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

Important Safety Information ........................................... 1
Introduction ........................................................................ 4
  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
Assembly ........................................................................... 7
  Center Frame Assembly ................................................ 7
  Torque Tube & Level Bar .............................................. 8
  Center Fold ............................................................... 10
  Connect Hitch ............................................................ 10
  Install Wing Cylinder Mount ....................................... 11
  Install 8323 & 8328 Wings .......................................... 11
  Install 8332 & 8336 Wings .......................................... 12
  Install 5-Section Wing ................................................. 14
  Install 5-Section Wing Fold ......................................... 15
  Install 5-Section Outside Wings ................................... 16
  Center Transport ........................................................ 18
  8332-8560 Wing Transport ........................................... 18
  8332-8328 & 8539-8560 Outside Wing Transport .......... 19
  Install Gauge Wheel (Jack Style) ................................. 19
  Install Gauge Wheel (Caster Style) ............................... 20
  Install K-Flex............................................................. 20
  Install Magnum Shank ............................................... 21
  Install Hydraulic Valves ............................................. 21
  Install Rebound Valve and O-Ring Fittings .................. 22
  Install Depth Control Valve ........................................ 22
  Install 3-Section Double Tee Block ............................. 23
  Install 5-Section Double Tee Block ............................. 23
  Install Hose Handles .................................................. 23
  Install JIC Fittings ..................................................... 24
  Attach Hose Clamps and Hose wraps ........................... 25
  Hydraulic Hose Hookup .............................................. 25
  Hose Handles ........................................................... 25
  Purging Hydraulic System .......................................... 26
  Light Assembly ........................................................ 27

Install Rear Hitch (optional) ............................................. 27
Completing Setup ........................................................ 28

Appendix ........................................................................... 29
  Torque Values Chart .................................................. 29
  Tire Inflation Chart .................................................... 30
  Tires Chart ............................................................... 30
  Hydraulic Connectors and Torque ............................ 31
  3-Section Hydraulic Lift Layout ................................. 32
  3-Section Hydraulic Fold Layout ............................... 33
  5-Section Hydraulic Lift Layout ................................. 34
  5-Section Hydraulic Fold Layout ............................... 35
  5-Section Hydraulic Fold Layout ............................... 36
  5-Section Hydraulic Fold Layout ............................... 37
  8523FCF Machine Layout ......................................... 38
  8528FCF Machine Layout ......................................... 39
  8332FCF Machine Layout ......................................... 40
  8336FCF Machine Layout ......................................... 41
  8539FCF Machine Layout ......................................... 42
  8544FCF Machine Layout ......................................... 43
  8544FCF Machine Layout ......................................... 44
  8548FCF Machine Layout ......................................... 45
  8548FCF Machine Layout ......................................... 46
  8551FCF Machine Layout ......................................... 47
  8551FCF Machine Layout ......................................... 48
  8556FCF Machine Layout ......................................... 49
  8556FCF Machine Layout ......................................... 50
  8556FCF Machine Layout ......................................... 51
  8560FCF Machine Layout ......................................... 52
  8560FCF Machine Layout ......................................... 53
  8323FCF S4T Spike Drag HR Layout ......................... 54
  8328FCF S4T Spike Drag HR Layout ......................... 55
  8332FCF S4T Spike Drag HR Layout ........................... 56
  8336FCF S4T Spike Drag HR Layout ........................... 57
  8539FCF S4T Spike Drag HR Layout ........................... 58
  8544FCF S4T Spike Drag HR Layout ........................... 59
  8544FCF S4T Spike Drag HR Layout ........................... 60
  8548FCF S4T Spike Drag HR Layout ........................... 61
  8548FCF S4T Spike Drag HR Layout ........................... 62
  8551FCF S4T Spike Drag HR Layout ........................... 63
  8551FCF S4T Spike Drag HR Layout ........................... 64
  8556FCF S4T Spike Drag HR Layout ........................... 65
  8556FCF S4T Spike Drag HR Layout ........................... 66
  8560FCF S4T Spike Drag HR Layout ........................... 67
  8560FCF S4T Spike Drag HR Layout ........................... 68
  8560FCF S4T Spike Drag HR Layout ........................... 69


Great Plains Manufacturing, Inc. provides this publication “as is” without warranty of any kind, either expressed or implied. While every precaution has been taken in the preparation of this manual, Great Plains Manufacturing, Inc. assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. Great Plains Manufacturing, Inc. reserves the right to revise and improve its products as it sees fit. This publication describes the state of this product at the time of its publication, and may not reflect the product in the future.


Printed in the United States of America
<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8323FCF</td>
<td>S5T Spike Drag Layout</td>
<td>70</td>
</tr>
<tr>
<td>8328FCF</td>
<td>S5T Spike Drag Layout</td>
<td>71</td>
</tr>
<tr>
<td>8332FCF</td>
<td>S5T Spike Drag Layout</td>
<td>72</td>
</tr>
<tr>
<td>8336FCF</td>
<td>S5T Spike Drag Layout</td>
<td>73</td>
</tr>
<tr>
<td>8339FCF</td>
<td>S5T Spike Drag Layout</td>
<td>74</td>
</tr>
<tr>
<td>8344FCF</td>
<td>S5T Spike Drag Layout</td>
<td>75</td>
</tr>
<tr>
<td>8344FCF</td>
<td>S5T Spike Drag Layout</td>
<td>76</td>
</tr>
<tr>
<td>8348FCF</td>
<td>S5T Spike Drag Layout</td>
<td>77</td>
</tr>
<tr>
<td>8351FCF</td>
<td>S5T Spike Drag Layout</td>
<td>78</td>
</tr>
<tr>
<td>8356FCF</td>
<td>S5T Spike Drag Layout</td>
<td>79</td>
</tr>
<tr>
<td>8351FCF</td>
<td>S5T Spike Drag Layout</td>
<td>80</td>
</tr>
<tr>
<td>8356FCF</td>
<td>S5T Spike Drag Layout</td>
<td>81</td>
</tr>
<tr>
<td>8360FCF</td>
<td>S5T Spike Drag Layout</td>
<td>82</td>
</tr>
<tr>
<td>8360FCF</td>
<td>S5T Spike Drag Layout</td>
<td>83</td>
</tr>
<tr>
<td>8360FCF</td>
<td>S5T Spike Drag Layout</td>
<td>84</td>
</tr>
<tr>
<td>8323FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>85</td>
</tr>
<tr>
<td>8328FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>86</td>
</tr>
<tr>
<td>8332FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>87</td>
</tr>
<tr>
<td>8336FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>88</td>
</tr>
<tr>
<td>8339FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>89</td>
</tr>
<tr>
<td>8344FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>90</td>
</tr>
<tr>
<td>8344FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>91</td>
</tr>
<tr>
<td>8344FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>92</td>
</tr>
<tr>
<td>8348FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>93</td>
</tr>
<tr>
<td>8348FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>94</td>
</tr>
<tr>
<td>8351FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>95</td>
</tr>
<tr>
<td>8356FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>96</td>
</tr>
<tr>
<td>8351FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>97</td>
</tr>
<tr>
<td>8356FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>98</td>
</tr>
<tr>
<td>8360FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>99</td>
</tr>
<tr>
<td>8360FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>100</td>
</tr>
<tr>
<td>8360FCF</td>
<td>S3T Spike Drag w/ Reel Layout</td>
<td>101</td>
</tr>
<tr>
<td>8323FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>102</td>
</tr>
<tr>
<td>8328FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>103</td>
</tr>
<tr>
<td>8332FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>104</td>
</tr>
<tr>
<td>8336FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>105</td>
</tr>
<tr>
<td>8339FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>106</td>
</tr>
<tr>
<td>8344FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>107</td>
</tr>
<tr>
<td>8344FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>108</td>
</tr>
<tr>
<td>8348FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>109</td>
</tr>
<tr>
<td>8348FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>110</td>
</tr>
<tr>
<td>8348FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>111</td>
</tr>
<tr>
<td>8351FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>112</td>
</tr>
<tr>
<td>8351FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>113</td>
</tr>
<tr>
<td>8356FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>114</td>
</tr>
<tr>
<td>8356FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>115</td>
</tr>
<tr>
<td>8360FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>116</td>
</tr>
<tr>
<td>8360FCF</td>
<td>CH4B Coil Tine Drag Layout</td>
<td>117</td>
</tr>
<tr>
<td>8323FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>118</td>
</tr>
<tr>
<td>8328FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>119</td>
</tr>
<tr>
<td>8332FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>120</td>
</tr>
<tr>
<td>8336FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>121</td>
</tr>
<tr>
<td>8339FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>122</td>
</tr>
<tr>
<td>8344FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>123</td>
</tr>
<tr>
<td>8348FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>124</td>
</tr>
<tr>
<td>8548FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>125</td>
</tr>
<tr>
<td>8548FCF</td>
<td>CH3A Coil Tine w/ Reel Drag Layout</td>
<td>126</td>
</tr>
</tbody>
</table>
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 8323-8560FCF Field Cultivator using blocks and supports provided.
- Detach and store 8323-8560FCF Field Cultivator in an area where children normally do not play. Equipment must be stable when unhitched. Supporting devices must be in place if the equipment has an upward hitch load.

