Export Pre-Delivery Instructions

NTA907HD
9m/30ft No-Till Heavy Duty Air Drill

Great Plains Manufacturing, Inc.
www.greatplainsmfg.com

Read this 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.
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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.

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 “Replace all damaged or missing decals. Order new decals from your Great Plains dealer. Refer to the Operator Manual for information on decals.
▲ Read all instructions noted on the decals.
▲ Keep decals clean. Replace damaged, faded and illegible decals.
Use A Safety Chain

▲ Use a safety chain to help control drawn machinery should it separate from tractor draw-bar.
▲ Use a chain with a strength rating equal to or greater than the gross weight of towed machinery.
▲ Attach chain to tractor draw-bar support or other specified anchor location. Allow only enough slack in chain to permit turning.
▲ Replace chain if any links or end fittings are broken, stretched or damaged.
▲ Do not use safety chain for towing.

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.

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.
Practice Safe Maintenance

▲ Understand procedure before doing work. Use proper tools and equipment. For brake work, see specific safety information in the Operator Manual.

▲ Work in a clean, dry area.

▲ Unfold and lower the drill, 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.

▲ Allow drill to cool completely.

▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems.

▲ Welding: Disconnect battery ground. Protect hydraulic lines. Avoid fumes from heated paint.

▲ 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 air drill before operation.

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 air drill functions.

▲ Operate machinery from the driver’s seat only.

▲ Do not leave drill unattended with tractor engine running.

▲ Do not stand between the tractor and drill 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 air drill. Make sure all persons are clear of working area.
Introduction

This 9m No-Till Heavy Duty Air Drill 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.

Models Covered
NTA907HD-3610 9m, 36-row, 25.4cm (10in) spacing
NTA907HD-4875 9m, 48-row, 19.1cm (7.5in) spacing
NTA907HD-6006 9m, 60-row, 15.0cm (5.9in) spacing

Description of Unit
The NTA907HD Drill is a pull-type integrated air drill. It has dual 3500 liter (100 bu) hoppers for separate or simultaneous delivery of seed and/or granulated dry fertilizer. Each hopper has an independent metering system with infinite ratio gearboxes. The NTA907HD Drill folds for narrow transport.

The NTA907HD has double-disk Series 07HD heavy duty openers, and is suitable for conventional till and, minimum-till conditions. With optional coulters, the drill is suitable for moderate no-till conditions.

The NTA907HD may optionally be equipped with brakes, which work in conjunction with the tractor brakes. Other options include coulters, markers and auger.

Document Family
166-207M Owner’s Manual (this document)
167-085B Seed Rate Charts
166-207P Parts Manual
110011516 DICKEY-john Quick Start Guide
110011375 DICKEY-john Air Cart Control manual
110011440 DICKEY-john 10in Virtual Terminal manual

Using This Manual
This manual will familiarize you with planning, unloading, and assembly of this drill. Most operating information is contained in the Operator manual. It is essential that the Operator manual (166-207M) and Parts manual (166-207P) be available during assembly and checkout.

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

Definitions
The following terms are used throughout this manual.

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

Note: Useful information related to the preceding topic.

Right-hand and left-hand as used in this manual are determined by facing the direction the machine will travel while in use unless otherwise stated. An orientation rose in some line art illustrations shows the directions of: Up, Back, Left, Down, Front, Right.

Assembly and Setup Assistance
To order additional copies of pre-delivery instructions or operator’s and parts manuals, write to the following address. Include model numbers in all correspondence.

If you do not understand any part of this manual or have other assembly or setup questions, assistance is available. Contact Product Support:

Great Plains Mfg. Inc., Service Department
PO Box 5060
Salina, KS  67402-5060
(785-823-3276)

gp_web_cs@greatplainsmfg.com
Getting Started

Refer to Figure 2

Forklift
A forklift or overhead hoist is required with 2,950 kg (6,500-pound) capacity.

Refer to Figure 3

Racks
Racks were built to facilitate transporting the drill. Parts of the drill have been secured to the racks by various bolts and metal binding.

Refer to Figure 4

Manuals
The black case holding the drill manuals is attached to the drill and is weather resistant. Remove the Operator Manual and Parts Manual to assist you in assembling the NTA907HD drill.

You may want to go to the internet to print off a copy of the DICKEY-john® Quick Start Guide to assist you in assembling the electric parts of this drill:

Shipment Inventory
This drill was disassembled and attached to 3 racks for transporting. Remove all loose accessories (listed below) that were packed into the available spaces on the Bin Rack and the Cart Rack.

