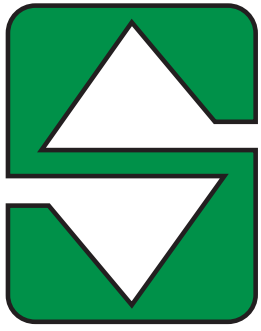


62' & 84' SUPERROLLER

62' & 84' SUPERROLLER



SUMMERS®

Operator's Manual

62' & 84'

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 for latest version of all Summers Operator's Manuals.

SUMMERS MANUFACTURING CO., INC.

WEB SITE: www.summersmfg.com

MADDOCK, NORTH DAKOTA 58348 (701) 438-2855

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 12 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 Maddock, ND or 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.
MADDOCK, NORTH DAKOTA 58348
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 – ASSEMBLY includes step by step assembly instructions for your Summers Land Roller.
- Section 3 – LAND ROLLER OPERATION provides necessary information for the operation and adjustment of the machine.
- Section 4 – MAINTENANCE covers recommended mechanical maintenance. TROUBLESHOOTING provides a quick reference to solving problems. SPECIFICATIONS lists important dimensions, capacities and other technical information.
- Section 5 – 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 30,000 lb. Minimum tractor engine horsepower is 300. 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 30,000 lb. vehicle. Tongue weight in transport and field positions is 1150 lbs.

H. NEVER ALLOW anyone to work under Land Roller.

OWNER REGISTER

Name _____	Size _____
Address _____	Serial Number _____
City _____	
State/Prov. _____	Date Purchased _____ (located by the hitch piece)
Mail Code _____	Dealer _____

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SECTION 1 - SAFETY

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 retracted), 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

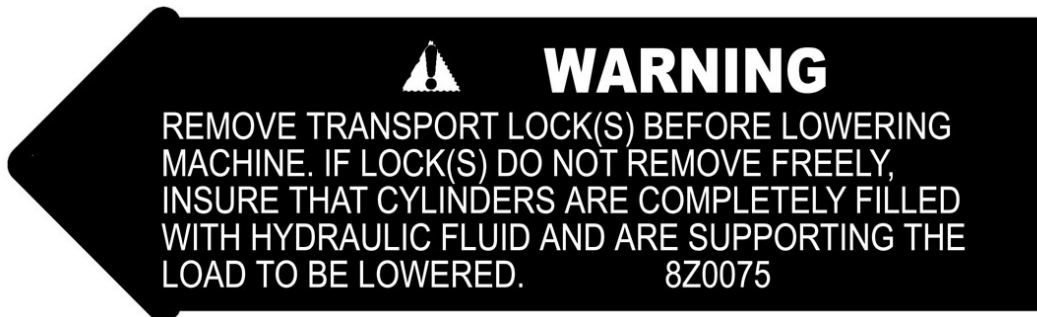
1. Ability to safely operate the Summers Superroller is determined by both tractor horsepower and weight. The minimum tractor weight for operating this implement is 30,000 lbs. Minimum tractor engine horsepower is 300. Dual tires or single tires set at maximum width are required for safe operation of Land Roller.
2. ONLY TOW at a safe speed – 20 MPH MAXIMUM. Use caution when making corners and meeting traffic.
3. USE Safety Lights and Safety Chain between tractor drawbar and implement hitch when transporting on public roads.
4. ALWAYS install lift cylinder locks 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.
7. Frequently check for traffic from rear, especially during turns.

SAFETY DECALS

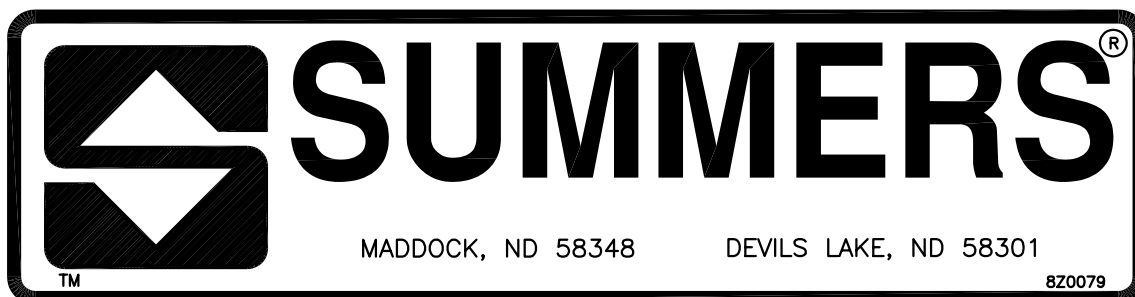
1. KEEP SAFETY DECALS CLEAN.
2. REPLACE missing or unreadable decals. New decals are available from your Summers dealer by ordering correct part number (PN) located on the decal.

DECALS AND THEIR LOCATIONS

1. PN 8Z0075 – DECAL FOR REMOVING TRANSPORT LOCKS

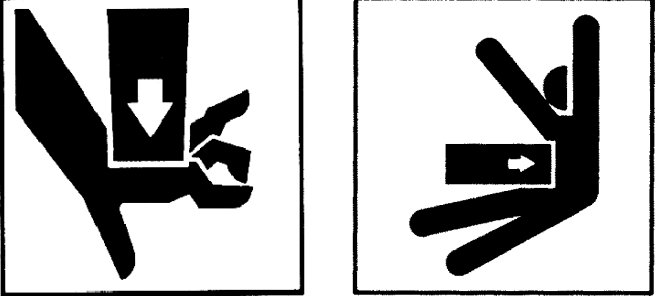



2. PN 8Z0079 – DECAL FOR COMPANY IDENTIFICATION



SECTION 1 - SAFETY

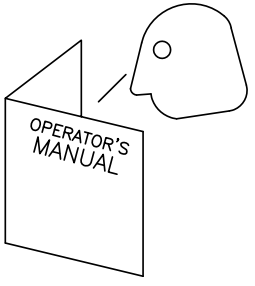

3. PN 8Z0087 – DECAL FOR PINCH POINT HAZARD

	 <p>DANGER</p> <p>FRAME PINCH POINT HAZARD <i>KEEP AWAY</i></p> <p>To prevent serious injury or death from crushing:</p> <ul style="list-style-type: none">• Stay away from frame hinge area when folding wings.• Keep others away.• Do not fold wings when bystanders are present. <p>8Z0087</p>
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4. PN 8Z0132 – SUPERROLLER ID DECAL

