OPERATING AND PARTS MANUAL
WNDT1000 & WNDT1500 DUAL TANK WAGONS
2020
TABLE OF CONTENTS

TO YOU THE OWNER........................................................................................................................................... 1
LIMITED WARRANTY STATEMENT........................................................................................................................ 2
NEW MACHINE CHECKOUT................................................................................................................................ 3
IMPLEMENT SAFETY............................................................................................................................................. 4
PRE-SEASON CHECK........................................................................................................................................... 5
BOLT TORQUE CHART........................................................................................................................................... 6
ANHYDROUS AMMONIA SAFETY....................................................................................................................... 7
FIRST AID.......................................................................................................................................................... 11
4420402, TONGUE, NON-BRAKE................................................................................................................... 13
4410168, EXTENDABLE TONGUE ASSEMBLY.............................................................................................. 14
DA12 ACTUATOR INSTRUCTIONS & BLEEDING.......................................................................................... 15
DA12 ACTUATOR PARTS LIST........................................................................................................................ 16
5TH WHEEL ASSEMBLY................................................................................................................................... 17
FRONT BOLSTER ASSEMBLY.......................................................................................................................... 18
DT SAFETY HOOP ASSEMBLY........................................................................................................................ 19
WNDT1000 & 1500 TANK CHANNEL ASSEMBLY..................................................................................... 20
BOLT-ON STEP AND HOSE HOLDER WELDMENTS..................................................................................... 21
WNDT1000SA AXLE WELDMENT AND HUB................................................................................................. 22
LH AND RH TANDEM WALKERS, NON BRAKE (WNDT1000)..................................................................... 23
LH AND RH TANDEM WALKERS, WITH 2-WHEEL BRAKES (WNDT1000).................................................. 24
LH AND RH TANDEM WALKERS, WITH 4-WHEEL BRAKES (WNDT1000).................................................. 25
LH AND RH TANDEM WALKERS, NON-BRACE (WNDT1500)..................................................................... 26
LH AND RH TANDEM WALKERS, WITH 2-WHEEL BRAKES (WNDT1500).................................................. 27
LH AND RH TANDEM WALKERS, WITH 4-WHEEL BRAKES (WNDT1500).................................................. 28
13” BRAKE PARTS LIST.................................................................................................................................... 29
BRAKE INSTRUCTIONS AND MAINTENANCE.............................................................................................. 30
WNDT BRAKE LINE PLUMBING..................................................................................................................... 35
WNDT DECAL LAYOUT............................................................................................................................... 36
PARTS ORDERING PROCEDURE................................................................................................................... 37
TO YOU, THE OWNER

Your Dalton Ag Equipment is the most modern, up-to-date, versatile, machine available for fertilizer application. The machine is the result of many years of experience, research, development and testing of equipment for fertilizer application. It is soundly engineered and carefully built to rigid specifications. It is of rugged and simple construction, with a minimum of moving parts.

However, to obtain maximum performance from your Dalton Ag Equipment, it is necessary to follow the instructions and safety suggestions in this manual. Each section has been carefully prepared for the purpose of providing needed and valuable information to the owner and operator. Each operator of this unit should be familiar with the contents of this manual. Keep it in a safe and convenient location. THERE ARE MANY SAFETY SUGGESTIONS (CAUTION AREAS) PRINTED THROUGHOUT THIS MANUAL. CAREFULLY READ THEM ALL BEFORE OPERATING THIS UNIT.

DESIGN IMPROVEMENTS

Dalton Ag Products follows a policy of continuous products improvement. We therefore reserve the right to make design improvements, and changes in specifications and prices, without incurring obligations to make revisions or additions to equipment previously sold.

REGISTER WARRANTY
ONE OF FOUR WAYS

- Register on-line at: www.daltonag.com
- Fax your completed warranty registration form to: 641-333-4429
- E-mail your completed warranty registration form to: office@daltonag.com
- Mail your completed warranty registration form to: Dalton Ag, Inc. P.O. Box 70 Lenox, IA 50851
LIMITED WARRANTY STATEMENT
DALTON AG, INC. warrants to the original purchaser only that all products manufactured under the Dalton Ag and Mobility Brands will be free from defects in material and workmanship under normal use and service.

DALTON AG’s obligation under this warranty is limited to repairing or replacing, as it may elect, free of charge and without charge for installation, at the place of business of a dealer or distributor authorized to handle the equipment covered by this warranty or at a DALTON AG facility, any parts that prove, in DALTON AG’s judgment, to be defective in material or workmanship within two (2) years after delivery to the original purchaser. DALTON AG shall not be liable for personal injuries or any special or consequential damages of any kind, either direct or indirect. This warranty is subject to acts of God, fire and existing conditions of supply and demand, production, ability or inability to deliver, or for any other valid reason beyond the reasonable control of DALTON AG. No distributor, dealer, agent or DALTON AG employee (other than DALTON's President in writing) is authorized to extend or make any other or further express or implied warranty or incur any additional obligation on DALTON AG’s behalf in connection with the sale of this product.

Customer Responsibility
Product Registration - It is a condition of this warranty that the original purchaser fill out the warranty card furnished by DALTON AG and return it to DALTON AG to be recorded in DALTON AG’s owner file. Registration may also be done on line at www.DaltonAg.com/warrantyregistration. If the original purchaser's card or electronic registration is not on file at DALTON AG’s office, the warranty period will extend only from date equipment was picked up or shipped from the DALTON AG plant.

Maintenance - It is the customer’s responsibility to maintain their equipment in accordance with the instructions provided in the Operator’s Manual. DALTON AG recommends that you keep records and receipts as the customer may be required to verify the maintenance instructions have been followed.

Operation – It is the customer’s responsibility to operate the equipment only for the purpose for which it was designed and in accordance with all safety and operational recommendations contained in the Operator's Manual. If a defect in materials or workmanship occurs, it is the customer’s responsibility to cease operating the equipment until authorized repairs are made. Damage incurred from continued operation after a defect is discovered may not be covered by this warranty.