Refer to Figure 5

Opener Rack
1. 3 Opener Sections (Right Hand, Left Hand, Center)

Refer to Figure 6

Bin Rack
1. 2 Bins
2. 2 Wing weldments
3. LOOSE PARTS:
   4 wheels (under bins)
   various parts inside bins

Refer to Figure 7

Cart Rack
2. 1 Cart Main Frame
3. 1 Auger
4. 2 Pullbars
5. 1 Tongue with Hitch
6. 1 Fan assembly
7. LOOSE PARTS:
   2 wheels on top
   2 bin lids on top
   2 bin strainers
   1 cart main frame ladder
   2 bin ladders
   jack and various other parts
   2 meter boxes in plastic wrap (on bottom of rack)
Unloading the Racks

Refer to Figure 8 and Figure 9

Opener Rack
REMOVE RH ① and LH ② OPENER SECTIONS (from each side of rack).

1. Hoist rack onto its side as shown by attaching chains to 4 points: 1 eyelet hook ④ on each side of the rack and to the two bolts ⑤ on the top opener section frame.

2. Unbolt opener section closest to the floor.

3. Lift rack with 2 remaining opener sections up and away from the section you just unbolted.

4. Hoist rack to its opposite side.

5. Unbolt the other opener section now closest to the floor.

REMOVE CENTER OPENER SECTION ③ (from middle of rack)

6. Secure 4 straps at 4 points on center section opener assembly.

7. Unbolt and lift it out of rack.
Refer to Figure 10
Place 4 straps as shown to lift the opener section.
Refer to Figure 11

Bin Rack
1. Remove all loose parts inside the bins. These parts will be necessary in the assembly of the drill.
2. The metal face plate \(\textcircled{1}\) is only used for bolting to shipping rack. The 4 hex bolts \(\textcircled{2}\) that attach the metal plate to the bin will be removed so the lid assembly can be attached to the hoppers later.

Refer to Figure 12
3. Unbolt the other set of 4 bolts \(\textcircled{3}\) (2 each side) that attach the metal face plate to the rack.
Refer to Figure 13

BIN RACK:
- 2 Bins
- 2 Wing Weldments
- 4 Loose Wheels

Refer to Figure 14
4. Remove one bin resting it on forks of forklift. (There should be no loose parts left in bin.)
Refer to Figure 15
5. Remove 4 loose wheels stored under the bins (so there is no likelihood of their getting punctured by the forklift while removing other parts off the rack.)

Refer to Figure 16
6. Remove 2nd bin by resting it on forks of forklift. (There should be no loose parts left in bin.)
Refer to Figure 17
Two Wing Weldments

Figure 17
Two Wing Weldments

Refer to Figure 18

7. Remove one wing weldment at a time by first removing the one bolt 7 fastening them together.

Figure 18
Remove One Bolt Holding Wings Together
Refer to Figure 19
8. Place an overhead strap attached to the forklift through the top hole in one wing weldment.
9. Remove the U-bolt holding the wing to the rack.

Refer to Figure 20
10. Hoist the wing weldment off the rack.

Refer to Figure 21
11. Set the wing weldment on the floor or location where the drill will be assembled.
Refer to Figure 22

Cart Rack
- 1 Cart Main Frame
- 1 Auger
- 2 Pullbars
- 1 Tongue with Hitch
- 1 Cart Fan Assembly
- 2 Wing Frame Weldments
- Loose parts

Figure 22
Cart Rack

Refer to Figure 23

LOOSE PARTS
1. Remove bin lids and all other loose parts on top of rack.
2. With forklift forks, remove 2 loose wheels from top of rack.

Figure 23
Remove 2 Loose Tires
**Refer to Figure 24**

**LOOSE PARTS**

3. Remove all loose parts that you can access.
   - 2 bin strainers
   - 2 contact wheels
   - 1 frame ladder
   - 2 bin ladders
   - 2 meter boxes-on bottom of rack
   - various other loose parts

**Refer to Figure 25**

4. Remove 4 bin hold down bars (2 for each bin).
5. Remove jack (15). After using it to hold up the tongue, it will be stored on the left side of the cart frame just below the ladder.
Refer to Figure 26

LOOSE PARTS

6. Remove later: 2 Meter boxes wrapped in plastic (on bottom of rack underneath all the other equipment)
Refer to Figure 27

THE AUGER (Option)

7. With tin snips, remove metal banding \(16\) securing the auger in the two cradles \(17\).

Refer to Figure 28

8. Secure auger with 2 forklift straps and remove from rack.

Figure 27
Unband Auger

Figure 28
Placement of 2 Straps for Lifting Auger
Refer to Figure 29

THE FAN

9. Remove cart fan (18) from rack.

Refer to Figure 30

10. The cart fan is secured to the rack with 4 bolts (19).
**Refer to Figure 31**

**CART MAIN FRAME**

11. Remove 6 U-bolts located at each side and end securing the cart main frame to the rack.

**Refer to Figure 32**

12. Place 2 straps on front of cart to lift main frame out of rack.
Refer to Figure 33
13. Place 2 straps on back of cart to lift cart out of rack.

Refer to Figure 34
14. Lifting the cart frame from the rack avoid the cradles that held the auger by tilting the cart.
PULLBARS

Refer to Figure 35
15. Remove metal banding 21 securing the end of the pullbars 22 to the rear end of the tongue 23 (the tongue is setting upside down for shipping.)