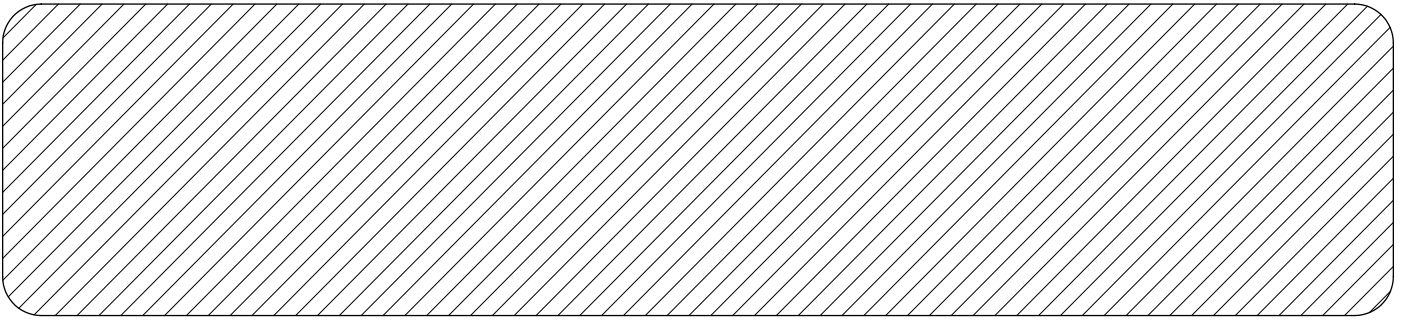
<h1>SUPERROLLER</h1> <p>8Z0132</p>

5. PN 8Z0276 – DECAL FOR GENERAL CAUTION

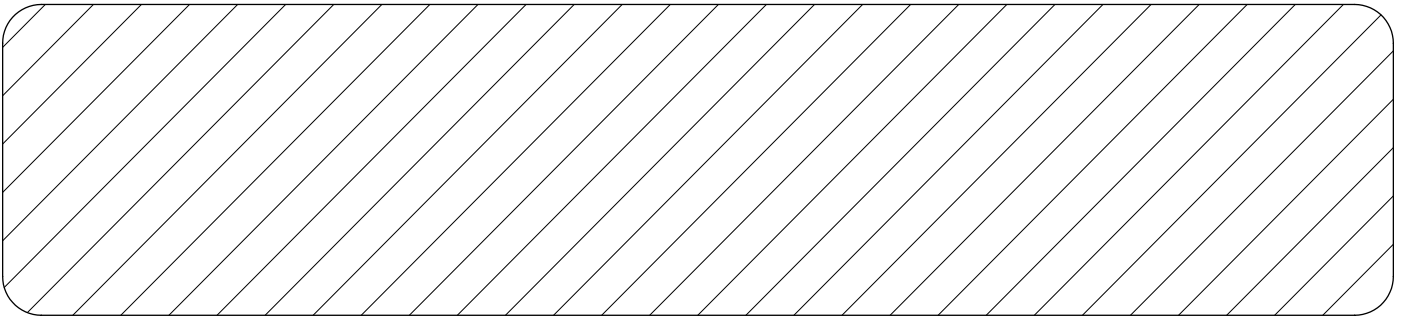
	 <p>CAUTION</p> <ol style="list-style-type: none">1. Read and understand Operator's Manual before using machine.2. For Sprayers:<ol style="list-style-type: none">a. Read and follow chemical manufacturers' WARNINGS, instructions and procedures before using.b. Use recommended personal protective equipment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

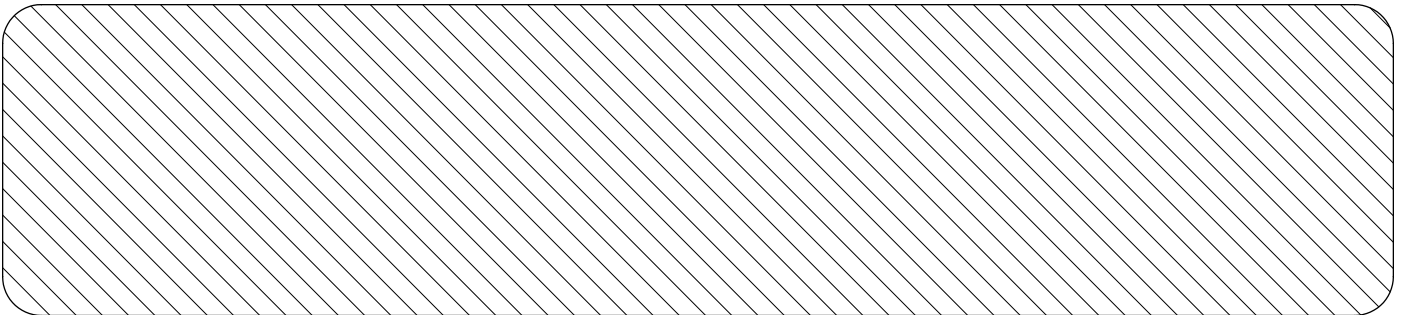
6. PN 8Z0800 – AMBER REFLECTOR



7. PN 8Z0805 – RED-ORANGE REFLECTOR



8. PN 8Z0810 – RED REFLECTOR



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:

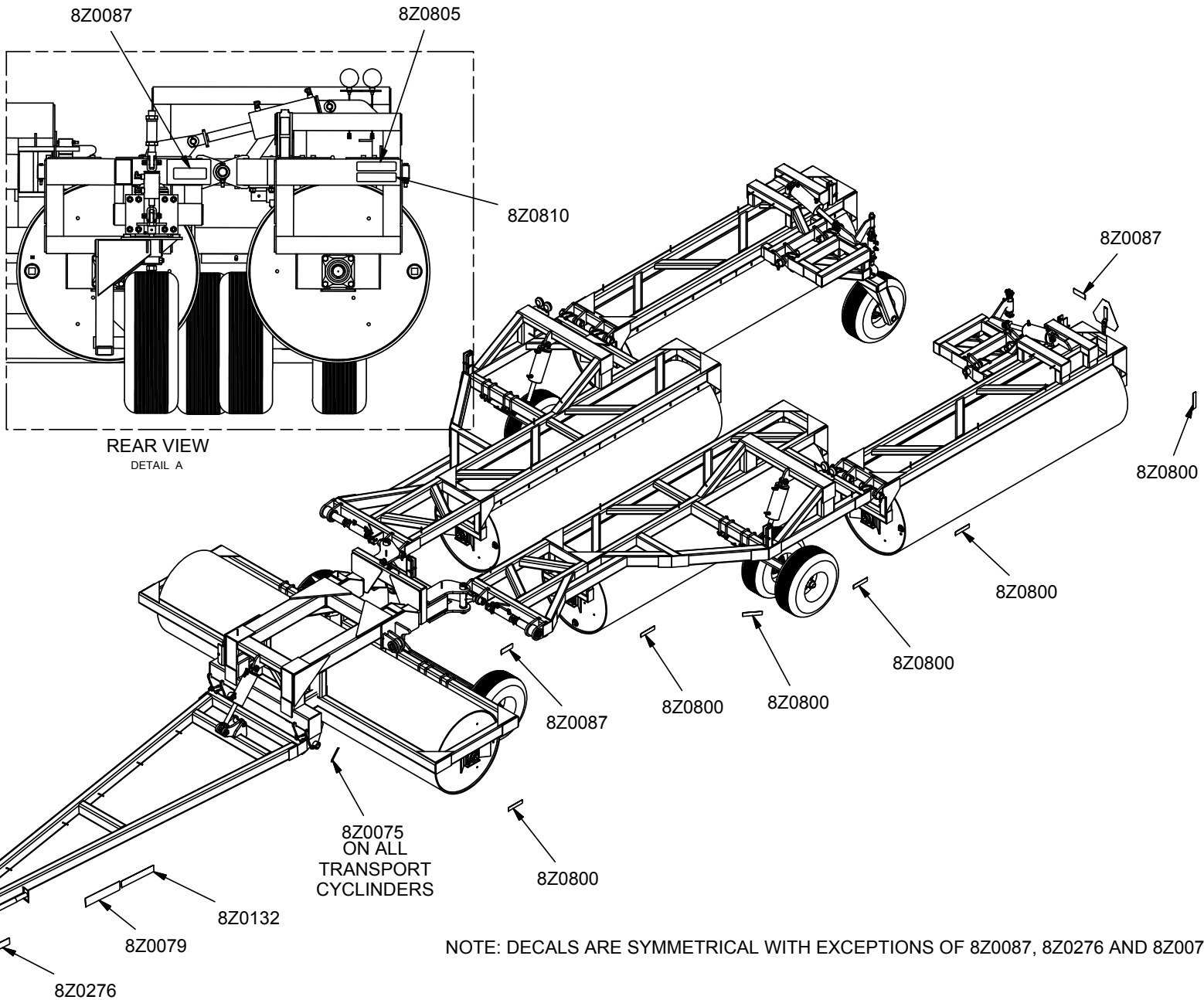
Amber lights will turn on with flashers or turn signals.

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

GENERAL ASSEMBLY SAFETY PRACTICES

1. READ AND UNDERSTAND Operator's Manual before assembly of machine.
2. If machine is to be assembled INDOORS, check that exit door is a MINIMUM OF 18' WIDE and a MINIMUM of tractor height.
3. Reference to "RIGHT" and "LEFT" is determined when machine IS VIEWED FROM THE REAR.
4. Reference to "FORWARD" means TOWARDS THE TRACTOR.
5. Reference to "REAR" means AWAY FROM THE TRACTOR.

SAFETY-ALERT SYMBOL



This symbol is an alert to the potential for personal injury. This symbol means **ATTENTION! BECOME ALERT!**
YOUR PERSONAL SAFETY IS INVOLVED!

SECTION 2 - ASSEMBLY

GENERAL SAFETY PRACTICES



YOU ARE RESPONSIBLE for the safe assembly of the machine.



BLOCK UP ANY RAISED PART of the machine. Be sure machine is stable after blocking.



DO NOT ALLOW CHILDREN or other unauthorized persons within the assembly area.



ALWAYS INSPECT LIFTING CHAINS AND SLINGS for damage or wear.



WEAR PERSONAL PROTECTIVE EQUIPMENT which includes a hard hat, eye protection, work gloves and steel toed boots with slip resistant soles.



BE SURE LIFTING DEVICE IS RATED TO HANDLE THE WEIGHT.*



DO NOT MODIFY the equipment or substitute parts in any way. Unauthorized modification may impair the function and/or safety of the machine.



STOP ENGINE, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing or adjusting.



USE SUITABLE LIFTING DEVICE for components which could cause personal injury.



ALWAYS make sure Land Roller is lowered into field position (cylinders retracted), it is blocked to prevent movement and that pressure is relieved from hydraulic circuits before servicing.



USE EXTREME CARE when assembling, servicing or adjusting.

***APPROXIMATE WEIGHTS OF COMPONENTS**

PN	DESCRIPTION	WEIGHT (LB)	PN	DESCRIPTION	WEIGHT (LB)
8P7132	HITCH	1105	8P7112L & R	SEC 2 WING (L & R)	1550
8P7120	CENTER SECTION	3590	8P4215	ROLLER, 15'	4285
8P7102L & R	SEC 1 WING (L & R)	2554	8P8662	PARTS BOX	2310