What this Warranty Covers
This warranty covers failures caused by defects in materials or workmanship only.

This Warranty does not cover failures caused by:
- Improper operation
- Natural calamities
- Unauthorized modifications
- Unauthorized repairs
- Use of Non DALTON AG parts
- Neglected maintenance
- Usage contrary to the intended purpose of the product

This Warranty does not cover replacement of Wear or Maintenance Items including, but not limited to:
- Lubricants
- Hoses
- Disks
- Idlers
- Tires
- Chains
- Blades
- Belts
- Disks
- Chains
- Idlers
- Belts

This Warranty does not cover:
Pickup and delivery of the equipment
Service Calls or Travel Time to and from sites
Rental of replacement equipment during repair period
Products that have been declared a total loss and subsequently salvaged
Overtime labor charges

Parts Warranty
DALTON AG warrants its replacement parts against defects in materials or workmanship for a period of 90 days or the remainder of the product warranty, whichever is longer under the terms set out above. Remedy for defective replacement parts for units that are beyond the original product warranty, will be limited to replacement of the failed part.
NEW MACHINE CHECKOUT

1. All hardware properly tightened.
2. Lubrication of grease fittings.
3. Wheel bolts tightened to proper specs.

MAINTENANCE

1. Visually inspect machine daily.
2. Repair or replace any worn or damaged parts.

LUBRICATION SCHEDULE

Careful observance of the following lubrication schedule is the best preventative maintenance program for your Dalton Ag Equipment. We recommend that you establish a firm program to insure lubrication in strict compliance with the following schedule. Use only good grade pressure gun type grease unless otherwise specified.

Daily Lubrication
Hinge points

Weekly Lubrication
Wheel bearings

Annual Lubrication
Check all bearings - repack or replace as needed
IMPLEMENT SAFETY

In addition to design and configuration of equipment, safety and accident prevention are dependent upon the awareness, concern, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment. Failing to follow these safety messages can result in machine damage, personal injury, and/or death.

- Before operating your DALTON AG equipment, thoroughly read and understand your operator’s manual. If you do not understand any portion of the operator’s manual, contact your local Dalton Ag dealer immediately for clarification.

- Furnish this manual to a new operator.

- Tow with tractor only. Never transport equipment in excess of 20 MPH. Maintain a safe speed.

- Use a Slow-Moving-Vehicle (SMV) emblem when transporting.

- Be sure safety decals are readable. All safety related decals must be replaced if the equipment is painted or the decals are otherwise rendered unreadable.

- Install transport link before transporting.

- Always check for overhead obstacles in transporting equipment.

- Never permit riders on the equipment or tractor.

- Proceed slowly on rough or slippery roadways, on side hills, and around curves to avoid tipping.

- Reduce speed when approaching ditches and corners. Do not make sharp turns with brakes.

- Machinery should be operated only by persons familiar to the tractor, equipment, and the safety related items.

- Do not stand on, or straddle tongue when unhitching.

- Do not modify or permit anyone to modify this equipment and any of its components without first consulting your Dalton Ag dealer.

- Do not lubricate, adjust, or repair when equipment is in motion.

- Use only approved replacement parts.

- Always check torque on wheel bolts before transporting.
PRE-SEASON CHECK

1. Carefully review the safety suggestions in this manual.

2. Check all bolts for proper tightness. When the implement is new, check after one hour and every few
   hours of operation.

3. Check tires for proper inflation. All tires should be inflated equally to avoid side draft.

4. Check the wheel lug bolts daily, keep wheel bolts tight.

5. Grease all fittings.

6. Inspect, repack, or replace (if necessary) wheel bearings and seals.

OFF-SEASON STORAGE

Following these suggestions will extend service life and satisfaction:

1. A little time and effort spent cleaning your machine before storing will repay in longer service, easier
   operation and higher resale value.

2. Inspect for worn or damaged parts. Replace, if required, and avoid delays the next season.

3. Repaint all areas where the original paint is worn off.

4. Lubricate your implement.

5. Store the unit inside a shed to protect from weather and on a level area.

6. Raise tires off ground or remove and store in cool dry location out of sunlight.
**IMPORTANT**: Over tightening hardware can be as damaging as under tightening. Tightening beyond recommended torque will reduce the fastener’s shock load capacity.

