Pre-Delivery Manual
2S-2600 and 2S-2600F
26-Foot 2-Section Folding Drill

Read the operator’s manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it.

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

**Important Safety Information**..................................................1
**Introduction** .............................................................................4
  - Document Family ..................................................................4
  - Description of Unit ................................................................4
  - Intended Usage ....................................................................4
  - Models Covered ....................................................................4
  - Using This Manual ................................................................4
  - Definitions ...........................................................................4
**Assembly** ...............................................................................5
  - Unloading Truck ..................................................................5
  - Tools Required .....................................................................5
  - Pre-Assembly Checklist ......................................................5
  - Install Press Wheels ............................................................6
  - Install Walkboards ...............................................................6
    - Install Ladder Mounts ......................................................7
    - Install Ladders ...............................................................8
  - Apply Reflectors and Decals ................................................8
    - Walkboard Inside End Reflectors ....................................9
    - Slow Moving Vehicle (SMV) Reflector ............................9
    - Ladder Reflectors and Decals ..........................................10
  - Handles and Lights ..............................................................10
  - Install Box Handles ............................................................10
  - Install Lights ......................................................................11
  - Other Assembly Items .........................................................11
    - Two Outlet Kit ...............................................................11
    - Point Row Option ..........................................................12
  - Post Assembly Checklist ....................................................12
**Setup** ...................................................................................13
  - Hitching ............................................................................13
  - Electrical Connections .......................................................15
  - Hydraulic Hose Hookup ......................................................16
  - Hydraulic Operations .........................................................16
  - Bleeding Hydraulics ............................................................17
  - Bleeding Opener Lift Hydraulics .........................................18
  - Bleeding Fold Hydraulics .....................................................19
  - Bleeding Transport Lift Hydraulics .......................................20
  - Leveling the Drill ...............................................................21
    - Opener Frames Level .......................................................21
    - Link Tube ........................................................................21
    - Toolbar Height ...............................................................22
    - Wing Box Alignment .......................................................23
  - Install Final Accessories ....................................................24
    - Acremeter Installation ......................................................24
    - Open Center Conversion ..................................................24
    - Markers ..........................................................................25
    - Shaft Monitor .................................................................26
    - Scraper Installation ........................................................26
**Appendix** ..............................................................................27
  - Specifications and Capacities .............................................27
  - Tire Inflation Chart .............................................................27
  - Torque Values Chart ..........................................................28
  - Hydraulic Diagrams ...........................................................29
    - Transport Lift .................................................................29
    - Fold ..............................................................................29
    - Dual Markers .................................................................30
    - Single Marker ...............................................................30
    - Two Outlet Conversion ...................................................31
    - Opener Lift: Standard Closed-Center ............................32
    - Opener Lift: Optional Open-Center ..................................33
    - Point-Row .................................................................34

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Important Safety Information

For your safety, thoroughly read Important Safety Information in the operator’s manuals before proceeding.

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.

Transport Machinery Safely

Maximum transport speed for drill is 20 mph (32 kph). Some rough terrains require a slower speed. Sudden braking can cause a towed load to swerve and upset.

▲ Do not exceed 20 mph (32 kph). Never travel at a speed which does not allow adequate control of steering and stopping. Reduce speed if towed load is not equipped with brakes.

▲ Comply with national, regional and local laws.

▲ Follow your tractor manual recommendations for maximum hitch loads. Insufficient weight on tractor steering wheels will result in loss of control.

▲ Carry reflectors or flags to mark drill in case of breakdown on the road.

▲ Keep clear of overhead power lines and other obstructions when transporting. Refer to transport dimensions under “Specifications and Capacities” on page 27.
Check for Overhead Lines
Drill markers contacting overhead electrical lines can introduce lethal voltage levels on drill and tractor frames. A person touching almost any metal part can complete the circuit to ground, resulting in serious injury or death.

▲ Avoid overhead lines during seed loading/unloading and marker operations.

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, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

Practice Safe Maintenance

▲ Understand procedure before doing work. Use proper tools and equipment. Refer to this manual for additional information.
▲ Work in a clean, dry area.
▲ Put tractor in park, turn off engine, and remove key before performing maintenance.
▲ Make sure all moving parts have stopped and all system pressure is relieved.
▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on drill.
▲ Inspect all parts. Make sure parts are in good condition and installed properly.
▲ Remove buildup of grease, oil or debris.
▲ Remove all tools and unused parts from drill before operation.

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.
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.

Safety Decals

Safety Reflectors and Decals

Your implement comes equipped with all lights, safety reflectors and decals in place. They were designed to help you safely operate your implement.