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 8323-8560FCF Field Cultivator 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 8323-8560FCF Field Cultivator, is a three or five-section seedbed preparation tillage tool. Working width ranges from 23 to 60 feet. The implement is designed for secondary field operations to smooth, level, eliminate weeds and incorporate chemicals. Various finishing attachments are available to further smooth, redistribute residue, firm soil and break clods.

Models Covered

8323FCF  23-Foot  3-section
8328FCF  28-Foot  3-section
8332FCF  32-Foot  3-section
8336FCF  36-Foot  3-section
8539FCF  39-Foot  5-section
8544FCF  44-Foot  5-section
8548FCF  48-Foot  5-section
8551FCF  51-Foot  5-section
8556FCF  56-Foot  5-section
8560FCF  60-Foot  5-section

Document Family

560-484Q-ENG  Assembly Manual (this document)
560-484Q  Pre-Delivery Manual
560-484M  Operator Manual
560-484P  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 components
5. Have all fasteners and pins shipped with Field Cultivator.
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 reel attachment assemblies. The reel attachments (if equipped) will be banded together with the gang assemblies on pallet.

Refer to Figure 3

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

- Shank parts, small parts and bolts will be shipped in boxes. Rear attachment big parts will be banded to attachment smaller parts box. Shipping containers 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
6. the tire wheel assemblies,
7. the smaller items
Place these components well out of the maneuvering area needed for unloading the gang assemblies and frames.
8. Carefully unload the frames and hitch out of shipping rack

Unpacking Boxes

9. Carefully remove banding and lids from boxes.
10. Locate and identify all components before assembling.

Further Assistance

Great Plains Manufacturing, Inc. wants you to be satisfied with your new Field Cultivator. 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.
Center Frame Assembly

Refer to Figure 5

11. Once the center Frame has been uncrated and put on stands, the brace bar and trusses maybe installed.

12. Carefully move center brace bar ② to front of center frame ①, with overhead hoist or fork lift, secure with \( \frac{3}{4} \times 2 \) hex bolts ③, \( \frac{3}{4} \) lock washers and nuts.

13. Attach center frame trusses ⑥ with \( \frac{3}{4} \times 2 \) hex bolts ③ (front plates), \( \frac{3}{4} \) lock washers and nuts, rear plates with \( \frac{5}{8} \times 1\frac{1}{2} \) hex bolts ④, \( \frac{5}{8} \) lock washers and nuts.

14. Attach light brackets, LH ⑨ and RH ⑦ with \( \frac{1}{2} \times 3\frac{1}{32} \times 6 \) u-bolts (models 8323-8328) or \( \frac{1}{2} \times 5\frac{1}{32} \times 4\frac{1}{2} \) u-bolt ⑧ (models 8332-8560), \( \frac{1}{2} \) lock washers and nuts.

See machine layout section in “Appendix” for proper light bracket placement.

15. Attach light mounting brackets ⑪ to rear center frame tube with \( \frac{1}{2} \times 4\frac{1}{32} \times 4 \) u-bolt ⑩, \( \frac{1}{2} \) lock washers and nuts.

16. Mount smv post ⑪ with \( \frac{1}{2} \times 4\frac{1}{32} \times 4 \) u-bolt ⑩, \( \frac{1}{2} \) lock washers and nuts as close to center of tube shown. Attach smv sign ⑨ to rear of smv post with \( \frac{1}{4} \times 3 \frac{3}{4} \) pan head screws ⑪, \( \frac{1}{4} \) lock washers and nuts.

17. All bolts may be tightened to specs, See “Torque Values Chart” on page 29. Attach plastic end caps ⑫ to all open ends of 4 x 3 tube.

---

Figure 5
Center Frame
Torque Tube & Level Bar

Refer to Figure 6

18. Carefully raise the torque tube 1 with an overhead hoist and secure with 1 1/4 x 6 pins 2, 3/8 x 2 1/4 Gr. 8 hex bolt 3 and 3/8 top lock nut.

19. Attach rear of RH level bar 4 to the torque tube with the 1 x 6 Gr. 8 special hex bolt 5 and 1 top lock nut. Repeat for the LH level bar 6.

20. Mount the level bar cross tube 7 to the level bar side plates with 1/2 x 1 1/2 hex bolts 8, secure with 1/2 lock washers and nuts.

21. Now attach the rear of the level bar link 9 to the front side of the level bar assembly 8 and 5, secure with 1 1/4 threaded bar pin 10, 1 1/4 flat washers 11, 1/4 slotted nuts and 3/16 x 1 1/2 roll pins.

22. Align holes in leveling links 11 with outer tubes of level bars and other end with welded ears on center brace bar. Secure with 1 x 7 Gr. 8 special thread bolts 13 and 1 top lock nuts.

23. Align holes in front leveling links 11 with front of level bar link 8 and other end with welded ears on center brace bar. Use a 1.5 machine washer 12 in between each leveling link and the frame tubes, Secure with 1 x 7 Gr. 8 special thread bolts 13 and 1 top lock nuts.

24. Align top holes in rear leveling links 12 with rod end of 3.50 x 8 x 1.25 cylinders 14 and rear of level bar link 8, secure with 1 x 11 1/2 lift pin 15, 1.5 x 1.00 x.075 machine washers and 3/16 x 2 cotter pins. Fasten other end to welded ears on center brace bar with 1 x 9 Gr. 8 hex bolt 16 and 1 top lock nut.

25. Attach base end of 3.50 x 8 x 1.25 cylinders 14 to plates on front of center frame with 1 x 3 1/8 pin 15, 1.5 x 1.0 x.075 machine washer and 3/16 x 2 cotter pin.

26. Install cylinder transport lock pin 17 through aligned holes of front hole of level bar link 5 and welded ear of center brace bar.

27. Tighten all bolts with lock nuts down snug but make sure everything will still pivot on bolts. Rest of bolts may be tightened to specs, See “Torque Values Chart” on page 29.
Figure 6
Torque Tube & Level Bar
**Center Fold**

*Refer to Figure 7*

Models 8323-8328 wing stop goes on rear plates of center frame trusses. All other models go on front plates as shown.

28. Attach inside plates of center wing stop ①, to center frame trusses using $\frac{5}{8} \times 1\frac{1}{2}$ bolts ②, $\frac{5}{8}$ lock washers and nuts.

29. Attach outside plates of center wing stop ①, to outside tubes of center frame with $\frac{5}{8} \times 3\frac{1}{32} \times 6 \frac{1}{2}$ u-bolts ③, $\frac{5}{8}$ lock washers and nuts.

30. Mount front ④ and rear ⑤ fold brackets to center frame plates with $\frac{5}{8} \times 1\frac{1}{2}$ bolts ⑥, $\frac{5}{8}$ lock washers and nuts.

31. Insert the $\frac{1}{2} \times 4\frac{1}{2}$ pin w/keepers ⑦ into round tubes on rear of wing stop ①.

32. All bolts may be tightened to specs, See “Torque Values Chart” on page 29.

**Connect Hitch**

*Refer to Figure 8*

33. Attach hitch ① to center brace bar using $1\frac{1}{4} \times 7$ Gr. 8 hex bolts ②, $1\frac{1}{4}$ flat washers ③ (one on outside of hitch, both sides) and 1 top lock nut.

34. Mount square jack ④ to front mount on hitch ① with pin provided with jack.

- Use jack to help support front of hitch for rest of hitch assembly.

35. Align holes in hitch base ⑤ with holes in front of hitch ①.

36. Align holes in safety chain support ⑥ with holes on left side of hitch ①, secure with $1 \times 8$ Gr. 8 special hex bolts ⑦, 1 lock washers and 1 nuts.

37. Install safety chain ⑧ on bottom side of hitch ①, secure with $\frac{7}{8} \times 3$ hex bolt ⑨, $\frac{7}{8}$ flat washer ⑩, $\frac{7}{8}$ lock washer and nut.

