

# SUMMERS®

15', 21' & 30' SUPERROLLER

15', 21' & 30' SUPERROLLER

## Operator's Manual



### RH8410 & RH8420 (Superroller)

#### **IMPORTANT**

THE OPERATOR IS RESPONSIBLE FOR ADJUSTING THE MACHINE SINCE MACHINE DOES NOT COME "FIELD READY" FROM FACTORY.



#### **CAUTION**

READ & UNDERSTAND OPERATOR'S MANUAL BEFORE USING MACHINE.

*See [www.summersmfg.com](http://www.summersmfg.com) for latest version of all Summers Operator's Manuals.*

**SUMMERS MANUFACTURING CO., INC.**  
**WEB SITE: [www.summersmfg.com](http://www.summersmfg.com)**

DEVILS LAKE, NORTH DAKOTA 58301

(701) 662-5391

# Warranty

Summers warrants only products of its manufacture against operational failure caused by defective materials or workmanship which occur during normal use within 36 months from the date of purchase by the end user from Summers' dealer.

Summers' obligation is to replace free of charge any part of any product that Summers inspection shows to be defective excluding transportation charges to Devils Lake, ND and return and also excluding all transportation costs from Summers' dealer to the dealer's customer and all other costs such as removal and installation expense.

Summers shall not be liable for loss of time, manufacturing costs, labor, material, loss of profits, consequential damages, direct or indirect, because of defective products whether due to rights arising under the contract of sale or independently thereof, and whether or not such claim is based on contract, tort or warranty.

Written permission for any warranty claim return must be first obtained from authorized Summers' personnel. All returns must be accompanied with a complete written explanation of claimed defects and the circumstances of operational failure.

Written warranty for all component parts used in the manufacture of Summers products is available upon request. Warranty of such component parts will be determined by said component manufacturer upon their inspection of the claimed defective part.

This express warranty is the sole warranty of Summers. There are no warranties, which extend beyond the warranty herein expressly set forth. The sales for products of Summers under any other warranty or guarantee express or implied is not authorized. This warranty voids all previous issues.

**SUMMERS MANUFACTURING CO. INC.**  
**DEVILS LAKE, NORTH DAKOTA 58301**

# INTRODUCTION

This manual provides the following information about your Summers Land Roller.

## SECTION CONTENTS

- Section 1 – SAFETY explains important safety precautions and familiarizes the Operator with the decals and their locations.
- Section 2 – LAND ROLLER OPERATION provides necessary information for the operation and adjustment of the machine.
- Section 3 – MAINTENANCE covers recommended mechanical maintenance. TROUBLESHOOTING provides a quick reference to solving problems. SPECIFICATIONS lists important dimensions, capacities and other technical information.
- Section 4 – PARTS

## OTHER ITEMS OF IMPORTANCE

**A. Summers Mfg. Co., Inc. strongly recommends that each Land Roller Operator READ and UNDERSTAND the Operator's Manual before using the machine. In addition, this Operator's Manual should be REVIEWED at least ANNUALLY thereafter.**

**B. It is the policy of this company in improve its products whenever possible and practical to do so. We reserve the right to make changes or improvements in the design or construction of parts at any time without incurring obligations to install such changes on products previously delivered.**

**C. Reference to "right" and "left" in this manual is determined when machine is viewed from the rear.**

**D. Parts are referenced in each drawing with the Summers Manufacturing Part Number. Use this Part Number when ordering replacement parts from your Summers dealer. See back section of manual for description of each Part Number.**

**E. WARNING – DO NOT ATTEMPT to raise machine into transport position if mud has built up on rollers or if machine weight has been increased by any other means. Mechanical failure may occur.**

**F. Ability to safely operate the Summers Superroller is determined by both tractor horsepower and weight. The minimum tractor weight for operating this implement is 16,000 lb. Minimum tractor engine horsepower is 125. Dual tires or single tires set at maximum width are required for safe operation of Land Roller.**

**G. Never tow this implement with less than an 16,000 lb. vehicle. Tongue weight in transport and field positions 1150 lbs.**

**H. NEVER ALLOW anyone to work under Land Roller.**

*Scan code to the right for the latest version of all Summers Operator's Manuals.*



### OWNER REGISTER

|                   |  |
|-------------------|--|
| Name _____        | Size _____   |
| Address _____     | Serial Number _____<br><small>(located by the hitch piece)</small> |
| City _____        |  |
| State/Prov. _____ | Date Purchased _____   |
| Mail Code _____   | Dealer _____   |

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## SECTION 1 - SAFETY

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### SAFETY-ALERT SYMBOL



This symbol is used to denote possible danger and care should be taken to prevent bodily injury. This symbol means:

### **ATTENTION! BECOME ALERT!** **YOUR SAFETY IS INVOLVED!**

Definition of each **Signal Word** used in conjunction with the **Safety-Alert** symbol.



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.



indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



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.

### **GENERAL SAFETY PRACTICES**

1. READ AND UNDERSTAND Operator's Manual before using machine. Review at least annually thereafter.
2. VERIFY all safety devices and shields are in place before using machine.
3. KEEP hands, feet, hair and clothing away from moving parts.
4. STOP engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, maintaining or unplugging.
5. BE CAREFUL when working around high pressure hydraulic system.
6. ALWAYS make sure Land Roller is lowered into field position (cylinders extended), it is blocked to prevent movement and that pressure is relieved from hydraulic circuits before servicing.
7. DO NOT ALLOW RIDERS.
8. USE EXTREME CARE when making adjustments.
9. KEEP CHILDREN AWAY from machinery at all times.
10. NEVER ALLOW anyone to work under Land Roller.
11. WARNING – DO NOT ATTEMPT to raise machine into transport position if mud has built up on rollers or if machine weight has been increased by any other means. Mechanical failure may occur.

## SECTION 1 - SAFETY

### SAFETY DURING TRANSPORT

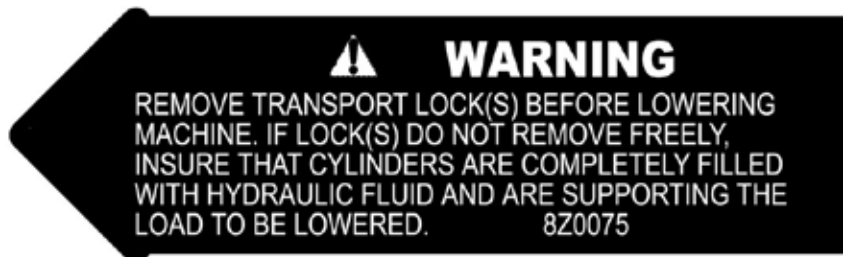
1. Ability to safely operate the Summers Superroller is determined by both tractor horsepower and weight. The minimum tractor weight for operating this implement is 16,000 lbs. Minimum tractor engine horsepower is 125. Dual tires or single tires set at maximum width are required for safe operation of Land Roller.
2. ONLY TOW at a safe speed – 20 MPH MAXIMUM. Use caution when making corners or meeting traffic.
3. USE Safety Lights and Safety Chain between tractor drawbar and implement hitch when transporting on public roads.
4. ALWAYS install hitch safety chains and close wing lock hydraulic valve before transporting on public roads.
5. FOLLOW ALL local laws governing transporting of farm machinery.
6. Use additional caution and reduce speed when towing under adverse conditions, when turning and when on unlevel surfaces. Frequently check for traffic from rear, especially during turns.
7. Stay clear of overhead lines and other overhead obstructions.

### SAFETY DECALS

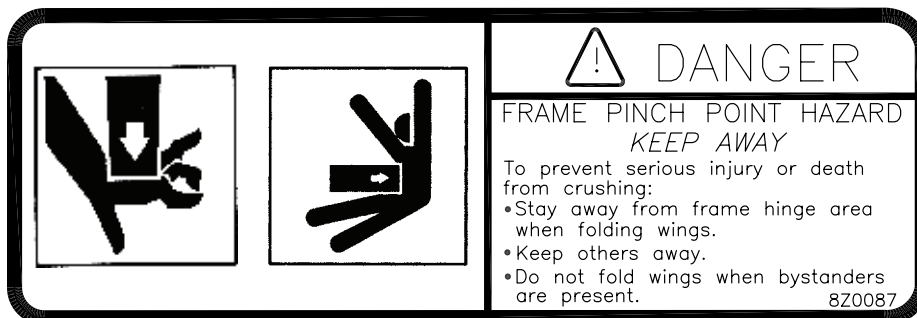
1. KEEP SAFETY DECALS CLEAN.
2. REPLACE missing or unreadable decals. New decals are available from your Summers dealer by ordering correct part number (PN) located on the decal.

### DECALS AND THEIR LOCATIONS

#### 1. PN 8Z0075 – DECAL FOR REMOVING TRANSPORT LOCKS



#### 2. PN 8Z0087 – DECAL FOR PINCH POINT HAZARD



SECTION 1 - SAFETY

3. PN 8Z0100 - MADE IN THE USA DECAL



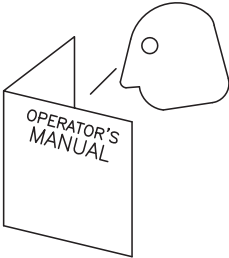

4. PN 8Z0202 – 3.5” SUMMERS DECAL



5. PN 8Z0204 – 5.5” SUMMERS DECAL



6. PN 8Z0276 – DECAL FOR GENERAL CAUTION

|   |  |
|---|--|
|  |  <b>CAUTION</b>   |
|   | <ol style="list-style-type: none"><li>1. Read and understand Operator's Manual before using machine.</li><li>2. For Sprayers:<ol style="list-style-type: none"><li>a. Read and follow chemical manufacturers' WARNINGS, instructions and procedures before using.</li><li>b. Use recommended personal protective equipment to reduce or eliminate chemical contact.</li><li>c. Never run pump dry.</li></ol></li><li>3. Verify all safety devices and shields are in place before using machine.</li><li>4. Keep hands, feet, hair and clothing away from moving parts.</li><li>5. Stop engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, maintaining or unplugging.</li><li>6. Be careful when working around high pressure hydraulic system.</li><li>7. Do not allow riders.</li><li>8. Check all wheel bolts DAILY for tightness.</li><li>9. Refer to Operator's Manual for periodic and annual maintenance.</li><li>10. For Towed Implements; DO NOT EXCEED 20 MPH.</li></ol> <p>8Z0276</p> |

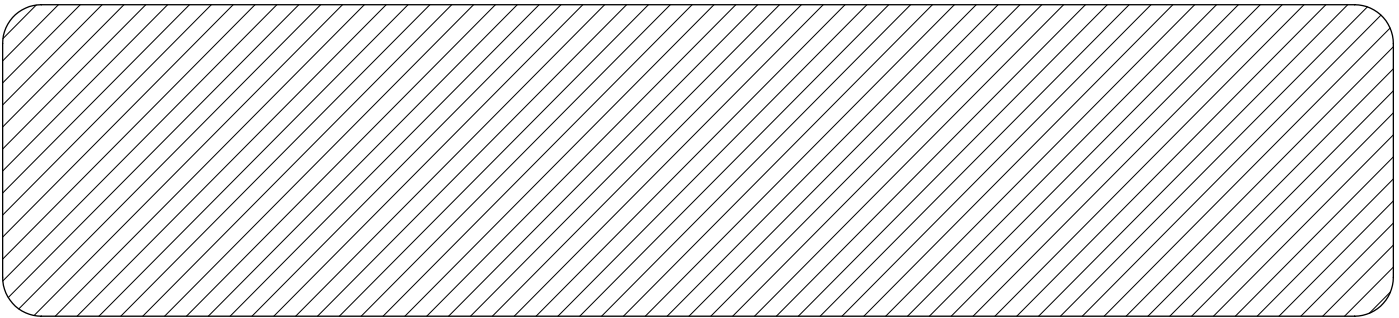
**SECTION 1 - SAFETY**

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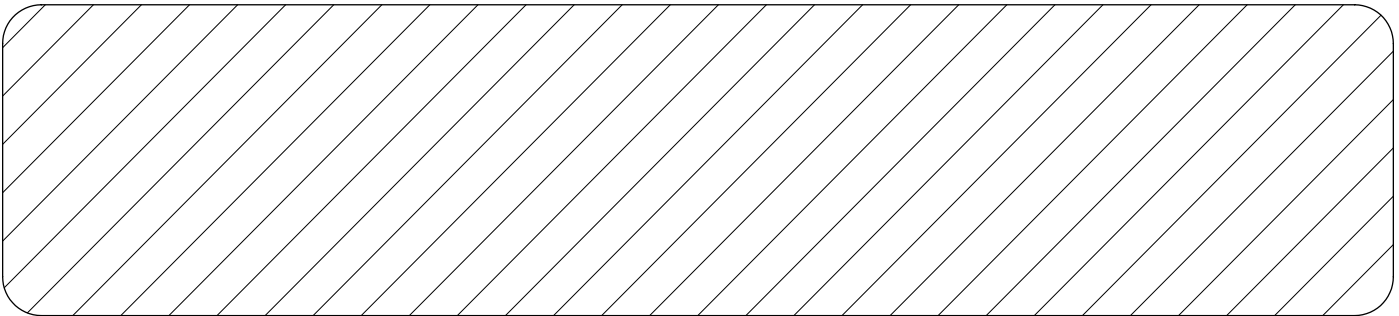
**7. PN 8Z0342 – INSTALL CYL LOCKS DECAL**



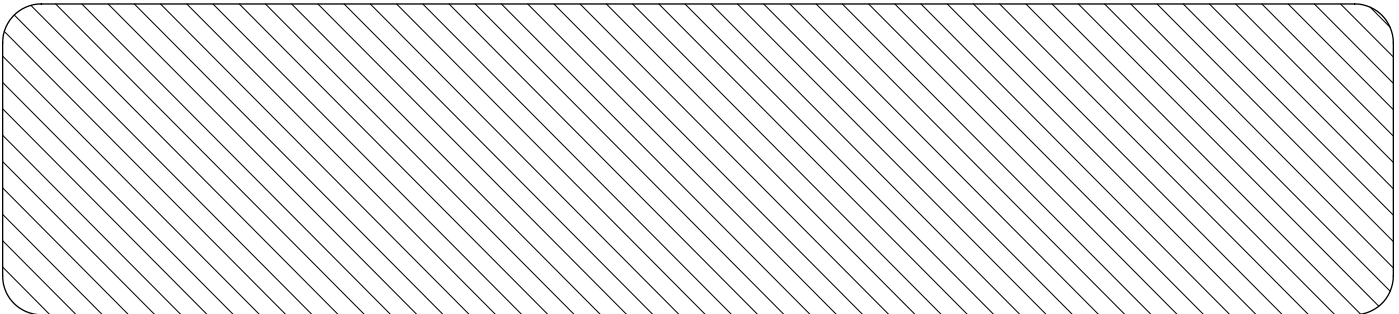
**8. PN 8Z0800 – AMBER REFLECTOR**



**9. PN 8Z0805 – RED-ORANGE REFLECTOR**



**10. PN 8Z0810 – RED REFLECTOR**





11. PN 8Z2190 – SUPERROLLER ID DECAL

**RH8420**

11. PN 8Z2192 – SUPERROLLER ID DECAL

**RH8410**

**SAFETY LIGHT OPERATION**

The Summers Safety Light Kit is equipped with a 7 pin connector which meets SAE J560 specification. To protect 7 pin connector, store in dust cap (8K8067) when not attached to towing vehicle.

*On most towing vehicles WITHOUT brake lights:*

Amber lights will turn on with flashers or turn signals.