▲ Read and follow decal directions.
▲ Keep lights in operating condition.
▲ Keep all safety decals clean and legible.
▲ Replace all damaged or missing decals. Order new decals from your Great Plains dealer. Refer to this section for proper decal placement.
▲ When ordering new parts or components, also request corresponding safety decals.

To install new decals:
1. Clean the area on which the decal is to be placed.
2. Peel backing from decal. Press firmly on surface, being careful not to cause air bubbles under decal.
Great Plains Manufacturing wants you to be satisfied with any new machine delivered by the Great Plains Trucking network. To ease the assembly task and produce a properly working machine, read this entire manual before assembling or setting up new equipment.

**Document Family**

- 195-200P 2S-2600 Parts Manual
- 195-325B Seed Rate Manual

**Description of Unit**

The 2S-2600 is a towed seeding implement. This two-section drill has a working width of 26 feet and folds to a transport width of 15 feet. The drill has straight-arm, double-disk openers. The opener disks make a seed bed, and seed tubes mounted between the disks place seed in the furrow. Press wheels following the opener disks close the furrow and gauge opener seeding depth. A T-handle on the opener body is for seeding-depth adjustments. Seeding rates are adjustable with the seed-rate-adjustment handle and the sprocket box.

The 2S-2600 features active hydraulic down pressure on the opener frames. When used on a tractor with closed-center hydraulics, constant down pressure ensures even opener penetration in uneven ground. Hydraulic down pressure is adjustable at a single point.

The 2S-2600F allows you to plant seed and apply fertilizer in the same field pass. Dividers partition the drill boxes into seed and fertilizer compartments. The openers apply dry fertilizer to the seed trench before the furrow is closed. You also can use both compartments for seed.

**Intended Usage**

Use this implement to seed production-agriculture crops in conventional-tillage applications. Do not modify the drill for use with attachments other than Great Plains options and accessories specified for use with the 2S-2600 Drill.

**Models Covered**

- 2S-2600-3210 32-row, 10 inch (25.4 cm)
- 2S-2600-4275 42-row, 7.5 inch (19 cm)
- 2S-2600-5206 52-row, 6 inch (15 cm)
- 2S-2600F-3210 32-row, 10 inch (25.4 cm)
- 2S-2600F-4275 42-row, 7.5 inch (19 cm)
- 2S-2600F-5206 52-row, 6 inch (15 cm)

**Using This Manual**

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

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

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

**Definitions**

The following terms are used throughout this manual.

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.

---

**NOTICE**

Paragraphs in this format present a crucial point of information related to the current topic. For safe and correct operation, read and follow the directions provided before continuing.

---

**Further Assistance**

For additional help with understanding these assembly instructions or for any other assembly or setup related questions, please contact our service department at the following address:

**Great Plains Service Department**

1525 E. North St.
P.O. Box 5060
Salina, KS 67402-5060

Or call us at (800) 270-9302 to speak over the phone with a service representative.

Copies of this machine’s operator manual are available by mail or online. Please visit [www.greatplainsag.com](http://www.greatplainsag.com) and follow the product link for information on your machine.
Assembly

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

Unloading Truck

Before unloading the drill from the truck, connect all opener springs (1) to the opener frames (2).

NOTICE

Opener Damage Risk:
To prevent damage to openers, make sure all openers are connected before unloading the drill.

Unload all equipment before beginning assembly.

Tools Required

- Forklift, loader or overhead hoist with a capacity of:
  at least 13,000 pounds (5900 kg)
- A tractor of sufficient size and horsepower with at least two remote hydraulic circuits. Refer to “Specifications and Capacities” in the operator manual.
- General hand tools
- Jack stands or blocks and safety chain

NOTE:
You will need about 4.5 gallons of hydraulic oil to refill the tractor hydraulic reservoir after initial bleeding and cycling of the hydraulic systems.

Pre-Assembly Checklist

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

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

6. Have a copy of the implement Parts Manual on hand. If unsure of proper placement or use of any part or fastener, refer to the parts manual.
7. Check that all working parts are moving freely, bolts are tight, and cotter pins are spread.

8. Check that all factory-applied safety labels and reflectors are correctly located and legible. Replace if improperly located or damaged. Refer to Safety Decals, in the “Important Safety Information” section of the implement Operator’s Manual.
9. Inflate tires to recommended pressure as listed on the “Tire Inflation Chart” on page 27.
10. Tighten wheel bolts as specified on “Torque Values Chart” on page 28.
Install Press Wheels

Refer to Figure 2.