38. Route safety chain ⑪ through safety chain support ⑥.

39. Mount spring hose loop ⑫ to top side of hitch ①, with $\frac{1}{2} \times 1$ bolt ⑬, $\frac{1}{2}$ lock washer and $\frac{1}{2}$ flat washer.

40. Mount the manual pack ⑭ to hitch ① with $\frac{1}{4} \times \frac{3}{4}$ pan screws ⑮, rubber spacers ⑯, $\frac{1}{4}$ lock washers and nuts.

41. All bolts may be tightened to specs, See “Torque Values Chart” on page 29.
Install Wing Cylinder Mount

*Refer to Figure 9*

The wing cylinder mount assemblies will be installed as shown below for all wings.

42. Attach cylinder mount plate 1 to inside of tube weldment of wing frame, with 1 x 9 Gr. 8 hex bolt 2 and 1 top lock nut. Tighten bolt down snug.

43. Slide adjustment bolt assembly 3 through front side of ball joint on wing frame, secure with 1 slotted nut 4 and 3/16 x 1 1/2 roll pin 5. Attach clevis end of adjustment bolt assembly 3 to rear hole of cylinder mount plate 1 with 1 x 2 29/64 clevis pin 6, 1.5 x 1.0 x.075 machine washer and 3/16 x 2 cotter pin.

See side to side leveling in “Operator’s Manual” for proper adjustment of wing when machine is completely assembled.

Install 8323 & 8328 Wings

*Refer to Figure 10*

Be sure and install the 1 x 6 1/4 hinge pins 2 as shown with roll pin in slot on front side of hinge.

44. Carefully align holes in wing frame LH 7 with holes in center frame. Secure with 1 1/4 x 6 1/4 hinge pins 8, 3/8 x 2 1/2 roll pins, 1 flat washer and 1 top lock nut.

45. Attach wing brace 9 to the front of the wing frame LH 7 with 3/4 x 2 hex bolts 10, 3/4 lock washers and 3/4 hex nuts.

46. Align holes in wheel arm L 11, secure with 1 1/4 x 6 pins 12, 3/8 x 2 1/4 hex bolts and 3/8 top lock nuts.

47. Mount wing fold bracket 13 to wing with 3/4 x 5 hex bolts 14, 3/4 lock washers and 3/4 hex nuts, 5/8 x 3 1/32 x 5 1/2 u-bolts 15, 5/8 lock washers and 5/8 hex nuts.

48. Attach base end of 3.25 x 8 x 1.25 lift cylinder 16 to front hole of cylinder mount plate 11 with 1 x 3 1/8 pin 17, 1.5 x 1.0 x.075 machine washer and 3/16 x 2 cotter pin. Attach rod end of 3.25 x 8 x 1.25 cylinder 16 to wheel arm L 15 with 1 x 3 1/8 pin 17, 1.5 x 1.0 x.075 machine washer and 3/16 x 2 cotter pin.

49. Attach base end of 4 x 30 x 1.5 fold cylinder 18 to hole of center fold bracket with 1 x 3 1/8 pin 19, 1.5 x 1.0 x.075 machine washer and 3/16 x 2 cotter pin.

50. Do not attach rod end of cylinders until fold system has been purged, See “Purging Hydraulic System” on page 26.

51. Repeat same procedure for right wing.

52. Tighten all bolts to specs, See “Torque Values Chart” on page 29.
Install 8332 & 8336 Wings

Refer to Figure 11

1. Be sure and install the 1 x 6\frac{1}{4} hinge pins □ as shown with roll pin in slot on front side of hinge.

53. Carefully align holes in wing frame LH □ with holes in center frame. Secure with 1\frac{1}{4} x 6\frac{1}{4} hinge pins □, \frac{3}{8} x 2\frac{1}{2} roll pins, 1 flat washer and top lock nut.

54. Attach wing brace ③ to the front of the wing frame LH □ with \frac{3}{4} x 2 hex bolts ④, \frac{13}{16} lock washers and hex nuts.

55. Align holes in wheel arm L ⑤, secure with 1\frac{1}{4} x 6 pins ⑥, \frac{3}{8} x 2\frac{1}{4} hex bolts and \frac{3}{8} top lock nuts.

56. Fasten LH wing truss ⑦ to wing with \frac{5}{8} x 1\frac{1}{2} hex bolts ⑧, \frac{5}{8} lock washers and hex nuts.

57. Mount wing extension ⑨ to outside of wing and wing brace with \frac{5}{8} x 1\frac{1}{2} hex bolts ⑩, \frac{5}{8} lock washers and hex nuts.

58. Mount wing fold bracket ⑪ to wing with \frac{3}{4} x 5 hex bolts ⑫, \frac{3}{4} lock washers and hex nuts, \frac{5}{8} x 3\frac{1}{32} x 5\frac{1}{2} u-bolts ⑬, \frac{5}{8} lock washers and hex nuts.

59. Align hole in rear of LH wing pull ⑭ to LH wheel arm ⑮, with 1 x 3\frac{1}{8} clevis pin ⑯, 1.5 x 1.0 x .075 machine washer and 3\frac{1}{16} x 2 cotter pin.

60. Align bottom holes of leveling links ⑰ with ear on wing brace ⑧, secure with 1 x 9 Gr. 8 bolt ⑱ and 1 top lock nut.

61. Align top holes in leveling links ⑰, rod end of 3.25 x 8 x 1.25 lift cylinder ⑲ and front of LH wing pull ⑳, secure with 1 x 7 Gr. 8 special thread bolt ⑳ 1 top lock nut.

62. Attach base end of 3.25 x 8 x 1.25 lift cylinder ⑲ to ear of wing brace ⑧ with 1 x 3\frac{1}{8} pin ⑳, 1.5 x 1.0 x .075 machine washer and 3\frac{1}{16} x 2 cotter pin.

63. Attach base end of 4 x 30 x 1.5 fold cylinder ⑳ to hole of center fold bracket with 1 x 3\frac{1}{8} pin ⑳, 1.5 x 1.0 x .075 machine washer and 3\frac{1}{16} x 2 cotter pin.

64. Attach 5” stub ⑳ to outside of wing extension ⑧, with \frac{5}{8} x 1\frac{1}{2} hex bolts ⑧, \frac{5}{8} lock washers and hex nuts.

65. Do not attach rod end of fold cylinders until fold system has been purged, See “Purging Hydraulic System” on page 26.

66. Repeat same procedure for right wing.

67. Tighten all bolts to specs, See “Torque Values Chart” on page 29.
Figure 11
8332 & 8336 Wing
Install 5-Section Wing

Refer to Figure 12

68. Carefully align holes in wing frame LH (1) with holes in center frame. Secure with 1 1/4 x 6 1/4 hinge pins (2), 3/8 x 2 1/2 roll pins, 1 flat washer and 1 top lock nut.

69. Attach wing brace (3) to the front of the wing frame LH (1) with 3/4 x 2 hex bolts (4), 3/4 lock washers and hex nuts.

70. Align holes in wheel arm L (5) with plates on wing frame LH (1), secure with 1 1/4 x 6 pins (6), 3/8 x 2 1/4 hex bolts and 3/8 top lock nuts.

71. Fasten LH wing truss (7) to wing with 5/8 x 1 1/2 hex bolts (8), 5/8 lock washers and hex nuts.

72. Align hole in rear of LH wing pull (9) to LH wheel arm (5), with 1 x 3 1/8 clevis pin (10), 1.5 x 1.0 x 0.075 machine washer and 3/16 x 2 cotter pin.

73. Align bottom holes of leveling links (11) with ear on wing brace (3), secure with 1 x 9 Gr. 8 bolt (12) and 1 top lock nut.

74. Align top holes in leveling links (11), rod end of 3.25 x 8 x 1.25 lift cylinder (13) and front of LH wing pull (9), secure with 1 x 7 Gr. 8 special thread bolt (14) 1 top lock nut.

75. Attach base end of 3.25 x 8 x 1.25 lift cylinder (13) to ear of wing brace (3) with 1 x 3 1/8 pin (10), 1.5 x 1.0 x 0.075 machine washer and 3/16 x 2 cotter pin.

76. Repeat same procedure for right wing.

77. Tighten all bolts to specs, See “Torque Values Chart” on page 29.
Install 5-Section Wing Fold

Refer to Figure 13

78. Mount wing folding brackets ① to wing with 3/4 x 5 hex bolts ②, 3/4 lock washers and 3/4 hex nuts, 5/8 x 3 1/32 x 5 1/2 u-bolts  ③ 5/8 lock washers and nuts, 3/4 x 5 1/2 hex bolt ④, 3/4 lock washer and nut.