Refer to Figure 36
16. Remove 2 pins 24 from end of pullbars where they have been secured to the hitch part of the tongue (using a bar push the pins from the bottom to push them out.)
Refer to Figure 37
17. Using 2 straps, place one at each end and remove one pullbar.

Refer to Figure 38
18. Remove 2nd pullbar.
Refer to Figure 39

THE TONGUE

19. Place 2 forklift straps at each end of tongue (as shown).

Refer to Figure 40

(Strap placement near rear end of tongue)
Refer to Figure 41
20. Remove 4 U-Bolts \(25\) securing the rear end of tongue to the rack.

Refer to Figure 42
21. Remove one bolt \(26\) holding hitch end of tongue to the rack.
Refer to Figure 43
22. Remove tongue from rack.

Refer to Figure 44
23. Place 2 straps, one at each end of one wing frame unit.
THE 2 WING FRAME UNITS

24. Remove 2 bolts 27 securing hoses to one wing frame unit.

25. Remove the U-bolt 28 securing one end of the wing frame unit to the rack.

26. Resecure the hoses by replacing the 2 bolts you removed in step 24.
Refer to Figure 47
27. Remove one bolt 29 securing the other end of the wing frame to rack.

Refer to Figure 48
28. Remove one wing frame unit from rack. (The wing frame is upside down on the rack. Roll it over when setting it down so it is setting as pictured in Figure 50 on page 28.)
Refer to Figure 49
29. Remove 2 meters (wrapped in plastic).

Refer to Figure 50
30. Unbolt the 2nd wing frame unit repeating steps performed on the 1st unit and remove from rack. (The wing frame as pictured is in the correct position for assembling.)
Assembly Sequence and Preparation

Instructions for assembling the implement begin in the next section of the manual.

Assembly (General Sequence)
1. Wheels on front of Cart Frame.
2. Drive Wheels.
   *meters
   *lids
   *ladders inside bins
   *ladder on cart frame
   *mount bins
4. Center Section Opener Weldment.
5. Folding Wing Weldments to Frame and Wing Frame.
6. Opener Mounts to Wing.
7. Towers on Frame.
   Towers on Wings.
8. Tongue and Jack.
   *mounting the front
   *mounting the back
11. Hose Routing.
   *Wing fold hydraulics
   *Opener lift hydraulics
   *Wing opener lift hydraulics
14. Weight Transfer Hydraulics.
15. Electric Harness.
   *monitor
   *lights
17. Service Brakes.
   *air brakes
   *hydraulic brakes

Tools Required
- Forklift or overhead hoist with 2,950 kg (6,500-pound) capacity.
- General hand tools.
- Jack stands or blocks and safety chain.

Note: You need about 7 gallons (26.5 liters) 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 the 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.
6. Have a copy of the implement Parts Manual (166-207P) 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 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 in the Operator’s Manual.
10. Tighten wheel bolts as specified on Torque Values Chart in Operator’s Manual.
NTA907HD Fully Assembled

Refer to Figure 51

Figure 51
NTA907HD Assembled

Figure 52
NTA907HD
Assemble Cart Front Wheels
(see Parts Manual page: Cart Transport Wheels without Brakes. If machine has optional brake equipment see Brake section in Parts Manual.)

Refer to Figure 53

Assemble Contact Drive Wheels
(see Parts Manual section: Contact Drive)
(see Operator Manual section: Adjustments)

Refer to Figure 54
There are two contact drive tension springs ① on each side of the drill; four total. Illustration shows contact drive tire ② and the main transport tire ③.

Adjusting Drive Wheels
Refer to Figure 55
Using shims ④ center contact drive wheels ⑤ over cart wheels ⑥.
Assemble & Install Meters
(see Parts Manual section: Meter Box Assembly)
(see Operator Manual section: Adjustments)

Refer to Figure 56
With silicone sealant provided place adequate amount of silicone at points indicated in this illustration.

Meters Face Same Direction

Refer to Figure 57
When installing meters pay close attention to the direction you are placing them in, there is a front and a back as indicated by the arrows in the direction rose in the illustration.

The meters are installed facing the same direction, even though the bins are not, as shown in Figure 57.
Bin Lids and Silicone Sealant

(see Parts Manual section: Bin Assembly)
(see Operator Manual section: Operating Instructions)

Refer to Figure 58
Seal lid with silicone sealant provided.
Use adequate amount of silicone sealant to prevent water leakage.

Bin Lids

Refer to Figure 59 and Figure 60
Keep lids closed. Keep tightly closed for operations.
1. Lift handle ①.
2. Swing handle ① out until hook ② releases from U-bolt.
3. Move hook ② clear of U-bolt and re-close handle.
Bin Lid Closing

Refer to Figure 61
1. Swing lid over opening until capture hook ② is centered on U-bolt ③.
2. Open handle ① and engage hook ② on U-bolt ③.