1. Remove 1/2 x 3 3/4-inch flange bolt (1) and flange lock nut (4) from each opener body.
2. Leave pivot bushing (2) in place and bolt press-wheel arm (3) to opener with 1/2 x 3 3/4-inch flange bolt (1) and lock nut (4). Repeat for all openers.
3. Remove 5/8-inch bolt (5) from each press-wheel arm (3) and use bolts to assemble press wheels (6) to press-wheel arms.

Install Walkboards

Refer to Figure 3

1. Remove 1/2-13 x 1 1/4-inch bolts (1) from end panels.
2. Bolt each walkboard (2) to box support channels (3) with 1/2-13 x 1 1/4 inch bolts, lock washer, and hex nuts.
Install Ladder Mounts

Refer to Figure 4 and Figure 5.

Location of the ladder mounts depends on whether the drill has the small seeds option.

- For drills without the small seeds option, refer to Figure 4 as a reference.
- For drills with the small seeds option, refer to Figure 5 as a reference.

Top ladder mount weldments are provided in left-side and right-side versions and are not interchangeable. All other parts may be used on either end.

Start with the left drill box:

3. Select one:
   (13) 195-063H LADDER MOUNT TOP WELDMENT LH, and four:
   (22) 802-030C RHSNB 7/16-14X1 3/4 GR5.
   Position top left-hand ladder mount (13) over the appropriate four walkboard holes (4).
   Insert the four bolts (22) to loosely hold the top ladder mount in place on the walkboard.

4. Select one:
   (15) 195-340D LADDER MOUNT BOTTOM PLATE and four sets of:
   (35) 804-014C WASHER LOCK 7/16 PLT
   (27) 803-015C NUT HEX 7/16-14 PLT
   Position the bottom ladder mount plate (15) under the walkboard and inside the top ladder mount. Loosely hold it in place with the washers (35) and nuts (27).

5. Select two sets of:
   (21) 802-017C HHCS 3/8-16X1 GR5
   (34) 804-013C WASHER LOCK SPRING 3/8 PLT
   (28) 803-068C NUT HEX FLANGE 3/8-16 PLT
   Insert the bolts (21) through the side holes in both the top mount and bottom plate, and secure with lock washers (34) and flange nuts (28).
   Tighten the four nuts (27), securing the top mount to the bottom plate.

6. Select one:
   (14) 195-064H LADDER MOUNT TOP WELDMENT RH in place of left-hand mount. Repeat step 3 through step 5 for right wing section.
Install Ladders

The ladders mount between the lugs (5) of the upper mounts. Flat washers are placed between ladder side frame and the lugs. Hex head bolts install from the inside, to minimize obstructions to foot movement during climbing.

Refer to Figure 6 (which shows only the right side assembly, on a drill without Small Seeds)

Start with the right walkboard ladder:

7. Select one:
   (12) 195-062H LADDER WELDMENT 3-STEP NARROW
   Lay the ladder (12) on the walkboard with the swing holes up and near the top mount lug holes. Align the holes in the ladder in between the holes in the lugs.

8. Select two sets of:
   (23) 802-079C HHCS 3/8-16X1 1/4 GR5
   (36) 804-016C WASHER FLAT 1/2 SAE PLT
   (31) 803-209C NUT FLANGE LOCK 3/8-16 PLT
   Insert a bolt (23) through (in the following order):
   a. the ladder (12) side plate,
   b. a washer (36), and
   c. the mounting lug (5).
   Secure with lock nut (31).

9. Repeat step 7 and step 8 for left walkboard ladder.

10. Swing both ladders down to check operation and position for decal placement.

Apply Reflectors and Decals

To prevent scuffing in shipment, walkboard reflectors and decals are shipped separate, and are applied after walkboard installation.

To install new reflectors and decals:

- Clean and dry the area where the reflector or decal is to be placed.
- Peel backing from reflector or decal. Press firmly on surface, being careful not to cause air bubbles under reflector or decal.
Walkboard Inside End Reflectors

*Refer to Figure 7*

Starting with the right walkboard, inside end:

1. Select two:
   - (42) 838-266C DECAL REFLECTOR RED 2X9
   - Place the red reflector (42) on the end face of the walkboard mounting bracket. Align the outside end of the reflector with the top corner. This reflector marks the left and right extents of the drill in transport (folded).
   - Place another red reflector toward the front of the seed box (1) as shown.

2. Select one:
   - (43) 838-267C DECAL REFLECTOR DAYTIME 2X9
   - Place the daytime reflector (43) on the end face of the walkboard mounting bracket just below the red reflector.
   - Place another daytime reflector below the red reflector at the front end of the seed box.