Table for 62' Landroller Components

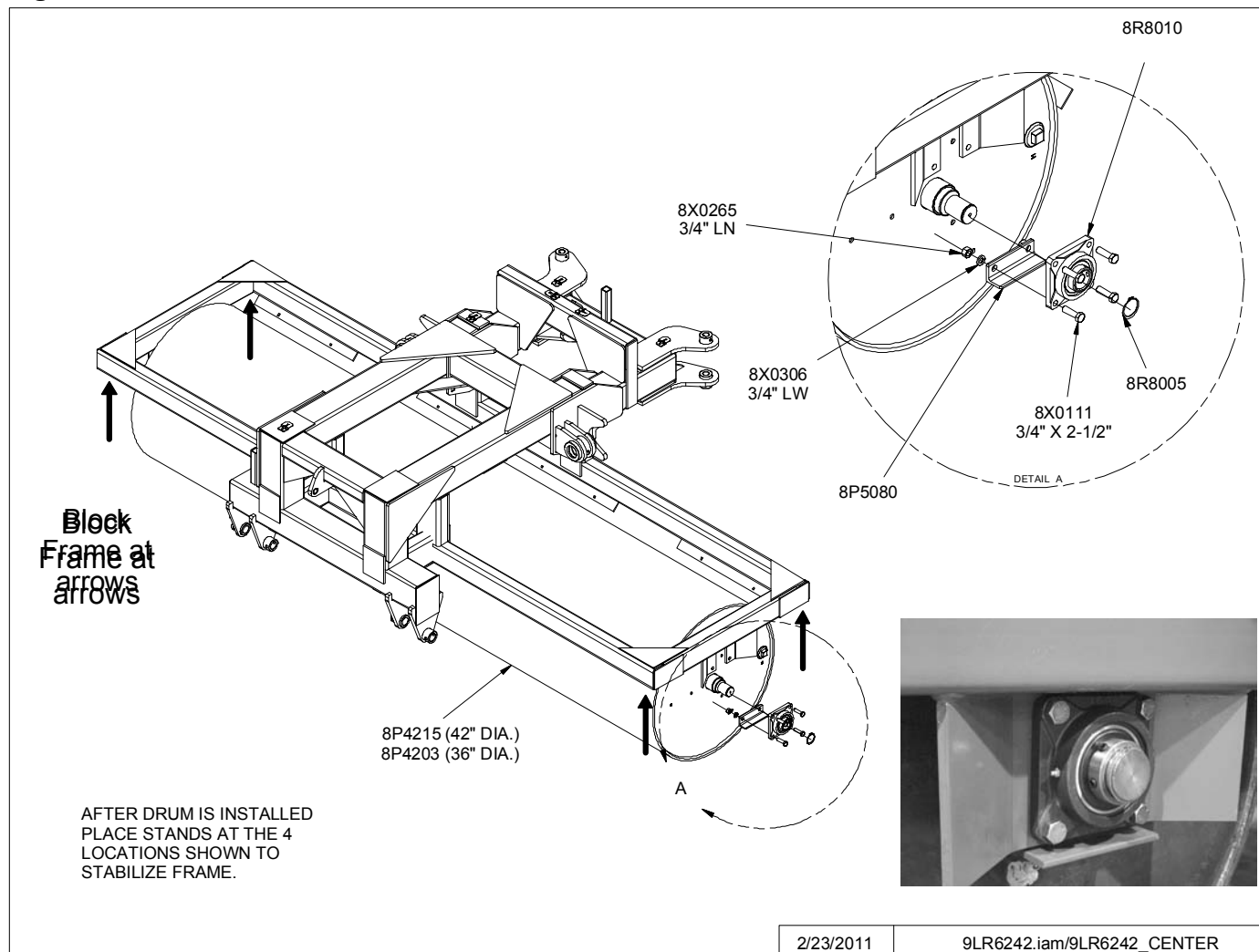
SECTION 2 - ASSEMBLY

Main Frame Roller Installation (Instructions for both 62' & 84')

(NOTE: 62' shown in drawings)

- MF1. Position 8P4215 on a flat even surface; block the roller to avoid unexpected movement. **CAUTION:** The 15' roller weighs 4285 lbs., use extreme care when moving rollers and frame components. **NOTE:** An H has been stamped onto one end of each roller. Position the center roller with the H to the left. All other rollers should have the H positioned to the center of the machine.
- MF2. Use a fork lift or crane to position the main frame 8P7120 over the center drum and lower the frame so the roller axle stubs fit between the bearing hangers as shown in the Figure 1.
- MF3. Install bearings with the **grease zerk toward the rear of the machine**. Secure to bolt plates with the hardware shown. Install reinforcement angles between the bottom attachment hole on the inside of the bolt plate, as shown in Figure 1.
- MF4. Install snap rings on each roller shaft. Ensure that the roller is centered in the bearings and tighten the set screws.
- MF5. Before removing the lifting device for the main frame, block the frame in the locations shown in Figure 1, also install blocks under the roller to keep it from rolling.

Figure 1



Hitch Installation

H1. Position hitch as shown in Figure 2; install the pins and hardware shown in Figure 2.

IMPORTANT

Always install the pins with the cross hole towards the outside. Pay attention to the orientation of the cross hole in the pin to the cross hole in the bushing on the main frame, only drive the pin in far enough to line up the holes, install the fasteners shown in Figure 2.