Bin Strainer

Refer to Figure 62
Each hopper is equipped with a strainer.
Leave the strainer in place except during strainer and hopper cleaning.
The strainer lifts out when the lid is fully open.
Assemble 2 Ladders Inside Bins
(see Parts Manual section: Bin Assembly)

Refer to Figure 63

MAKE SURE:
Make sure to install ladder vent tubes on meter vent tubes as shown.

NOTICE
Failure to do so will cause meter to plug with seed and will!~ Ù!vent.

Figure 63
Bin Ladder Vent Tubes

Bin Ladder Mounting
(see Parts Manual section: Walkboard and Ladder)
(see Operator Manual section: Operating Instructions - Ladder Operations)

Refer to Figure 64
After installing ladder over meter vent tubes at bottom of bin in Figure 63, it is necessary to drill two 7/16 inch holes in rim of bin to install and bolt upper part of ladder. (Assembled ladder shown.)

Figure 64
Bin Ladder Mounting
Assemble Ladder to Cart Frame

(see Parts Manual section: Walkboard and Ladder)
(see Operator Manual section: Operating Instructions - Ladder Operations)

Refer to Figure 65
The ladder on the left side of the mainframe provides access to the walkboard for material loading and routine lid/hopper maintenance. This ladder pivots diagonally, and is held in position by one of two spring-loaded pins.
Verify Ladder Function
(see Parts Manual section: Walkboard and Ladder)
(see Operator Manual section: Operating Instructions - Ladder Operations)

Refer to Figure 66 and Figure 67
Ladder use is easiest and least obstructed when drill wings are folded. Ladder may be lowered, used and raised with wings unfolded, as shown at right, but lowest ladder step may strike lowered openers, and will strike raised openers. The lowest step is mounted with rubber straps to prevent serious damage to openers.

1. Fold the wings for easiest ladder use.
2. Use one hand to hold the ladder up, while pulling vertical pin ① down.
3. Carefully swing ladder forward and down, until you hear and see the horizontal pin ② seat itself with the ladder down. If an opener is in the way, it may be necessary to push on the ladder to achieve lock.

Using Ladder
1. Pull outward on the ladder to check that the horizontal pivot pin ② is holding it.
2. Ascend and descend the ladder while facing the drill.
3. Use the handrails when on the higher steps.
Assemble Bins to Frame
(see Parts Manual section: Bin to Frame)

Refer to Figure 68

Bins Mounted

Refer to Figure 69
Assemble Center Opener Weldment
(see Parts Manual section: Opener Mount to Frame)

Refer to Figure 70 and Figure 71

NOTICE
Orientate mount so shims ① on mount are up and forward on center section. Not doing so will cause interference with the cylinders.

Center Section Opener Mounting:
1. Install upper and lower parallel arms to frame with the hydraulic cylinder running behind the upper parallel arm and through the lower parallel arm (leave the bolts for the lower parallel arm assembly loose and leave shims out until toolbar is completely installed).
2. Supporting both ends of the toolbar, slide it under the frame into position.
3. Install pivot tubes in lower parallel arms attaching the toolbar.
4. Install pivot tubes in the upper parallel arms in the same manor.
5. Install shims as needed to the lower parallel arms and tighten all bolts on the parallel arms.
6. Extend and hook up cylinders to the toolbar. You will need to use the hydraulics to raise the toolbar to hook up and adjust the down pressure spring for the contact drive.
Assemble Folding Wing Weldments
(see Parts Manual section: Wing to Frame)

Refer to Figure 72
Step 1:
• Remove wing fold pin ① from cart.

Refer to Figure 73
Step 2:
• Assemble shim stack.
  split shim ②
  split shim ③
  whole shim ④
  screws, washers and nuts ⑤
Refer to Figure 74

Step 3:
1. Coat pivot holes () in frame with antisieze compound.
2. Put shim stack (from Step 2) over pivot hole () (be sure to have nuts facing up).
3. Align wing fold weldment () over hole ()
4. Put shim stack (from Step 2) over top hole in wing fold weldment () (be sure to have nuts facing down).
5. Install pin () from bottom up.
6. Install washers () and hand thread on nut ()
7. This will allow you to turn pin () and align cross hole at bottom of pin with frame.
8. Put cross bolt () in and tighten. Tighten nut () to 135 ft. lb torque. Install cotter pin.