3. Select one:
   - (16) 195-561D WALKBOARD REFLECTOR MNT SINGLE
   - (41) 838-265C DECAL REFLECTOR AMBER 2X9
   - and two sets of:
     - (25) 802-633C RHSNB 1/4-20X5/8 PLT
     - (26) 803-006C NUT HEX 1/4-20 PLT
   - Install the reflector mount (16) using two bolts (25) and hex nuts (26) on the rear face of the walkboard.
   - Place an amber reflector (41) on the reflector mount.

4. Repeat the procedure for the left walkboard.

Slow Moving Vehicle (SMV) Reflector

*Refer to Figure 8.*

5. Select one:
   - (17) 195-562D 2600 SMV MOUNTING BRKT
   - (37) 806-132C U-BOLT 3/8-16 X 3 1/32 X 2 3/4
   - (29) 803-078C NUT LOCK 3/8-16 NYLON INSERT
   - (38) 818-055C DECAL SLOW MOVING-GALV. BACKED
   - and two sets of:
     - (19) 801-018C SCREW RD HD 1/4-20 X 5/8
     - (33) 804-007C WASHER FLAT 1/4 SAE PLT
     - (32) 804-006C WASHER LOCK SPRING 1/4 PLT
     - (26) 803-006C NUT HEX 1/4-20 PLT
   - At the rear center of the mainframe, install the SMV mounting bracket (17) to the upper bar (2). Secure with the U-bolt (37) and lock nuts (29).
   - Attach the slow moving vehicle reflector (38) to the bracket with two screws (19), flat washers (33), lock washers (32), and hex nuts (26).
Ladder Reflectors and Decals

Refer to Figure 9

Starting on the right walkboard:

6. Select one:
   (16) 195-561D WALKBOARD REFLECTOR MNT SINGLE
   and two of:
   (41) 838-265C DECAL REFLECTOR AMBER 2X9
   (25) 802-633C RHSNB 1/4-20X5/8 PLT
   (26) 803-006C NUT HEX 1/4-20 PLT
   (40) 838-102C DECAL WARNING FALLING HAZARD (if separate)

   Place an amber reflector (41) on the outside face of the ladder mount, between the ladder side plates (2) (so it will not be damaged by ladder operation).

   Install a reflector mount (16) with two bolts (25) and hex nuts (26) on the rear face of the walkboard beside the ladder mount.

   Place an amber reflector (41) on the reflector mount.

   If the Warning decals (40) are separately provided, place in front of and near the top of the ladder, where they are visible to climbers.

7. Repeat the procedure for the left walkboard.

Handles and Lights

Install Box Handles

Refer to Figure 10

On outside ends of drill boxes, by the ladders, bolt handles to boxes. Secure with 1/2-13 x 1 1/2 inch bolts and lock nuts.
Install Lights

Refer to Figure 11

The red lights will already be install on the drill at the front of each inside end of the drill boxes.

Starting on the right drill box:

1. Select one:
   - (18) 195-563D 2600 SIDE LIGHT BRKT
   - (39) 833-697C LIGHT, AMBER LAMP LED

   and two sets of:
   - (24) 802-203C HFSS 1/2-13X1 1/2 GR5
   - (30) 803-169C NUT HEX FLG LOCK 1/2-13 PLT
   - (20) 801-081C SCREW HEX SELF TAP 1/4-20X3/4

   At the rear of the inside end of the drill box, install an amber light bracket (18) with two bolts (24) and lock nuts (30).

   Install an amber light (39) to the bracket using two screws (20).

2. Plug the amber light lead into the drill harness.

3. Repeat the procedure for the left drill box.

Other Assembly Items

There are a few additional standard components, and several possible optional items, that are not factory installed. Some of these, which follow in this chapter, need to be installed prior to first hydraulic hookup. Others are installed after hookup, bleeding and leveling. See “Install Final Accessories” on page 24.

Two Outlet Kit

If the two-outlet hydraulic kit was ordered, install it now (before the markers, as this kit contains items needed when both 2-outlet and markers are installed).

Installation instructions are provided in a separate manual with the two-outlet hydraulic kit.
Point Row Option

If the point row option was ordered with the drill, the hydraulics and drill electrical lead are factory-installed.

If the customer’s primary tractor is available, install the control module in the tractor cable and make the electrical connection. Consult the point row installation manual provided.

If the primary tractor is not available, temporarily connect the control module so that openers can be operated during Setup.

Post Assembly Checklist

- Check that all working parts are moving freely, bolts are tight, and cotter pins are spread.
- Check for proper tension and alignment on all drive chains.
- Check that all safety decals and reflectors are located correctly and are legible. Replace if improperly located or damaged. Refer to “Safety Decals” in the Operator’s manual.
- Inflate tires to recommended pressures as listed on the “Tire Inflation Chart” on page 27. Tighten wheel bolts as specified on “Torque Values Chart” on page 28.
Setup

The Assembly steps of the preceding chapter must be completed prior to setup.

