, manual ..................................................................... 4
- 586-537Q-ENG, manual .......................................................... 4
- 586-537Q, manual .................................................................... 4
- 8R19.5 LT .................................................................................. 39