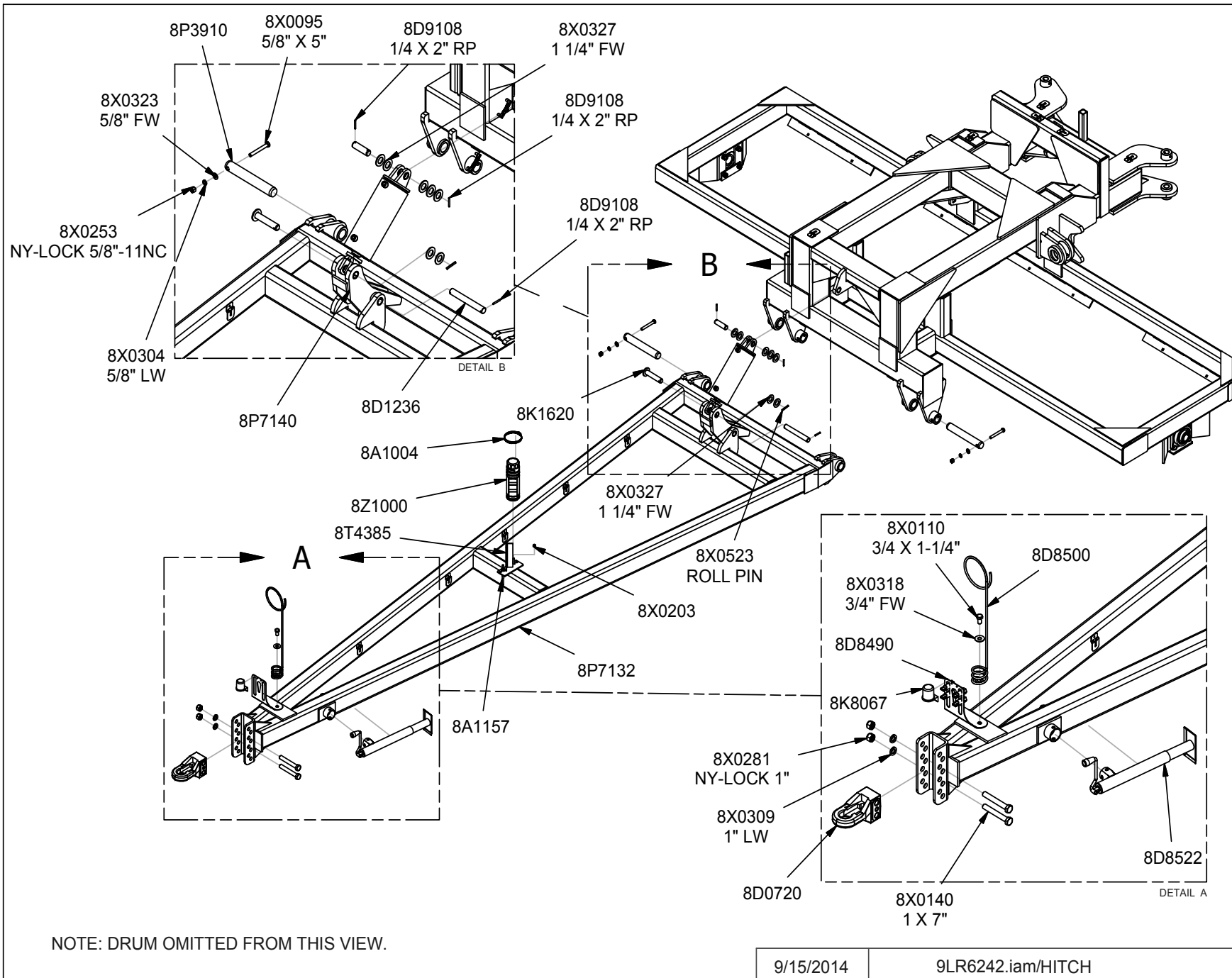
H2. Install the jack stand and pin.

H3. Install the hitch clevis and hardware shown on the front of the hitch.

H4. Install the Pivot lock and cylinder at the rear of the front hitch. Install the pins and washers as shown. Note the orientation of the pivot lock, do not install it backwards.