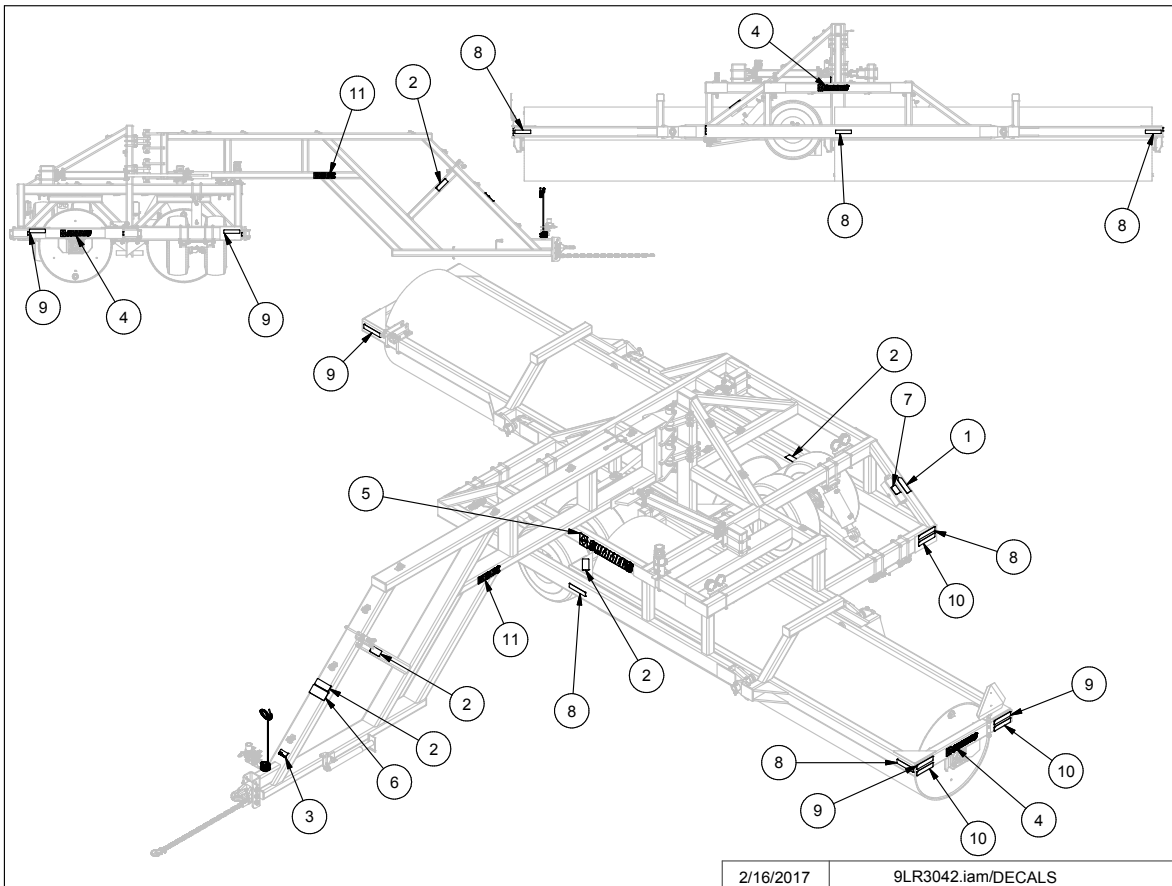
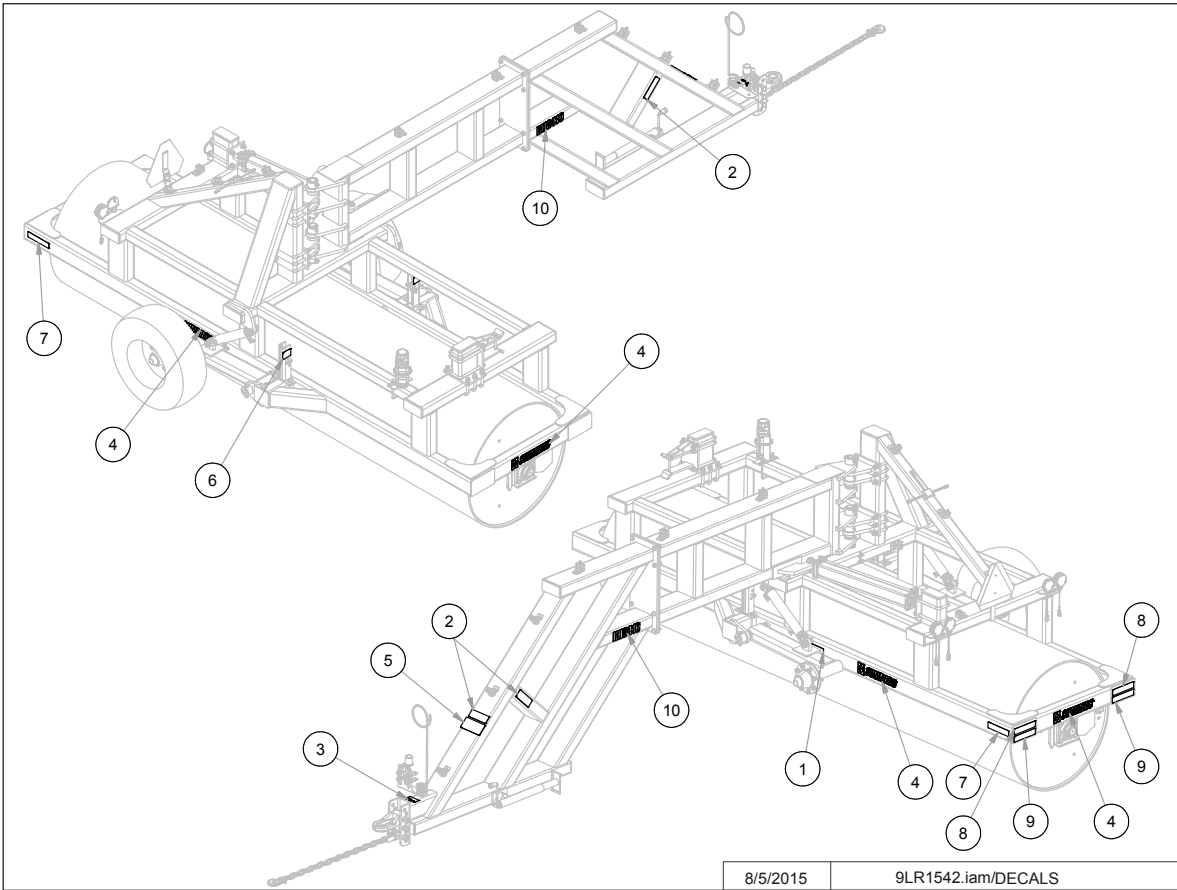
Red lights will turn on with parking, road or field lights.

*On most towing vehicles WITH brake lights:*

Amber lights will turn on with flashers, turn signals OR when brake is applied.

Red lights will turn on with parking or road lights.

# SECTION 1 - SAFETY



## **SECTION 2 – OPERATION**

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### **LAND ROLLER OPERATION SAFETY**


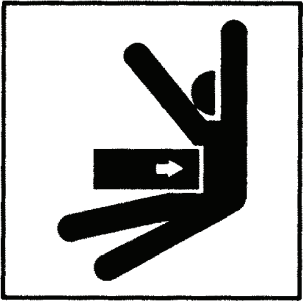

1. READ AND UNDERSTAND Operator's Manual before using machine. Review at least annually thereafter.
2. VERIFY all safety devices and shields are in place before using machine.
3. KEEP hands, feet, hair and clothing away from moving parts.
4. STOP engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, maintaining or unplugging.
5. BE CAREFUL when working around high pressure hydraulic system.
6. ALWAYS make sure Land Roller is lowered into field position, it is blocked to prevent movement and that pressure is relieved from hydraulic circuits before servicing.
7. DO NOT ALLOW RIDERS.
8. USE EXTREME CARE when making adjustments.
9. KEEP CHILDREN AWAY from machinery at all times.
10. NEVER ALLOW anyone to work under Land Roller.
11. WARNING – DO NOT ATTEMPT to raise machine into transport position if mud has built up on rollers or if machine weight has been increased by any other means. Mechanical failure may occur.

### **STEPS PRIOR TO OPERATION:**

1. COMPLETE WARRANTY REGISTRATION CARD.
  - A. Complete and return WARRANTY REGISTRATION CARD located at the beginning of this manual. Returning this card entitles you to a free gift.
  - B. Complete the OWNER REGISTER also located at the beginning of this manual (Serial Number is located by the front of the hitch). Owner register information may be needed when ordering parts.
2. VERIFY TRACTOR REQUIREMENTS.
  - A. WARNING: Land Roller must be attached directly to tractor drawbar and not an intermediate towed vehicle or implement. Loss of control could result causing serious injury or death to you or others.
  - B. Ability to safely operate the Summers Land Roller is determined by both tractor horsepower and weight. The minimum tractor weight for operating this implement is 10,500 lbs. for the 15' and 21' Landroller and 16,000 lbs. for the 30' Land Roller. Minimum tractor engine horsepower is 125. Dual tires or single tires set at maximum width are required for safe operation of the Land Roller.
  - C. The Summers Land Roller must be connected to a tractor drawbar with a locked draw pin. The tractor drawbar must be able to withstand 1400 lbs for 15' & 21' Land Roller and 2000 lb. for 30' Land Roller of tongue weight during transport and field operation.

## SECTION 2 – OPERATION

### INITIAL HOOKUP:

|   |   |   |
|---|---|---|
|  |  | <p> <b>DANGER</b></p> <p><b>FRAME PINCH POINT HAZARD</b><br/><i>KEEP AWAY</i></p> <p>To prevent serious injury or death from crushing:</p> <ul style="list-style-type: none"><li>• Stay away from frame hinge area when folding wings.</li><li>• Keep others away.</li><li>• Do not fold wings when bystanders are present.</li></ul> <p>8Z0087</p> |
|---|---|---|

1. Make tractor to hitch connection with locking draw pin and safety chain.
2. Retract jack and rotate into storage position.
3. Plug Hitch Cylinder hoses into desired tractor outlet, adjust hydraulic flow rate to 35% of maximum. Insure that tips and couplers are CLEAN.
4. Plug Lift Cylinder hoses into desired tractor outlet, adjust hydraulic flow rate to 35% of maximum.
5. Connect safety Light Kit wiring harness to 7 pin receptacle.
6. If Land Roller is in Transport Position, follow “Steps Required to Unfold from Transport to Field Position”.
7. INITIAL CHECK – with machine in Field Position
  - A. After receiving or assembling your Land Roller, it is a good practice to double check the entire machine so all fasteners are securely tightened.
  - B. Make sure all grease fittings are in place and greased properly.
  - C. Inflate tires to recommended inflation pressure (see page 3-2), check that wheel nuts are tightened to 170 ft-lb and check that wheel bearings are correctly adjusted.

## SECTION 2 – OPERATION

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### **STEPS REQUIRED TO UNFOLD FROM TRANSPORT TO FIELD POSITION:**

1. **WARNING:** Land Roller must be attached directly to tractor drawbar and not an intermediate towed vehicle or implement. Loss of control could result causing serious injury or death to you or others. Never tow this implement with less than an 10,500 lb. vehicle for the 15' & 21' Land Roller and a 16,000 lb. vehicle for the 30' Land Roller.
2. Ability to safely operate the Summers Land Roller is determined by both tractor horsepower and weight. The minimum tractor weight for operating this implement is 10,500 lbs. for the 15' & 21' Land Roller and 16,000 lbs. for 30' Landroller. Minimum tractor engine horsepower is 110 for 15' & 21' and 125 for the 30'. Dual tires or single tires set at maximum width are required for safe operation of the Land Roller.
3. The Summers Land Roller must be connected to a tractor drawbar with a locked draw pin. The tractor drawbar must be able to withstand 2000 lb of tongue weight during transport and field operation.
4. Park tractor and Land Roller on a firm level surface with enough open area that will allow unfolding Land Roller without contacting obstructions.
5. Unhook Hitch Pivot Safety Lock Chains. Hook Chains onto storage Rings located on the main hitch. Open pivot lock hydraulic valve.
6. Operate tractor hydraulics from operator station only. Do not allow anyone to stand near the Land Roller when folding or unfolding. Do not raise or lower Land Roller when implement is moving.
7. Place tractor in Neutral as the folding procedure may cause the tractor to roll.
8. Activate the lift cylinder hydraulic valve. Lower the machine completely to the ground; fully retract lift cylinders so wheels rise off the ground.
9. Activate the hitch cylinder hydraulic valve. Fully cycle the pivot cylinders until the Land Roller no longer rotates. During rotation the entire Land Roller may move to the right side of the tractor, the tractor may also roll.

## SECTION 2 – OPERATION

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### **LAND ROLLER FIELD OPERATION:**

1. If Land Roller is in Transport Position, follow “Steps Required to Unfold Land Roller from Transport to Field Position”, page 2-3.
2. Choose an operating speed which achieves desired results. Operating at over 7 MPH will decrease effectiveness and increase chance of immovable rocks denting roller tube. **Denting of roller tube is NOT covered by warranty.**

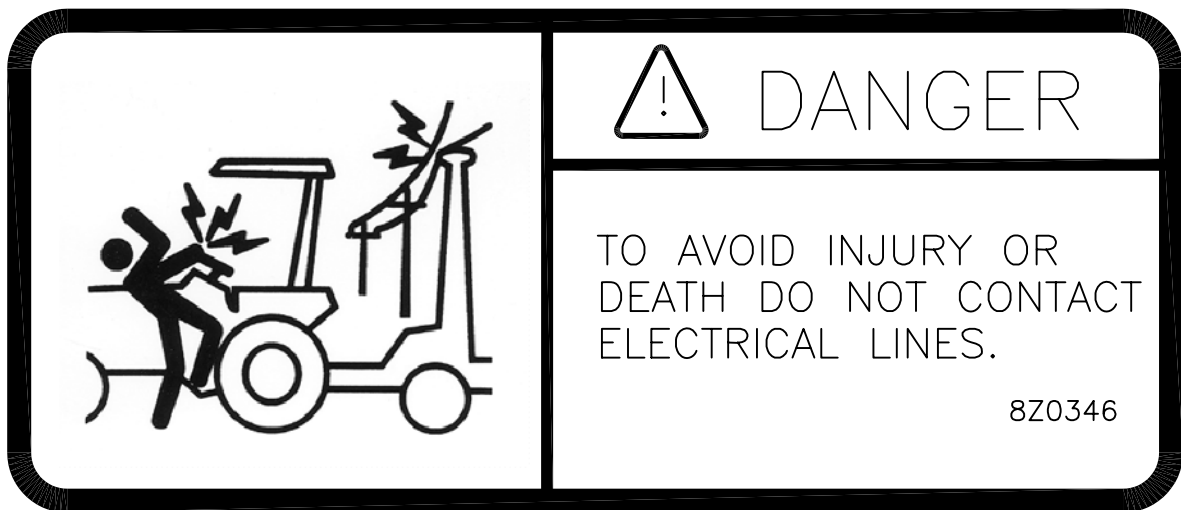
### **STEPS REQUIRED TO FOLD FROM FIELD TO TRANSPORT POSITION:**

1. **WARNING:** Land Roller must be attached directly to tractor drawbar and not an intermediate towed vehicle or implement. Loss of control could result causing serious injury or death to you or others. Never tow this implement with less than an 10,500 lb. vehicle for the 15' & 21' Landroller and a 16,000 lb vehicle for the 30' Land Roller.
2. The Summers Land Roller must be connected to a tractor drawbar with a locked draw pin. The tractor drawbar must be able to withstand 1400 lb. of tongue weight for the 15' & 21' Land Roller and 2000 lb of tongue weight for the 30' Land Roller during transport and field operation.
3. Park tractor and Land Roller on a firm level surface with enough open area that will allow folding Land Roller without contacting obstructions. Operate tractor hydraulics from the operator station only. Do not allow anyone to stand near the Land Roller when folding or unfolding.
4. **WARNING: DO NOT ATTEMPT to raise machine into transport position if mud has built up on rollers or if machine weight has been increased by any other means.**
5. Activate the hitch cylinder hydraulic valve. Fully cycle the pivot cylinders until the Land Roller no longer rotates. During rotation the entire Land Roller may move to the right side of the tractor. The tractor may also roll.
6. Activate the lift cylinder hydraulic valve. Raise machine completely fully extending lift cylinders so the rollers rise off the ground.
7. Install Hitch Pivot Safety Lock Chains and close pivot lock hydraulic valve.

## SECTION 2 – OPERATION

### **TRANSPORTING LAND ROLLER:**

1. If Land Roller is in Field Position, follow “Steps Required to Fold Land Roller from Field to Transport Position”, page 2-4.
2. Ability to safely operate the Summers Superroller is determined by both tractor horsepower and weight. The minimum tractor weight for operating this implement is 16,000 lbs. Minimum tractor engine horsepower is 110 for the 15' & 21' and 125 for the 30'. Dual tires or single tires set at maximum width are required for safe operation of Land Roller.
3. ONLY TOW at a safe speed – 20 MPH MAXIMUM. Use caution when making corners or meeting traffic.
4. USE Safety Lights and Safety Chain between tractor drawbar and implement hitch when transporting on public roads.
5. ALWAYS install hitch pivot transport safety chains/locks and lift cylinder locks.
6. FOLLOW ALL local laws governing transporting of farm machinery.
7. Use additional caution and reduce speed when towing under adverse conditions, when turning and when on unlevel surfaces.
8. Stay clear of overhead lines and other overhead obstructions.
9. Frequently check for traffic from rear, especially during turns.



## **SECTION 2 – OPERATION**

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### **UNHOOKING LAND ROLLER FROM TRACTOR IN FIELD POSITION:**

1. **NEVER** unhook Land Roller if positioned hydraulically between Field and Transport Position.
2. Choose a firm level surface.
3. With Land Roller in Field Position; shut off tractor, engage parking brake and relieve hydraulic pressure by cycling remote lever.
4. Block rollers to prevent movement after hitch pin is removed.
5. Check that hitch pin is not bound with sideways or front to back pressure. If hitch pin is not free, carefully reposition tractor.
6. Rotate jack into vertical position and extend jack until hitch piece lifts off tractor drawbar.
7. Disconnect wiring harness, hydraulic hoses and safety chain.
8. Recheck that hitch pin is free, if so, stand to the side of the hitch and remove hitch pin.
9. Carefully drive ahead.

### **UNHOOKING LAND ROLLER FROM TRACTOR IN TRANSPORT POSITION:**

1. **NEVER** unhook Land Roller if positioned hydraulically between Field and Transport Position.
2. **DO NOT ALLOW ANYONE TO WORK UNDER LAND ROLLER.**
3. Choose a very firm level surface.
4. Block tires to prevent movement after hitch pin is removed.
5. Check that hitch pin is not bound with side or front to back pressure. If hitch pin is not free, carefully reposition tractor
6. Rotate jack into vertical position, place sturdy block under jack to distribute load over larger area and extend jack until hitch piece just lifts off tractor drawbar.
7. Disconnect wiring harness, hydraulic hoses and safety chain.
8. Recheck that hitch pin is free, if so, stand to the side of the hitch and remove hitch pin.
9. Carefully drive ahead.



## SECTION 3 – MAINTENANCE

### MAINTENANCE SAFETY

1. STOP engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting or maintaining.
2. BE CAREFUL when working around high pressure hydraulic system.
3. ALWAYS make sure that Land Roller is lowered into field position, it is blocked to prevent movement and pressure is relieved from hydraulic circuits before servicing.
4. USE EXTREME CARE when making adjustments.
5. KEEP CHILDREN AWAY from machinery at all times.
6. NEVER ALLOW anyone to work under Land Roller.



### MAINTENANCE FOR AFTER THE FIRST FOUR HOURS OF OPERATION

1. Grease wing and hitch pivots.
2. Check all hydraulic components for leaks. (SEE HIGH-PRESSURE FLUID WARNING ABOVE.)
3. Check tightness of wheel nuts. Recommended torque 170 ft. lbs.
4. Check tightness of wheel bearings.
5. Check tightness of all hardware. Pay special attention to hitch and pivot pin retaining bolts.
6. Check tire pressures. Recommended air pressure is 90 PSI.

### DAILY MAINTENANCE

1. Grease wing and hitch pivots.
2. Check all hydraulic components for leaks. (SEE HIGH-PRESSURE FLUID WARNING ABOVE.)
3. Check tightness of all wheel nuts. Recommended torque 170 ft. lbs.
4. Check tire air pressure. Recommended air pressure is 90 PSI.

**ROLLER BEARINGS:** To maximize bearing life, grease bearings at mid day or end of day when bearings are at operating temperature. **Every 20 hours:** Add three strokes (approx. .14 oz.) of grease.

### PERIODIC MAINTENANCE

1. Repack wheel bearings and check tightness.
2. Check the tightness of all hardware. Pay special attention to hitch and pivot pin retaining bolts.
3. Check Land Roller for damaged or worn parts. Replace as needed.

**SECTION 3 – MAINTENANCE**

**STORAGE**

1. Follow steps outlined in “UNHOOKING LAND ROLLER FROM TRACTOR IN FIELD POSITION”.
2. Clean and remove all excessive dirt and grease from Land Roller.
3. Grease all zerks.
4. To prevent rusting, repaint any areas that have been worn, chipped or scratched.
5. Apply grease\* to any exposed part of cylinder shafts.

\*NOTE: Before returning Land Roller into service, all grease must be removed from cylinder shafts to prevent damage to seals.