79. Attach base end of 4 x 30 x 1.5 cylinders ⑤ to center fold bracket with 1 x 3 1/8 pin ⑥, 1.5 x 1.0 x.075 machine washer and 3/16 x 2 cotter pin.

80. Do not attach rod end of fold cylinders until fold system has been purged, See “Purging Hydraulic System” on page 26.

81. Attach inside wing hinge ⑦ to wing brace with 5/8 x 1 1/2 hex bolts ⑧, 5/8 lock washers and hex nuts, 5/8 x 3 1/32 x 5 1/2 u-bolts ⑨, 5/8 lock washers and nuts.

82. Attach wing lock mount ⑩, on top of wing frame tube, with 1/2 x 3 1/32 x 5 u-bolts ⑪, 1/2 lock washers and nuts.

See layout section in “Appendix” for proper placement of wing lock mount wing rest ⑬.

83. Bolt the automatic wing latch ⑬, to wing lock mount ⑩, with 3/4 x 4 1/2 hex bolts ⑭, 3/4 lock washers and nuts.

84. Attach wing rest ⑭ to front wing folding bracket ①, secure with wing rest plate ⑮, 1/2 x 4 1/2 hex bolts ⑯, 1/2 lock washers and nuts.

85. Tighten all bolts to specs, See "Torque Values Chart" on page 29.

86. Repeat same procedure for right wing.

Figure 13
5-Section Wing Fold
Install 5-Section Outside Wings

Refer to Figure 14

87. Align holes in outside wing hinge ① with hole in LH and RH outside wing ②, secure with 1 x 5 1/2 hex bolt ③, 1 lock washer, 1 nut and two $\frac{5}{8} \times 3\frac{1}{32} \times 5$ u-bolts ④, $\frac{5}{8}$ lock nuts. Fasten the front outside wing hinge ① to wing brace the same way.

88. Carefully align holes in wing hinges ① with holes in fold brackets. Secure with $1\frac{1}{4} \times 8$ Gr. 8 hex bolt ⑤ and $1\frac{1}{4}$ top lock nut.

89. Attach outside wing brace ③ to front side of wing frame with $\frac{3}{4} \times 2$ hex bolts ⑥, $\frac{3}{4}$ lock washers, hex nuts.

90. Attach bolt-on stub ⑦ to side of wing brace and front of wing frame with $\frac{5}{8} \times 4\frac{1}{32} \times 4\frac{1}{4}$ u-bolts ⑧, $\frac{5}{8}$ lock washers and nuts.

91. Attach holes in wheel arm L ⑩, to wing frame ②, secure with $1\frac{1}{4} \times 6$ pin ⑪, $\frac{3}{8} \times 2\frac{1}{4}$ hex bolts and $\frac{3}{8}$ top lock nuts.

92. Attach base end of 3.25 x 8 x 1.25 lift cylinder (models 8539-8548) or 3.50 x 8 x 1.325lift cylinder (models 8551-8560) ⑫ to front hole of cylinder mount ⑬ plate with 1 x $3\frac{1}{8}$ pin ⑭, 1.5 x 1.0 x.075 machine washer and $\frac{3}{16} \times 2$ cotter pin. Attach rod end of cylinder ⑭ to wheel arm L ⑩ with 1 x $3\frac{1}{8}$ pin ⑮, 1.5 x 1.0 x.075 machine washer and $\frac{3}{16} \times 2$ cotter pin.

93. Mount bottom of 180 fold rocker ⑯ to wing hinge ①, with 1.0 x 3.38 clevis pin ⑰, 1.5 x 1.0 x.075 machine washer and $\frac{3}{16} \times 2$ cotter pin.

94. Attach base end of 4 x 16 x 1.25 fold cylinders ⑱ to center fold bracket with 1 x $3\frac{1}{8}$ pin ⑲, 1.5 x 1.0 x.075 machine washer and $\frac{3}{16} \times 2$ cotter pin.

95. Do not attach rod end of fold cylinders until fold system has been purged, See “Purging Hydraulic System” on page 26.

96. Attach T bracket ⑲ to wing frame with $\frac{1}{2} \times 3\frac{1}{32} \times 5$ u-bolts ⑳, $\frac{1}{2}$ lock washers and nuts.

See layout section in “Appendix” for proper placement of T bracket ⑳.

97. Tighten all bolts to specs, See “Torque Values Chart” on page 29.
Figure 14
5-Section Outside Wing
Center Transport

Refer to Figure 15

See transport section of “Parts Manual” for proper parts breakdown for center walking beam assemblies (left hand and right hand) for model of machine purchased. See notes on drawing for proper hole placement of walking beam spindle and front tube on walking beam. See “Tires Chart” on page 30, for proper tire sizes for tire/wheel assembly 5.

98. Install the walking beam assembly 1 with correct $\frac{5}{16}$ hex bolt 2 and $\frac{5}{16}$ top lock nut.

99. Align hole in spindle/hub assembly 3 to hole in walking beam assembly 1 secure with hex bolt and top lock nut or pin and cotter pin 4.

100. Mount tire/wheel assembly 6 to spindle/hub assembly 3 with $\frac{9}{16}$ or $\frac{5}{8}$ lug nuts 7.

Left hand shown is shown. Repeat same procedure for right side.

101. Tighten all bolts to specs, See “Torque Values Chart” on page 29.

8332-8560 Wing Transport

Refer to Figure 16

See transport section of “Parts Manual” for proper parts breakdown for wing walking beam assemblies. See notes on drawing for proper hole placement on walking beam spindle and front tube of walking beam. See “Tires Chart” on page 30, for proper tire sizes for tire/wheel assembly 6.

102. Install the walking beam assembly 1 with correct $\frac{5}{16}$ hex bolt 2 and $\frac{5}{16}$ top lock nut.

103. Align hole in spindle/hub assembly (13.5” spindle) 3 and spindle hub assembly (17” spindle) 4 to hole in walking beam assembly 1 secure with $\frac{9}{16} \times 2 \frac{13}{16}$ pin clevis 5 and cotter pin.

104. Mount tire/wheel assembly 6 to spindle/hub assembly 3 and 4 with $\frac{9}{16}$ lug nuts 7.

Left hand shown is shown. Repeat same procedure for right side.

105. Tighten all bolts to specs, See “Torque Values Chart” on page 29.
8332-8328 & 8539-8560 Outside Wing Transport

Refer to Figure 17

See transport section of “Parts Manual” for proper parts breakdown for wing walking beam assemblies. See notes on drawing for proper hole placement on walking beam spindle and front tube of walking beam. See “Tires Chart” on page 30, for proper tire sizes for tire/wheel assembly.

106. Install the walking beam assembly 1 with correct 5\(\frac{1}{16}\) hex bolt 2 and 5\(\frac{1}{16}\) top lock nut.

107. Align hole in spindle/hub assembly (13.5” spindle) 3 to hole in walking beam assembly 1 secure with 5\(\frac{1}{16}\) x 2\(\frac{3}{16}\) pin clevis 4 and cotter pin.

108. Mount tire/wheel assembly 5 to spindle/hub assembly 3 with 5\(\frac{1}{16}\) lug nuts 6.

Left hand shown is shown. Repeat same procedure for right side.

109. Tighten all bolts to specs, See “Torque Values Chart” on page 29.

Install Gauge Wheel (Jack Style)

Refer to Figure 18

110. Start by installing the wheel arm mount 1 to the plates on wing frame with 5\(\frac{1}{8}\) x 2 hex bolts 2, 5\(\frac{1}{8}\) lock washers and nuts.

111. Slide screw jack 3 down through the wheel arm mount plate, secure with 1\(\frac{1}{2}\) x 1\(\frac{1}{4}\) hex bolts and 1\(\frac{1}{2}\) top lock nuts.

112. Slide the spindle receiver 4 inside the wheel arm mount, align holes, secure with 3\(\frac{1}{4}\) x 4 hex bolt 5, 3\(\frac{1}{4}\) lock washer and nut. Install two 5\(\frac{1}{8}\) x 1\(\frac{1}{4}\) hex bolts 7 to welded nuts on wheel arm mount.

113. Slide 6-bolt hub assembly 8 into spindle receiver 5, align holes, secure with 5\(\frac{1}{16}\) x 2\(\frac{3}{16}\) clevis pin 9 and 1\(\frac{1}{8}\) x 1 cotter pin.

114. Attach the 9.5L x 15, 8 ply, wheel/tire assembly 10 to 6-bolt hub assembly and secure with 9\(\frac{1}{16}\) lug nuts 11.