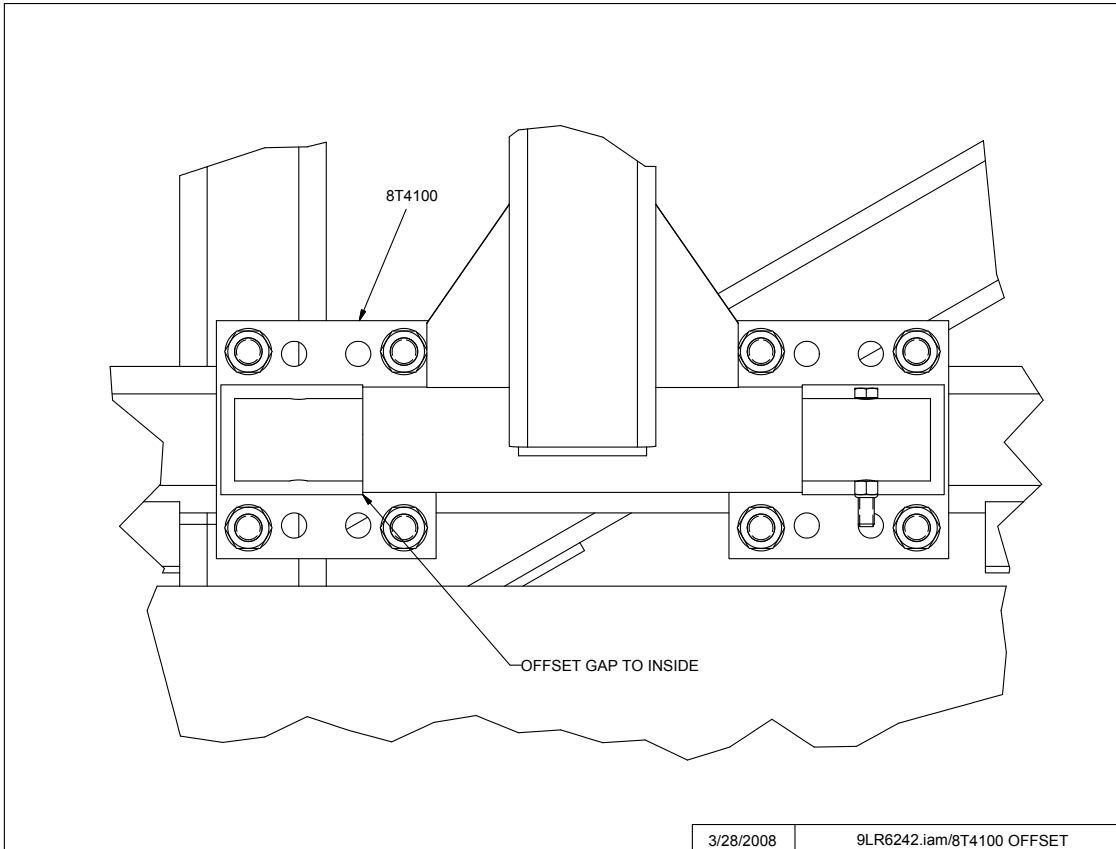
Figure 2

SECTION 2 - ASSEMBLY



Main Frame Transport Frame Installation

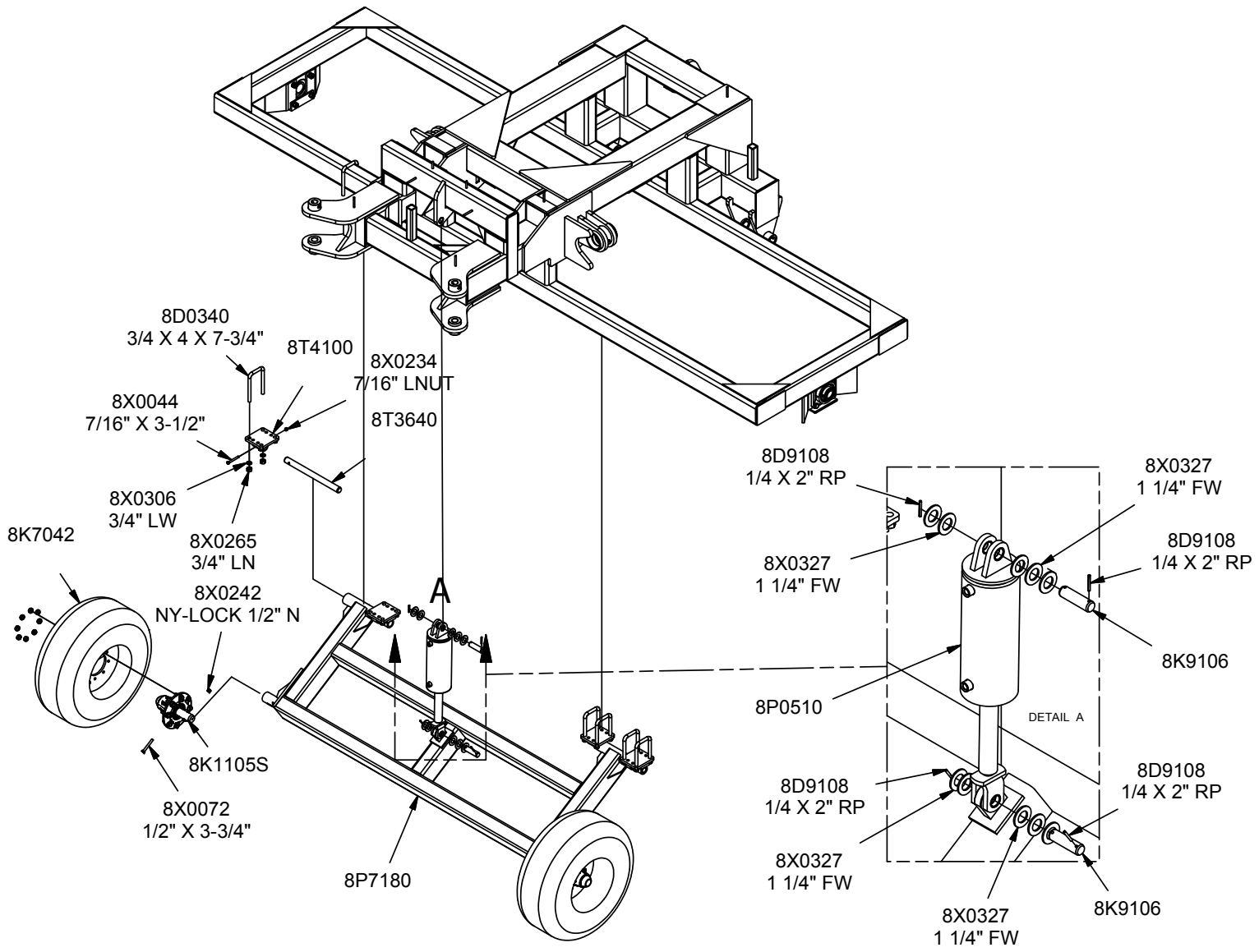
- T1. Loosely position 8T4100 on the main frame and affix the hardware associated with 8T4100. Do not tighten the fasteners. 8T4100 should always be positioned as shown, with the offset gap to the inside.



- T2. Position the transport frame at the rear of the main frame, note the orientation of the cylinders clevis. Raise the transport frame so that pin 8T3640 can be driven into 8T4100. Note the orientation of the pin, the cross hole should be towards the outside of the machine. Secure the pin with hardware shown. Make sure the transport frame is centered and tighten all hardware from step T1.
- T3. Attach the hydraulic cylinder to the main frame, with the hardware shown in the diagram. Note the number of washers on each side of the pin and the orientation of the cylinder ports.
- T4. Insert the spindles into the spindle receiver on the transport frame. Secure with the hardware shown.
- T5. Install the tires, torque the wheel nuts 170 ft-lbs.