**BOLT TORQUE CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>SAE GRADE 2</th>
<th>SAE GRADE 5</th>
<th>SAE GRADE 8</th>
<th>L9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ASSEMBLY TORQUE</td>
<td>ASSEMBLY TORQUE</td>
<td>ASSEMBLY TORQUE</td>
<td>ASSEMBLY TORQUE</td>
</tr>
<tr>
<td></td>
<td>DRY</td>
<td>LUBRICATED</td>
<td>DRY</td>
<td>LUBRICATED</td>
</tr>
<tr>
<td>1/4-20</td>
<td>66*</td>
<td>49*</td>
<td>8</td>
<td>75*</td>
</tr>
<tr>
<td>1/4-28</td>
<td>76*</td>
<td>56*</td>
<td>10</td>
<td>86*</td>
</tr>
<tr>
<td>5/16-18</td>
<td>11</td>
<td>8</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>5/16-24</td>
<td>12</td>
<td>9</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>3/8-16</td>
<td>20</td>
<td>15</td>
<td>30</td>
<td>23</td>
</tr>
<tr>
<td>3/8-24</td>
<td>23</td>
<td>17</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>7/16-14</td>
<td>30</td>
<td>24</td>
<td>50</td>
<td>35</td>
</tr>
<tr>
<td>7/16-20</td>
<td>35</td>
<td>25</td>
<td>55</td>
<td>40</td>
</tr>
<tr>
<td>1/2-13</td>
<td>50</td>
<td>35</td>
<td>75</td>
<td>55</td>
</tr>
<tr>
<td>1/2-20</td>
<td>55</td>
<td>40</td>
<td>90</td>
<td>65</td>
</tr>
<tr>
<td>9/16-12</td>
<td>65</td>
<td>50</td>
<td>110</td>
<td>80</td>
</tr>
<tr>
<td>9/16-18</td>
<td>75</td>
<td>55</td>
<td>120</td>
<td>90</td>
</tr>
<tr>
<td>5/8-11</td>
<td>90</td>
<td>70</td>
<td>150</td>
<td>110</td>
</tr>
<tr>
<td>5/8-16</td>
<td>100</td>
<td>80</td>
<td>180</td>
<td>130</td>
</tr>
<tr>
<td>3/4-10</td>
<td>140</td>
<td>120</td>
<td>260</td>
<td>200</td>
</tr>
<tr>
<td>3/4-16</td>
<td>180</td>
<td>140</td>
<td>300</td>
<td>220</td>
</tr>
<tr>
<td>7/8-9</td>
<td>190</td>
<td>140</td>
<td>400</td>
<td>300</td>
</tr>
<tr>
<td>7/8-14</td>
<td>210</td>
<td>155</td>
<td>440</td>
<td>320</td>
</tr>
<tr>
<td>1-8</td>
<td>220</td>
<td>160</td>
<td>580</td>
<td>440</td>
</tr>
<tr>
<td>1-14</td>
<td>240</td>
<td>170</td>
<td>640</td>
<td>480</td>
</tr>
<tr>
<td>1 1/8-7</td>
<td>300</td>
<td>220</td>
<td>800</td>
<td>600</td>
</tr>
<tr>
<td>1 1/8-12</td>
<td>340</td>
<td>260</td>
<td>880</td>
<td>660</td>
</tr>
<tr>
<td>1 1/4-7</td>
<td>420</td>
<td>320</td>
<td>1120</td>
<td>840</td>
</tr>
<tr>
<td>1 1/4-12</td>
<td>460</td>
<td>360</td>
<td>1240</td>
<td>920</td>
</tr>
<tr>
<td>1 3/8-6</td>
<td>560</td>
<td>420</td>
<td>1460</td>
<td>1100</td>
</tr>
<tr>
<td>1 3/8-12</td>
<td>640</td>
<td>460</td>
<td>1680</td>
<td>1250</td>
</tr>
<tr>
<td>1 1/2-6</td>
<td>740</td>
<td>560</td>
<td>1940</td>
<td>1480</td>
</tr>
<tr>
<td>1 1/2-12</td>
<td>840</td>
<td>620</td>
<td>2200</td>
<td>1640</td>
</tr>
</tbody>
</table>

**ITEMS WITH * = INCH POUNDS**
ALL OTHERS = FOOT POUNDS

**WARNING**: Never work around any raised implement while in the raised position without using safety lockups.
ANHYDROUS AMMONIA SAFETY

(Source: Pennsylvania State University. Agricultural Safety and Health)

**Anhydrous ammonia (NH3)** is a nitrogen crop fertilizer that can cause severe chemical burns; frostbite to the eyes, skin, and respiratory tract; and death. It is important for all individuals working with this type of fertilizer to understand the potential risks, necessary safety precautions, and proper response in the event of accidental contact.

Anhydrous ammonia is a hygroscopic compound, meaning that it takes up water from the nearest source, which can include the human body—especially the eyes, lungs, and skin because of their high moisture content. Anhydrous ammonia is caustic, corrosive, and damaging to tissue high in moisture content when it contacts the human body. Anhydrous ammonia inhalation incidents are typically severe because the victim's throat can swell shut, causing suffocation. When vapors or liquid come in contact with a person's eyes, blindness may occur.

Typically, anhydrous ammonia is stored under pressure, but it vaporizes to a colorless gas. It has a unique odor that can be detected at a low concentration of 5 ppm. The concentration in fertilizer is approximately 1,000,000 ppm, but even brief exposure to a concentration of 2,500 to 6,500 ppm can result in death.

Anhydrous ammonia is transported under pressure as a liquid, so all equipment used for transport must be designed for use under high pressure to avoid ruptures or breaks. Incidents can occur when anhydrous ammonia escapes from transfer hoses or valves, equipment malfunctions and sprays anhydrous ammonia in multiple directions, hoses pull apart during transportation or application, and so on.

**PPE and Supplies**

It is essential that all workers who use anhydrous ammonia wear the appropriate personal protective equipment (PPE), be equipped with necessary response supplies, and know how to respond in an emergency. PPE should include ventless goggles or a full-face shield, rubber gloves with long cuffs that can be rolled to catch drips, and a long-sleeved shirt. Non-rubber gloves made of ammonia-proof material are acceptable. Because contact lenses can trap the gas and become fused to the eye, it is recommended that individuals not wear contact lenses while working with anhydrous ammonia.

In the event of an exposure emergency, the most important resource is an ample supply of clean water to begin flushing the eyes and skin. If you use a vehicle to transport anhydrous ammonia, you must carry a 5 gal. container of clean water. Each person working with anhydrous ammonia should carry a 6 to 8 fl. oz. squeeze bottle of water at all times for rapid response to an emergency.
Basic First Aid for Anhydrous Ammonia Exposure

The first-response treatment for anhydrous ammonia exposure is to flush the exposed area (skin, nose, throat, eyes, and so on) with clean water for a minimum of 15 minutes.

- Flush the exposed area immediately to decrease injury caused by the anhydrous ammonia coming in contact with skin or clothes. Although clean water is the ideal resource for flushing exposed areas of the body, if you do not have water available, other nontoxic liquids, such as cold coffee or orange juice, can be used.

- Remove contaminated clothing unless the clothing is frozen to the victim's skin.

- Seek medical attention immediately and inform medical staff of the exposure to anhydrous ammonia so that they will not treat the wounds with oils or ointments that can intensify the damage.