**SPECIFICATIONS**

| Working Width | Transport Width | Transport Height | Transport Length | Machine Weight | Roller Diameter |
|---------------|-----------------|------------------|------------------|----------------|-----------------|
| 15'           | 98"             | 8'6"             | 24'10"           | 9,300#         | 42"             |
| 21'           | 98"             | 8'6"             | 30'10"           | 11,200#        | 42"             |
| 30'           | 11'6"           | 9'11"            | 35'8"            | 18,600#        | 42"             |

| Tire Size    | Rating         | Recommended Inflation Pressure |
|--------------|----------------|--------------------------------|
| 340/60R 16.5 | 145 Load Index | 73 PSI                         |

| Hub Size | Rating                     | Recommended Wheel Nut Torque | Recommended Axle Nut Torque  |
|----------|----------------------------|------------------------------|--|
| HD812    | 6100 LB.<br>20 MPH Maximum | 170 ft.-lbs.                 | 45 ft.-lbs., loosen until first slot is aligned with hole in axle, install cotter pin, bend to retain. |
| HD817    | 6400 LB.<br>30 MPH Maximum | 240 ft.-lbs.                 | 45 ft.-lbs., loosen until first slot is aligned with hole in axle, install cotter pin, bend to retain. |

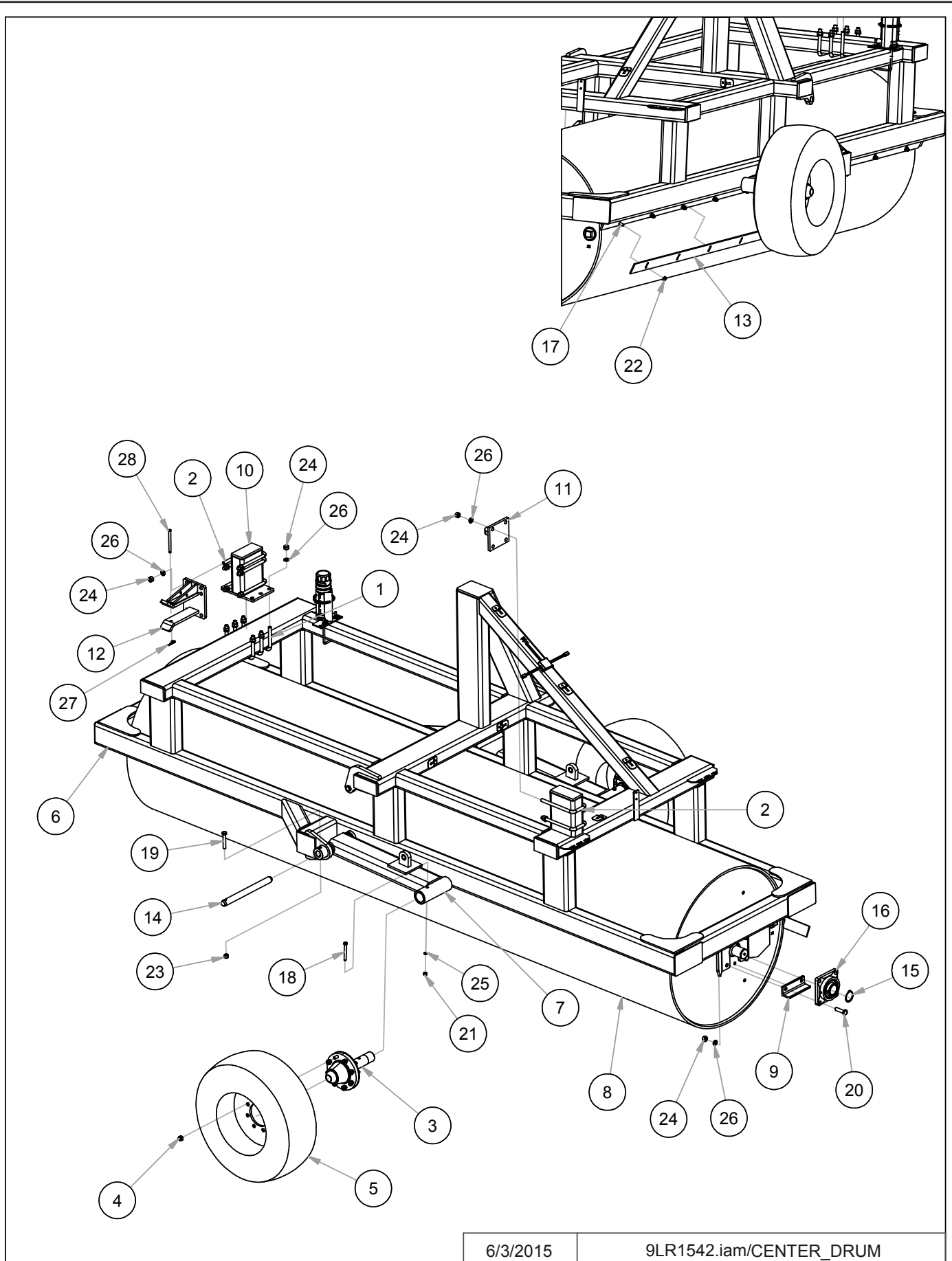
***\*APPROXIMATE WEIGHTS OF COMPONENTS***

| PN     | DESCRIPTION     | WEIGHT (LB) |
|--------|-----------------|-------------|
| 8P5990 | 15' & 21' HITCH | 705         |
| 8P1542 | 15' MAINFRAME   | 2410        |
| 8P2142 | 21' MAINFRAME   | 2800        |
| 8P4215 | ROLLER, 15'     | 4285        |
| 8P4221 | ROLLER, 21'     | 5456        |

|        |                         |      |
|--------|-------------------------|------|
| 8P8615 | 15' BOX HARDWARE PARTS  | 604  |
| 8P8621 | 21' BOX HARDWARE PARTS  | 634  |
| 8P6000 | 30' HITCH               | 1780 |
| 8P6030 | 30' CENTER SECTION      | 3950 |
| 8P6115 | 30' WING LEFT AND RIGHT | 1166 |
| 8P8630 | 30' BOX HARDWARE PARTS  | 1250 |

REMEMBER TO BRING YOUR OWNER REGISTER INFORMATION LOCATED AT THE BEGINNING OF THIS MANUAL WHEN ORDERING PARTS (SERIAL NUMBER IS LOCATED BY THE FRONT OF THE HITCH).

SECTION 4 – PARTS



6/3/2015

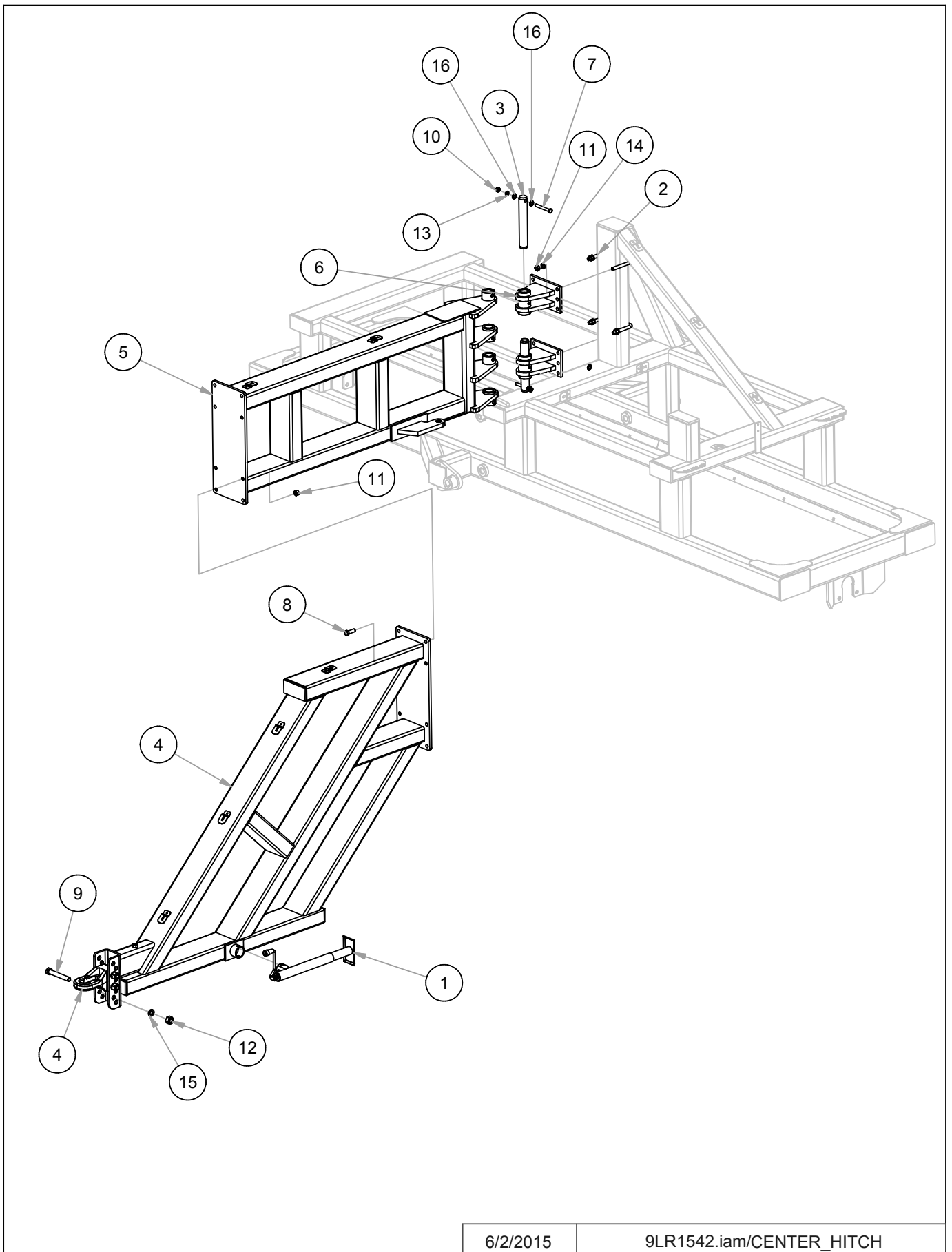
9LR1542.iam/CENTER\_DRUM

**SECTION 4 – PARTS**

**15' & 21' CENTER**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>  |
|-------------|--------------------|---|
| 1           | 8C1760             | U-BOLT 3/4 X 8-1/16 X 6" SQ   |
| 2           | 8D0350             | U-BOLT 3/4 X 4-1/16 X 10" SQ  |
| 3           | 8K1106             | HUB&AXLE ASSY HD817 (2.5"RCVR)  |
| 4           | 8K7123             | NUT WHEEL BOLT 5/8-18UNF 97-  |
| 5           | 8K7450             | 340/60R16.5   |
| 6           | 8P1541W<br>8P2141W | 15' LAND ROLLER FRAME (SHOWN)<br>21' LAND ROLLER FRAME                      |
| 7           | 8P2032L<br>8P2032R | LFT LIFT ARM SINGLE DRUM ROLLER (SHOWN)<br>RGHT LIFT ARM SINGLE DRUM ROLLER |
| 8           | 8P4215<br>8P4220   | ROLLER 42"DIAMETER 15' (SHOWN)<br>ROLLER 42"DIAMETER 21'                    |
| 9           | 8P5080             | ANGLE BRNG 3/8X2.5X2.5- 7-7/8"  |
| 10          | 8P5970             | TRANSPORT REST STOP   |
| 11          | 8P6210             | CYL ATTCH U-BLT ON 1"ID 06-   |
| 12          | 8P6225             | TRANSPORT LOCK  |
| 13          | 8P6990             | SCRAPER 42" ROLLER 90° 09-  |
| 14          | 8P7260             | PIN 2 X 17-1/2" HARDENED  |
| 15          | 8R8005             | SNAP RING .078"FOR 2-1/2"DIA.   |
| 16          | 8R8010             | BEARING 2-1/2"FLNG 4BLT-49/64"  |
| 17          | 8X0064             | CRG 1/2-13NC X 1-1/2" GR 5 YZ   |
| 18          | 8X0074             | BOLT 1/2-13NC X 4-1/2" GR5 ZDI  |
| 19          | 8X0096             | BOLT 5/8-11NC X 4" GR5 ZDI  |
| 20          | 8X0111A            | BOLT 3/4-10NC X 2-3/4" GR5 ZDI  |
| 21          | 8X0240             | NUT 1/2"-13NC HEX GR2 YZ  |
| 22          | 8X0246             | NUT 1/2"-13NC SERFLANG GR2 YZ   |
| 23          | 8X0253             | NUT 5/8"-11NC NY-LOCK GR2 YZ  |
| 24          | 8X0260             | NUT 3/4"-10NC HEX GR2 YZ  |
| 25          | 8X0303             | LOCKWASHER 1/2" YLW ZNC   |
| 26          | 8X0306             | LOCKWASHER 3/4" YLW ZNC   |
| 27          | 8X0402             | HAIR PIN CLIP 1/8 X 2-9/16"   |
| 28          | 8X0432             | CLEVIS PIN 1/2 X 6" ZDI   |

SECTION 4 – PARTS



6/2/2015

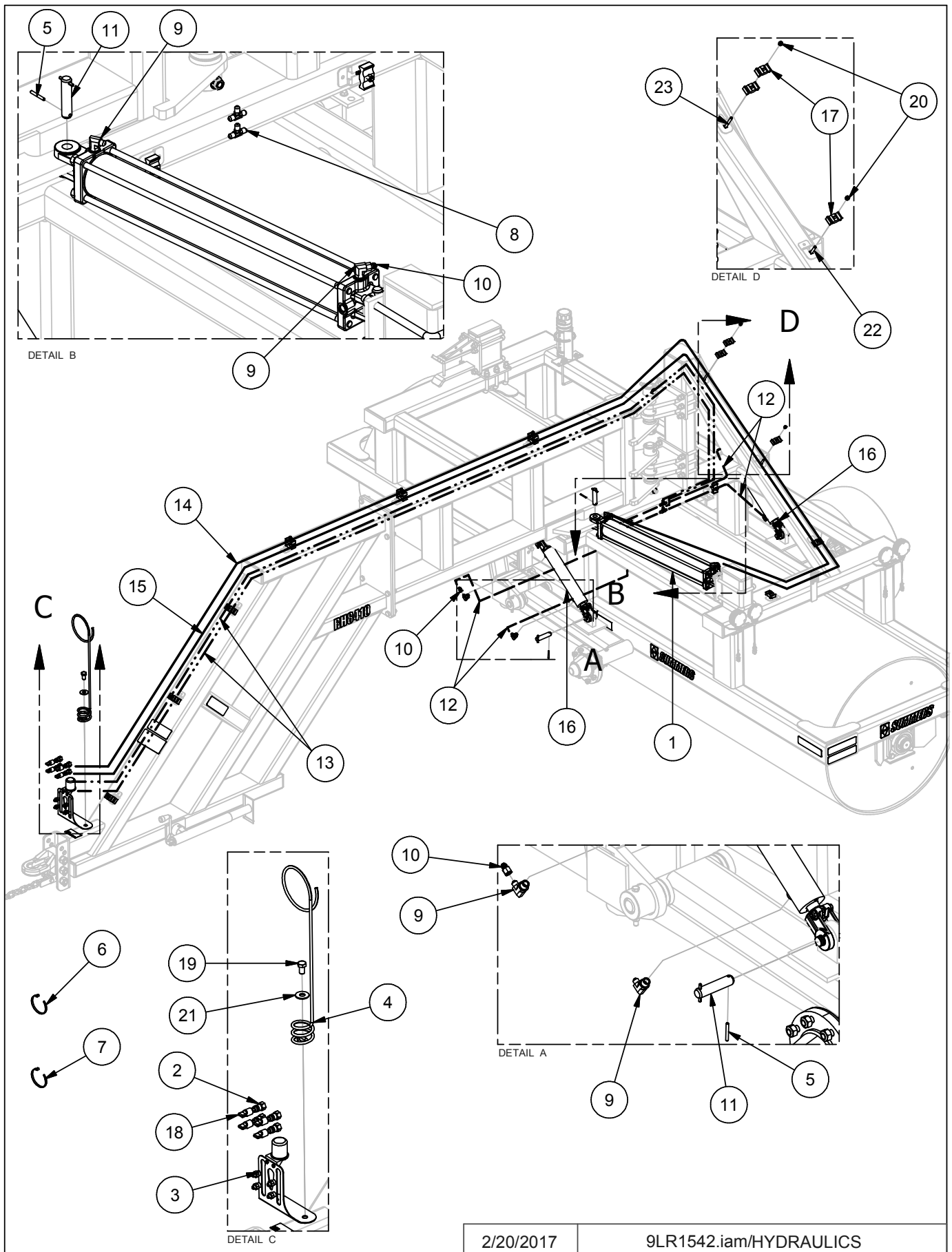
9LR1542.iam/CENTER\_HITCH

**SECTION 4 – PARTS**

**15' & 21' HITCH**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>                     |
|-------------|--------------------|--|
| 1           | 3TM-15-5           | Bulldog Implement Jack                 |
| 2           | 8C1760             | U-BOLT 3/4 X 8-1/16 X 6" SQ            |
| 3           | 8P3910             | PIN 2 X 13-1/2" HARDENED               |
| 4           | 8P5989             | 15 & 21' FRONT HITCH RAW               |
| 5           | 8P5995<br>8P5997   | 15' LR REAR HITCH<br>21' LR REAR HITCH |
| 6           | 8P6220             | PIVOT HTCH SWNG FLD U-BLT 06-          |
| 7           | 8X0095             | BOLT 5/8-11NC X 5" GR5 ZDI             |
| 8           | 8X0112             | BOLT 3/4-10NC X 2-1/4" GR5 YZ          |
| 9           | 8X0140             | BOLT 1-8NCX7" W/1.5"THDGR5 YZ          |
| 10          | 8X0250             | NUT 5/8"-11NC HEX GR2 YZ               |
| 11          | 8X0260             | NUT 3/4"-10NC HEX GR2 YZ               |
| 12          | 8X0280             | NUT 1"-8NC HEX GR2 YZ                  |
| 13          | 8X0304             | LOCKWASHER 5/8" YLW ZNC                |
| 14          | 8X0306             | LOCKWASHER 3/4" YLW ZNC                |
| 15          | 8X0309             | LOCKWASHER 1" YLW ZNC                  |
| 16          | 8X0323             | WASHER 5/8" SAE FLAT YZ                |