115. Tighten bolts to specs, See “Torque Values Chart” on page 29.
Install Gauge Wheel (Caster Style)

Refer to Figure 19

Some models will be shipped without the gauge wheels installed. Be sure and install the 1 x 5 1/2 pin 3 as shown with roll pin in slot on outside of pivot mount 6. See “Tires Chart” on page 30, for proper tire sizes for tire/wheel assembly 10.

116. Start by installing the LH or RH caster wheel arm 1 and top caster wheel arm 2 to the brackets on frames with 1 x 5 1/2 gauge wheel pin 3, 7/8 flat washers 8 and 7/8 lock nuts.

117. Fasten back side of turnbuckle assembly 5 to LH or RH wing pull bar (level bar on center section), front side to lever to caster wheel arm with 1 x 3 11/16 clevis pins 6 and 7 x 2 cotter pins.

118. Attach the pivot mount assembly 7 to caster wheel arms 1 and 2, secure with 1 x 5 1/2 gauge wheel pins 3, 7/8 x 2 roll pins, 7/8 flat washers 4 and 7/8 lock nuts.

119. Slide 6-bolt hub assembly 9 into pivot mount assembly 7, align holes, secure with 5/16 x 3 hex bolt 9 and 5/16 lock nut.

120. Attach the wheel/tire assembly 11 to 6-bolt hub assembly and secure with 5/16 lug nuts 11.

121. Tighten bolts to specs, See “Torque Values Chart” on page 29.

122. See layout section in “Appendix” for proper adjustment of gauge wheel assembly.

Install K-Flex

See layout section in “Appendix” for proper shank placement.

Refer to Figure 20

123. Slide k-flex shank mount 1 through slot in k-flex clamp 2. Slide these two parts over frame tube in proper location.

124. Align top hole in k-flex clip 3 with top hole in k-flex clamp 2, secure with 1/2 x 1 1/2 hex bolt 3, 1/2 lock washer and nut. Install 1/2 x 5 hex bolts 5, 1/2 lock washers and nuts.

125. Slide shank 5 through slotted hole in k-flex shank mount (1), secure with 5/8 x 2 hex bolt 7 and 5/8 top lock nut. Attach sweep 8 with 7/16 x 1 5/4 plow bolts 9, one 7/16 flat washer 10 (top slotted hole) and 7/16 nylock nuts.

126. Tighten all bolts to specs, See “Torque Values Chart” on page 29.
Install Magnum Shank

See layout section in “Operator’s Manual” for proper shank placement.

Refer to Figure 21

127. Loosen 1/2 x 1 1/2 hex bolt 4 clear up to get 5/8 x 2 hex bolt 6 installed.

128. Position pre-assembled shank mount assembly 1 over front of frame tube in proper location. Secure with 5/8 x 4 1/32 x 4 3/4 u-bolt 8 and 5/8 top lock nut.

129. Be sure the 3/4 nylock jam nut 5 is loose enough for shank cradle to pivot.

130. Slide shank 5 into shank cradle until holes are aligned, secure with 5/8 x 2 hex bolt 6 and 5/8 top lock nut.

131. Align sweep 2 with holes on shank 5, secure with 7/16 x 1 3/4 flat washer 5 (top slotted hole) and 7/16 nylock nuts.

132. Re-tighten 1/2 x 1 1/2 hex bolt 4 until threads bottom out.

IIMPORANT(!) Be sure and tighten 3/4 nylock jam nut 5 until threads bottom out to insure that hole doesn’t wear excessively.

133. Tighten rest of bolts to specs, See “Torque Values Chart” on page 29.

Install Hydraulic Valves

Refer to Figure 22

134. Align holes in depth control valve 1 to top of depth stop valve mounting bracket 2 using 5/16 x 2 hex bolts 6 and 3/16 lock washers.

135. Slide one end of depth stop tube 3 (with 2 holes) through slotted hole in depth stop valve mounting bracket. Slide other end of depth stop tube 3 over peg on LH level bar, secure with 1/2 flat washer 4 and 1/8 x 1 cotter pin 5.

136. Bolt depth stop screw assembly 6 to front of depth stop tube 3 with 1/2 x 2 1/2 hex bolts 7, 1/2 lock washers and nuts.

137. Mount rebound valve 8 to bracket, with 5/16 x 4 hex bolts 9, 5/16 lock washers and nuts.

138. Mount double hydraulic tee block 10, with 5/16 x 5 1/2 (2 blocks) hex bolts or 5/16 x 3 1/2 (1 block) hex bolts 11, 5/16 lock washers and nuts.

139. Tighten bolts to specs, See “Torque Values Chart” on page 29 and bend cotter pin.

Install all hydraulic fittings as shown in steps on following pages. Refer to layout section in “Appendix” for complete hydraulic layouts.
Install Rebound Valve and O-Ring Fittings

Refer to Figure 23

140. Thread straight (non-adjustable stud) fittings ① into ports V1, V2 and C2 of rebound valve ②.

- Tighten as shown below. Do not over tighten as this could cause damage to valves.
  a. Inspect all components for damage or contamination during shipping.
  b. Lubricate o-ring and threads on fitting.
  c. Turn fitting into port until finger tight, See “Hydraulic Connectors and Torque” on page 31 or proper torque value.

141. Thread elbow (adjustable stud) fitting ③ into port C1 of rebound valve ②.

  a. Follow steps a and b from the foregoing instructions, then proceed with the following steps below.
  b. Looking from fitting from end with nut/washer/o-ring assembly, turn nut clockwise as far as possible.
  c. Using wrench, turn fitting into port until the washer touches the port spot face. Continue turning fitting until washer touches thread nearest wrench pad.
  d. Back off fitting counterclockwise not exceeding one revolution until it is oriented in the correct position.
  e. Place wrench on the wrench pad of fitting to prevent fitting from turning, and See “Hydraulic Connectors and Torque” on page 31 for proper torque value.

Install Depth Control Valve

Refer to Figure 24

142. Thread elbow (adjustable stud) fitting ③ into rear port of depth stop valve ①. Thread straight (non-adjustable stud) fittings ② into right port of depth control valve ①.

- Tighten ORB fittings, See “Install Rebound Valve and O-Ring Fittings” on page 22
Install 3-Section Double Tee Block

Refer to Figure 25

143. Thread elbow (adjustable stud) fitting 2 into rear ports of double tee block 1. Thread straight (non-adjustable stud) fittings 3 into left and right ports of double tee block 1.

Tighten ORB fittings, See “Install Rebound Valve and O-Ring Fittings” on page 22.

Install 5-Section Double Tee Block

Refer to Figure 26

144. Thread elbow (adjustable stud) fitting 2 into rear and front ports of double tee blocks 1. Thread straight (non-adjustable stud) fittings 3 into left and right ports of double tee block 1.

145. Fasten MJIC tee’s 4 between hoses as shown.

See “Install JIC Fittings” on page 24 for proper installation.

Tighten ORB fittings, See “Install Rebound Valve and O-Ring Fittings” on page 22.

Install Hose Handles

Refer to Figure 27

Hose handles are color coded. See “Hydraulic Hose Hookup” on page 25 for proper placement on hoses.

146. Install fittings 2 to end of hoses 1 running to front of hitch. Attach poppet fittings 3 to fittings 2.

147. Tighten ORB fittings, See “Install Rebound Valve and O-Ring Fittings” on page 22.

148. Align the grooves in the front of the hose handles 4 to the back two ribs of fittings 2 as shown and install the self threading screws 5 through holes.

149. Route hoses as shown in layout section in “Appendix”.

Figure 25
3-Section Double Tee Block

Figure 26
5-Section Double Tee Block

Figure 27
Hose Handle Assembly
Install JIC Fittings

Refer to Figure 28

150. Install JIC female hose (1) to male fitting.

151. When the JIC hoses are routed, follow the following procedure for hooking up and tightening.

a. Inspect for possible contamination or damage from shipping or handling. Sealing surface should be smooth. Annular tool marks of (100uin) concentric with thread permissible.

b. Lubricate the threads and the entire surface of the cone with hydraulic fluid or a light lubricant.

c. Align mating components for hand connection and turn flare nut until sealing surfaces make full contact.

d. Torque nut to the values shown in "Torque Value Chart" page 23. If a wrench pad is provided next to nut, place a second wrench on pad to prevent flare from rotating while being torqued.

e. When torquing nut onto a straight flared fitting, it may be necessary to also place a wrench on the flared fitting wrench pad to prevent it from turning during assembly.