If you find a person who is in a continuous stream of anhydrous ammonia, contact your local emergency service responders or 911. Inform the emergency medical responders about the type of incident so they can bring the proper equipment to the scene. A self-contained breathing apparatus (SCBA) and protective clothing are necessary to remove a person from a continuous stream. Rescue workers will contact a hazardous materials (HAZMAT) disposal team if HAZMAT services are needed at the scene.

Note that these guidelines are not comprehensive, and all individuals working with anhydrous ammonia should receive training in the proper response to exposure emergencies.

Storage and Transportation

Anhydrous ammonia is a strong alkali that, when dissolved in water, readily reacts with copper, zinc, brass, and other alloys. Therefore, the only types of containers, fittings, and piping that should come in contact with anhydrous ammonia should be non-galvanized steel or iron. Do not store other materials, such as propane or liquefied petroleum gas, in a tank that has been used to store anhydrous ammonia.

When filling your anhydrous ammonia tank, do not fill it more than 85% full, and always disconnect the fill hose before moving the tank. Remember to bleed pressurized anhydrous ammonia from the hose before connecting or disconnecting the hose.

When transporting anhydrous ammonia, be sure to adhere to the following precautions and safety rules:

- Running Gear: Regularly inspect the wagon’s frame tongue, reach poles, anchor devices, wheel bearings, knuckles, ball joints, and pins for structural damage and wear and make necessary repairs and adjustments.

- Tires: Check tires for proper inflation, bald spots, and signs of wear and ensure that lug nuts are tight.

- Hoses and Valves: Inspect and replace hoses and valves as needed.
  - The hydrostatic relief valve should be replaced every five years.
  - The transfer hose should be replaced five years from the date of manufacture.
• **Lubrication:** Annually lubricate the wagon’s knuckle, wheels, tongues, and so on.

• **Towing Vehicle:** To increase the driver’s ability to control the towing vehicle, ensure that the towing vehicle weighs at least as much as the tank.

  o A tractor can tow two tanks, but a truck can tow only one tank at a time.

• **Speed Limit:** When towing an anhydrous ammonia tank, observe a speed limit of 25 mph.

• **Hitch Pin:** Use a hitch pin with a safety chain when towing a tank wagon.

• **Warning Lights:** Ensure that the tank is equipped with a seven-terminal breakaway connector plug to properly operate turn signals, flashing warning lights, and a red brake light.

• **Safety Signage:** If operating on a highway, outfit the tank with all required safety markings, including a slow-moving vehicle (SMV) sign.

  o The words *Anhydrous Ammonia* must appear on both sides of the tank and on the rear of the tank in letters 4 in. high. The words should be in contrast to the tank so that they can be read easily.

  o *Inhalation Hazard* must appear on both sides of the tank in letters 3 in. high.

  o A Department of Transportation (DOT) placard number 1005 for nonflammable gas should be placed on the front, back, and sides of the tank.

**Additional Safety Recommendations**

• Paint the tank with reflective white paint to decrease excessive pressure buildup that can occur when the tank is heated from direct sunlight.

• Do not use dented or damaged tanks until they have been checked by an authorized inspector and necessary repairs are completed.

• Allow only certified welders to perform welding on the tank.

• Regulations and codes regarding towing of anhydrous ammonia and signage may vary, so be familiar with and obey the regulations in your state.
Summarized by:

Linda M. Fetzer, Pennsylvania State University – lmf8@psu.edu

Reviews:

LaMar Grafft, University of Iowa – lamar-grafft@uiowa.edu
Dennis J. Murphy, Pennsylvania State University – djm13@psu.edu
J. Samuel Steel, Pennsylvania State University – jss13@psu.edu
Aaron M. Yoder, University of Nebraska Medical Center - aaron.yoder@unmc.edu

Use the following format to cite this article:


Sources


FIRST AID

Decontaminate the victim as quickly as possible. Start with the eyes. The whole body, or exposed area, must be flushed with generous amounts of water; this includes the hair, ears, under the chin, and armpits. Water sources such as showers, hoses, eye wash stations, or stock tanks are acceptable [29 CFR 1910.151(c)]

Ensure trained personnel and adequate first aid supplies are readily available [29 CFR 1910.151(b)]

Contact with the Eyes

Even if only a small amount of ammonia enters the eyes, irrigate the eyes with an abundance of water for a minimum of 15 minutes. Continually and thoroughly flush the entire eye surface and the inner lining of the eyelids. Eyes affected by ammonia close involuntarily, so the eyelids must be held open so that water can flush the entire eye surface, as well as the inner lining of the eyelid.

If there is no physician available, continue irrigation for an additional 15 minutes.

Do not wear contact lenses when handling anhydrous ammonia. If ammonia gets in the eyes, the ammonia will get trapped under the lenses causing even more damage. They may also prevent immediate flushing of the eye surface.

Serious eye injury should be treated by an ophthalmologist, but in an emergency, wash with large quantities of water for 15 minutes or more as quickly as possible. In fact, the only real hope for preventing permanent eye injury lies in quick and generous washing.

One suggestion for those likely to be exposed is to carry a small, eight-ounce squeezable squirt bottle filled with water, which can be used to get excess ammonia out of the eyes until a larger water supply can be reached. This small amount of water is not sufficient to remove all the ammonia. It is essential that the eyes be irrigated for a minimum of 15 minutes as soon as possible.

Another emergency method is to duck the head in water and rapidly blink and move or rotate the eyes about.

Contact with the Skin

It is essential that any ammonia spilled on the worker be removed immediately and that the worker be moved to an uncontaminated area quickly.