Figure 3

HITCH AND DRUM OMITTED FOR CLEARER VIEW



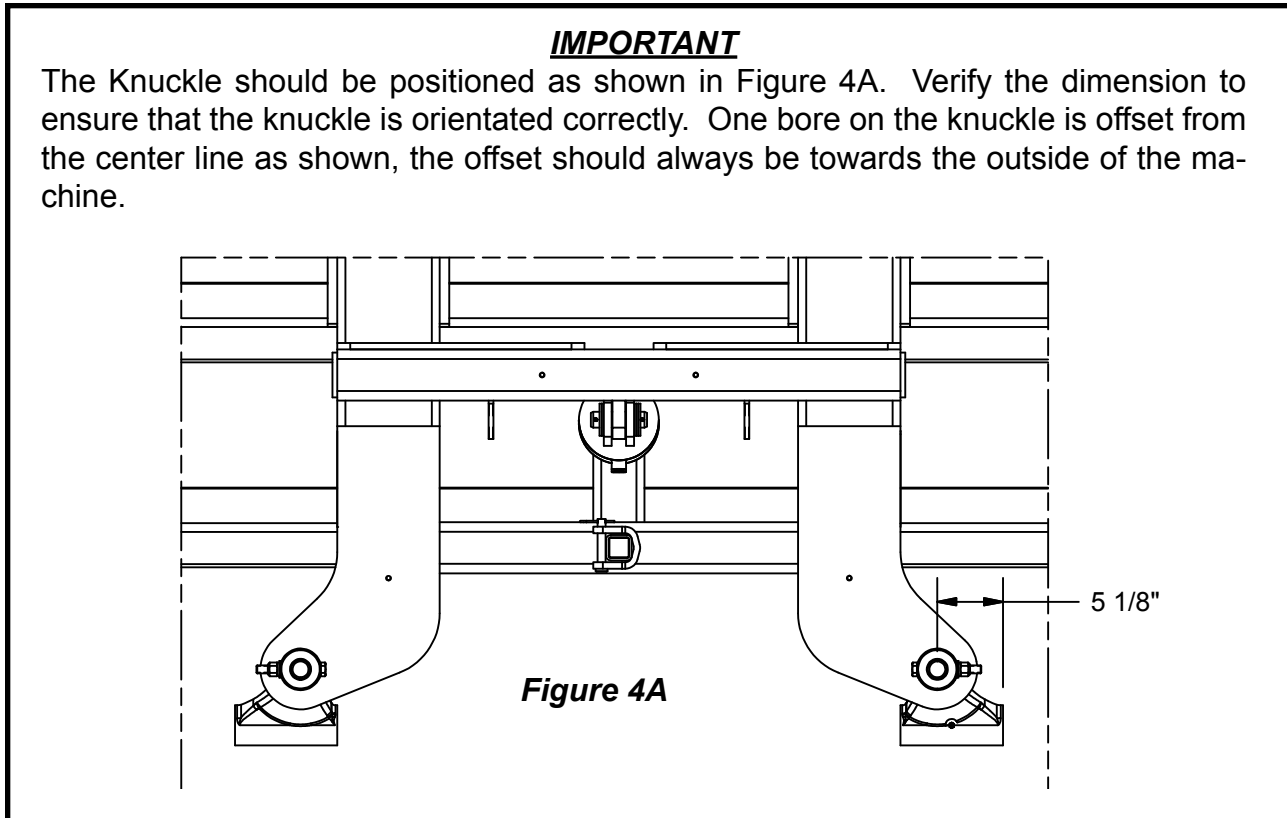
2-7

SECTION 2 - ASSEMBLY

Part 1 Wing Installation

The following instructions depict the left part 1 wing being installed on the machine. The right hand wing will follow the same procedure.

P1W 1. Install the cast knuckle, 8C1805. The orientation of the knuckle is extremely important. Installing the knuckle in the wrong orientation will not allow the wings to fold properly. Structural damage may occur if the knuckle is installed incorrectly and the machine is unfolded. Install the pins and hardware as shown.



P1W 2. Position the left hand wing as shown over the knuckle. Install pin and hardware shown in Figure 4.

P1W 3. Install the small pin cylinder and pin as shown in Detail A of Figure 4. Install the roller pins. Note the orientation of the ports on the cylinder.

P1W 4. Raise the rear of the part 1 wing in the air high enough to allow the roller to be placed under the frame. **NOTE:** An H has been stamped onto one end of each roller. Position the center roller with the H to the left. All other rollers should have the H positioned to the center of the machine.

P1W5 . Install bearings with the grease zerk toward the rear of the machine (in field position). Secure to bolt plates with the hardware shown in Detail A of Figure 1. Install reinforcement angles between the bottom attachment hole on the inside of the bolt plate, as shown in Figure