 Refer to Figure 75

Step 4: Wing Pivot:
1. Coat holes () in wings with antisieze compound.
2. Align holes in wing () with hole in fold arm ()
3. Slide 2 shims () between wing and front of arm.
4. Begin to slide pin () in. With pin approximately half way in slide 2 shims () between the back side of the fold arm and wing. Continue to slide pin in.
5. Install washers () and hand thread on nut ()
6. This will allow you to turn pin () and align cross hole in pin with wing frame.
7. Put cross bolt () in and tighten. Tighten nut () to 135 ft. lb torque. Install cotter pin.
Assemble Opener Mounts to Wing
(see Parts Manual section: Opener Mount to Wing)
(see Operator Manual section: Opener Sub-Frame Adjustment)

Refer to Figure 76

NOTICE
Orientate mount so shims ① on mount are down and back on center section. Not doing so will cause interference with the cylinders.
Assemble Center Towers
(see Parts Manual section: Tower Assembly)

Refer to Figure 77
With drill raised (so openers are dropped down), hoses should be as short as possible.
Assemble Wing Towers
(see Parts Manual section: Tramline Mounting)

Refer to Figure 78

To mount tower:
1. Dismount opener spring mount 1.
2. Replace with mount 2.
3. Reattach opener spring using hole 3 in mount 2.

NOTICE
If wing towers are not placed at specified opener location on each wing, damage WILL occur. If placed equidistant from the ends, when wings are folded they will collide and break.

Wing Tower Placement
10in. row spacing: left wing: 3rd opener spring mount
10in. row spacing: right wing: 6th opener spring mount

7 1/2in. row spacing: left wing: 9th opener spring mount
7 1/2in. row spacing: right wing: 6th opener spring mount

15cm (6in.) row spacing: left wing: 9th opener spring mount
15cm (6in.) row spacing: right wing: 6th opener spring mount

Figure 78
Assemble Wing Towers

Figure 79
Tower Placement
Wing Tower Hoses

Refer to Figure 80

With drill raised (so openers are dropped down), hoses should be as short as possible.

Seed Hose Port Maps:

(see Operator Manual section: Appendix - Seed Hose)
Assemble Tongue and Jack
(see Parts Manual section: Tongue to Frame)

Refer to Figure 81
Tongue ①
Jack ②

Parking
(see Operator Manual section: Operating Instructions - Parking)

Refer to Figure 82
Remove jack from storage position and pin securely to lifting stob on outside of drill tongue.
Static tongue weight of a folded drill can be as much as 2180 kg (4800 pounds).
Securely block drill tires to prevent jack from sliding.
Assemble Pullbars (front)
(see Parts Manual section: Hitch)

Refer to Figure 83

Assemble Pullbars (back)
(see Parts Manual section: Wing to Frame)

Refer to Figure 84
Assemble Hitch
(see Parts Manual page: Hitch)

Refer to Figure 85

Air Drill Hitched to Tractor
(see Operator Manual section: “Preparation and Setup - Hitching Tractor to Air Drill”)

Refer to Figure 86
Adjust the NTA907HD drill hitch to match your tractor draw bar height, using crank of tongue jack on side of tongue.

The precise height is not critical, as the NTA907HD drill leveling is set at the mainframe and is independent of tongue level.

**NOTICE**

**Hitch Failure Risk:**
The hitch may be mounted inverted if necessary, but always have two (2) bolts in two holes of both tongue and hitch.
Route Hoses
(see Parts Manual section: Hydraulics)

Refer to Figure 87
Hydraulic hoses will be routed through the right bulkhead ① and left bulkhead ② and through the right and left pull bars (not shown in Figure 87).

NOTICE
IMPORTANT BULKHEAD INFORMATION:
Hoses MUST go in correct holes in each bulkhead.

NOTICE
IMPORTANT PULLBAR INFORMATION:
Hoses MUST be correctly grouped for either the right or left pullbar.

Hoses must be grouped in a bunch when installing through each pullbar, it is a tight fitting space.

Bulkheads
Refer to Figure 88
The numbers in the bubbles correspond to the actual numbers in all the hydraulic illustrations in this manual and the Parts Manual. See bulkheads in illustrations in the Parts Manual in the section titled “Hydraulics.”

Left Bulkhead:
1. Wing Fold hydraulic hose
2. Wing Fold hydraulic hose
3. Opener Lift hydraulic hose
4. Opener Lift hydraulic hose
5. Marker hydraulics
6. Marker hydraulics
7. Opener Lift hydraulic hose
8. Opener Lift hydraulic hose
9. Opener Tilt hydraulic hose
10. Opener Tilt hydraulic hose
11. Weight Transfer hydraulic hose
12. Weight Transfer hydraulic hose

Right Bulkhead:
13. Fan hydraulic hose
14. Fan hydraulic hose
15. Transport Hook hydraulic hose
16. Transport Hook hydraulic hose
17. Auger hydraulic hose
Hydraulic Hose Hookup

**WARNING**

**High Pressure Fluid Hazard:**
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, seek immediate medical assistance from a physician familiar with this type of injury.

*Only trained personnel should work on system hydraulics!*  
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.

- The fan pressure hose (orange) must be connected to a circuit capable of continuous flow at high volume.
- The lift/down-pressure hose (blue) must be connected to a circuit capable of continuous pressure.