Clothes that have been saturated by liquid ammonia may freeze to the skin. In any case, the victim, still clothed, should get immediately under a shower, if available, or jump into a stock tank, pond, or into any other source of water. Time is important! Remove clothes only after they are thawed and they can be freely removed from frozen areas. If the clothing is removed incorrectly, whole sections of skin can be torn off.
No salves, creams, ointments, or jellies should be applied to the skin during a 24-hour period following the injury since this will prevent natural elimination of the ammonia from the skin. After the 24 hour period, the medical treatment is the same for thermal burns. A physician should view any second- or third-degree freeze burns of the skin.

**Taken Internally:** This is what you should do if ammonia is ingested:

- Call a physician.
- If conscious, have the victim drink large amounts of water.
- Do not induce vomiting if the victim is in shock, in extreme pain, or is unconscious.
- If vomiting begins, place the victims face down with head lower than hips. This prevents vomit from entering the lungs and prevents severe injury.

**Inhalation**

In all inhalation exposures, severe or minimal:

- Take the exposed workers at once to a clean, uncontaminated area.
- Watch workers exposed to low concentrations for a short period of time. They will usually require no treatment and can be released.
- For severe exposure to higher concentrations:
  - Call a physician.
  - Administer oxygen by an individual who is trained and authorized to do so by a physician. This will help relieve pain and symptoms of lack of oxygen.
  - Begin artificial respiration immediately if the patient is not breathing.
  - Keep victim warm (but not hot) and rested until transported to the hospital.

**Summary:** In any accident involving contact with ammonia with the eyes or skin:

- Immediately flush the affected area with large quantities of clean water.
- Place the injured person into a container of clean water or under an emergency shower.
- Provide the injured worker with first aid treatment and call a physician at once in the case of extreme exposure. Give the physician a complete account of the incident.
- Seconds count, wash the ammonia away with water immediately.

*Information from U.S. Department of Labor - OSHA*

https://www.osha.gov/SLTC/etools/ammonia_refrigeration/emergency/index.html#firstaid
4410168 EXTENDABLE TONGUE ASSEMBLY
LESS BRAKE ACTUATOR
(Less Items to Right and #20)
4410169 EXTENDABLE TONGUE WITH BRAKE
(Less Item #20)

<table>
<thead>
<tr>
<th>#</th>
<th>PART NUMBER</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DT 4420260 BRAKE TONGUE FRAME</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>DT 4420264 BRAKE TONGUE INNER SLIDE</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>DT 4420265 BRAKE TONGUE KEEPER BLOCK</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>DT 4420263 BRAKE TONGUE, LATCH</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>4420262 PIN, 1 x 7.75, .3125 PIN HOLE, WN ADJ TONGUE</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>152409 BOLT, .625x2.5 NC GRD 5</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>150223 FLAT WASHER, .625 STD PLN</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>152206 BOLT, .5 NC x 1.5, GS, PLTD</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>152429 BOLT, 1 NC x 5, GS, PLTD</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>152407 BOLT, .625 NF x 2.5 GB, HH</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>151805 BOLT, .375 NC x 1.25, PLTD</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>150222 LOCK WASHER, .625, PLTD</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>150220 FLAT WASHER, .5 PLTD</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>150212 FLAT WASHER, .375 PLTD</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>150060 NUT, .5 NC, LOCKING, PLTD</td>
<td>2</td>
</tr>
<tr>
<td>16</td>
<td>150022 NUT, .375, LOCKING, PLTD</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>4440848 COTTER PIN, .3125 x 3</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>151806 BOLT, .375 NC x 1.5, GS, PLTD</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>4410188 TONGUE SPRING ASSEMBLY</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>4420261 LOCK-OUT PIN WELDMNT</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>140148 SPRING</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>150061 NUT, 1 NC, CENTERLOCK, PLTD</td>
<td>2</td>
</tr>
</tbody>
</table>

Available:
610500-SAFETY CHAIN, PAIR

NOTE: #20 PIN MUST BE INSTALLED DURING FIELD OPERATION... REMOVE TO TRANSPORT!

INCLUDED IN BRAKE ASSEMBLY
640684 BRAKE LINE, 36" LONG, RUBBER
07686 BRAKE ACTUATOR
641698 SPRING RETURN

FOR PARTS, CALL 1.800.342.7498
DA12 ACTUATOR INSTRUCTIONS & BLEEDING

1. When installing the DA12 Actuator, make sure the shock (#4) and slider tube (#1) are fully extended or that there is 1-1/4” movement. Bolt to mounting plate, using slots for adjustment. It is important that the blocks on the end of slider tube (#1) are tight against the blocks welded to tongue of running gear and have 1-1/4” of movement from outer diameter of pin (#2) to front of outer case (#6).

2. Fill the master cylinder with DOT 3 or 4 brake fluid. A pressure type brake bleeder may be used. If one is not available, you can bleed the system manually as follows.

3. After the master cylinder has been filled, remove the flat spring (#9) behind the emergency lever (#15). Pull forward on the lever to pump the master cylinder. Use short strokes until bubbling stops in the master cylinder.

Install bleeder hose on the bleeder valve on the first wheel with other end of the hose in a glass container partially filled with the brake fluid. Loosen the bleeder valve one turn and pump the master cylinder until the air bubbles stop coming out of the hose in the glass container, then close the bleeder valve and repeat the process with the other wheel. *Watch the fluid level in the master cylinder and refill so level does not fall below 1/2 full.*

4. After bleeding is completed, refill the master cylinder and put the filler cap on securely. Replace the flat spring behind the emergency lever.

To test the brakes, use a wrench or vise grip and clamp onto the top of the emergency lever to lengthen it. Take hold one foot above the lever pivot point and pull forward with about 100 to 150 lbs pull. Have another person try to rotate the wheels in forward rotation. You should not be able to move them. If you can, set each wheels brake adjustment up 2 to 3 notches.

5. If the emergency brake lever is applied, release the lever by pulling it forward and, with a screwdriver, lift up the front of the flat spring until it releases the lever. Many times these parts are damaged when this happens. An inspection of the lever, flat spring, and chain with S-hooks is required and any damaged parts must be replaced.