# SECTION 4 – PARTS



2/20/2017

9LR1542.iam/HYDRAULICS

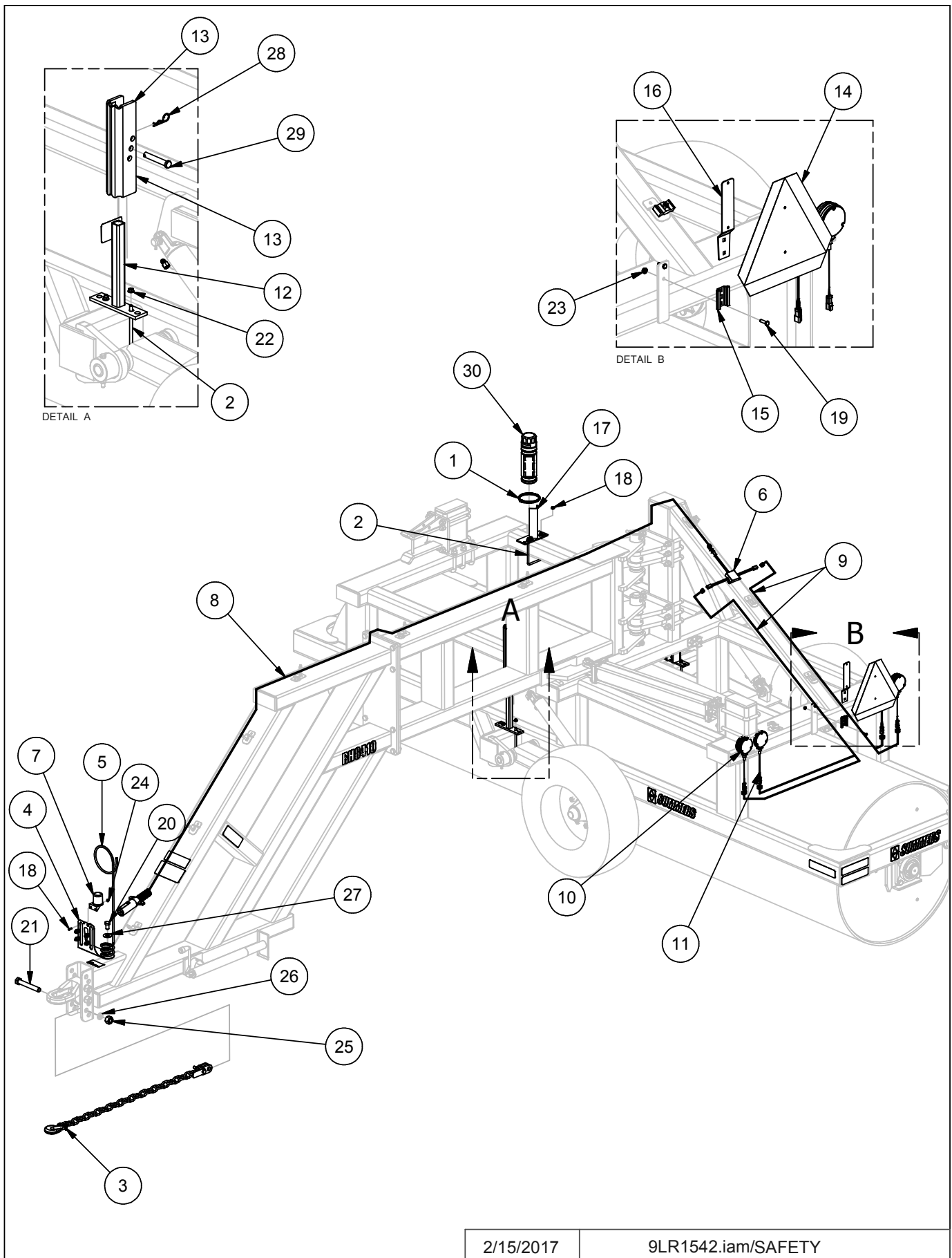


**SECTION 4 – PARTS**

**15' & 21' HYDRAULICS**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>                      |
|-------------|--------------------|---|
| 1           | 8C0432             | HYD CYL 4 X 32" 3000PSI                 |
| 2           | 8D3212             | MALE TIP 3/4"-16 ORB PIONEER            |
| 3           | 8D8490             | PIONEER/ISO TIP HLDR BNT                |
| 4           | 8D8500             | HYD HOSE HOLDER PNTD BLK 91-            |
| 5           | 8D9108             | ROLL PIN 1/4 X 2" YLW ZNC               |
| 6           | 8G2284             | NYLON TIE .187 X 7-1/2" YELLOW          |
| 7           | 8G2285             | NYLON TIE .187 X 7-1/2" GREEN           |
| 8           | 8J5300             | TEE #6 JIC (MALE) 3X                    |
| 9           | 8J6010             | 3/4"-16 ORB X #6 JIC(M)90*ADP           |
| 10          | 8J7216             | #6JIC(M)X6JIC(F)1/16"RSTR GOLD          |
| 11          | 8K9102             | PIN 1 X 4" CYL-FOR1/4"ROLL PIN          |
| 12          | 8N3048             | 3/8" X 48" HYD HOSE #6FJX3000PSI        |
| 13          | 8N3360             | 3/8" X 360" HYD HOSE #6FJX3000PSI (15') |
|             | 8N3390             | 3/8" x 390" HYD HOSE #6FJX3000PSI (21') |
| 14          | 8N3408             | 3/8" X 408" HYD HOSE #6FJX3000PSI (15') |
|             | 8N3432             | 3/8" X 432" HYD HOSE #6FJX3000PSI (21') |
| 15          | 8N3432             | 3/8" X 432" HYD HOSE #6FJX3000PSI (15') |
|             | 8N3462             | 3/8" X 462" HYD HOSE #6FJX3000PSI (21') |
| 16          | 8P0280             | 2.5 X 12" PRINCE CYLINDER               |
| 17          | 8S2990             | HYD HOSE CLAMP-LARGE-NYLON              |
| 18          | 8S3095             | CAPLUG FITS ISO HYD COUPLR 08-          |
| 19          | 8X0110             | BOLT 3/4-10NC X 1-1/4" GR5 YZ           |
| 20          | 8X0202             | NUT 3/8"-16NC NY-LOCK GR2 YZ            |
| 21          | 8X0318             | WASHER 3/4"(13/16"ID)FLAT YZ            |
| 22          | 8X1120             | CRG 3/8-16NC X 2" GR2 ZN                |
| 23          | 8X1130             | CRG 3/8-16NC X 3" GR2 ZN                |

# SECTION 4 – PARTS



2/15/2017

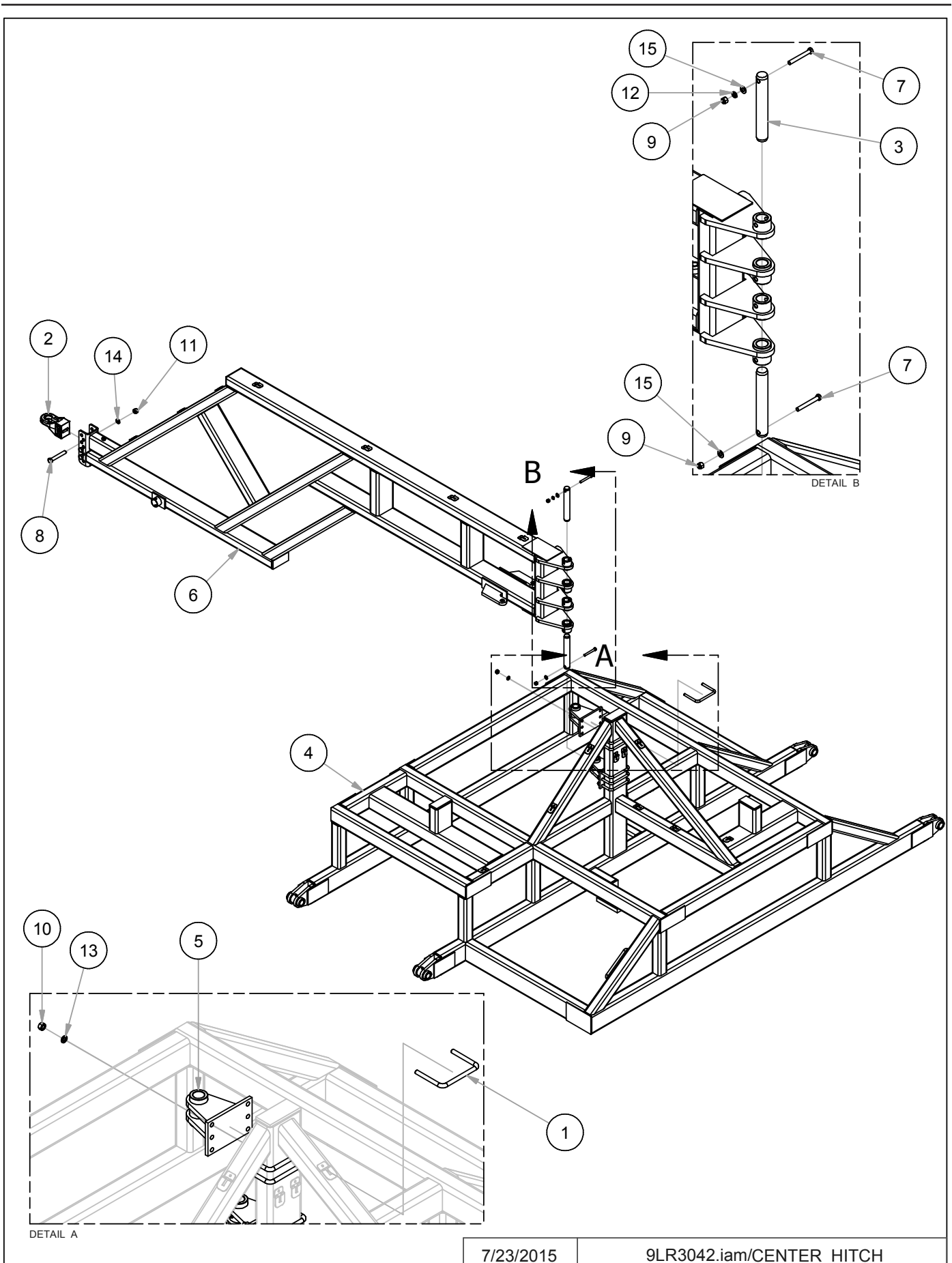
9LR1542.iam/SAFETY

**SECTION 4 – PARTS**

**15' & 21' SAFETY**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>  |
|-------------|--------------------|---|
| 1           | 8A1004             | CLAMP HOSE 5" #72   |
| 2           | 8A1157             | U-BOLT 3/8 X 4-1/16 X 7" SQ   |
| 3           | 8D2440             | SAFETY CHAIN 11000# 1/4" X 84"  |
| 4           | 8D8490             | PIONEER/ISO TIP HLDR BNT  |
| 5           | 8D8500             | HYD HOSE HOLDER PNTD BLK 91-  |
| 6           | 8K8030A            | MODULE AG ENHNCDW/BRAKE6PIN08-  |
| 7           | 8K8067             | DUST CAP FOR 7PIN CONNECT00-  |
| 8           | 8K8070B<br>8K8071  | MAIN HRNSS 7PNLNG W/BRAKE 09- (21' & 30')<br>MAIN HRNSS 7PN 26' W/BRAKE 09- (15') |
| 9           | 8K8075A<br>8K8075Z | EXT HARNESS 18' DEUTSCH 07- (30')<br>EXT HARNESS 6' DEUTSCH 17- (15' & 21')       |
| 10          | 8K8090B            | LIGHT LED AMBER 2WR DTSCH 12-   |
| 11          | 8K8095B            | LIGHT LED RED 3WIRE DTSCH 12-   |
| 12          | 8P0200             | TRANSPORT STOP STORAGE BRACKET  |
| 13          | 8P0340             | TRNS LCK W/UHMW 12.3"(1.7RD) 15-  |
| 14          | 8S1120             | SIGN SLOW MOVING VEHICLE(SMV)   |
| 15          | 8S1124             | MOUNTING SOCKET SMV SIGN ZDI  |
| 16          | 8S1126             | MNT SPADE W/HRDWR SMV SIGN  |
| 17          | 8T4385             | HOLDER MANUAL-PAK 3/4/6MNT09-   |
| 18          | 8X0000             | BOLT 1/4-20X3/4" FLLTHD GR5 YZ  |
| 19          | 8X0021A            | BOLT 5/16-18NC X 1" GR5 ZDI   |
| 20          | 8X0110             | BOLT 3/4-10NC X 1-1/4" GR5 YZ   |
| 21          | 8X0140             | BOLT 1-8NCX7" W/1.5"THDGR5 YZ   |
| 22          | 8X0203             | NUT 3/8"-16NC SERFLANG GR2 YZ   |
| 23          | 8X0211             | NUT 5/16"-18NC SERFLANG GR2 YZ  |
| 24          | 8X0223             | NUT 1/4"-20NC SERFLANG GR2 YZ   |
| 25          | 8X0280             | NUT 1"-8NC HEX GR2 YZ   |
| 26          | 8X0309             | LOCKWASHER 1" YLW ZNC   |
| 27          | 8X0318             | WASHER 3/4"(13/16"ID)FLAT YZ  |
| 28          | 8X0402             | HAIR PIN CLIP 1/8 X 2-9/16"   |
| 29          | 8X0440             | CLEVIS PIN 5/8 X 3-7/8" ZDI   |
| 30          | 8Z1000             | MANUAL-PAK 3DIA X 11.75" 09-  |

SECTION 4 – PARTS



7/23/2015

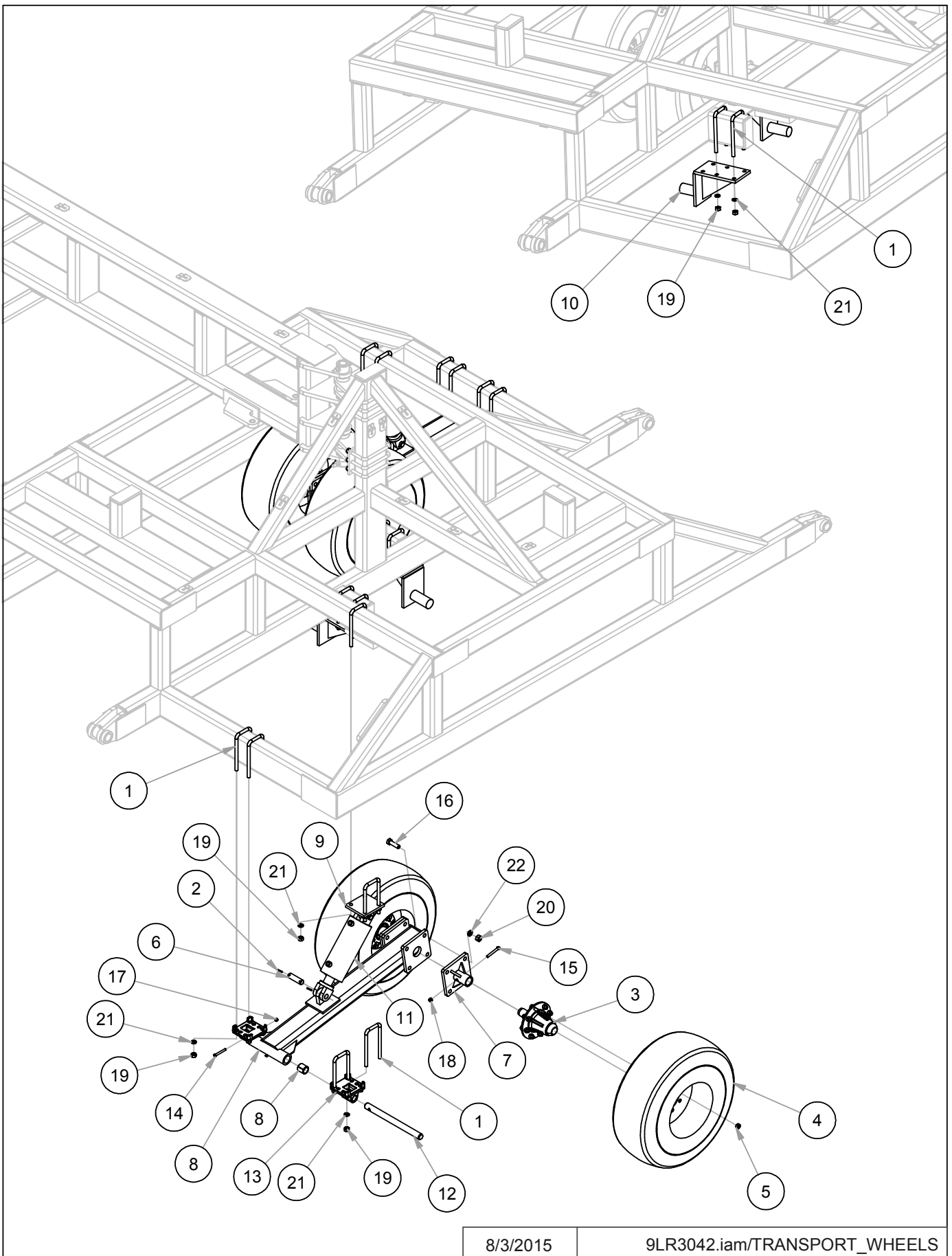
9LR3042.iam/CENTER\_HITCH

SECTION 4 – PARTS

**30' CENTER & HITCH**

| ITEM | PART NUMBER | DESCRIPTION                   |
|------|-------------|-------------------------------|
| 1    | 8C1760      | U-BOLT 3/4 X 8-1/16 X 6" SQ   |
| 2    | 8D0720      | HITCH PIECE CAST CAT.3 CTD    |
| 3    | 8P3910      | PIN 2 X 13-1/2" HARDENED      |
| 4    | 8P6030      | CENTER FOR 30' SWING FOLD     |
| 5    | 8P6220      | PIVOT HTCH SWNG FLD U-BLT 06- |
| 6    | 8P6000      | HITCH                         |
| 7    | 8X0095      | BOLT 5/8-11NC X 5" GR5 ZDI    |
| 8    | 8X0140      | BOLT 1-8NCX7" W/1.5"THDGR5 YZ |
| 9    | 8X0253      | NUT 5/8"-11NC NY-LOCK GR2 YZ  |
| 10   | 8X0260      | NUT 3/4"-10NC HEX GR2 YZ      |
| 11   | 8X0281      | NUT 1"-8NC NY-LOCK GR2 YZ     |
| 12   | 8X0304      | LOCKWASHER 5/8" YLW ZNC       |
| 13   | 8X0306      | LOCKWASHER 3/4" YLW ZNC       |
| 14   | 8X0309      | LOCKWASHER 1" YLW ZNC         |
| 15   | 8X0323      | WASHER 5/8" SAE FLAT YZ       |