Setup steps consist of:
1. Hitch to suitable tractor.
2. Connect hydraulics.
4. Level drill.
5. Install any accessories and options not factory-installed, which can or must be deferred until after first unfolding.

Hitching

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

⚠️ WARNING
This drill can have positive and negative tongue weight, which can work the hitch pin loose during transport. To avoid serious injury or death due to a road accident, always use a clevis hitch or clevis drawbar with a locking-style hitch pin.

Choose a drill-hitch option that is compatible with your tractor drawbar.

Refer to Figure 14

The 2S-2600 has three hitch options:
- a clevis hitch,
- a small-hole, single-strap hitch or;
- a large-hole, single-strap hitch.

Use the clevis hitch with tractors that have single-tang drawbars. Use the single-strap hitch for tractors with clevis drawbars. Always use a locking-style hitch pin sized to match the holes in the hitch and drawbar.
Refer to Figure 15 and Figure 16

To adjust the drill hitch to match your tractor-drawbar height, mount tongue jack on side of tongue. Use jack to raise drill tongue so lowest hitch hole is 18 inches (45.7cm) above ground level with drill lowered to FIELD position.

Refer to Figure 16

Bolt drill hitch onto drill tongue to match your tractor-drawbar height. You can turn the hitch over for a total of six different hitch heights. Always have two (2) bolts in two holes of both tongue and hitch.

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

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

Refer to Figure 17

Use crank to raise jack foot. Remove pin and jack. Store jack on top of tongue.
Electrical Connections

Refer to Figure 18
Plug drill electrical lead into tractor seven-pin connector.

Refer to Figure 19
If the drill is equipped with the point row option, mate the connector for the cab control.
Hydraulic Hose Hookup

**WARNING**

Only trained personnel should work on system hydraulics!

Escaping fluid under pressure can have sufficient pressure to 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 leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene will result.

Refer to Figure 20

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

**Current Style Color Coded Hose Handles**

<table>
<thead>
<tr>
<th>Color</th>
<th>Hydraulic Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Opener Lift Cylinders</td>
</tr>
<tr>
<td>Blue</td>
<td>Transport Lift Cylinders</td>
</tr>
<tr>
<td>Gray</td>
<td>Fold Cylinders</td>
</tr>
<tr>
<td>Green</td>
<td>Marker Cylinders</td>
</tr>
</tbody>
</table>

To distinguish hoses on the same hydraulic circuit, refer to the symbol molded into the handle grip. Hoses with an extended-cylinder symbol feed cylinder base ends. Hoses with a retracted-cylinder symbol feed cylinder rod ends.

1. Connect opener-lift hoses to circuit designated for hydraulic-motor control.
2. Connect transport-lift hoses to tractor remote valve.
3. Connect fold hoses to tractor remote valve.
4. Connect marker hoses to tractor remote valve.

**NOTE:**

If your tractor has only two remote valves, you must install a double-selector valve to combine the transport-lift and opener-lift circuits. See “Two Outlet Kit” on page 11.

Hydraulic Operations

Consult the Operator’s Manual for unfolding and lowering instructions. Pay strict attention to the step ordering.

**NOTICE**

Both Opener and Transport Lift circuits must be raised and locked up before folding, or implement damage will result.
Bleeding Hydraulics

To function properly, the hydraulics must be free of air. If hydraulics have not been bled, they will operate with jerky, uneven motions and could cause wings to drop rapidly during folding or unfolding. If hydraulics were not bled during initial implement setup or if you replace a part in hydraulic system during the life of the drill, complete the following procedures.

⚠️ WARNING ⚠️

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, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

⚠️ WARNING ⚠️

Raising openers on unfolded, unhitched drill will cause drill tongue to rise suddenly, which could cause serious injury or death. Be certain that drill is hitched securely to your tractor drawbar and the safety chain is securely attached to tractor before raising openers and unfolding drill.

NOTICE

Bleed only at:
- JIC (Joint Industry Conference, 37° flare)
- NPT (National Pipe Thread, tapered thread) fittings.
Never bleed at:
- ORB (O-Ring Boss)
- QD (Quick Disconnect) fittings.

Check hydraulic fluid level in tractor reservoir and fill to proper level. Add fluid to system as needed.