**Note:** This implement is compatible only with tractors having Closed Center hydraulics.

Refer to Figure 89

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

For hydraulic fan and auger drive motors, connect the hose under the retracted cylinder symbol to the pressure side of the motor. Connect the hose under the extended cylinder symbol to the return side of the motor.

The fan motor further requires hookup of a (third) case drain line, which returns lubricating/cooling fluid.

**Protecting Fan Hydraulic Motor Seals**

**Low Pressure (Case) Drain Connection:**

- Attach case drain hose to low pressure drain connection.

**Note:** Case drain hose must be hooked up first and unhooked last to prevent damage to hydraulic motor seals. It has the smaller 1/4in I.D. hose and small, flat-face, connector.

Connect low pressure motor return hose to low pressure return connector. It is distinguished by a large (1.06in/2.7cm diameter) quick coupler.

Connect hydraulic hoses to tractor remotes.

---

<table>
<thead>
<tr>
<th>Color</th>
<th>Hydraulic Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Fold / Tilt / Marker (Option)</td>
</tr>
<tr>
<td>Blue</td>
<td>Opener Lift / Down-Pressure</td>
</tr>
<tr>
<td>Orange</td>
<td>Fan / Auger (Option)</td>
</tr>
<tr>
<td>Yellow</td>
<td>Transport Hook</td>
</tr>
<tr>
<td>“BRAKES”</td>
<td>Hydraulic trailer brakes (Option)</td>
</tr>
</tbody>
</table>

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**NOTICE**

*Case Drain Hose must be attached first, prior to inlet and return hoses being connected.*

*Case Drain Hose must be detached last, to prevent damage to the fan motor.*

*DO NOT connect the case drain line to a power-beyond-port.*
Hydraulic Hose Installation

Refer to Figure 90

Hoses are labeled at both ends.
Hoses are already hooked up to the valve at one end.
The label has the number of the bulkhead hole \( \ominus \) the hose hooks to.
If the other hose end is required to hook to the right or left bulkhead MAKE SURE it is the correct hole. (Some hose ends will NOT hook to the bulkhead at all.)

EXAMPLE:
Find the Great Plains part number ① on the hose label:
Example: 841-387C.

Then find the page the part number is listed on in the Parts Manual and locate its item number:
Example: 841-387C is on page 52 of the Parts Manual titled Weight Transfer Hydraulics and is item number 8.
See corresponding drawing to locate that hose.
Opener Lift Hydraulics

(see Parts Manual section: Opener Lift Hydraulics)
(see Operator Manual section: Operating Instructions - Folding The Air Drill)

Refer to Figure 91

These Hydraulic Hoses Run Down the LEFT PULLBAR:
1. Wing Fold hydraulics
2. **Opener Lift hydraulics**
3. Wing Tilt hydraulics
4. Weight Transfer hydraulics
5. Marker hydraulics

---

Wing Fold

(see Parts Manual section: Opener Lift Hydraulics)
(see Operator Manual section: Operating Instructions - Folding: Fold Wings)

Refer to Figure 92
Wing Opener Tilt Hydraulics
(see Parts Manual section: Wing Opener Tilt Hydraulics)
(see Operator Manual section: Operating instructions)

Refer to Figure 93

These Hydraulic Hoses Run Down the LEFT PULLBAR:
1. Wing Fold hydraulics
2. Opener Lift hydraulics
3. Wing Tilt hydraulics
4. Weight Transfer hydraulics
5. Marker hydraulics

Wing Tilt

Refer to Figure 94
**Transport Hook-Wing Fold Hydraulics**

(see Parts Manual section: Transport Hook and Fold Hydraulics)
(see Operator Manual section: Operating Instructions - Unfolding the Air Drill)

Refer to Figure 95

These Hydraulic Hoses Run Down the LEFT PULLBAR:

1. Wing Fold hydraulics
2. Opener Lift hydraulics
3. Wing Tilt hydraulics
4. Weight Transfer hydraulics
5. Marker hydraulics

Tongue cylinder hoses ③ are routed on top of tongue.

**Transport Hook**

Refer to Figure 96

These Hydraulic Hoses Run Down RIGHT PULLBAR:

1. Transport Hook hydraulics
2. Auger and Fan hydraulics
3. Air Brake
4. Hydraulic Brake

**Wing Movement During Hook**

Figure 95
Wing Fold Hydraulics

Figure 96
Transport Hook Lock Channel

Figure 97
Wing Movement During Hook
Auger Hydraulics
(see Parts Manual section: Fan and Auger Hydraulics)
(see Operator Manual section: Operating Instructions - Auger Operations)

Refer to Figure 98

These Hydraulic Hoses Run Down RIGHT PULLBAR:
1. Transport Hook hydraulics
2. Auger and Fan hydraulics
3. Air Brake
4. Hydraulic Brake

Auger Mounting
(see Parts Manual section: Auger Option)

Refer to Figure 99
Loosely bolt (4 bolts) auger mount to right side of cart. It is necessary to raise the back part of the auger mount while tightening auger mount bolts. Mount auger to auger arm.
Auger Latched for Movement
(see Operator Manual section: Auger Operations)
Latch the auger into its cradles and pin the arm pivots, whenever the auger is not in use.