152. Alternate Assembly Method for JIC.

a. If torqued method not possible, follow steps a-c (step 166), then proceed to the steps below.

b. Lightly wrench tighten the nut until there is firm resistance.

c. Place a wrench on wrench pad next to nut as near the 6 o’clock position as possible.

d. Place second wrench on nut as near the 3 o’clock position as possible.

e. Turn nut clockwise to no less than the 4 o’clock position and no more than the 6 o’clock position. Required rotation generally decreases as size increases.
Attach Hose Clamps and Hose wraps

Refer to Figure 29

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

154. 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

155. 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>
</tbody>
</table>

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 30

156. 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.

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

Refer to Figure 31

158. Charge the lift system first. Extend the lift cylinders (black handles) until the center section is fully raise. Remove the 1 x 4 1/2 cylinder transport lock pin. The wings will not start to raise until the center cylinders are fully extended and the master cylinders begin to bypass oil through the rephasing ports, to the wing cylinders. Watch for leaks and re-tighten fittings if necessary. Continue to pump oil to the lift system until the wing cylinders are also fully extended. At this point, reverse the flow and lower the unit to the ground, retracting all cylinders. Raise and lower the unit several times to purge air from the system.

159. You may now charge the fold system. Before charging the fold cylinders, make sure the rod end of the cylinders are un pinned and block is under cylinders as shown on rear cylinders, 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. Now the cylinders may be extended far enough to be connected to the wing fold brackets.

160. Remove wood block and install 1 x 7 Gr. 8 special thread bolt, 1 flat washers and 1 top lock nut to rod end of inside wing cylinders and slot in fold bracket. Tighten 1 x 7 Gr. 8 special thread bolt down to where there is 1/16" to 1/8" gap. Be sure bolt will still turn freely.

161. Remove wood blocks and install 1 x 7 hinge pins, 1 flat washers, 1 3/4 rollers and 3/8 x 2 roll pins to base end of outer wing cylinders and rocker.
Light Assembly

Refer to Figure 32

162. Route light harness 30’ lead ① from front of hitch (tractor plug to front), along same route as hydraulic hose (fasten in same clamps and hose wraps as hoses). Plug one end of enhance light harness ② to small end of light harness 30’ lead ①. Plug bigger end of wishbone light harness ③ into other end of enhance light module ②. Route other ends over towards (marked left and right) the light mounting brackets as shown.

163. Mount red lamp lights ④ to top of light mounting brackets, with 1/4 x 1 hex bolts ⑤ and 1/4 lock nuts.

164. Mount amber lamp lights ⑥ to top of light brackets with 1/4 x 1 hex bolts ⑤ and 1/4 lock nuts.

165. Tighten all bolts to specs. 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 ⑦.

Install Rear Hitch (optional)

Refer to Figure 33

 PREFIX: The rear tow hitch will be shipped with big components banded together and bolts will be in a box. Carefully un-band the components.

166. Attach left ② and right ③ rear hitch arms, rear hitch truss ④, rear truss support ⑤ to center frame using 5/8 x 1 1/2 bolts ⑥, 5/8 x 3 1/32 x 5 1/2 u-bolts ⑦, secure with 5/8 lock washers and nuts.

 PREFIX: Do not tighten any bolts until every thing is installed.

167. Now install the rear hitch frame ③ using 5/8 x 1 1/2 bolts ⑥, 5/8 x 4 1/32 x 4 1/4 u-bolts ⑥, secure with 5/8 lock washers and nuts.

168. The bolt on sleeve assembly with rigid or flex slide ⑦, may be fastened using 5/8 x 3 1/32 x 4 1/2 u-bolt ⑩, secure with 5/8 lock washers and nuts.

169. Tighten all bolts to specs, See “Torque Values Chart” on page 29.

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

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

 PREFIX: Be sure hoses and light harness is fastened securely so they don't drag or get pinched.
Completing Setup

172. The decals may now be installed.

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

174. 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.

175. If machine has an optional finishing attachment, refer to the “Parts Manual” for parts break down and attachment layout drawings of this manual.

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

## Torque Values Chart

<table>
<thead>
<tr>
<th>Bolt Size</th>
<th>Bolt Head Identification</th>
<th>Bolt Head Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>in-tpi</strong></td>
<td><strong>Grade 2</strong></td>
<td><strong>Grade 5</strong></td>
</tr>
<tr>
<td><strong>N·m</strong></td>
<td><strong>ft-lb</strong></td>
<td><strong>N·m</strong></td>
</tr>
<tr>
<td>( \frac{1}{4} )-20</td>
<td>7.4</td>
<td>5.6</td>
</tr>
<tr>
<td>( \frac{1}{4} )-28</td>
<td>8.5</td>
<td>6</td>
</tr>
<tr>
<td>( \frac{5}{16} )-18</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>( \frac{5}{16} )-24</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>( \frac{3}{8} )-16</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>( \frac{3}{8} )-24</td>
<td>31</td>
<td>22</td>
</tr>
<tr>
<td>( \frac{7}{16} )-14</td>
<td>43</td>
<td>32</td>
</tr>
<tr>
<td>( \frac{7}{16} )-20</td>
<td>49</td>
<td>36</td>
</tr>
<tr>
<td>( \frac{1}{2} )-13</td>
<td>66</td>
<td>49</td>
</tr>
<tr>
<td>( \frac{1}{2} )-20</td>
<td>75</td>
<td>55</td>
</tr>
<tr>
<td>( \frac{9}{16} )-12</td>
<td>95</td>
<td>70</td>
</tr>
<tr>
<td>( \frac{9}{16} )-18</td>
<td>105</td>
<td>79</td>
</tr>
<tr>
<td>( \frac{5}{8} )-11</td>
<td>130</td>
<td>97</td>
</tr>
<tr>
<td>( \frac{5}{8} )-18</td>
<td>150</td>
<td>110</td>
</tr>
<tr>
<td>( \frac{3}{4} )-10</td>
<td>235</td>
<td>170</td>
</tr>
<tr>
<td>( \frac{3}{4} )-16</td>
<td>260</td>
<td>190</td>
</tr>
<tr>
<td>( \frac{7}{8} )-9</td>
<td>225</td>
<td>165</td>
</tr>
<tr>
<td>( \frac{7}{8} )-14</td>
<td>250</td>
<td>185</td>
</tr>
<tr>
<td>( 1 )-8</td>
<td>340</td>
<td>250</td>
</tr>
<tr>
<td>( 1 )-12</td>
<td>370</td>
<td>275</td>
</tr>
<tr>
<td>( \frac{1}{2} )-7</td>
<td>480</td>
<td>355</td>
</tr>
<tr>
<td>( \frac{1}{2} )-12</td>
<td>540</td>
<td>395</td>
</tr>
<tr>
<td>( \frac{1}{4} )-7</td>
<td>680</td>
<td>500</td>
</tr>
<tr>
<td>( \frac{1}{4} )-12</td>
<td>750</td>
<td>555</td>
</tr>
<tr>
<td>( \frac{3}{8} )-6</td>
<td>890</td>
<td>655</td>
</tr>
<tr>
<td>( \frac{3}{8} )-12</td>
<td>1010</td>
<td>745</td>
</tr>
<tr>
<td>( \frac{1}{2} )-6</td>
<td>1180</td>
<td>870</td>
</tr>
<tr>
<td>( \frac{1}{2} )-12</td>
<td>1330</td>
<td>980</td>
</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.

---

<table>
<thead>
<tr>
<th>Torque Values Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel Bolt Torque Values</td>
</tr>
<tr>
<td>Wheel Bolt Torque Values</td>
</tr>
<tr>
<td>Wheel Bolt Torque Values</td>
</tr>
</tbody>
</table>
## Tire Inflation Chart

<table>
<thead>
<tr>
<th>Wheel Type</th>
<th>Wheel Size</th>
<th>Tire Size</th>
<th>Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauge Wheel</td>
<td>9.5Lx15” 8-Ply</td>
<td>44 psi</td>
<td>303 kPa</td>
</tr>
<tr>
<td>Transport/Center/Wing</td>
<td>9.5Lx15” 8-Ply</td>
<td>44 psi</td>
<td>303 kPa</td>
</tr>
<tr>
<td>Transport/Center</td>
<td>11Lx15” 12-Ply</td>
<td>52 psi</td>
<td>359 kPa</td>
</tr>
<tr>
<td>Transport/Center</td>
<td>11Lx15” Load F</td>
<td>90 psi</td>
<td>621 kPa</td>
</tr>
<tr>
<td>Transport/Center</td>
<td>12.5L x 15” F-Ply</td>
<td>90 psi (621 kPa)</td>
<td></td>
</tr>
</tbody>
</table>