SECTION 4 - PARTS



8/3/2015

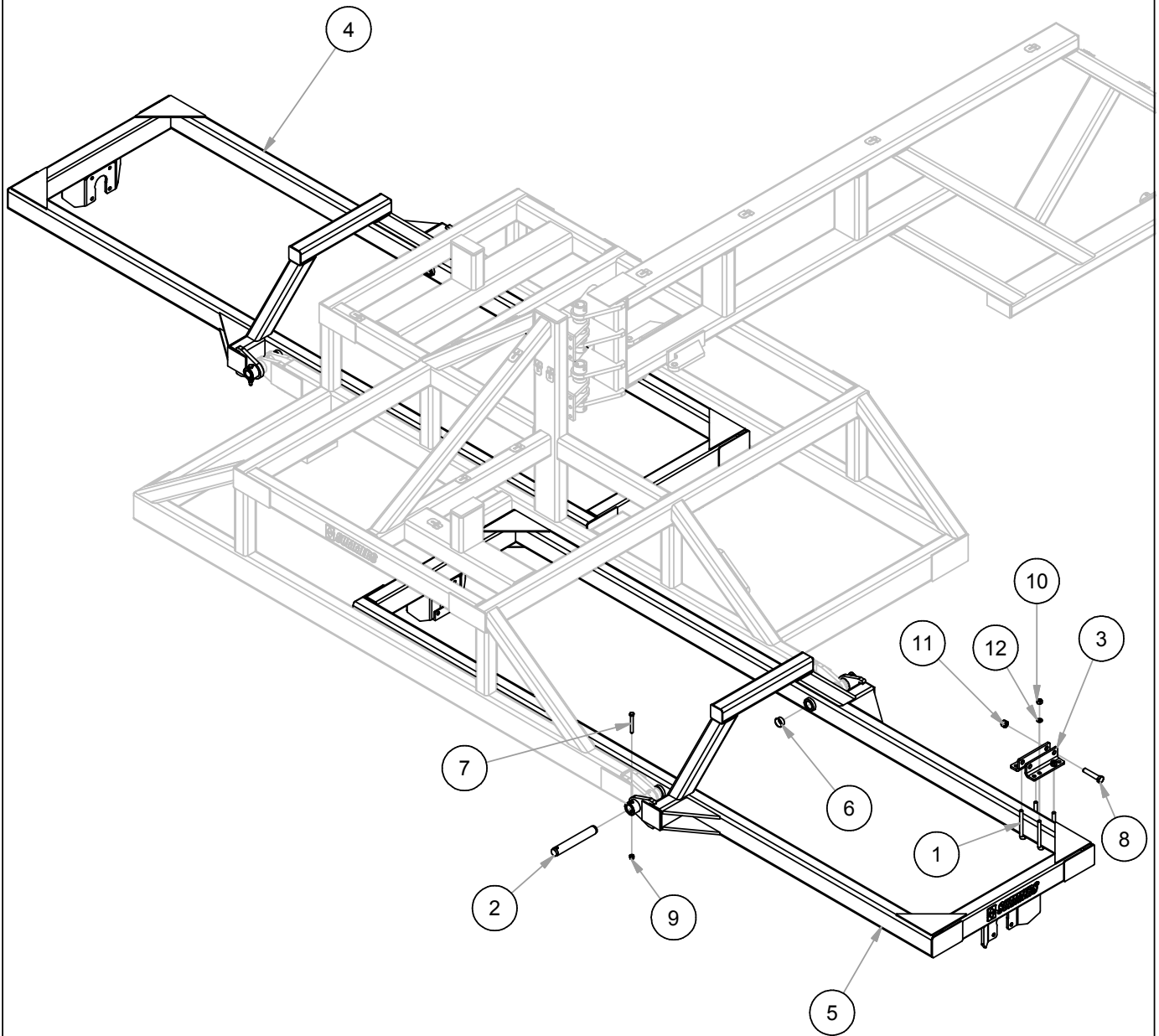
9LR3042.iam/TRANSPORT\_WHEELS

**SECTION 4 – PARTS**

**30' TRANSPORT WHEELS**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>             |
|-------------|--------------------|--------------------------------|
| 1           | 8D0350             | U-BOLT 3/4 X 4-1/16 X 10" SQ   |
| 2           | 8D9108             | ROLL PIN 1/4 X 2" YLW ZNC      |
| 3           | 8K1105S            | HUB&AXLE ASSY HD812 (2"RCVR)   |
| 4           | 8K7042             | 12.5L X 15 LRF ON 15X10X8 WHL  |
| 5           | 8K7123             | NUT WHEEL BOLT 5/8-18UNF 97-   |
| 6           | 8K9106             | PIN 1-1/4 X 4-3/8" HARDENED    |
| 7           | 8P6105             | BLT-ON RCVR LR LIFTARM         |
| 8           | 8P6110             | LIFTARM W/ BLT-ON RCVR         |
| 9           | 8P6215             | CYL ATTCH U-BLT ON 1-1/4"ID06- |
| 10          | 8P6230             | STOP W/RND U-BLT SWNG FLD 06-  |
| 11          | 8T1055             | HYD CYL 5.5 X 10" REPHASE 96-  |
| 12          | 8T3640             | PIN 1-1/2 X 19" HARDENED 98-   |
| 13          | 8T4100             | CAST PIVOT W/BLTPLATE PTD      |
| 14          | 8X0044             | BOLT 7/16-14NC X 3-1/2"GR5 ZDI |
| 15          | 8X0072             | BOLT 1/2-13NC X 3-3/4" GR5 YZ  |
| 16          | 8X0133             | BOLT 7/8-9NC X 3" GR5 ZDI      |
| 17          | 8X0234             | NUT 7/16"-14NC NY-LOCK GR2 ZDI |
| 18          | 8X0242             | NUT 1/2"-13NC NY-LOCK GR2 YZ   |
| 19          | 8X0260             | NUT 3/4"-10NC HEX GR2 YZ       |
| 20          | 8X0268             | NUT 7/8"-9NC HEX GR2 YZ        |
| 21          | 8X0306             | LOCKWASHER 3/4" YLW ZNC        |
| 22          | 8X0307             | LOCKWASHER 7/8" YLW ZNC        |

SECTION 4 – PARTS



8/3/2015

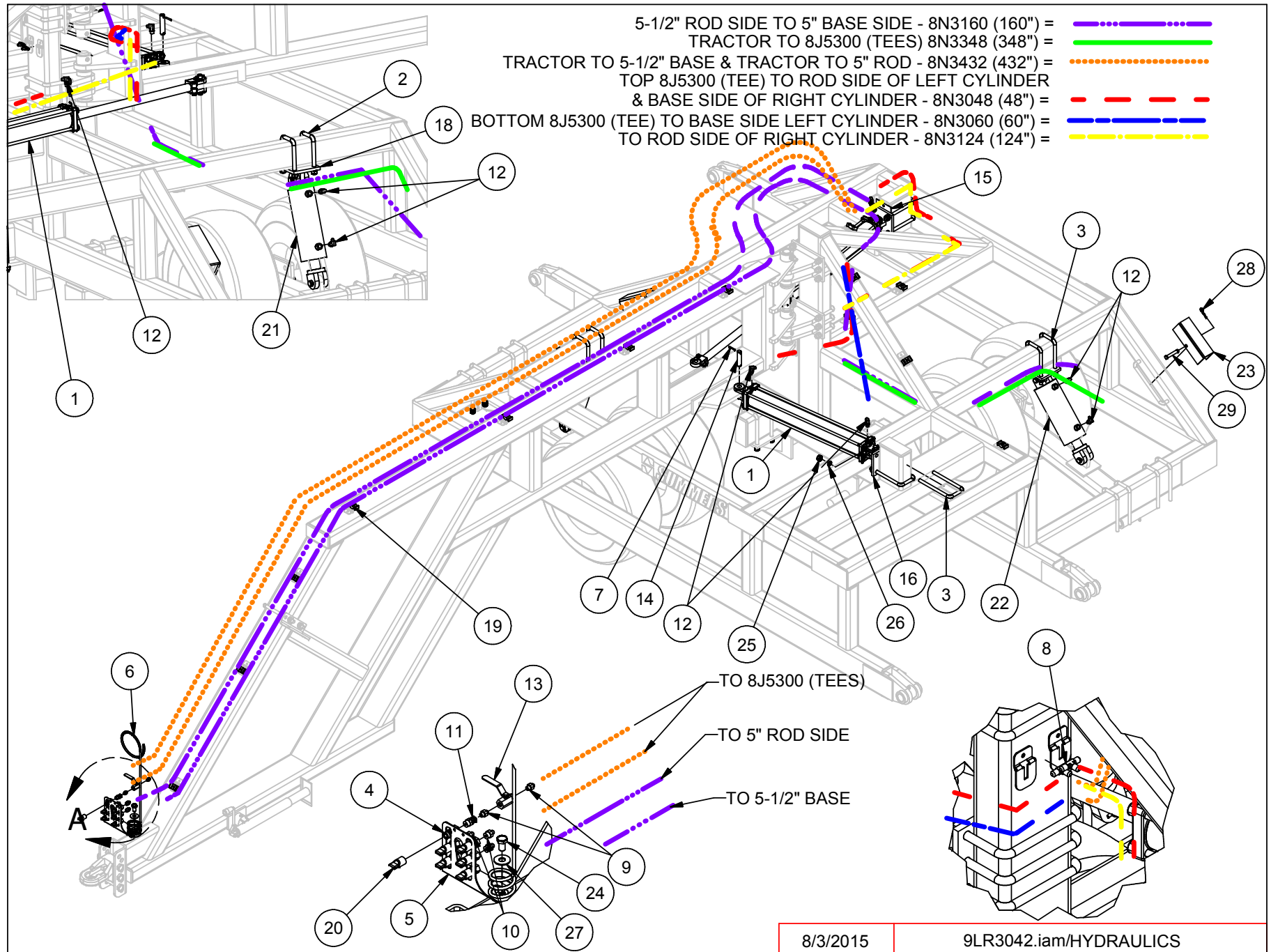
9LR3042.iam/WINGS



**SECTION 4 – PARTS**

**30' WINGS**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>              |
|-------------|--------------------|---------------------------------|
| 1           | 8D0340             | U-BOLT 3/4 X 4-1/16 X 7-3/4" SQ |
| 2           | 8P3910             | PIN 2 X 13-1/2" HARDENED        |
| 3           | 8P5070             | ANGLE, WING LOCK                |
| 4           | 8P6115L            | WING 15'-30' SWNG FLD LEFT 06-  |
| 5           | 8P6115R            | WING 15'-30' SWNG FLD RGHT 06-  |
| 6           | 8S3059             | CAPLUG FITS 2.067"ID TUBE96-    |
| 7           | 8X0095             | BOLT 5/8-11NC X 5" GR5 ZDI      |
| 8           | 8X0143             | BOLT 1-8NC X 5" GR5 YZ          |
| 9           | 8X0253             | NUT 5/8"-11NC NY-LOCK GR2 YZ    |
| 10          | 8X0260             | NUT 3/4"-10NC HEX GR2 YZ        |
| 11          | 8X0281             | NUT 1"-8NC NY-LOCK GR2 YZ       |
| 12          | 8X0306             | LOCKWASHER 3/4" YLW ZNC         |



8/3/2015

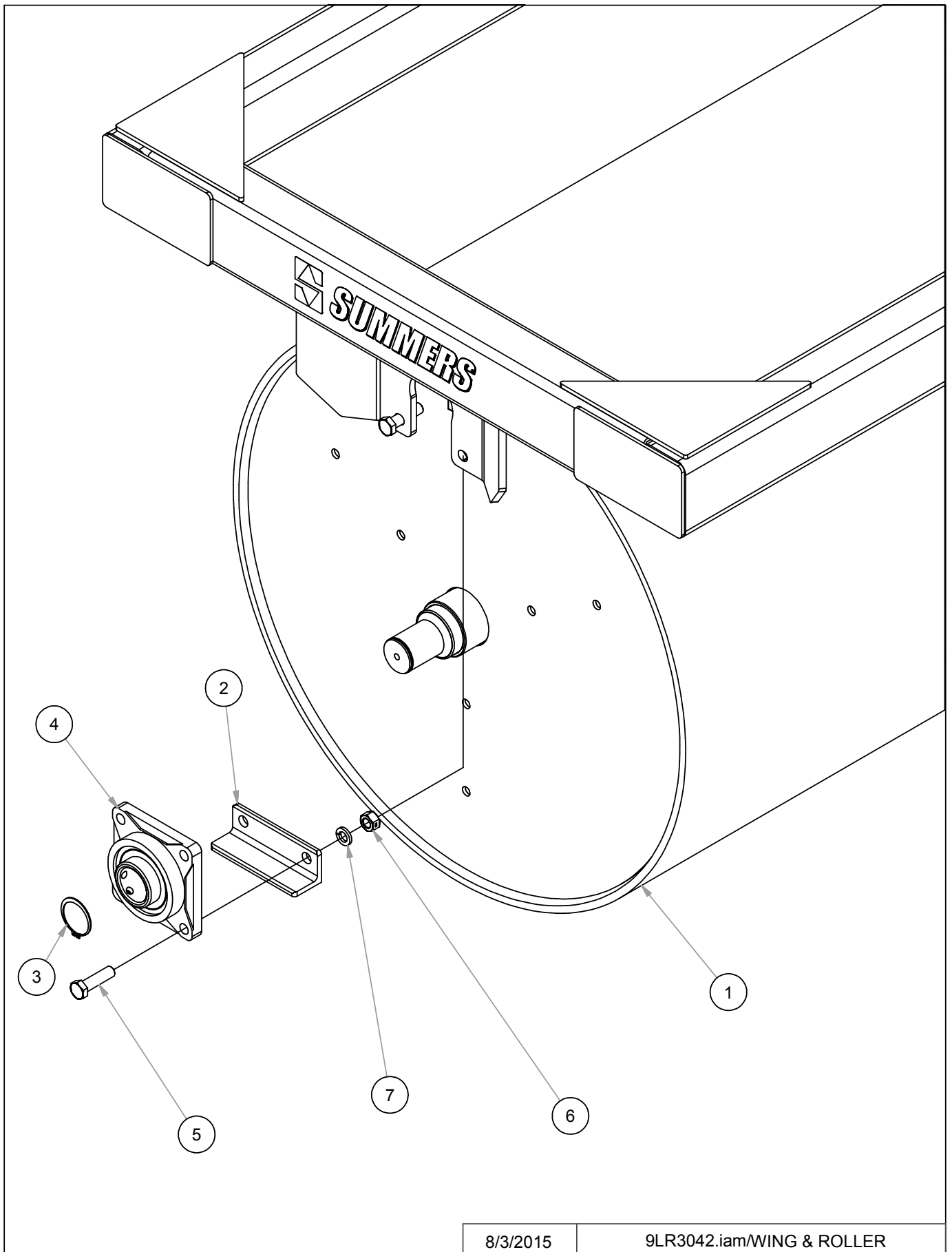
9LR3042.iam/HYDRAULICS

**SECTION 4 – PARTS**

**30' HYDRAULICS**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>              |
|-------------|--------------------|---------------------------------|
| 1           | 8C0432             | HYD CYL 4 X 32" 3000PSI         |
| 2           | 8D0340             | U-BOLT 3/4 X 4-1/16 X 7-3/4" SQ |
| 3           | 8D0350             | U-BOLT 3/4 X 4-1/16 X 10" SQ    |
| 4           | 8D3212             | MALE TIP 3/4"-16 ORB ISO        |
| 5           | 8D8490             | PIONEER/ISO TIP HLDR BNT        |
| 6           | 8D8500             | HYD HOSE HOLDER PNTD BLK 91-    |
| 7           | 8D9108             | ROLL PIN 1/4 X 2" YLW ZNC       |
| 8           | 8J5300             | TEE #6 JIC (MALE) 3X            |
| 9           | 8J5500             | 9/16"-18 ORB X #6 JIC(M) STR    |
| 10          | 8J5510             | 3/4"-16 ORB X #6 JIC(M) STR     |
| 11          | 8J5620             | 3/4" -16 ORB X #6 JIC(F-SW) STR |
| 12          | 8J6010             | 3/4"-16 ORB X #6 JIC(M)90*ADP   |
| 13          | 8J7000             | BALL VALVE HYD 9/16"-18ORB(2X)  |
| 14          | 8K9102             | PIN 1 X 4" CYL-FOR1/4"ROLL PIN  |
| 15          | 8P6020             | STL 10GA X 5 X 8"               |
| 16          | 8P6210             | CYL ATTCH U-BLT ON 1"ID 06-     |
| 17          | 8P6211             | CYL ATTCH U-BLT ON 1"ID 06-     |
| 18          | 8P6215             | CYL ATTCH U-BLT ON 1-1/4"ID06-  |
| 19          | 8S2990             | HYD HOSE CLAMP-LARGE-NYLON      |
| 20          | 8S3095             | CAPLUG FITS ISO HYD COUPLR 08-  |
| 21          | 8T1050             | HYD CYL 5.0 X 10" REPHASE 96-   |
| 22          | 8T1055             | HYD CYL 5.5 X 10" REPHASE 96-   |
| 23          | 8T4350             | CYL LOCK                        |
| 24          | 8X0110             | BOLT 3/4-10NC X 1-1/4" GR5 YZ   |
| 25          | 8X0260             | NUT 3/4"-10NC HEX GR2 YZ        |
| 26          | 8X0306             | LOCKWASHER 3/4" YLW ZNC         |
| 27          | 8X0318             | WASHER 3/4"(13/16"ID)FLAT YZ    |
| 28          | 8X0402             | HAIR PIN CLIP 1/8 X 2-9/16"     |
| 29          | 8X0440             | CLEVIS PIN 5/8 X 3-7/8" ZDI     |