Refer to Figure 100
1. Front latching strap
2. Rear latching strap
3. Arm pin (not visible in Figure)
4. Inlet hopper swivel pin (not visible in Figure)
5. Auger tube swivel pin
6. Parallel arm height pin
7. Auger outlet oriented for transport and tilt/fold
8. Auger hydraulic motor control handles

Deploying the Auger
The back (inlet) end of the auger has grasp handles. When empty of material this end of the auger also tends to be heavier. Start unlatching at the front end.

Refer to Figure 101
1. Squeeze the lock lever ⑧. Pull out on the clamp latch ② and free the strap from the U-bolt.
2. Remove the rear arm pin ③. Pull the auger free of the rests.

Auger Lift & Tube Swivel Pins

Refer to Figure 102
3. Set either interconnected auger hydraulic motor direction control handle ⑧ to OFF (the center of handle travel). This prevents unexpected auger operation when the circuit is selected and energized.
4. Pull the auger tube swivel pin ⑥ forward.
5. Rotate the top of the auger tube outward, so that the auger outlet faces down.
6. If deploying the auger for material loading, push in on the arm height pin ⑤, lift the arm, and re-seat the pin in the alternate plate cut-out, holding arm elevated above the storage height.

For material unloading, leave the arm pinned at the storage height unless it needs to be lowered for the unloading operation.
Fan Hydraulics

(see Parts Manual section: Fan and Auger Hydraulics)
(see Operator Manual section: Fan Operation)

Refer to Figure 103

These Hydraulic Hoses Run Down RIGHT PULLBAR:
1. Transport Hook hydraulics
2. Auger and Fan hydraulic hoses
3. Air Brake (Option)
4. Hydraulic Brake (Option)

Fan Mount

Refer to Figure 104
Fan circuit has three hoses. All must be correctly connected. Make sure that “SUMP” line is connected to tractor case drain.

The hydraulic fan supplies the air stream that carries materials from the meters, through the primary hoses to the towers, then to the secondary hoses to the rows.

Fan/Auger Selector Valve

Refer to Figure 105
If an auger is installed on the drill, it shares the hydraulic circuit with the fan.
Weight Transfer Hydraulics
(see Parts Manual section: Weight Transfer Hydraulics)
(see Operator Manual section: Adjusting Weight Transfer)

Refer to Figure 106

These Hydraulic Hoses Run Down LEFT PULLBAR:
1. Wing Fold hydraulics
2. Opener Lift hydraulics
3. Wing Tilt hydraulics
4. Weight Transfer hydraulics
5. Marker hydraulics

Adjusting Weight Transfer

Refer to Figure 107

Two dedicated cylinders at the wing pivots can extend to push the wings down using mainframe/center weight. These cylinders are in the Lift circuit, and controlled by an adjustment in the down-pressure valve body.

In conventional till and light no-till conditions, no weight transfer may be required. In more challenging conditions, adjust the weight transfer to achieve consistent furrow preparation, planting depth and furrow closing, while keeping the wings level with the center section.
Electric Harness (Monitor)
(see Parts Manual section: Monitor)

Refer to Figure 108

Locate and install system components as shown on the diagram on the Quick Start Guide.

Print copy of:
DICKEY-john® IntelliAg® Quick Start Guide at:

Types of modules:
WSMT (Working Set Master) main system module - inputs for bin, RPM, and other sensors.
WSMB-18R (Working Set Member) slave modules to the master - monitors up to 18 rows.
WSMB-POM (Working Set Member) slave module to the master - outputs for solenoids.

1. Main harness should be routed down LEFT PULL-BAR with hydraulic hoses.
2. Route harnesses from module to module as shown on the Quick Start Guide.
3. WSMB-18R modules should be installed with the lowest serial number located on the left side of the drill. This will make it easier to auto configure the modules later.
4. Make sure harnesses are tied up and out of the way of any moving parts and have sufficient slack so wires are not pulled tight.
5. All modules should be mounted so the connectors are pointed down to prevent moisture ingress.
6. Make sure the CAN terminator is installed on the end of the right harness.

Refer to Figure 109

Electric (Lights)
see Parts Manual section: International Lights
Brake Hookup (Option)

Two air drill braking (trailer braking) systems are available:

- Dual-line air system with independent cable-operated parking brake and
- Single-line hydraulic with independent cable-operated parking brake.

In both systems, the tractor's trailer brake remote port(s) operate a hydraulic slave cylinder on the drill.

Tractor trailer braking systems are normally integrated with the tractor brakes, and operate the trailer brakes when tractor brakes are used during tractor movement.

The trailer braking system may or may not be integrated with the tractor parking brake system.