NOTE:
System capacity for entire drill is about 4 1/2 U.S. gallons (17 liters).
Bleeding Opener Lift Hydraulics

Refer to Figure 23

1. Review warnings, bleeding notes and system information on page 17.

2. Make sure opener frames are locked up in ROAD position. Refer to Opener Lock Up in Operator’s Manual.

3. Turn knob on both pressure-control valves (1) completely counterclockwise, then turn valves clockwise far enough to build up 1000 psi (about three turns).

4. Turn knob on bypass valve (2) completely clockwise for no oil flow.

5. Loosen two hose-end JIC fittings (3) on the opener-lift circuit where these center two hoses tee at the middle of the mainframe.

6. Slowly supply oil to top side of pressure-control valves until oil begins to appear at a loosened hose fitting. As oil begins to appear at a fitting, tighten that fitting.

7. Slowly supply oil to bottom side of pressure-control valves until oil begins to appear at remaining loosened hose fitting. As oil begins to appear at the fitting, tighten fitting. Continue to supply oil to bottom side of pressure-control valves until all openers are raised completely.

8. Move opener transport locks to FIELD position and cycle openers up and down ten times. Each time you lower openers, hold tractor remote lever until opener circuit builds up to pressure set at control valves.

9. After cycling openers, return opener transport locks to ROAD position, and lock openers up.

Figure 21
Bleeding Opener Lift Hydraulics
Bleeding Fold Hydraulics

Refer to Figure 21

1. Review warnings, bleeding notes and system information on page 17.

2. With drill unfolded and fold cylinders completely extended, disconnect rod end pins and swing the cylinders so they will not contact anything when extended.

3. Loosen rod end hose JIC fitting (1) at elbow on left fold cylinder.

4. Slowly supply oil to rod end of fold cylinders (line noted as "Pressure 1st") until oil appears at loosened hose fitting. Tighten fitting and completely retract fold cylinders.

5. With cylinders completely retracted, loosen base end hose JIC fitting (2) at elbow on left fold cylinder.

6. Slowly supply oil to base end of fold cylinders (line noted as "Pressure 2nd") until oil appears at loosened hose fitting. Tighten base end hose fitting and cycle fold cylinders in and out several times.

7. Re-pin cylinder rod clevis.

Figure 22
Bleeding Fold Hydraulics
Bleeding Transport Lift Hydraulics

Refer to Figure 23

1. Review warnings, bleeding notes and system information on page 17.

2. With drill lowered into field position, loosen base-end-hose fitting at elbow on right-hand transport-lift cylinder (1).

3. Slowly supply oil to base end of transport-lift cylinders until oil appears at the loosened hose fitting. As oil appears at fitting, tighten that fitting.

4. Completely extend transport-lift cylinders and immediately lock cylinders up by flipping up cylinder lock channels on both transport-lift cylinders. See “Raising Drill (Transport Lift)” in Operator’s Manual.

5. When cylinder lock channels are in place, loosen rod-end-hose fitting at elbow on left transport-lift cylinder (2).

6. Slowly supply oil to rod end of transport-lift cylinders until oil appears at loosened hose fitting. As oil begins to appear at fitting, tighten that fitting.

7. Extend transport-lift cylinders and remove cylinder lock channels. Completely cycle transport-lift hydraulics several times.

---

**WARNING**

The hydraulics could fail, causing the openers to fall and crush you. To prevent serious injury or death, always secure cylinder lock channels over extended transport-lift cylinders before working under openers.
Leveling the Drill

To perform leveling, the drill must be hitched to a tractor, with at least the hydraulics connected.

**WARNING**

Raising openers on unfolded, unhitched drill will cause drill tongue to rise suddenly, which could cause serious injury or death. Be certain that drill is hitched securely to your tractor drawbar and the safety chain is securely attached to tractor before raising openers and unfolding drill.

Opener Frames Level

*Refer to Figure 24*

Check that opener frames are level across drill. When openers are fully raised, top of opener mounts (1) should clear bottom of drill frame tube by at least \( \frac{1}{2} \) in (1.3cm).

To adjust opener frames so all openers have same clearance, loosen jam nut (2) on opener-lift cylinders and turn adjustment nut (3). When openers are at correct height, retighten jam nut. Repeat at each opener-lift cylinder if necessary.

Link Tube

*Refer to Figure 25*

The link tube controls folding height of outer end of drill box. If a drill box does not catch in folding latch when folding, adjust link length to lower or raise end of box.

1. Unfold and lower drill.
2. Pull upper pin (1) from link clevis (3).
3. Unlock jam nut (2).
4. Thread clevis in or out to lengthen or shorten link.
5. Replace pin and tighten nut.
Toolbar Height

Refer to Figure 26

Toolbar height (1) above ground level (2) is factory set and normally does not require adjustment. If you tear down the drill for repair, or if the tool bar is visibly not level, spacer washers (3) on vertical pivot pins allow for a small amount of tool bar-height adjustment.