SECTION 4 – PARTS



8/3/2015

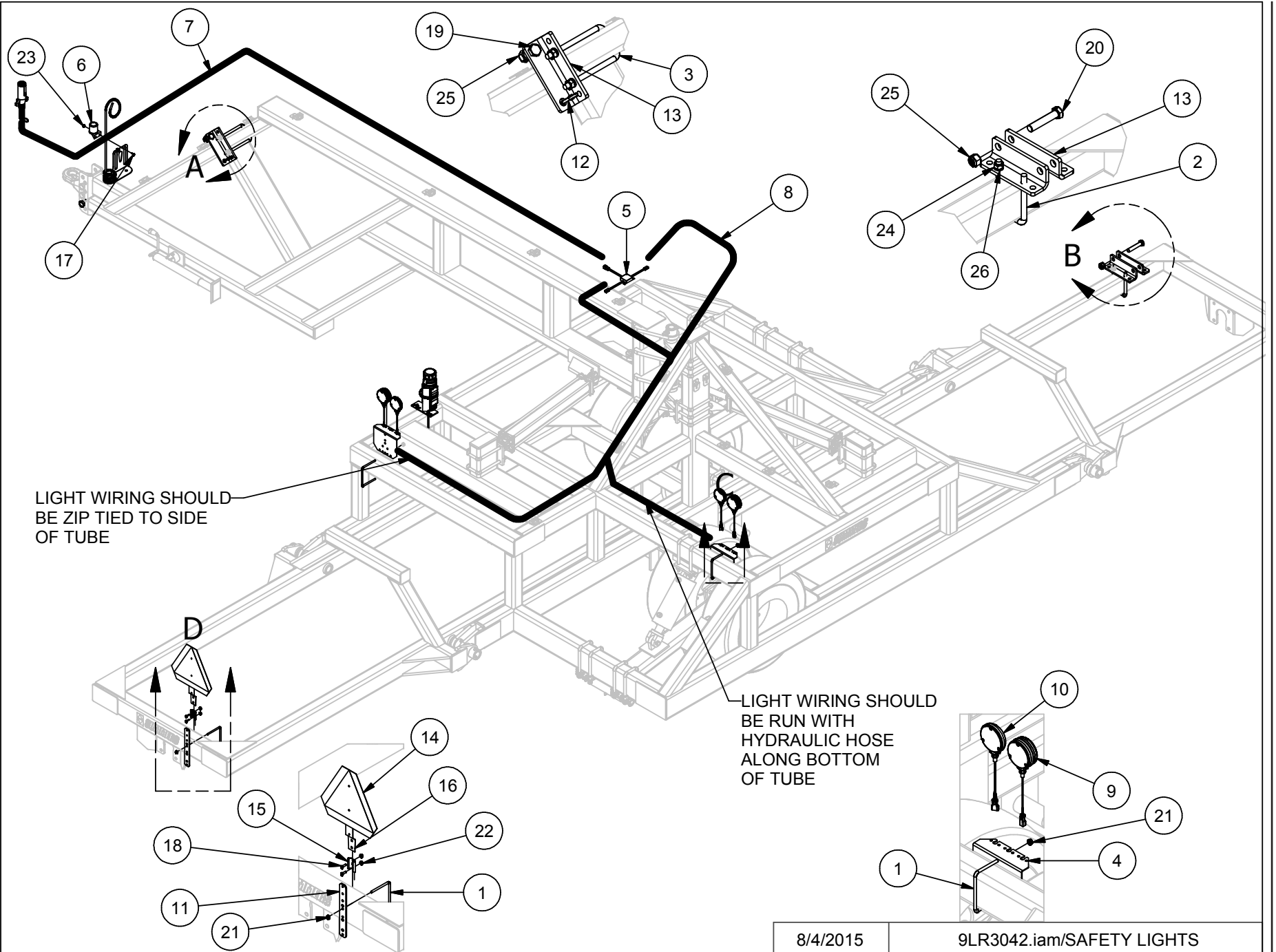
9LR3042.iam/WING & ROLLER

**SECTION 4 – PARTS**

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**30' WING & DRUM**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>             |
|-------------|--------------------|--------------------------------|
| 1           | 8P4215             | ROLLER 42"DIAMETER 15'         |
| 2           | 8P5080             | ANGLE BRNG 3/8X2.5X2.5- 7-7/8" |
| 3           | 8R8005             | SNAP RING .078"FOR 2-1/2"DIA.  |
| 4           | 8R8010             | BEARING 2-1/2"FLNG 4BLT-49/64" |
| 5           | 8X0111A            | BOLT 3/4-10NC X 2-3/4" GR5 ZDI |
| 6           | 8X0265             | NUT 3/4"-10NC CNTRLOCK GR2 YZ  |
| 7           | 8X0306             | LOCKWASHER 3/4" YLW ZNC        |

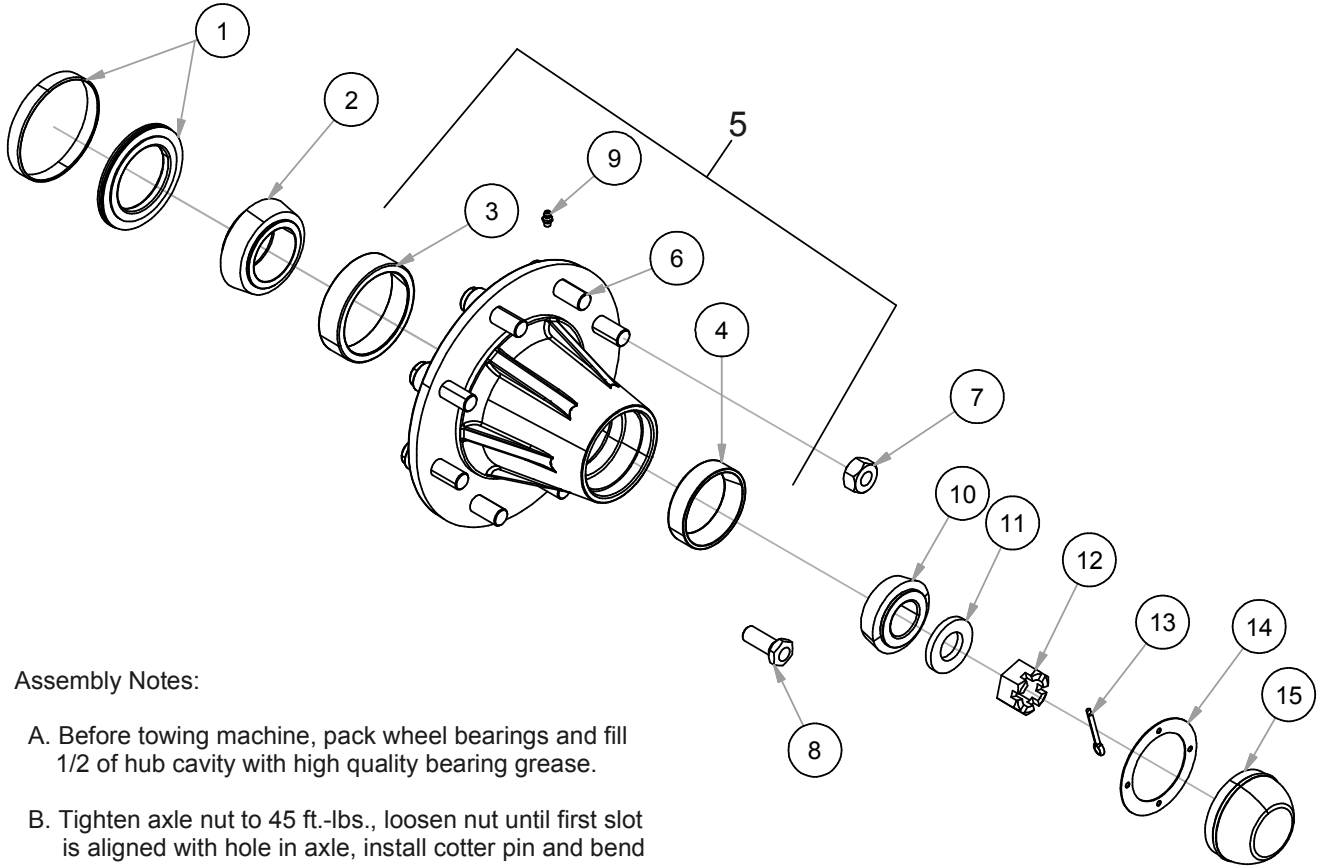


**SECTION 4 – PARTS**

**30' SAFETY**

| <b>ITEM</b> | <b>PART NUMBER</b> | <b>DESCRIPTION</b>              |
|-------------|--------------------|---------------------------------|
| 1           | 8A1155             | U-BOLT 3/8 X 6-1/16 X 5" SQ     |
| 2           | 8D0340             | U-BOLT 3/4 X 4-1/16 X 7-3/4" SQ |
| 3           | 8D0350             | U-BOLT 3/4 X 4-1/16 X 10" SQ    |
| 4           | 8K8020             | MOUNTNG BRCKT LIGHT 00-         |
| 5           | 8K8030A            | MODULE AG ENHNCDW/BRAKE6PIN08-  |
| 6           | 8K8067             | DUST CAP FOR 7PIN CONNECT00-    |
| 7           | 8K8070B            | MAIN HRNSS 7PNLNG W/BRAKE 09-   |
| 8           | 8K8075A            | EXT HRNSS NONDRAWBR DTSCH 07-   |
| 9           | 8K8090B            | LIGHT LED AMBER 2WR DTSCH 12-   |
| 10          | 8K8095B            | LIGHT LED RED 3WIRE DTSCH 12-   |
| 11          | 8K8200             | BRCKT SMV ATTCH 4-8"FRAME98-    |
| 12          | 8L1060             | QUICKLINK 3/8" YEL ZINC         |
| 13          | 8P5070             | ANGLE, WING LOCK                |
| 14          | 8S1120             | SIGN SLOW MOVING VEHICLE(SMV)   |
| 15          | 8S1124             | MOUNTING SOCKET SMV SIGN ZDI    |
| 16          | 8S1126             | MNT SPADE W/HRDWR SMV SIGN      |
| 17          | 8X0000             | BOLT 1/4-20X3/4" FLLTHD GR5 YZ  |
| 18          | 8X0021A            | BOLT 5/16-18NC X 1" GR5 ZDI     |
| 19          | 8X0139             | BOLT 1-8NC X 3" GR5 ZDI         |
| 20          | 8X0143             | BOLT 1-8NC X 5" GR5 YZ          |
| 21          | 8X0203             | NUT 3/8"-16NC SERFLANG GR2 YZ   |
| 22          | 8X0211             | NUT 5/16"-18NC SERFLANG GR2 YZ  |
| 23          | 8X0223             | NUT 1/4"-20NC SERFLANG GR2 YZ   |
| 24          | 8X0260             | NUT 3/4"-10NC HEX GR2 YZ        |
| 25          | 8X0281             | NUT 1"-8NC NY-LOCK GR2 YZ       |
| 26          | 8X0306             | LOCKWASHER 3/4" YLW ZNC         |

## SECTION 4 – PARTS



**Assembly Notes:**

- A. Before towing machine, pack wheel bearings and fill 1/2 of hub cavity with high quality bearing grease.
- B. Tighten axle nut to 45 ft.-lbs., loosen nut until first slot is aligned with hole in axle, install cotter pin and bend to retain.

| HUB     | 1 SEAL                             | 2. INNER BEARING | 3. INNER RACE | 4. OUTER RACE | 5. HUB ASSY             | 6. WHEEL STUD | 7. WHEEL NUT  | 8. WHEEL BOLT               | 9. HUB ZERK | 10. OUTER BEARING | 11. AXLE WASHER | 12. AXLE NUT | 13. COTTER PIN | 14. HUB CAP GASKET | 15. HUB CAP BOLT |        |
|---------|------------------------------------|------------------|---------------|---------------|-------------------------|---------------|---------------|-----------------------------|-------------|-------------------|-----------------|--------------|----------------|--------------------|------------------|--------|
| H211    | 8G8220                             | 8G8217           | 8G8230        | 8G8230        | 8G8211                  | N/A           | N/A           | 8D5114                      | 8X0708      | 8G8217            | 8D5119          | 8D5112       | 8X0410         | N/A                | 8G8213           | N/A    |
|         | SE10                               | L44643           | 8L44610       | L44610        | HDA211                  |               |               | WB10                        | 1/4-28NF    | L44643            | 3/4" ID.        | 3/4"-16      | 3/16X1"        |                    | DC11             |        |
| H517    | 8D5234<br>8D5236<br>8D5238         | 8D5217           | 8D5332        | 8D5336        | 8D5210                  | 8D5215        | 8D5214        | N/A                         | 8X0708      | 8D5117            | 8D5219          | 8D5212       | 8X0415         | N/A                | 8D5213           | N/A    |
|         | LM48548                            | LM48510          | LM67010       | H517          | WB16                    | 1/2-20UNF     | 1/4-28NF      |                             | LM67048     | 7/8" ID.          | 7/8"-14         | 3/16X1-1/2"  | DC13           |                    |                  |        |
| H611    | 8D5221                             | 8D5317           | 8D5334        | 8D5336        | 8D5311-09<br>8D5316 10- | N/A           | N/A           | 8D5114<br>WB10-09<br>8R6914 | 8X0708      | 8D5117            | 8D5319          | 8D5312       | 8X0415         | N/A                | 8D5213           | N/A    |
|         | SEB                                | LM29749          | LM29710       | LM67010       | H611                    |               |               | WB12 10-                    | 1/4-28NF    | LM67048           | 1" ID.          | 1"-14        | 3/16X1-1/2"    |                    | DC13             |        |
| H614    | 8R6922**<br>SEGBGI<br>INSTRUCTIONS | 8R6917           | 8R6925        | 8D5332        | 8R6911                  | N/A           | N/A           | 8R6914                      | 8X0708      | 8D5217            | 8D5319          | 8D5312       | 8X0415         | N/A                | 8R6913           | N/A    |
|         | LM603049                           | LM603011         | LM48510       | H614          | WB12                    |               |               | 1/4-28NF                    | LM48548     | 1" ID.            | 1"-14           | 3/16X1-1/2"  | DC15           |                    |                  |        |
| HD812   | 8K7127***<br>SEALSE77              | 8K7117           | 8K7130        | 8K7132        | 8K7111                  | 8K7115-9/16** | 8K7116-9/16** | N/A                         | 8X0708      | 8K7118            | 8D5319          | 8D5312       | 8X0415         | N/A                | 8K7113           | N/A    |
|         | 8K7128***<br>SLEEVE<br>SE77-1      | LM3780           | LM3720        | LM2720        | HD812                   | WB41          | WB40          |                             | 1/4-28NF    | LM2790            | 1" ID.          | 1"-14        | 3/16X1-1/2"    |                    | DC17             |        |
| HD817   | 8K7344                             | 8K7342           | 8K7346        | 8K7347        | 8K7340                  | 8K7122-5/8"   | 8K7123-5/8"   | N/A                         | 8X0708      | 8K7343            | 8X0328          | 8D5314       | 8X0414         | N/A                | 8K7341           | N/A    |
|         | SE42                               | LM387AS          | 382A          | LM501310      | HD817                   | WB46          | WB18          |                             | 1/4-28NF    | LM501349          | 1.312 ID.       | 1-1/4"-12    | 1/4X2"         |                    | DC26             |        |
| H10 LT  | 8K7220                             | 8K7217           | 8K7230        | 8K7232        | 8K7211                  | 8K7215        | 8K7216        | N/A                         | 8X0708      | 8K7218            | 8X0328          | 8D5314       | 8X0414         | 8K7212             | 8K7213           | 8K7214 |
|         | SE48                               | 39585            | 39520         | 453A          | H1010-9                 | WB51          | WB52          |                             | 1/4-28NF    | 460               | 1.312 ID.       | 1-1/4"-12    | 1/4X2"         | SE49               | DC27             | WB53   |
| H10 HVY | 8K7221                             | 8K7219           | 8K7231        | 8K7232        | 8K7210                  | 8K7215        | 8K7216        | N/A                         | 8X0708      | 8K7218            | 8X0328          | 8D5314       | 8X0414         | 8K7212             | 8K7213           | 8K7214 |
|         | SE67                               | 33275            | 33462         | 453A          | H1010-11                | WB51          | WB52          |                             | 1/4-28NF    | 460               | 1.312 ID.       | 1-1/4"-12    | 1/4X2"         | SE49               | DC27             | WB53   |
| H1020   | 8K7320                             | 8K7317           | 8K7330        | 8K7332        | 8K7209                  | 8K7215        | 8K7216        | N/A                         | 8X0708      | 8K7318            | 8X0366          | 8D5318       | 8X0418         | 8K7312             | 8K7313           | 8K7214 |
|         | SE55                               | HM218248         | HM218210      | HM212010      | HDA1020                 | WB51          | WB52          |                             | 1/4-28NF    | HM212049          | 2.03" ID        | 2" - 12WB65  | 5/16 X2-1/2"   | SE59               | DC28             | WB53   |

\*\*Pre 2000

\*\*\*GBGI(Not Shown), 8R6921 Triple Lip (Shown)

\*\*\*\*Pre 2006 8K7120 (SE17)

CD2/MANUALS/10 2-26 HUB-AXLE COMPONENTS

LAST REVISION: 1/17/2011

8/13/2014

8K1105S.iam/HUB&AXLE ASSY



# SUMMERS MFG. CO., INC.

2/28/17

## INSTALLATION AND OPERATION INSTRUCTIONS FOR 8K1800 ACRE METER FOR SUPERROLLER

1. If Roller Shaft is not tapped, weld ½”-20 UNF nut at center of left pivot shaft of middle roller. Position external taper of nut toward shaft. Insure that threads are not damaged by weld heat or spatter. Allow weld to cool.
  2. Attach Acre Meter with ½” lock washer. Tighten to 260-390 in-lbs.
- \* For accurate logging of acres, it is important that meter is mounted concentrically on roller shaft.
  - \* Do not use chemical agents such as thinner, solvents or mineral spirits to clean Acre Meter cover.
  - \* Do not attempt to open meter! Attempting to do so can cause injury and may destroy Acre Meter.