**Step one:** In order to replace the emergency lever, you must remove the master cylinder and the push rod. (Be careful - Do not get dirt into the master cylinder).

**Step two:** Remove the flat spring. Take the S-hook off the lever. Take the lever out from the inside.

**Step three:** Install the new lever from the inside and up through the slot. Replace the new flat spring. Replace the push rod, master cylinder and new gasket.

**Step four:** Take the new chain and fasten the S-hook to the lever by squeezing the hook shut with pliers. Check the master cylinder to make sure it is full and if needed, fill with DOT 3 or 4 brake fluid. Rebleed system following steps 2 thru 4.
# PART NUMBER | QTY.
--- | ---
1 | 4410170 FRONT BOLSTER ASSEMBLY w 8 BOLT HUBS 1
2 | 4420267 5TH WHEEL WELDMENT W KING PIN 1
3 | DT 4420268-1.125 BOLSTER BRACE, WELDMENT 1
4 | 4420269 PIN WELD, BOLSTER BRACE 1
5 | 152220 BOLT .5 NC x 4, G8 1
6 | 150008 NUT, .5 NC, PLTD 1
7 | DT 4431077 ROCKER PIN, 2.5 INCH ROUND 1
8 | 4431071 LOCK COLLAR, BOLSTER BRACE 1
9 | 640038 ROLL PIN 1
10 | DT 4440864 5TH WHEEL PIN 1

DT 4420266 FRONT BOLSTER WELDMENT (LESS HUBS)
DT SAFETY HOOP ASSEMBLY

### BULKHEAD WELDMENTS TAKE THE FOLLOWING HARDWARE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>151806 BOLT, .375 NC x 1.5, G5, PLTD</td>
<td>6</td>
</tr>
<tr>
<td>150212 FLAT WASHER, .375 PLTD</td>
<td>12</td>
</tr>
<tr>
<td>150210 LOCK WASHER, .375</td>
<td>6</td>
</tr>
<tr>
<td>150005 NUT, .375 NC, PLTD</td>
<td>6</td>
</tr>
</tbody>
</table>

### ATTACHMENT POINTS TAKE THE FOLLOWING HARDWARE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>152206 .5 NC X 1.5 BOLT</td>
<td>12</td>
</tr>
<tr>
<td>150220 .5 FLAT WASHER</td>
<td>24</td>
</tr>
<tr>
<td>150218 .5 LOCK WASHER</td>
<td>12</td>
</tr>
<tr>
<td>150008 .5 NC NUT</td>
<td>12</td>
</tr>
</tbody>
</table>

FOR PARTS, CALL 1.800.342.7498

DRAWN BY: RICH SMOTHERS    CHECKED BY:    PRINT DATE: 5/21/2015
DRAWN DATE: 6/14/2013

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DALTON AG. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DALTON AG IS PROHIBITED.
<table>
<thead>
<tr>
<th>TANK CHANNEL</th>
<th>DIM A</th>
<th>DIM B</th>
<th>DIM C</th>
</tr>
</thead>
<tbody>
<tr>
<td>WNDT 1000</td>
<td>67&quot;</td>
<td>21&quot;</td>
<td>21&quot;</td>
</tr>
<tr>
<td>WNDT 1500</td>
<td>73&quot;</td>
<td>27&quot;</td>
<td>21&quot;</td>
</tr>
</tbody>
</table>

**Channel Installation**

<table>
<thead>
<tr>
<th>FASTENERS</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>150010 NUT, .625 NC, PLTD</td>
<td>16</td>
</tr>
<tr>
<td>150221 LOCK WASHER, .625, PLTD</td>
<td>16</td>
</tr>
<tr>
<td>152416 BOLT, .625 NC x 4.5 G5</td>
<td>16</td>
</tr>
</tbody>
</table>

**Reference Dimensions to Confirm Model**

**DT 4420384 Tank Mount, Channel 1000**

**DT 4420388 Tank Mount, Channel 1500**

**DT 4420385 Clamp, Mounting Channel**

**For Parts, Call 1.800.342.7498**

**Dalton**

602 E. Van Buren St., Lenox, IA 50851

20010 E. Van Buren St., LENOX, IA 50851

Sheet1

For Parts, Call 1.800.342.7498

Drawn By: Rich Smothers

Print Date: 8/24/2011

Checked By: 

Print Date: 4/29/2015

Config: Default (As Machined)

Comments:
BOLT-ON STEP AND HOSE HOLDER WELDMENTS

4410237 HOSE HOLDER STAND FOR WNDT

4420524 BOLT ON STEP WELDMENT

FOR PARTS, CALL 1.800.342.7498
WNDT 1000SA AXLE WELDMENT AND HUB

DT 4420412 SINGLE AXLE TUBE SUBWELDMENT, 758

635989-300, BRAKE FLANGE

55199-K-00-3INCHx18.25INCH SPINDLE

2001112, 758 8 BOLT HUB W RACES

2001114 SEAL
2001115 BEARING
2001116 RACE

200117 LUG BOLT, .625 NC
200118 LUG NUT, .625 NC

2001113, 758 8 BOLT HUB ASSEMBLY

1002404 RACE
1002407 BEARING
140364 SPINDLE WASHER, 1 INCH
140363 SLOTTED NUT, 1 NC
2001121 COTTER PIN, .1875 X 2.5
2001122 DUST CAP P 502008

DRAWN BY RICH SMOTHERS 3/2/2012
CHECKED BY
PRINT DATE 5/7/2015
CONFIG. Default
COMMENTS:

FOR PARTS, CALL 1-800-342-7498

SCALE: 1:8
ASSEMBLY FOR 4-WHEEL BRAKE WALKERS IS THE SAME AS THE 2-WHEEL BRAKE WALKERS WITH THE ADDITION OF A SECOND BRAKE DRUM AND CLUSTER