To check tool bar height, park drill on a level surface, and check for correct tire inflation. Measure from ground to horizontal pivot pin (1). If dimension on either side of drill varies more than 1/4 inch (6.4mm), adjust tool bar height.

To adjust tool bar height, reposition spacer washers (3). First lower openers and set enough opener down pressure to help balance frame. Raise tool bar by removing spacer washers from top of the vertical pivot and placing them on bottom side of pivot. Lower tool bar by removing spacer washers from bottom of vertical pivot and placing them on top of pivot.
Wing Box Alignment

1. Place a block ahead of the wing gauge wheels.

Refer to Figure 27

2. Pull forward against blocks to rock wing frames back. Pull forward until stop bolts (1) are firmly against toolbars.

Refer to Figure 28

3. Check for proper alignment by running a string line across back of drill toward outer ends of wings.

4. For proper alignment, outside ends of boxes (A) should be about 1in (2.5cm) ahead of inside ends (B).

5. To adjust box alignment, shorten or lengthen stop bolts (1) to change the contact point with the toolbars. Loosen jam nut and thread stop bolt in or out. Adjust stop bolts in or out until outside ends of boxes are 1in (2.5cm) ahead of inside ends.

6. Tighten jam nut.
Install Final Accessories

Acremeter Installation

Refer to Figure 29

The acremeter (1) is supplied from the factory in a separate carton, to minimize risk of shipping damage. It is installed on the left end of the left drive shaft.

Screw the threaded end of the meter into the \( \frac{1}{2} \)-20 tapped hole (2) in the left end of center main drive shaft.

Tighten the threaded end only enough to prevent it from working loose from normal vibration. In use, there is no torque or tension that might tend to unscrew it.

The acremeter counts shaft rotations whenever the shaft is rotating - normally this is only with the drill unfolded, the opener sub-frame lowered, and the drill in motion. The meter is geared to display rotations as acres, when using factory-specified tires and inflations.

Tally field acres by noting the meter reading prior to, and after planting. Subtract the starting from the ending readings.

Open Center Conversion

If the drill was shipped with an Open Center kit, it is not factory-installed. Install it now. An installation manual is provided.
Markers
Markers are not factory-installed, due to vertical clearance requirements during shipment. An installation manual is provided, but does not include details for installation where a Two-Outlet Kit is also present. If a Two-Outlet kit is installed, observe these tips:

- The Marker/Fold valve mounts on the second valve bracket.
- Use the longer bolts in the Two-Outlet kit to stack the hose clamps. Place the clamp hold-down on the top clamp.
- For consistency of operation, be sure to plumb the Fold circuit to the forward ports of the Marker/Fold valve, and plumb the Marker circuits to the rear. Handle forward is then Transport operations (Fold), and handle back is then Field operations (Marker).

Consult the drill Operator’s manual for setting initial marker extension length, and the latest information on chain length and stop bolt adjustment.

Bleeding Marker Hydraulics

**CAUTION**

You may be injured if hit by a folding or unfolding marker. Markers may fall quickly and unexpectedly if the hydraulics fail. Never allow anyone near the drill when folding or unfolding markers.

1. Review warnings, bleeding notes and system information on page 17.

**Refer to Figure 32**

2. With markers unfolded in field position, crack hydraulic-hose JIC fittings (1) at base and rod ends of each marker cylinder.

3. With tractor at idle speed, activate tractor hydraulic valve forward until oil appears at a fitting. When oil begins to seep out around a fitting, tighten that fitting. Reverse the tractor hydraulic valve until oil appears at opposite hose fitting. Tighten that fitting.

4. If you have dual markers, activate tractor hydraulic valve forward again until oil seeps out around a fitting on the other marker cylinder. Tighten that fitting. Reverse tractor hydraulic valve until oil seeps out around remaining hose fitting and tighten it.

5. Fold and unfold markers slowly to work out all air.

**NOTE:**

Use caution when folding and unfolding markers for the first time, checking for pinching and kinking of hoses.
Shaft Monitor

*Refer to Figure 33*

If the drill was ordered with the optional shaft monitor, install the sensors and leads per the included installation manual.

If the primary tractor is available, also install the display console in the cab.

---

**Scraper Installation**

1. Remove one or both disk blades to gain safe access to the mount. Note the position of bushings and spacers for correct re-assembly.

*Refer to Figure 34*

2. Position the inside scraper mount (1) to the rear of the seed firmer mount (2) on the opener weldment. Secure it with two $3/8\times16$ x 1 inch hex head bolts, lock washers and nuts. Insert the bolts from the front.