### CONVERSION FACTOR

NOTE: METER READING MUST BE MULTIPLIED BY CONVERSION FACTOR FOR ACTUAL ACRES.

| MACHINE WIDTH | FORMULA                |
|---------------|------------------------|
| 15'           | READING x 1.4 = ACRES  |
| 21'           | READING x 1.9 = ACRES  |
| 30'           | READING x 2.7 = ACRES  |
| 34'           | READING x 2.99 = ACRES |
| 41'           | READING x 3.6 = ACRES  |
| 45'           | READING x 4 = ACRES    |
| 46'           | READING x 4.1 = ACRES  |
| 50' (36")     | READING x 3.8 = ACRES  |
| 53'           | READING x 4.7 = ACRES  |
| 62'           | READING x 5.5 = ACRES  |
| 68'           | READING x 6.03 = ACRES |
| 84' (36")     | READING x 6.5 = ACRES  |
| 84' (42")     | READING x 7.5 = ACRES  |
| 91'           | READING x 8.07 = ACRES |





| <u>Stock Code</u> | <u>Description</u>             | <u>Stock Code</u> | <u>Description</u>                |
|-------------------|--------------------------------|-------------------|-----------------------------------|
| 8A1004            | CLAMP HOSE 5" #72              | 8K7111            | HUB HD812 W/CUPS&ZRK 8BLT3LIP     |
| 8A1155            | U-BOLT 3/8 X 6-1/16 X 5" SQ    | 8K7113            | HUB CAP HD812 DC17                |
| 8A1157            | U-BOLT 3/8 X 4-1/16 X 7" SQ    | 8K7117            | BEARING INNER HD812 LM3780        |
| 8A4048            | NYLON TIE .18 X 11"            | 8K7118            | BEARING OUTER HD812 LM2790        |
| 8A4050            | NYLON TIE .30 X 8-7/8"         | 8K7120            | SEAL 2-1/2"ID HD812 SE17 -06      |
| 8A4052            | NYLON TIE .30 X 15-1/4"        | 8K7122            | STUD WHEEL 5/8-18UNFX2.5"97-      |
| 8C0270            | SPLITSTEELBUSH1.375ODX1"ID-1"  | 8K7123            | NUT WHEEL BOLT 5/8-18UNF 97-      |
| 8C0432            | HYD CYLINDER 4" X 32"          | 8K7127            | SEAL TRPL LIP EXTRNL HD812 06-    |
| 8C1760            | U-BOLT 3/4 X 8 X 6" SQ         | 8K7128            | SEAL SLEEVE FOR 3X LIP 812 06-    |
| 8C1780            | U-BOLT 7/8 X 8 X 10" SQ        | 8K7130            | RACE INNER HD812 LM3720           |
| 8D0330            | U-BOLT 5/8 X 6-1/16 X 5-5/8"SQ | 8K7132            | RACE OUTER HD812 LM2720           |
| 8D0340            | U-BOLT 3/4 X 4 X 7-3/4" SQ     | 8K7150S           | AXLE HD812X 11.5" (2"DIA.RCVR)    |
| 8D0350            | U-BOLT 3/4 X 4 X 10" SQ        | 8K7450            | 340/60R16.5                       |
| 8D0720            | HITCH PIECE CAST CAT.3CTD PNTD | 8K8000            | FLAT LGHT BRCKT3/8X3.5-11.38"     |
| 8D0722            | PERFECT HTCH BACKSTOP W/HDWE   | 8K8010            | TUBE LGHT BRCKT1.5SQ55.5"00-      |
| 8D0724            | CLEVIS OPT.HITCH CAT.3CTD99-   | 8K8020            | MOUNTNG BRCKT LIGHT 00-           |
| 8D0730            | URETHANE CUSHION PERFCTHTCH    | 8K8030A           | MODULE AG ENHNCD W/BRAKE 6PIN 08- |
| 8D2440            | SAFETY CHAIN 11000#X 84"       | 8K8060            | EXT HRNSS 12' 3PIN WTHRPCK -07    |
| 8D2460            | SAFETY CHAIN 3/8" X 4' 20200#  | 8K8067            | DUST CAP FOR 7PIN CONNECT00-      |
| 8D2470            | SAFETY CHAIN 7/16" X 5' 30400# | 8K8070B           | MAIN HRNSS7PN 32' W/BRAKE 09-     |
| 8D3212            | MALE TIP 3/4"-16 ORB ISO       | 8K8071            | MAIN HRNSS 7PN 26' W/BRAKE 09-    |
| 8D5314            | NUT HEX SLOT 1.25"-12 GR2 PLN  | 8K8075A           | EXT HARNESS 18' DEUTSCH 07-       |
| 8D8490            | PIONEER/ISO TIP HLDR BNT 97-   | 8K8075Z           | EXT HARNESS 6' DEUTSCH 17-        |
| 8D8500            | HYD HOSE HOLDER PNTD BLK 91-   | 8K8088            | LENS ONLY AMBER GROTE LGHT 00-    |
| 8D8522            | JACK 5000# TOP CRANK 15"LIFT   | 8K8090B           | LIGHT AMBER 2WIREWTHRPCK 12-      |
| 8D9102            | PIN 1 X 4" CYL CTTR OR HAIRPIN | 8K8092            | LENS ONLY RED GROTE LIGHT 00-     |
| 8D9108            | ROLL PIN 1/4 X 2" YLW ZNC      | 8K8094            | LIGHT RED 2WIRE WTHRPCK 00-07     |
| 8G2284            | NYLON TIE .187 X 7-1/2" YELLOW | 8K8095B           | LIGHT RED 3WIRE WTHRPCK 12-       |
| 8G2285            | NYLON TIE .187 X 7-1/2" GREEN  | 8K8200            | BRCKT SMV ATTCH 4-8"FRAME98-      |
| 8J5100            | #6 JIC(M) X #6 JIC(M) UNION    | 8K9102            | PIN 1 X 4" CYL-FOR1/4"ROLL PIN    |
| 8J5110            | #10 JIC(M) X #10 JIC(M) UNION  | 8K9106            | PIN 1-1/4 X 4-3/8" HARDENED       |
| 8J5200            | #10 JIC(F) X #6 JIC(M)HEX BUSH | 8L1060            | QUICKLINK 3/8" ZDI                |
| 8J5300            | #6 JIC (MALE) 3X TEE           | 8N3018            | 3/8X 18"HYD HOSE #6FJX3000PSI     |
| 8J5310            | #10 JIC (MALE) 3X TEE          | 8N3028            | 3/8X 28"HYD HOSE #6FJX3000PSI     |
| 8J5500            | 9/16"-18 ORB X #6 JIC(M) STR   | 8N3035            | 3/8X 35"HYD HOSE #6FJX3000PSI     |
| 8J5510            | 3/4"-16 ORB X #6 JIC(M) STR    | 8N3048            | 3/8X 48"HYD HOSE #6FJX3000PSI     |
| 8J5520            | 3/4"-16 ORB X #10 JIC(M) STR   | 8N3060            | 3/8X 60"HYD HOSE #6FJX3000PSI     |
| 8J5600            | 9/16"-18 ORB X #6 JIC(F-SW)STR | 8N3070            | 3/8X 70"HYD HOSE #6FJX3000PSI     |
| 8J5620            | 3/4"-16 ORB X #6 JIC(F-SW)STR  | 8N3084            | 3/8X 84"HYD HOSE #6FJX3000PSI     |
| 8J5680            | 3/4"-16 ORB X 3/4"-16ORB UNION | 8N3096            | 3/8X 96"HYD HOSE #6FJX3000PSI     |
| 8J5690            | 3/4-16X3/4-16 ORB M-SW90*UNION | 8N3124            | 3/8X 124"HYD HOSE #6FJX3000PSI    |
| 8J5700            | #6 JIC(F-SW) X #6 JIC(M)90*ADP | 8N3136            | 3/8X 136"HYD HOSE #6FJX3000PSI    |
| 8J5710            | #10 JIC(F-SW)X#10 JIC(M)90*ADP | 8N3150            | 3/8X 150"HYD HOSE #6FJX3000PSI    |
| 8J6010            | 3/4" -16 ORB X #6 JIC(M)90*ADP | 8N3156            | 3/8X 156"HYD HOSE #6FJX3000PSI    |
| 8J6020            | 3/4"-16 ORB X #10 JIC(M)90*ADP | 8N3160            | 3/8X 160"HYD HOSE #6FJX3000PSI    |
| 8J6060            | 3/4"-16ORB X #6JIC(F-SW)90*ADP | 8N3180            | 3/8X 180"HYD HOSE #6FJX3000PSI    |
| 8J7000            | BALL VALVE HYD 9/16"-18ORB(2X) | 8N3204            | 3/8X 204"HYD HOSE #6FJX3000PSI    |
| 8J7040            | THERMAL RELIEF MANIFLD 4000PSI | 8N3216            | 3/8X 216"HYD HOSE #6FJX3000PSI    |
| 8J7116            | 3/4"-16 ORB(2X)1WAY 1/16"RESTR | 8N3228            | 3/8X 228"HYD HOSE #6FJX3000PSI    |
| 8J7216            | #6JIC(M)X6JIC(F)1/16"RSTR GOLD | 8N3252            | 3/8X 252"HYD HOSE #6FJX3000PSI    |
| 8J7232            | #6JIC(M)X6JIC(F)1/32"RSTR SLVR | 8N3288            | 3/8X 288"HYD HOSE #6FJX3000PSI    |
| 8K1105S           | HUB&AXLE ASSY HD812 (2"RCVR)   | 8N3312            | 3/8X 312"HYD HOSE #6FJX3000PSI    |
| 8K1106            | HUB&AXLE ASSY HD817 (2.5"RCVR) | 8N3330            | 3/8X 330"HYD HOSE #6FJX3000PSI    |
| 8K5350            | SPLITSTEELBUSH 2"ODX1.5"ID- 2" | 8N3348            | 3/8X 348"HYD HOSE #6FJX3000PSI    |
| 8K5515            | U-BOLT 3/4 X 4 X 6" SQ         | 8N3360            | 3/8X 360"HYD HOSE #6FJX3000PSI    |
| 8K7020            | WHEEL 15 X 10" 8 BOLT-VLV GRD  | 8N3390            | 3/8X 390"HYD HOSE #6FJX3000PSI    |
| 8K7028            | TIRE 12.5L X 15" LRF TL HWYSRV | 8N3408            | 3/8X 408"HYD HOSE #6FJX3000PSI    |
| 8K7042            | 12.5L X 15" LRF ON 8 BLT WHEEL | 8N3432            | 3/8X 432"HYD HOSE #6FJX3000PSI    |

| <u>Stock Code</u> | <u>Description</u>               |
|-------------------|----------------------------------|
| 8N3462            | 3/8X 462"HYD HOSE #6FJX3000PSI   |
| 8N3534            | 3/8X 534"HYD HOSE #6FJX3000PSI   |
| 8N3570            | 3/8X 570"HYD HOSE #6FJX3000PSI   |
| 8N3606            | 3/8X 606"HYD HOSE #6FJX3000PSI   |
| 8N4016            | 1/2X 16"HYD HOSE#10FJX3000PSI    |
| 8N4060            | 1/2X 60"HYD HOSE#10FJX3000PSI    |
| 8N4114            | 1/2X 114"HYD HOSE#10FJX3000PSI   |
| 8N4120            | 1/2X 120"HYD HOSE#10FJX3000PSI   |
| 8N4138            | 1/2X 138"HYD HOSE#10FJX3000PSI   |
| 8N4198            | 1/2X 198"HYD HOSE#10FJX3000PSI   |
| 8N4216            | 1/2X 216"HYD HOSE#10FJX3000PSI   |
| 8N4228            | 1/2X 228"HYD HOSE#10FJX3000PSI   |
| 8N4546            | 1/2X 546"HYD HOSE#10FJX3000PSI   |
| 8N4624            | 1/2X 624"HYD HOSE#10FJX3000PSI   |
| 8P0200            | TRANSPORT STOP STORAGE BRACKET   |
| 8P0280            | 2.5 X 12" PRINCE CYLINDER        |
| 8P0340            | TRNS LCK W/UHMW 12.3"(1.7RD) 15- |
| 8P1541W           | 15' LAND ROLLER FRAME            |
| 8P2032L           | LFT LIFT ARM SINGLE DRUM ROLLER  |
| 8P2032R           | RGHT LIFT ARM SINGLE DRUM ROLLER |
| 8P2141W           | 21' LAND ROLLER FRAME            |
| 8P3010            | PLUG 2-1/2" NPT SQUARE HD STL    |
| 8P3500            | TUBE 2-1/4ODX 1.268ID- 2-1/4"    |
| 8P3900            | PIN 2 X 11-1/8" HARDENED         |
| 8P3910            | PIN 2 X 13-1/2" HARDENED         |
| 8P4215            | ROLLER 42"DIAMETER 15' 05-       |
| 8P4220            | ROLLER 42" DIAMETER 21'          |
| 8P5070            | ANGL WNG LCK 1/2X3X3.5- 10.25"   |
| 8P5080            | ANGLE BRNG 3/8X2.5X2.5- 7-7/8"   |
| 8P5970            | TRANSPORT REST STOP              |
| 8P6000            | HITCH 30' SWING FOLD LR 06-      |
| 8P6020P           | FLAT 10 GA 5"X8" PAINTED 07-     |
| 8P6030            | CENTER 30' SWING FOLD LR 06-     |
| 8P6100            | LIFTARM W/RCVR SWNGFLD 06-       |
| 8P6100S           | LIFTARM W/RCVR SWNGFLD SHRT06-   |
| 8P6105            | BLT-ON RCVR LR LIFTARM           |
| 8P6110            | LIFTARM W/BLT-ON RCVR            |
| 8P6115L           | WING 15'-30' SWNG FLD LEFT 06-   |
| 8P6115R           | WING 15'-30' SWNG FLD RGHT 06-   |
| 8P6210            | CYL ATTCH U-BLT ON 1" ID 06-     |
| 8P6211            | CVL ATTACH U-BOLT ON 1"ID 06-    |
| 8P6215            | CYL ATTCH U-BLT ON 1-1/4"ID06-   |
| 8P6220            | PIVOT HTCH SWNG FLD U-BLT 06-    |
| 8P6225            | TRANSPORT LOCK                   |
| 8P6230            | STOP W/RND U-BLT SWNG FLD 06-    |
| 8R6808            | SPLITSTEELBUSH1.25 X 1"ID-.75"   |
| 8R6810            | SPLITSTEELBUSH1.62X1.25"ID- 1"   |
| 8P6990            | SCRAPER 42" ROLLER 90DEG 09-     |
| 8P7260            | PIN 2 X 17-1/2" HARDENED         |
| 8R8005            | SNAP RING .078"FOR 2-1/2"DIA.    |
| 8R8010            | BEARING 2-1/2"FLNG 4BLT-49/64"   |
| 8S1120            | SIGN SLOW MOVING VEHICLE         |
| 8S1124            | MOUNTING SOCKET SMV SIGN ZDI     |
| 8S1126            | MNT SPADE W/HRDWR SMV SIGN       |
| 8S2980            | HYD HOSE CLAMP-SMALL-NYLON       |
| 8S2990            | HYD HOSE CLAMP-LARGE-NYLON       |
| 8S3059            | CAPLUG FITS 2.067"ID TUBE        |
| 8S3095            | CAPLUG FITS ISO HYD COUPLR 08-   |

| <u>Stock Code</u> | <u>Description</u>             |
|-------------------|--------------------------------|
| 8T1050            | HYD CYL 5.0 X 10" REPHASE 96-  |
| 8T1055            | HYD CYL 5.5 X 10" REPHASE 96-  |
| 8T1150            | SEAL KIT 5.0 X 10" RAM 98-     |
| 8T1155            | SEAL KIT 5.5 X 10" RAM 98-     |
| 8T2986            | CLAMP 1/2" WIRING MTL/RUB BCK  |
| 8T3640            | PIN 1-1/2 X 19" HARDEND 98-    |
| 8T4100            | PIVOT W/BLTPLATE LIFTARM 96-   |
| 8T4350            | LOCK CYLINDER 10.5"(2.5ROD)96- |
| 8T4385            | HOLDER MANUAL-PAK 3/4/6MNT09-  |
| 8T5345            | SPLITSTEELBUSH2"ODX1.5"ID-1.5" |
| 8X0000            | BOLT 1/4-20X3/4"FLTHDGR5 ZDI   |
| 8X0000B           | BOLT 1/4-20NC X 1" GR5 ZDI     |
| 8X0001            | BOLT 3/8-16NC X 3/4" GR5 ZDI   |
| 8X0002            | BOLT 3/8-16NC X 1" GR5 ZDI     |
| 8X0003            | BOLT 1/4-20NC X 4-1/2" GR5 ZDI |
| 8X0004            | BOLT 3/8-16NC X 1-1/4" GR5 ZDI |
| 8X0005            | BOLT 1/4-20NC X 3-3/4" GR5 ZDI |
| 8X0006            | BOLT 3/8-16NC X 2-1/2" GR5 ZDI |
| 8X0007            | BOLT 3/8-16NC X 1-1/2" GR5 ZDI |
| 8X0007B           | BOLT 3/8-16NC X 1-3/4" GR5 ZDI |
| 8X0008            | BOLT 3/8-16NC X 2" GR5 ZDI     |
| 8X0009            | BOLT 1/4-20NC X 2" GR5 ZDI     |
| 8X0010            | BOLT 1/4-20NC X 1-1/4" GR5 ZDI |
| 8X0013            | BOLT 1/4-20NC X 2-1/2" GR5 ZDI |
| 8X0014            | BOLT 1/4-20NC X 3" GR5 ZDI     |
| 8X0015            | BOLT 3/8-16NC X 3-3/4" GR5 ZDI |
| 8X0016            | BOLT 3/8-16NC X 3" GR5 ZDI     |
| 8X0017            | BOLT 3/8-16NC X 5" GR5 ZDI     |
| 8X0019            | BOLT 3/8-16NC X 4-1/2" GR5 ZDI |
| 8X0020            | BOLT 3/8-16X3.5"FULLTHDGR5 ZDI |
| 8X0021            | BOLT 5/16-18NC X 3/4" GR5 ZDI  |
| 8X0021A           | BOLT 5/16-18NC X 1" GR5 ZDI    |
| 8X0021B           | BOLT 5/16-18NC X 1-1/4"GR5 ZDI |
| 8X0023            | BOLT 5/16-18NC X 2" GR5 ZDI    |
| 8X0030            | BOLT 5/16-18NC X 5" GR5 ZDI    |
| 8X0031            | BOLT 7/16-14NC X 1" GR5 ZDI    |
| 8X0033            | BOLT 7/16X1.25 5/8"THD GR5 ZDI |
| 8X0034            | BOLT 7/16X1.75 W/1"THD GR5 ZDI |
| 8X0036            | BOLT 7/16-14NC X 2" GR5 ZDI    |
| 8X0038            | BOLT 7/16-14NC X 2-1/2"GR5 ZDI |
| 8X0041            | BOLT 7/16-14NC X 3" GR5 ZDI    |
| 8X0044            | BOLT 7/16-14NC X 3-1/2"GR5 ZDI |
| 8X0045            | BOLT 7/16-14NC X 4-1/2"GR5 ZDI |
| 8X0046            | BOLT 7/16-14NC X 7-1/4"GR5 ZDI |
| 8X0047            | BOLT 7/16-14NC X 6" GR5 ZDI    |
| 8X0061            | BOLT 1/2-13NC X 1-1/4" GR5 ZDI |
| 8X0062            | BOLT 1/2-13NC X 2" GR5 ZDI     |
| 8X0063            | BOLT 1/2-13NC X 1-1/2" GR5 ZDI |
| 8X0064            | CRG 1/2-13NC X 1-1/2" GR5 YZ   |
| 8X0066            | BOLT 1/2-13NC X 1-3/4" GR5 ZDI |
| 8X0067            | BOLT 1/2-13NC X 2-1/4" GR5 ZDI |
| 8X0068            | BOLT 1/2-13NC X 2-1/2" GR5 ZDI |
| 8X0069            | BOLT 1/2-13NC X 3" GR5 ZDI     |
| 8X0070            | BOLT 1/2-13NC X 3-1/4" GR5 ZDI |
| 8X0071            | BOLT 1/2-13X 3"SHOULDR GR2 ZDI |
| 8X0072            | BOLT 1/2-13NC X 3-3/4" GR5 ZDI |
| 8X0073            | BOLT 1/2-13NC X 5" GR5 ZDI     |
| 8X0074            | BOLT 1/2-13NC X 4-1/2" GR5 ZDI |