## 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.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Web site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firestone</td>
<td><a href="http://www.firestoneag.com">www.firestoneag.com</a></td>
</tr>
<tr>
<td>Gleason</td>
<td><a href="http://www.gleasonwheel.com">www.gleasonwheel.com</a></td>
</tr>
<tr>
<td>Titan</td>
<td><a href="http://www.titan-intl.com">www.titan-intl.com</a></td>
</tr>
<tr>
<td>Galaxy</td>
<td><a href="http://www.atgtire.com">www.atgtire.com</a></td>
</tr>
<tr>
<td>BKT</td>
<td><a href="http://www.bkt-tire.com">www.bkt-tire.com</a></td>
</tr>
</tbody>
</table>

## Tires Chart

### Tires for Main Frame

<table>
<thead>
<tr>
<th>Model Numbers</th>
<th>Center Frame</th>
<th>Qty</th>
<th>Tire Size</th>
<th>Qty</th>
<th>Tire Size</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>8323 - 8328</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
</tr>
<tr>
<td>8332 - 8336</td>
<td>11L–15 12 ply</td>
<td>4</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
</tr>
<tr>
<td>8539 - 8548</td>
<td>11L–15 F ply</td>
<td>4</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
</tr>
<tr>
<td>8551 – 8560</td>
<td>11L–15 F ply</td>
<td>4</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
<td>9.5L–15 8 ply</td>
<td>4</td>
</tr>
</tbody>
</table>

Models showing 4 tires per section have walking tandems on those sections.

### Gauge Wheel (Caster Style)

<table>
<thead>
<tr>
<th>Model Numbers</th>
<th>Center Frame</th>
<th>Qty</th>
<th>Tire Size</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>8323 - 8328</td>
<td>11L–15 8 ply</td>
<td>2</td>
<td>9.5L–15 8 ply</td>
<td>2</td>
</tr>
<tr>
<td>8332 - 8548</td>
<td>11L–15 8 ply</td>
<td>2</td>
<td>11L–15 8 ply</td>
<td>2</td>
</tr>
<tr>
<td>8551 – 8560</td>
<td>11L–15 12 ply</td>
<td>2</td>
<td>11L–15 8 ply</td>
<td>2</td>
</tr>
</tbody>
</table>
Hydraulic Connectors and Torque

Refer to Figure 34 (a hypothetical fitting)

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

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

JIC - Joint Industry Conference (SAE J514)
4. Note straight threads \( \frac{1}{2} \) cone \( \frac{1}{4} \) flare on “M” fittings (or \( \frac{1}{4} \) flare on “F” fittings).
5. Use no sealants (tape or liquid) on JIC fittings.

ORB - O-Ring Boss (SAE J514)
6. Note straight threads \( \frac{1}{2} \) and elastomer O-Ring \( \frac{1}{2} \). Prior to installation, to prevent abrasion during tightening, lubricate O-Ring with clean hydraulic fluid.
7. Use no sealants (tape or liquid) on ORB fittings.
8. ORB fittings that need orientation, such as the ell depicted, also have a washer \( \frac{1}{2} \) and jam nut \( \frac{1}{2} \) (“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.

---

<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>( \frac{1}{4} )-18 NPT</td>
<td>1.5-3.0 turns past finger tight</td>
<td></td>
</tr>
<tr>
<td>-5</td>
<td>( \frac{1}{2} )-20 JIC</td>
<td>19-20</td>
<td>14-15</td>
</tr>
<tr>
<td>-5</td>
<td>( \frac{1}{2} )-20 ORB w/jam nut</td>
<td>12-16</td>
<td>9-12</td>
</tr>
<tr>
<td>-5</td>
<td>( \frac{1}{2} )-20 ORB straight</td>
<td>19-26</td>
<td>14-19</td>
</tr>
<tr>
<td>-6</td>
<td>( \frac{3}{4} )-18 JIC</td>
<td>24-27</td>
<td>18-20</td>
</tr>
<tr>
<td>-6</td>
<td>( \frac{3}{4} )-18 ORB w/jam nut</td>
<td>16-22</td>
<td>12-16</td>
</tr>
<tr>
<td>-6</td>
<td>( \frac{3}{4} )-18 ORB straight</td>
<td>24-33</td>
<td>18-24</td>
</tr>
<tr>
<td>-8</td>
<td>( \frac{3}{4} )-16 JIC</td>
<td>37-53</td>
<td>27-39</td>
</tr>
<tr>
<td>-8</td>
<td>( \frac{3}{4} )-16 ORB w/jam nut</td>
<td>27-41</td>
<td>20-30</td>
</tr>
<tr>
<td>-8</td>
<td>( \frac{3}{4} )-16 ORB straight</td>
<td>37-58</td>
<td>27-43</td>
</tr>
</tbody>
</table>

---

Figure 34
Hydraulic Connector ID
3-Section Hydraulic Lift Layout
3-Section Hydraulic Fold Layout
5-Section Hydraulic Lift Layout

Black Extend to V1 on Rebound Valve

Black Retract to V2 on Rebound Valve

Clamps

Rebound Valve

Depth Stop Valve

C1 to Depth Stop Valve

Depth Stop Valve to Tee Block, Front Top Hole.

Rod End, Inner Wing Cylinder to Base End, Outer Wing Cylinder

Rod End, Center Frame Cylinder to Base End, Inner Wing Cylinder

Bottom Holes to Rod End Outer

Top Holes Tee Block to Base End Cylinders
5-Section Hydraulic Lift Layout
5-Section Hydraulic Fold Layout
5-Section Hydraulic Fold Layout
8323FCF Machine Layout
8328FCF Machine Layout
8332FCF Machine Layout
8336FCF Machine Layout
8539FCF Machine Layout
8539FCF Machine Layout
8544FCF Machine Layout
8544FCF Machine Layout
8551FCF Machine Layout
8551FCF Machine Layout
8556FCF Machine Layout
8556FCF Machine Layout
8560FCF Machine Layout
8560FCF Machine Layout
8323FCF S4T Spike Drag HR Layout
8328FCF S4T Spike Drag HR Layout
8332FCF S4T Spike Drag HR Layout
8336FCF S4T Spike Drag HR Layout
8539FCF S4T Spike Drag HR Layout
8539FCF S4T Spike Drag HR Layout
8544FCF S4T Spike Drag HR Layout
8544FCF S4T Spike Drag HR Layout
8548FCF S4T Spike Drag HR Layout
8548FCF S4T Spike Drag HR Layout
8551FCF S4T Spike Drag HR Layout
8551FCF S4T Spike Drag HR Layout
8556FCF S4T Spike Drag HR Layout
8560FCF S4T Spike Drag HR Layout
8560FCF S4T Spike Drag HR Layout
8323FCF S5T Spike Drag Layout
8328FCF S5T Spike Drag Layout
8332FCF S5T Spike Drag Layout
8336FCF S5T Spike Drag Layout
8539FCF S5T Spike Drag Layout
8539FCF S5T Spike Drag Layout
8544FCF S5T Spike Drag Layout
8544FCF S5T Spike Drag Layout
8548FCF S5T Spike Drag Layout
8548FCF S5T Spike Drag Layout
8551FCF S5T Spike Drag Layout
8551FCF S5T Spike Drag Layout
8556FCF S5T Spike Drag Layout
8556FCF S5T Spike Drag Layout
8560FCF S5T Spike Drag Layout
8560FCF S5T Spike Drag Layout
8323FCF S3T Spike Drag w/Reel Layout
8328FCF S3T Spike Drag w/Reel Layout
8332FCF S3T Spike Drag w/Reel Layout
8336FCF S3T Spike Drag w/Reel Layout
8539FCF S3T Spike Drag w/Reel Layout
8539FCF S3T Spike Drag w/Reel Layout
8544FCF S3T Spike Drag w/Reel Layout
8544FCF S3T Spike Drag w/Reel Layout
8548FCF S3T Spike Drag w/Reel Layout
8548FCF S3T Spike Drag w/Reel Layout
8551FCF S3T Spike Drag w/Reel Layout
8551FCF S3T Spike Drag w/Reel Layout
8556FCF S3T Spike Drag w/Reel Layout
8560FCF S3T Spike Drag w/Reel Layout
8560FCF S3T Spike Drag w/Reel Layout
8323FCF CH4B Coil Tine Drag Layout
8328FCF CH4B Coil Tine Drag Layout
8332FCF CH4B Coil Tine Drag Layout
8336FCF CH4B Coil Tine Drag Layout
8539FCF CH4B Coil Tine Drag Layout
8539FCF CH4B Coil Tine Drag Layout
8544FCF CH4B Coil Tine Drag Layout
8544FCF CH4B Coil Tine Drag Layout
8548FCF CH4B Coil Tine Drag Layout