3. Position the scraper blade (3) below and behind the inside scraper mount (1), with the notch on top to machine right. Secure it loosely with one $3/8\times16$ x 1 inch round head square neck bolt, flat washer, lock washer and nut.

4. Re-mount the removed disk blade.

---

*Figure 33*

Shaft Monitor

*Figure 34*

Scraper Installation
Appendix

Specifications and Capacities

<table>
<thead>
<tr>
<th></th>
<th>2S-2600-5206</th>
<th>2S-2600-4275</th>
<th>2S-2600-3210</th>
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<tr>
<td>Row Count</td>
<td>52</td>
<td>42</td>
<td>32</td>
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<tr>
<td>Row Spacing</td>
<td>6 in (15.4 cm)</td>
<td>7.5 in (19.1 cm)</td>
<td>10 in (25.4 cm)</td>
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<tr>
<td>Main Seed Box Capacity</td>
<td></td>
<td>86.4 bushels (3045 liters)</td>
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<tr>
<td>Tractor Requirements</td>
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<td>110 hp minimum</td>
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<tr>
<td>Weight, standard model(^a)</td>
<td>10423 lbs (4728 kg)</td>
<td>10404 lbs (4719 kg)</td>
<td>10386 lbs (4711 kg)</td>
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<tr>
<td>Weight, standard F model(^a)</td>
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<td>11255 lbs (5105 kg)</td>
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<tr>
<td>Down-Force per Row</td>
<td>130-217 lbs (59-98 kg)</td>
<td>135-266 lbs (61-121 kg)</td>
<td>144-318 lbs (65-144 kg)</td>
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<tr>
<td>Opener Travel</td>
<td>8 in (20cm)</td>
<td></td>
<td></td>
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<tr>
<td>Hydraulic Circuits</td>
<td>3 circuits required, load-sensitive or closed-center 15 to 30 gpm at 2300 psi Optional kits are available for two-circuit, and open center.</td>
<td></td>
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<tr>
<td>Hitch Load</td>
<td>3700 lbs (1678 kg) folded with seed loaded Caution: negative tongue weight when raised and unfolded</td>
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<tr>
<td>Transport Width</td>
<td>15 feet (4.57m)</td>
<td></td>
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<tr>
<td>Operating Width</td>
<td>26 ft 2 in (7.97m)</td>
<td>26 ft 4 in (8.02m)</td>
<td>26 ft 10 (8.18m)</td>
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<tr>
<td>Swath (Span plus one row space)</td>
<td>314.5 in (812.8cm)</td>
<td>316.0 in (802.6cm)</td>
<td>320 in (812.8 cm)</td>
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<tr>
<td>Height</td>
<td>8 feet 1.5 inches (248 cm)</td>
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<tr>
<td>Field Length</td>
<td>27 ft 6 in (8.38m)</td>
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<tr>
<td>Transport Length</td>
<td>22 ft 7 in (6.88m)</td>
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<td>Tire Sizes</td>
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\(^a\) See Operator’s Manual for additional weight data.

Tire Inflation Chart

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<thead>
<tr>
<th>Tire Size</th>
<th>Inflation</th>
<th>Tire Warranty Information</th>
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<tbody>
<tr>
<td>9.5Lx15 6-ply Rib Implement</td>
<td>32 psi 221 kPa</td>
<td>Firestone <a href="http://www.firestoneag.com">www.firestoneag.com</a></td>
</tr>
<tr>
<td>11Lx15 12-ply Rib Implement</td>
<td>52 psi 359 kPa</td>
<td>Gleason <a href="http://www.gleasonwheel.com">www.gleasonwheel.com</a></td>
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All tires are warranted by the original manufacturer of the tire. Tire warranty information is found online at the manufacturer’s websites listed below. For assistance or information, contact your nearest Authorized Farm Tire Retailer.

Manufacturer Website
Firestone www.firestoneag.com
Gleason www.gleasonwheel.com
Titan www.titan-intl.com
# Torque Values Chart

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<th>Bolt Head Identification</th>
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<td>Grade 2</td>
<td>Grade 5</td>
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<tr>
<td>in-tpia</td>
<td>N·m</td>
<td>ft-lb</td>
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<tr>
<td>1/4-20</td>
<td>7.4</td>
<td>5.6</td>
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- in-tpi = nominal thread diameter in inches-threads per inch
- N·m = newton-meters
- mm x pitch = nominal thread diameter in mm x thread pitch
- ft-lb = foot pounds

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

Fold
Dual Markers

Single Marker
Two Outlet Conversion
Opener Lift: Standard Closed-Center
Opener Lift: Optional Open-Center
Point-Row