| <u>Stock Code</u> | <u>Description</u>             | <u>Stock Code</u> | <u>Description</u>             |
|-------------------|--------------------------------|-------------------|--------------------------------|
| 8X0075            | BOLT 1/2-13NC X 6" GR5 ZDI     | 8X0212            | NUT NY-LOCK 5/16"-18NC GR2 ZDI |
| 8X0076            | BOLT 1/2-13NC X 5-1/2" GR5 ZDI | 8X0218            | NUT SQ 1/4"-20NC GR2 SS        |
| 8X0077            | BOLT 1/2-13NC X 7-1/2" GR5 ZDI | 8X0220            | NUT HEX 1/4"-20NC GR2 ZDI      |
| 8X0078            | BOLT 1/2-13X3.5"SHOULDR GR2ZDI | 8X0222            | NUT NY-LOCK 1/4"-20NC GR2 ZDI  |
| 8X0080            | BOLT 1/2-13NC X 11" GR5 ZDI    | 8X0223            | NUT SER FLANG 1/4"-20NC GR2ZDI |
| 8X0082            | BOLT 1/2-13NC X 6-1/2" GR5 ZDI | 8X0232            | NUT HEX 7/16"-14NC GR2 ZDI     |
| 8X0083            | BOLT 1/2-13NC X 8" GR5 ZDI     | 8X0234            | NUT NY-LOCK 7/16"-14NC GR2 ZDI |
| 8X0084            | BOLT 1/2-13NC X 9" GR5 ZDI     | 8X0240            | NUT HEX 1/2"-13NC GR2 ZDI      |
| 8X0087            | BOLT 5/8-11NC X 1-1/2" GR5 ZDI | 8X0242            | NUT NY-LOCK 1/2"-13NC GR2 ZDI  |
| 8X0090            | BOLT 5/8-11NC X 2-1/4" GR5 ZDI | 8X0246            | NUT SER FLANG 1/2"-13NC GR2 YZ |
| 8X0091            | BOLT 5/8-11NC X 1-3/4" GR5 ZDI | 8X0250            | NUT HEX 5/8"-11NC GR2 ZDI      |
| 8X0092            | BOLT 5/8-11NC X 2-3/4" GR5 ZDI | 8X0251            | NUT JAM 5/8"-11NC GR2 ZDI      |
| 8X0093            | BOLT 5/8-11NC X 2" GR5 ZDI     | 8X0253            | NUT NY-LOCK 5/8"-11NC GR2 ZDI  |
| 8X0095            | BOLT 5/8-11NC X 5" GR5 ZDI     | 8X0256            | NUT SER FLANG 5/8"-11NC GR2 YZ |
| 8X0096            | BOLT 5/8-11NC X 4" GR5 ZDI     | 8X0259            | NUT JAM 3/4"-10NC GR2 ZDI      |
| 8X0098            | BOLT 5/8-11X 3.5"FULLTHDGR5ZDI | 8X0260            | NUT HEX 3/4"-10NC GR2 ZDI      |
| 8X0099            | BOLT5/8-11X6.75"W/3.5THDGR5ZDI | 8X0261            | NUT NY-LOCK 3/4"-10NC GR2 ZDI  |
| 8X0101            | BOLT 5/8-11NC X 8" GR5 ZDI     | 8X0265            | NUT 3/4"-10NC CNTRLOCK GR2 YZ  |
| 8X0102            | BOLT 5/8-11NC X 9" GR5 ZDI     | 8X0268            | NUT HEX 7/8"-9NC GR2 ZDI       |
| 8X0106            | BOLT 3/4X2.75"W/1.38THD GR8ZDI | 8X0269            | NUT JAM 7/8"-9NC GR2 ZDI       |
| 8X0107            | BOLT 3/4-10NC X 2" GR5 ZDI     | 8X0277            | NUT JAM 1"-8NC GR2 ZDI         |
| 8X0110            | BOLT 3/4-10NC X 1-1/4" GR5 ZDI | 8X0278            | NUT JAM TOP LOCK1"-8NC GR2 ZDI |
| 8X0111            | BOLT 3/4-10NC X 2-1/2" GR5 ZDI | 8X0280            | NUT HEX 1"-8NC GR2 ZDI         |
| 8X0111A           | BOLT 3/4-10NC X 2-3/4" GR5 ZDI | 8X0281            | NUT NY-LOCK 1"-8NC GR2 ZDI     |
| 8X0112            | BOLT 3/4-10NC X 2-1/4" GR5 ZDI | 8X0283            | NUT JAM 1.25"-7NC GR2 ZDI      |
| 8X0113            | BOLT 3/4-10NC X 5" GR5 ZDI     | 8X0284            | NUT HEX 1.25"-7NC GR2 ZDI      |
| 8X0114            | BOLT 3/4-10NC X 3" GR5 ZDI     | 8X0285            | NUT HEX 1.5"-6NC GR2 ZDI       |
| 8X0115            | BOLT 3/4-10NC X 3-1/2" GR5 ZDI | 8X0286            | NUT JAM 1.5"-6NC GR2 ZDI       |
| 8X0115A           | BOLT 3/4NCX 3.5"FULLTHD GR5ZDI | 8X0290            | NUT HEX SLOT 1.25"-7NC GR2 ZDI |
| 8X0115B           | BOLT 3/4-10NC X 3-1/2" GR8 ZDI | 8X0300            | LOCKWASHER 5/16" YLW ZNC       |
| 8X0116            | BOLT 3/4-10NC X 6" GR5 ZDI     | 8X0301            | LOCKWASHER 3/8" YLW ZNC        |
| 8X0117            | BOLT 3/4-10NC X 7" GR5 ZDI     | 8X0302            | LOCKWASHER 7/16" YLW ZNC       |
| 8X0118            | BOLT 3/4-10NC X 4" GR5 ZDI     | 8X0303            | LOCKWASHER 1/2" YLW ZNC        |
| 8X0118A           | BOLT 3/4-10NC X 4-1/4" GR5 ZDI | 8X0304            | LOCKWASHER 5/8" YLW ZNC        |
| 8X0119            | BOLT 3/4-10NC X 7-1/2" GR5 ZDI | 8X0306            | LOCKWASHER 3/4" YLW ZNC        |
| 8X0120            | BOLT 3/4-10NC X 9" GR5 ZDI     | 8X0307            | LOCKWASHER 7/8" YLW ZNC        |
| 8X0121            | BOLT 3/4-10NC X 6-1/2" GR5 ZDI | 8X0308            | LOCKWASHER 1/4" YLW ZNC        |
| 8X0122            | BOLT 3/4-10NC X 4-1/2" GR5 ZDI | 8X0309            | LOCKWASHER 1" YLW ZNC          |
| 8X0123            | BOLT 3/4-10NC X 5-1/2" GR5 ZDI | 8X0311            | LOCKWASHER 1-1/4" YLW ZNC      |
| 8X0125            | BOLT 3/4-10NC X 10" GR5 ZDI    | 8X0315            | LOCKWASHER 1-1/2" YLW ZNC      |
| 8X0130            | BOLT 7/8-9NC X 2" GR5 ZDI      | 8X0316            | WASHER SAE FLAT 1" ZDI         |
| 8X0132            | BOLT 7/8-9NC X 2-1/2" GR5 ZDI  | 8X0317            | WASHER SAE FLAT 3/4" ZDI       |
| 8X0133            | BOLT 7/8-9NC X 3" GR5 ZDI      | 8X0318            | WASHER 3/4(13/16"ID)FLAT YZ    |
| 8X0138            | BOLT 1-8NC X 5-1/2" GR5 ZDI    | 8X0320            | WASHER FLAT 3/8 (7/16" ID) ZDI |
| 8X0139            | BOLT 1-8NC X 3" GR5 ZDI        | 8X0323            | WASHER SAE FLAT 5/8" ZDI       |
| 8X0140            | BOLT 1-8NCX7" W/1.5"THDGR5ZDI  | 8X0327            | WASHER SAE FLAT 1-1/4" ZDI     |
| 8X0143            | BOLT 1-8NC X 5" GR5 ZDI        | 8X0329            | WASHER FLAT 5/16"(3/8" ID) ZDI |
| 8X0144            | BOLT 1-8NC X 9-1/2" GR5 ZDI    | 8X0330            | WASHER 1.25 X 17/32" ID ZDI    |
| 8X0145            | BOLT 1-8NC X 10-1/2" GR5 ZDI   | 8X0364            | MACH BSHNG 3.5 X2.5IDX14GA PLN |
| 8X0149            | BOLT 1-8NC X 18" GR5 ZDI       | 8X0366            | WASHER 3-1/16"OD X 2"ID X 1/4" |
| 8X0201            | NUT HEX 3/8"-16NC GR2 ZDI      | 8X0368            | WASHER SAE FLAT 1-1/2" PLN     |
| 8X0202            | NUT NY-LOCK 3/8"-16NC GR2 ZDI  | 8X0370            | WASHER 3.934 X 3.016"ID X 14GA |
| 8X0203            | NUT SER FLANG 3/8"-16NC GR2ZDI | 8X0380            | WASHER 4.25 X 3-1/16 ID X3/16" |
| 8X0204            | NUT HEX 3/8"-16NC GR2 GALV     | 8X0400            | HAIR PIN CLIP 1/8 X 1-15/16"   |
| 8X0205            | NUT HEX 10-24 ZDI              | 8X0402            | HAIR PIN CLIP 1/8 X 2-9/16"    |
| 8X0210            | NUT HEX 5/16"-18NC GR2 ZDI     | 8X0414            | COTTER PIN 1/4 X 2" ZDI        |
| 8X0211            | NUT SER FLANG5/16"-18NC GR2ZDI |                   |                                |

| <u>Stock Code</u> | <u>Description</u>              |
|-------------------|---------------------------------|
| 8X0415            | COTTER PIN 3/16 X 1-1/2"        |
| 8X0418            | COTTER PIN 5/16 X 2-1/2" ZDI    |
| 8X0420            | CLEVIS PIN 7/16 X 1-3/4" ZDI    |
| 8X0422            | CLEVIS PIN 1/2 X 2-1/4" ZDI     |
| 8X0425            | CLEVIS PIN 1/2 X 3" ZDI         |
| 8X0428            | CLEVIS PIN 1/2 X 5-1/4" ZDI     |
| 8X0432            | CLEVIS PIN 1/2 X 6" ZDI         |
| 8X0440            | CLEVIS PIN 5/8 X 3-7/8" ZDI     |
| 8X0462            | CLEVIS PIN 3/8 X 3" W/HL ZDI    |
| 8X0520            | ROLL PIN 3/16 X 2" ZDI OR CAD-Y |
| 8X0523            | ROLL PIN 5/16 X 2-1/2" PLN      |
| 8X0605            | SET SCRW SQ HD 7/16-14X 1" ZDI  |
| 8X0614            | SET SCRW SQ HD 5/8-11 X 2" PLN  |
| 8X0632            | SET SCRW SCKT 7/16-14X 1.5" PLN |
| 8X0640            | SET SCRW SQ HD 1/2-13X 1.5" PLN |
| 8X0665            | SET SCRW SQ HD 3/4-10X4.5" ZDI  |
| 8X0708            | ZERK 1/4"-28 NF STR ZDI         |
| 8X0710            | ZERK 1/4"-28 NF 90 DEG ZDI      |
| 8X0721            | ZERK 5/16"-24 NF STR ZDI        |

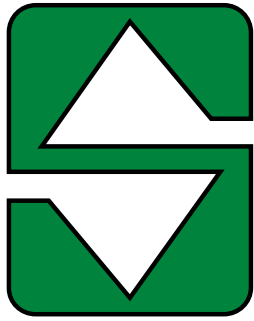
| <u>Stock Code</u> | <u>Description</u>                |
|-------------------|-----------------------------------|
| 8X0725            | ZERK 1/8" MPT STR ZDI             |
| 8X0727            | ZERK 1/8" MPT 90 DEG ZDI          |
| 8X1120            | CRG 3/8-16NC X 2" GR2 ZN          |
| 8X1130            | CRG 3/8-16NC X 3" GR2 ZN          |
| 8Z0075            | TRANSPORT LOCK DECAL              |
| 8Z0079            | DECAL "SUMMERS" 5 X 20"           |
| 8Z0087            | DECAL "WARNING" PINCH POINT 03-   |
| 8Z0100            | MADE IN THE USA DECAL             |
| 8Z0202            | 3.5" SUMMERS DECAL                |
| 8Z0204            | 5.5" SUMMERS DECAL                |
| 8Z0276            | DECAL GENERAL CAUTION 91-         |
| 8Z0342            | INSTALL CYL LOCKS DECAL           |
| 8Z0800            | REFLECTOR AMBER ADHSV-BCK 98-     |
| 8Z0805            | REFLECTOR REDORANGE ADHSVBK 99-   |
| 8Z0810            | REFLECTOR RED ADHSV-BCK 98-       |
| 8Z1000            | MANUAL-PAK 3DIA X 11.75" 09-      |
| 8Z1075            | 15', 21' & 30' SUPERROLLER MANUAL |
| 8Z2190            | RH8420 ID DECAL                   |
| 8Z2192            | RH8410 ID DECAL                   |

# History of Summers Manufacturing Co., Inc.

- 1965 – Summers Manufacturing is founded by Harley Summers, who purchases patent rights for Goebel truck and pickup hoists from the Goebel Brothers of Lehr, ND. These hoists, produced in Harley Summers' blacksmith shop the first year, were distributed nationwide by a Cincinnati, Ohio, dealer. With increasing sales, the company soon outgrows the small shop. Summers wins the Herman harrow contract, beginning the company's Herman culti-harrow line. Summers builds a 7,200 square-foot factory in Maddock to meet the demand for truck and pickup hoists, as well as Herman harrows.
- 1969 – Firm incorporates and becomes officially known as Summers Manufacturing Company, Inc.
- 1970 – Summers purchases rights to manufacture/market the Herman Harrow.
- 1973 – Company builds new 20,000 square-foot plant and offices in Maddock, adding a 20,000 square-foot assembly plant in the fall of 1975 (completed in January 1976), bringing total square footage of Maddock factories to 47,000.
- 1977 – Summers introduces the Agri-sprayer, used in conjunction with the Herman culti-harrow to incorporate herbicides and liquid fertilizer.
- 1980 – Company purchases manufacturing and distributing rights to Crown rockpickers from Crown Manufacturers of Regina, Saskatchewan. This forces another expansion project – a 26,000 square foot factory on a 24 acre site in Devils Lake, ND Industrial Park.
- 1981 – Company establishes a branch facility in Regina, Saskatchewan.
- 1982 – Devils Lake plant begins operations in January, manufacturing supersprayers and rockpickers. The Maddock factory begins producing the Superweeder, a combination cultivator and harrow.
- 1983 – Summers buys manufacturing and distributing rights to the Fargo Field Sprayer line from Mid America Steel (formerly Fargo Foundry), Fargo. This field sprayer line is manufactured at the Devils Lake plant. Harley Summers is selected North Dakota's small-businessman of the year by the Small Business Administration.
- 1984 – Herman Diamond Disk, a disk harrow made in a diamond shape to reduce blade breakage from rocks, comes off the assembly line.
- 1985 – Summers signs a contract with Melroe Company of Bismarck to obtain exclusive manufacturing rights to the Melroe harrow line.
- 1989 – Summers purchases TorMaster Company of Hordean, Manitoba, giving the company a line of rolling packer equipment, comprised of harrow packers and hydraulic fold coil packers.
- 1992 – A new engineering office/parts department is added to the Devils Lake factory.
- 1993 – Company adds two new products: a pickup-mounted sprayer with booms of 80 and 90 feet, and the Summers Superharrow, an extra-heavy-duty residue-management tool designed for the minimum and no-till farmer.
- 1994 – a 50 by 125 foot addition to the Maddock factory is completed. Construction begins on a 24,576 square-foot addition to the Devils Lake factory, which enables the company to increase production of truck-mounted and pull-type supersprayers and rockpickers.
- 1996 – 1500 square foot office area added to the Maddock plant. Company introduces Chisel Plow with floating hitch and 700# trip assembly.
- 1997 – 16,800 square foot warehouse in Maddock purchased from local business.
- 1999 - Company introduces the Ultimate suspended boom trailer sprayer with hydraulic folding booms. Additional sizes added to the Chisel Plow line, now ranging from 28' to 54'.
- 2000 - Company introduces the Supercoultter, the innovative solution for excessive field residue management on no-till, minimum-till, and conventional-till farming operations.
- 2001 - Cold storage building completed at Devils Lake. Company extends boom lengths up to 110 feet on the Ultimate Supersprayer.
- 2002 - Company adds a warehouse and service man in Aberdeen, SD.
- 2003 - Company introduces the Ultimate NT Supersprayer featuring a bolt on axle for easier adjustment, and a new family of tanks that feature a drainable sump and a common width dimension.
- 2004 - A 124 ft. x 310 ft. addition is added onto the current Devils Lake plant.
- 2005 - The Summers Superroller is added to the "Field Tested Tough" product line. Additional sizes of 56', 58' and 60' are added to the Superchisel line. Ultimate-Ultra NT Supersprayer introduced featuring 120' & 133' booms.
- 2006 - The Summers Coulter-Chisel, Rolling Choppers and 30' Superroller were included in product line.
- 2007 - 62' & 84' 5 Section Landrollers and a 20' Coulter-Chisel were introduced.
- 2008 - Disk-Chisels, ranging from 16' to 40' widths, are added to product line.
- 2009 – M105 and M108 Mounted Harrows added to selection of Mounted Attachments. SuperHarrow 2650, 50' SuperCoulter, Hydraulic Fold Rolling Chopper and 36" diameter Landrollers introduced.
- 2010 – Rolling Basket and 47' Diamond Disk added to product line. A 124 ft. x 310 ft. addition to Devils Lake factory built for a state of the art paint system.
- 2011 – Additional Supercoulter sizes were added along with larger tires for tillage implements. Ultimate and Ultra Supersprayers received an additional tank size of 1650 gallons. Front Caster Wheel option was made available for chisel implements.
- 2012 – 41', 46' & 53' Trail Type Landroller added to product line. Additional Superchisel sizes of 16' & 20' were added.
- 2013 – DT9530 added to product line. Internal Scraper in Rolling Baskets introduced. Finishing Coulter Gang becomes standard on the Diamond Disk and 2510 DT. Corporate offices opened at Devils Lake plant. New building and location for the Aberdeen warehouse.
- 2014 – Introduced the VRT2530 (Variable Rate Tillage).
- 2015 – Introduced the VT Flex Applicator and Spray Fill Xpress.

Summers distributes on a wholesale level to dealers and distributors throughout markets in North Dakota, South Dakota, Minnesota, Montana, Iowa, Washington, Idaho, Oregon, Utah, Colorado, Kansas, Nebraska, Oklahoma, Texas, Manitoba, Saskatchewan, Alberta, British Columbia, Kazakhstan, Russia and Australia, making it an international company.





# **SUMMERS<sup>®</sup>**

*... Field Tested TOUGH!*



## **Tillage**



## **Rock Picker**



## **Land Rollers/Packers**



## **Sprayers**



## **Cultivators/Harrows**

## **Mounted Attachments**