42580
8548FCF CH4B Coil Tine Drag Layout
8551FCF CH4B Coil Tine Drag Layout
8551FCF CH4B Coil Tine Drag Layout
8556FCF CH4B Coil Tine Drag Layout
8556FCF CH4B Coil Tine Drag Layout
8560FCF CH4B Coil Tine Drag Layout
8560FCF CH4B Coil Tine Drag Layout
8323FCF CH3A Coil Tine w/ Reel Drag Layout
8328FCF CH3A Coil Tine w/ Reel Drag Layout
8332FCF CH3A Coil Tine w/ Reel Drag Layout
8336FCF CH3A Coil Tine w/ Reel Drag Layout
8539FCF CH3A Coil Tine w/ Reel Drag Layout
8539FCF CH3A Coil Tine w/ Reel Drag Layout
8544FCF CH3A Coil Tine w/ Reel Drag Layout
8544FCF CH3A Coil Tine w/ Reel Drag Layout
8548FCF CH3A Coil Tine w/ Reel Drag Layout
8548FCF CH3A Coil Tine w/ Reel Drag Layout
8551FCF CH3A Coil Tine w/ Reel Drag Layout
8551FCF CH3A Coil Tine w/ Reel Drag Layout
8556FCF CH3A Coil Tine w/ Reel Drag Layout
8556FCF CH3A Coil Tine w/ Reel Drag Layout
8560FCF CH3A Coil Tine w/ Reel Drag Layout
8560FCF CH3A Coil Tine w/ Reel Drag Layout
Index

A
address, Great Plains .............6
adjustment bolt assembly ........11
automatic wing latch ..............15
B
bolt-on stub .......................16
C
CAUTION, defined ................1
center frame assembly ............7
center wing stop ...................10
clothing ..................................2
color code, hose .................25
contact Great Plains .............6
covered models .....................4
cylinder mount plate .............11
cylinders
lift, center frame .................8
5-section outside wing ............16
5-section wing fold ..............15
5-section wing lift ...............14, 16
8323-8328 wing fold ...........11
8323-8328 wing lift ..............11
8332-8336 wing fold ..........12
8332-8336 wing lift ..............12
D
DANGER, defined .................1
decals ...................................2, 28
definitions ............................5
depth stop mounting .............21
depth stop valve ...................22
directions ..............................5
E
electrical hookup ..................7
F
finishing attachments ............28
fire ....................................6
fittings
JIC ...................................24
ORB ...................................22
fold bracket ........................16
fold brackets
front & rear .......................10
fold rocker .........................16
G
gauge wheel
caster style .......................20
jack style .........................19
H
headphones ..........................2
hearing ..............................2
high pressure fluids ............2
hose clamps .......................25
hose handles ......................23, 25
hydraulic connectors ..........31
hydraulic hoses ..................25
hydraulic safety ...................2
I
IMPORTANT!, defined .............5
inflation ............................30
J
jack .....................................10
JIC ....................................31
Joint Industry Conference .....31
J514 ....................................31
K
kPa .....................................30
L
layout
3-section hydraulic fold ........33
3-section hydraulic lift ..........32
5-section hydraulic fold ..36, 37
5-section hydraulic lift ....34, 35
8323FCF CH3A coil tine w/reel drag 118
8323FCF CH4B coil tine dr. 102
8323FCF machine .................38
8323FCF S3T spike dr. w/reel ..86
8323FCF S4T spike Drag HR .....54
8323FCF S5T spike Drag ..........70
8328FCF S3T spike dr. w/reel .87
8328FCF CH3A coil tine w/reel drag 119
8328FCF CH4B coil tine drag ...103
8328FCF machine .................39
8328FCF S4T spike Drag HR .....55
8328FCF S5T spike Drag .......71
8332FCF CH3A coil tine w/reel drag 120
8332FCF CH4B coil tine dr. ..104
8332FCF machine .................40
8332FCF S3T spike dr. w/reel 
88, ..........................89
8332FCF S4T spike Drag HR ....56
8332FCF S5T spike Drag .......72
8336FCF CH3A coil tine w/reel drag 121
8336FCF CH4B coil tine dr. 105
8336FCF machine .................41
8336FCF S4T spike Drag HR .....57
8336FCF S5T spike Drag .......73
8539FCF CH3A coil tine w/reel drag 122, 123
8539FCF CH4B coil tine dr. 106,

107
8539FCF machine .................42
8539FCF machine layout ......43
8539FCF S3T spike dr. w/reel ......90, ..........................91
8539FCF S4T spike Drag HR ..58, 59
8539FCF SST spike Drag ....74, 75
8544FCF CH4B coil tine dr. ....108
8544FCF SST spike Drag ..........76
8544FCF CH3A coil tine w/reel drag 124, 125
8544FCF CH4B coil tine dr. ...109
8544FCF machine .................44, 45
8544FCF S3T spike dr. w/reel ..... 92, ..........................93
8544FCF S4T spike Drag HR .....60, 61, ..........................62
8544FCF SST spike Drag ........77
8548FCF CH3A coil tine dr. ....126, 127
8548FCF CH4B coil tine dr. 110, 111
8548FCF machine .................46, 47
8548FCF S3T spike dr. w/reel ...94
8548FCF S4T spike dr. HR ..63
8548FCF SST spike Drag ....78, 79
8548FCF SST spike dr. w/reel ..95
8551FCF SST spike dr. w/reel .96
8551FCF SST Spike Drag ...81
8551FCF CH3A coil tine w/reel dr. 128, ..........................129
8551FCF CH4B coil tine dr. 112, 113
8551FCF machine .................48, 49
8551FCF S3T spike dr. w/reel ..97
8551FCF S4T spike dr. HR ...64,
65, ..........................66
8551FCF SST spike Drag .......80
8556FCF CH3A coil tine w/reel dr. 130, ..........................131
8556FCF CH4B coil tine dr. 114,
115, ..........................116
8556FCF machine .................50, 51
8556FCF S3T spike dr. w/reel ....98, ..........................99
8556FCF S4T spike dr. HR ......67
8556FCF SST spike Drag ....82, 83
8560FCF CH3A coil tine w/reel drag 132, 133
8560FCF CH4B coil tine dr. ...117
8560FCF machine .................52, 53
8560FCF S3T spike dr. w/reel ..... 100, ..........................101

2017-07-17
8560FCF S4T spike drag HR ... 68, 69
8560FCF S5T spike Drag ... 84, 85
leaks .............................................2
left-hand, defined ..............................5
leveling links ................................ 12, 14
lifters .............................................1
light harness
  enhance .........................................27
  wishbone ......................................27
  30' lead .......................................27
lights .............................................2
  amber lamp ...................................27
  red lamp .......................................27
manual pack tube ..............................10
medical assistance ............................2, 25
National Pipe Thread ..........................31
Note, defined ..................................5
NPT ..................................................31
O
ORB ..................................................31
orientation rose ...............................5
O-Ring Boss .....................................31
outside wing brace ............................16
psi ..................................................30
purging
  fold system ...................................26
  lift system ....................................26
rear tow hitch ..................................27
rebound valve ..................................22
riders .............................................2
right-hand, defined .............................5
rose, orientation ..............................5
SAE J514 ..........................................31
safety chain ....................................10
safety chain support ...........................10
safety symbol ..................................1
shank mount
  k-flex .........................................20
  magnum .......................................21
shutdown .........................................3
spindle/hub assembly ...........................18, 19
spring hose loop holder ........................10
storage ..........................................3
storage pod .....................................6
stub 5" ...........................................12
symbol, safety ..................................1
t bracket .........................................16
tables
document family ..............................4
  fittings torque ...............................31
  hose color code ..............................25
  models covered .............................4
  torque values ...............................29
Tire Chart .......................................30
tire inflation ..................................30
tires ............................................29
  torque tube ..................................3
  torque value chart ..........................8
  torque values chart (wheel bolts) .......29
U
URLs, tires ......................................30
W
walking beam assembly .....................18, 19
WARNING, defined .............................1
warranty .........................................30
wheel arm ......................................12, 14, 16
wing brace ...................................12, 14, 15
wing extension ..................................12
wing fold bracket ..............................11, 12, 15
wing fold stop pin ................................10
wing hinge ......................................16
wing lock mount ................................15
wing pull ........................................12, 14
wing truss .......................................12, 14
wings
  5-Section ......................................14
  8323 & 8328 ...................................11
  8332 & 8336 ...................................12
www ...............................................30
Numerics
560-484M, manual ..............................4
560-484P, manual ..............................4
560-484Q-ENG, manual ........................4
560-484Q, manual ..............................4
8R19.5 LT .......................................30