1002194, 819 8-BOLT HUB ASSEMBLY
OR
1002191, 819 8-BOLT HUB W RACES

152915 GREASE ZERK, .125 MPT, 45 DEGREE

641029 RH CLUSTER
641028 BRAKE DRUM, 13 INCH

641022 LUG NUT, .5625 NC
641024 LUG BOLT, .5625 NC

FOR PARTS, CALL 1.800.342.7498
ASSEMBLY FOR 4-WHEEL BRAKE WALKERS IS
THE SAME AS THE 2-WHEEL BRAKE WALKERS
WITH THE ADDITION OF A SECOND BRAKE DRUM
AND CLUSTER

NOTE:
7/8" THREADED SPINDLE
-641221 SPINDLE WASHER, .875
-641220 SLOTTED NUT, .875 NC

641022 LUG NUT, .5625 NC
641024 LUG BOLT, .5625 NC

FOR PARTS, CALL 1.800.342.7498
*ADJUST SCREW WITH PIVOT NUT (23324)*
WARNING: To Prevent Serious Injury or Death

FAILURE TO FOLLOW THESE INSTRUCTIONS, OR FAILURE TO PROPERLY MAINTAIN BRAKES AFTER INSTALLATION, CAN RESULT IN LOSS OF BRAKING ACTION. THIS CAN CAUSE PERSONAL INJURY, DEATH OR PROPERTY DAMAGE. ONLY PROFESSIONAL MECHANICS SHOULD INSTALL BRAKE CLUSTERS. HAVE YOUR BRAKES INSPECTED BY A PROFESSIONAL MECHANIC AT LEAST ANNUALLY AFTER INSTALLATION.

WARNING: To Prevent Serious Injury or Death

- Review following instructions before installation and use of hydraulic brakes.

- Dealers or distributors must review these instructions with ultimate user.

- Failure to follow these instructions, or failure to properly maintain braking system after installation, can result in loss of braking action.

Table of Contents

General information ............................................................................................................. 2
Safety, Signal Words ........................................................................................................... 3
Bolt Torque .......................................................................................................................... 4
Installation and Maintenance .............................................................................................5-6
13" Brake Cluster Breakdown and Parts List ................................................................. 7
13" Brake Drum Comparison Chart ................................................................................... 8
SAFETY

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.

THIS SYMBOL MEANS

ATTENTION

BECOME ALERT

YOUR SAFETY IS INVOLVED!

SIGNAL WORDS

Note use following signal words DANGER, WARNING, and CAUTION with safety messages. Appropriate signal word for each has been selected using following guidelines:

DANGER:
Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING:
Indicates a potentially hazardous situation that, 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 that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have questions not answered in this manual, require additional copies, or if your manual is damaged, please contact your dealer or Demco, P.O. Box 189, 4010 320th Street, Boyden, IA 51234 ph: (712) 725-2311 or (712) 725-2302 Toll Free: 1-800-543-3626 Fax: (712) 725-2380 http://www.demco-products.com
BOLT TORQUE
TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

Tighten all bolts to torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt chart as guide. Replace hardware with same grade bolt.

NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.

Torque Specifications

<table>
<thead>
<tr>
<th>Bolt Torque for Standard bolts *</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRADE 2</strong></td>
</tr>
<tr>
<td><strong>“A”</strong></td>
</tr>
<tr>
<td><strong>lb-ft</strong></td>
</tr>
<tr>
<td>1/4”</td>
</tr>
<tr>
<td>5/16”</td>
</tr>
<tr>
<td>3/8”</td>
</tr>
<tr>
<td>7/16”</td>
</tr>
<tr>
<td>1/2”</td>
</tr>
<tr>
<td>9/16”</td>
</tr>
<tr>
<td>5/8”</td>
</tr>
<tr>
<td>3/4”</td>
</tr>
<tr>
<td>7/8”</td>
</tr>
<tr>
<td>1”</td>
</tr>
</tbody>
</table>

Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* GRADE or CLASS value for bolts and capscrews are identified by their head markings.
INSTRUCTIONS FOR 13” BRAKES

BRAKE INSTALLATION

1. Brake Mounting Flange
   To assure correct brake action, the mounting flange must be square and concentric with the axle spindle. A flange that is not properly installed will contribute to rapid lining wear and improper brake action.

   The 13” DEMCO brake is designed to interchange with existing equipment mounting on flanges with (4) holes on 4-13/16” B.C. and a 3-7/8” register diameter. Several manufacturers offer complete axles with flanges attached, or you may choose to install flanges yourself.

   Use a flange welding fixture to properly position the flange for welding. Bolt the flange to the welding fixture securely with bolts.

   Install the fixture (and flange) onto the spindle and tighten spindle nut. If flange is being installed on a round axle, rotate to secure “wheel cylinder up” location when the axle is installed.

   Do not make a continuous weld around the flange. First, tack weld on all four sides between the bolts. Follow this with a full weld up each side of the axle. It is usually not advisable or necessary to weld across the top and bottom of the axle. The bottom of the axle is its most highly stressed area and a weld at this point will weaken the axle. Allow the axle, spindle, and flange to cool before removing welding fixture. See brake drum page for drum face to flange location.

2. Installing Brakes
   Place the brake against spindle flange. In mounting the brake, be sure the hydraulic wheel cylinder is at the top. Brakes are also marked as “RIGHTS” and “LEFTS”. The brake designated as “LEFT” travels on the driver’s side of the road.

3. Installing Brake Drum
   When the brakes have been correctly assembled to the axle flanges, the hub and drum assemblies may be mounted on the axle spindle.

   Pack the inside bearing with suitable wheel bearing grease. Force grease through and around the rollers. Place the bearing in the hub and install the grease seal flush with the end of the hub using an arbor press or soft mallet. Remove excess grease.

   To avoid damage to bearing seal, lubricate seal seat prior to putting on the hub. Grease, pack and install the outer bearing on spindle. Place flatwasher and spindle nut on spindle. Tighten spindle nut per hub & bearing manufacturer specifications, then install new cotter pin to lock nut, and install dust cap.