Trailer brakes typically are not automatically engaged when the tractor transmission is in Park, and may not be engaged by any tractor Emergency Brake.

Both drill systems include an independent cable-operated parking brake on the drill. The tractor cannot engage or release the drill's parking brake system.

![Air Brake System](image1)

![Hydraulic Brake System](image2)

![Drill Parking Brake System](image3)

**CAUTION**

*Braking Hazards:*

*Make sure the operator understands when drill brakes are engaged and when they are released.*

*Also understand and implement tractor operational restrictions when trailer brakes are used. For example, it is generally necessary to inter-tie split brakes, and avoid differential (steering braking) if trailer brakes are used.*

NTA907HD: Brakes are not standard on this model.

1. The “service” or “trailer brake” system is controlled by the tractor. It is connected to the tractor with a single hydraulic line or two air lines.

2. The “parking” or “emergency” brake system is controlled by latching handles on either side, connected by cables to the brake shoes for that drill side.

(The parking brake system is not a true emergency brake system, as there is no safe way to set the cable-operated brakes when the drill is in motion. This manual therefore refers to it only as a parking brake system.)

**Once brakes are assembled on drill test and adjust brakes:**

While the drill axle is still elevated, test both the service and the parking brake systems. See Operator Manual page 127 for further instructions.
Parking Brakes
(see Parts Manual section: Parking Brakes)
(see Operator Manual section: Brake Operation)

Refer to Figure 113 and Figure 114
Cable-operated parking brakes engage and release independently of the service brake system. There is one operating handle on each side frame of the drill, at the rear of the front hopper.

The parking brakes themselves are independent systems for each side of the drill. None of these three braking systems can engage or release any of the others. To engage drill parking brakes, pull each handle, on each side, to the rear, until the over-center action holds the brake engaged.

To release drill parking brakes, pull each handle, on each side, outward from drill, and release forward.

If the handle fails to remain in the engaged position, there is insufficient tension on the brake cable. If the handle requires excess effort, or cannot be pushed into the engaged position, there is too much tension. Rotate the grip end ① of the handle to adjust cable tension.

**DANGER**

Brake Roll-Away Hazard:
Set manual drill parking brake handle before unhitching drill. Block tires for extra safety in case brake system is tampered with or is not in working order. Parking jack is not sufficient restraint for a drill parked on un-level ground. An unsecured drill could roll away, causing an accident resulting in death, injury and substantial property damage.

Both versions of the trailer brake system to the tractor are spring-release on the air drill. Unless the drill parking brake is set, drill braking is released shortly after unhitching the drill.
Air Brakes
(see Parts Manual section: Air Brakes)
(see Operator Manual section: Brake Operation)

Refer to Figure 115

Service Brake Operation:
If optional brakes are installed and connected, the hydraulic/hydraulic or air/hydraulic systems automatically work in conjunction with the tractor’s own brakes.

Application and release of tractor brakes during tractor motion applies and releases the service brake system on the drill.

**CAUTION**

Know Your Tractor Systems:
Application of tractor Parking and/or Emergency brakes may or may not operate the drill service brake system, depending on the design of the tractor systems.

Consult your tractor manual for details on when remote brake ports are engaged and released.

Refer to Figure 116

Dual-Line Air/Hydraulic Brake Operation
In this system, the “supply” (yellow or blue coded) line ⑤ charges a reservoir air tank ④ on the drill. The “service” (red coded) line ⑥ meters air from the reservoir ⑤ to a booster cylinder ⑦, which operates the drill’s hydraulic brake lines ⑧.

**CAUTION**

Service Air Brakes Not Instantly Available:
Prior to movement, wait for the tractor air system to reach full charge after drill hookup. Tractor and drill reservoir tanks must be pressurized. Drill service braking may not be immediately available upon tractor hookup with the air/hydraulic system.

Air Brake Connectors

Refer to Figure 117
Hydraulic Brakes
(see Parts Manual section: Hydraulic Brakes)
(see Operator Manual section: Brake Operation)

Refer to Figure 118

Service Brake Operation:
If optional brakes are installed and connected, the hydraulic/hydraulic or air/hydraulic systems automatically work in conjunction with the tractor’s own brakes.

Application and release of tractor brakes during tractor motion applies and releases the service brake system on the drill.

CAUTION

Know Your Tractor Systems:
Application of tractor Parking and/or Emergency brakes may or may not operate the drill service brake system, depending on the design of the tractor systems.

Consult your tractor manual for details on when remote brake ports are engaged and released.

Refer to Figure 119

Single-Line Hydraulic Brake Operation
In this system, a single hydraulic line ① from the tractor operates a de-intensifier ② cylinder on the drill, which is coupled to the drill master cylinder ③. The drill brake hydraulic lines are separate from the tractor’s line.

With the hydraulic/hydraulic system, braking is immediately available when the tractor hydraulic system is active.
International Decals
(see Parts Manual section: International Decals)

Refer to Figure 120

Figure 120
International Decals