   Caution: Do not pack hub full of grease. Excessive grease may leak into brake drums causing brake failure.

   Wheels may now be mounted on the hubs.

4. Adjusting Brakes
   Before removing the jacks, adjust the brakes.

   The brake adjustment nut is located through a slot at the bottom of the backing plate. Insert brake tool or screw driver into slotted hole with handle up and bit against the adjusting wheel, pull down on handle and rotate wheel while tightening. When you can no longer rotate wheel in the forward direction, then loosen the large nut on the back side of the brake cluster, located at the 12 o’clock position, one turn, do not take nut completely off, just loosen to allow anchor pin to realign. Take dead blow hammer and tap on brake drum several times around the perimeter. Now retighten the large anchor pin nut, and back off shoe adjuster 10-15 clicks. If there is one spot where the wheel drags just slightly this is acceptable. As soon as the brake linings are burnished (this requires several braking stops) the brakes will then be set right.

   ALWAYS ROTATE DRUM IN DIRECTION OF FORWARD ROTATION ONLY.
5. **Hydraulic Lines**
   Use care in forming tubing to avoid sharp bends or kinks. Use double flare steel tubing to assure tight leakproof connections. This must be done by a certified brake shop. Anchor all hydraulic lines at two foot intervals to prevent chafing and vibration. Use hydraulic rubber hose at points of flexing. Anchor hose ends to avoid stress on tubing.

6. **Bleeding the System**
   The first requirement for safe, sure hydraulic braking is the use of quality brake fluid. Use only DOT-3 or DOT-4 brake fluid from a sealed container.

   **Elevate tongue on trailer 4-6 inches**

   If pressure bleeding equipment is available, follow the manufacturer’s instruction in bleeding the system.

   **If system must be bled manually, proceed as follows:** Fill master cylinder with fluid. Install bleeder hose on first wheel cylinder to be bled (if tandem axle trailer, bleed rear axle first). Have loose end of hose submerged in brake fluid in glass container to observe bubbling.

   By loosening the bleeder screw located in the wheel cylinder one turn, the system is open to the atmosphere through the passage drilled in the screw. Pump actuator with short strokes until fluid in master cylinder reservoir stops bubbling, then pump actuator with long steady strokes. The bleeding operation is competed when bubbles no longer rise to the surface of the fluid in glass container. **Be sure to close bleeder screw securely.**

   Repeat bleeding operation at each wheel cylinder. During the bleeding process, replenish the brake fluid, so the level does not fall below the 1/2 full level in the master cylinder reservoir. After bleeding is complete, make sure master cylinder reservoir is filled and filler cap is securely in place.

   After the bleeding operation has been completed, apply pressure to the system and check the whole brake system for leaks.

---

**WARNING:** To Prevent Serious Injury or Death

Saltwater, granular fertilizers and other corrosive materials are destructive to metal. To prolong the life of a braking system used under corrosive conditions, we recommend that the actuator be flushed periodically with a high pressure water hose. Be sure to re-grease bearings and oil all moving parts after the unit has dried. At the end of the season, when unit is to be stored, remove the brake drums and clean inside the brakes. Pack wheel bearings before drum is installed.

**WARNING:** To Prevent Serious Injury or Death

FAILURE TO FOLLOW THESE INSTRUCTIONS, OR FAILURE TO PROPERLY MAINTAIN BRAKES AFTER INSTALLATION, CAN RESULT IN LOSS OF BRAKING ACTION. THIS CAN CAUSE PERSONAL INJURY, DEATH OR PROPERTY DAMAGE. ONLY PROFESSIONAL MECHANICS SHOULD INSTALL BRAKE CLUSTERS. HAVE YOUR BRAKES INSPECTED BY A PROFESSIONAL MECHANIC AT LEAST ANNUALLY AFTER INSTALLATION.
### BRAKE LINE

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>MATERIAL</th>
<th>STD STYLE</th>
<th>GN STYLE</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ACTUATOR to FRAME</td>
<td>RUBBER</td>
<td>18036 MF</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>FRONT to BACK</td>
<td>STEEL</td>
<td>16216-C</td>
<td>16252-C</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>CENTER to SIDE</td>
<td>STEEL</td>
<td>16021-S</td>
<td>16015-S</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>SIDE to AXLE</td>
<td>RUBBER</td>
<td>18013 FF</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>AXLE to DRUM</td>
<td>STEEL</td>
<td>16027-S</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

### FITTINGS

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>PART NO</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>T-UNION</td>
<td>640428</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>TUBE NUT</td>
<td>640060</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>HOSE CLIP</td>
<td>640062</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>HOSE BRACKET</td>
<td>640057</td>
<td>5</td>
</tr>
</tbody>
</table>
PARTS ORDERING PROCEDURE

Your Dalton Ag dealer is interested in your new fertilizer application equipment and has the desire to help you get the most value from it. Through the help of this manual, you will find you can do some of the regular maintenance yourself. For parts and service, contact the Dalton Ag Dealership from which you purchased your fertilizer application equipment or your local Dalton Ag dealer.

When replacement parts are required, consult the applicable illustration and parts list to obtain the correct part name and number. When requesting a replacement part, always include the following information:

1. Complete Part Number
2. Description
3. Quantity Required
4. Machine and Model Number
5. Machine Serial Number - located on the topside of the frame near hitch
6. Provide complete name and address for where and how parts are to be shipped.

NOTE: Right and left hand parts and sides of the units are determined by standing at the rear and facing in the direction of forward travel.

EQUIPMENT MODEL:___________________________________
EQUIPMENT SERIAL NO.:______________________________
DATE OF PURCHASE:_______________________________
NAME OF DEALER:_________________________________
DEALER’S PHONE NUMBER:__________________________

Thank you for your business!

DaltonAg.com          800.342.7498