Figure 4

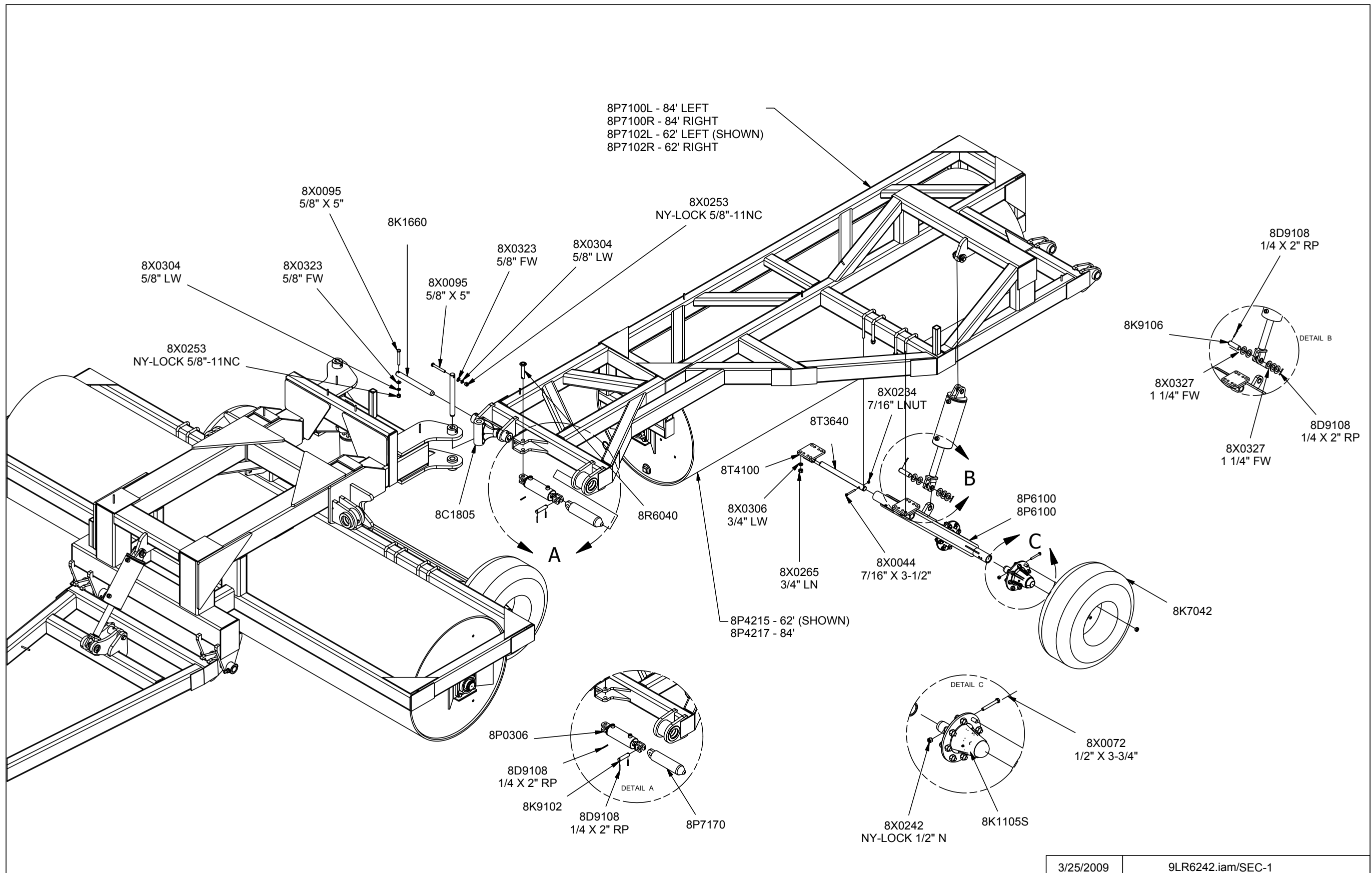
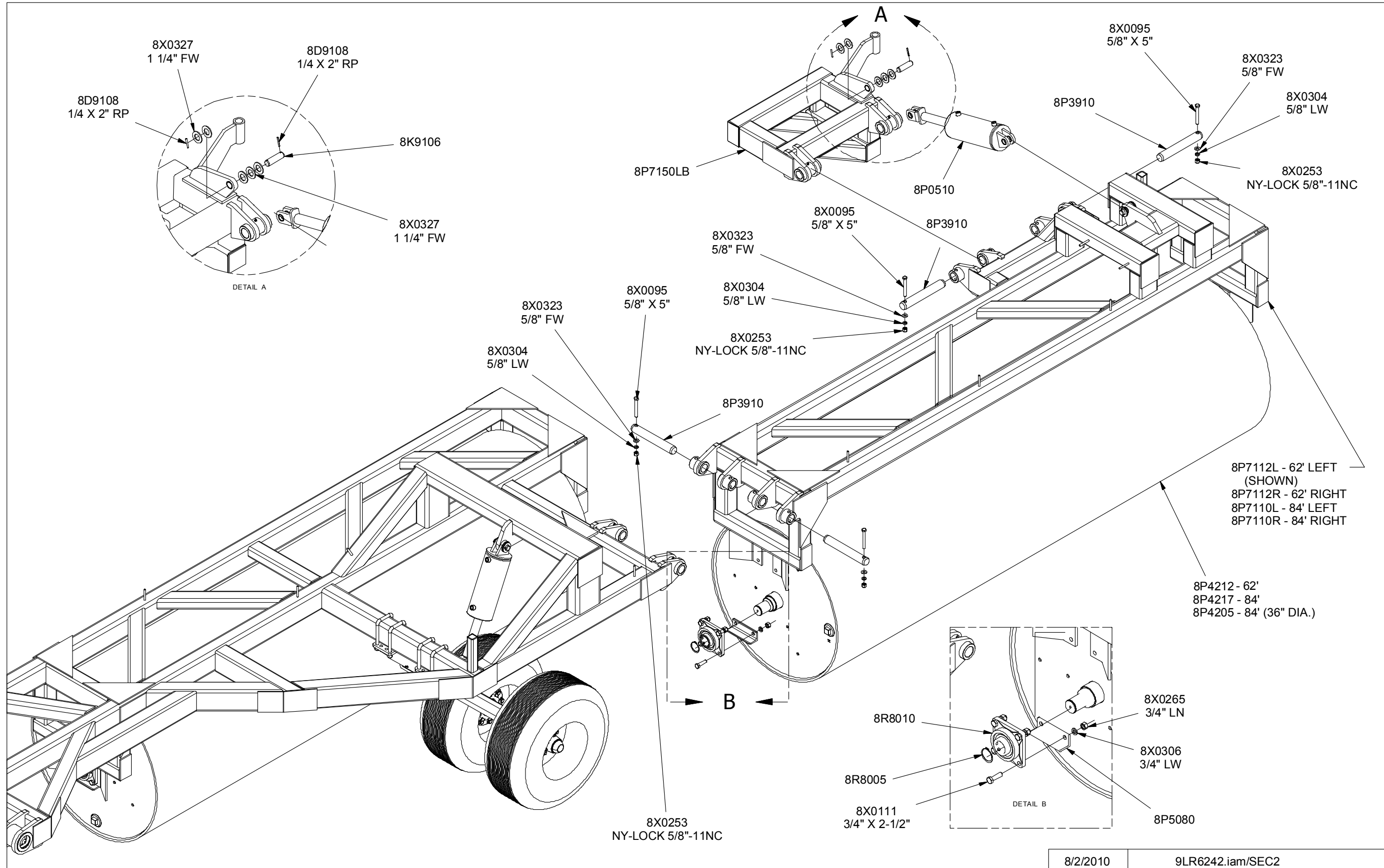


Figure 5



SECTION 2 - ASSEMBLY

1. Install snap rings on each roller shaft. Ensure that the roller is centered in the bearings and tighten the set screws.

P1W6. Install the hubs on 8P6100 as shown in Detail C of Figure 4. Attach with the shown hardware and tighten.

P1W7. Install the tires to the hubs installed in the previous step. Tighten the wheel nuts to 170 ft-lbs. torque.

P1W8. Loosely position 8T4100 on the wing frame and affix the hardware associated with 8T4100. Do not tighten the fasteners.

P1W9. Position 8P6100 as shown in the diagram, making sure the assembly is centered to the clevis on wing frame. Install 8P3640 and secure with the hardware shown in the diagram.

P1W10. Install the hydraulic cylinder as shown. Install the pins and washers as shown in Detail B in Figure 4 on both the top and bottom of the cylinder.

Repeat the above steps for the Right hand side of the machine.

Part 2 Wing Installation.

P2W1. Position the left hand part 2 wing as shown. Install pin and hardware shown in Figure 5. Note the orientation of the pins, the cross hole should be towards the outside of the bushing.

P2W2. Raise the rear of the part 2 wing in the air high enough to allow the roller to be placed under the frame. **NOTE:** An H has been stamped onto one end of each roller. Position the center roller with the H to the left. All other rollers should have the H positioned to the center of the machine.

P2W3. Install bearings with the grease zerk toward the rear of the machine. Secure to bolt plates with the hardware shown in Detail B of Figure 5. Install reinforcement angles between the bottom attachment holes on the inside of the bolt plate, as shown in Detail B of Figure 5. Install snap rings on each roller shaft. Ensure that the roller is centered in the bearings and tighten the set screws.

P2W4. Install 8P7150LB as shown in the diagram, attach with the pins and hardware shown. Note the orientation of the pins.

P2W5. Install the hydraulic cylinder as shown. Install the pins and washers as shown in Detail A of Figure 5 on both the top and bottom of the cylinder.

Repeat the above steps for the right hand part two wing.

Caster Installation

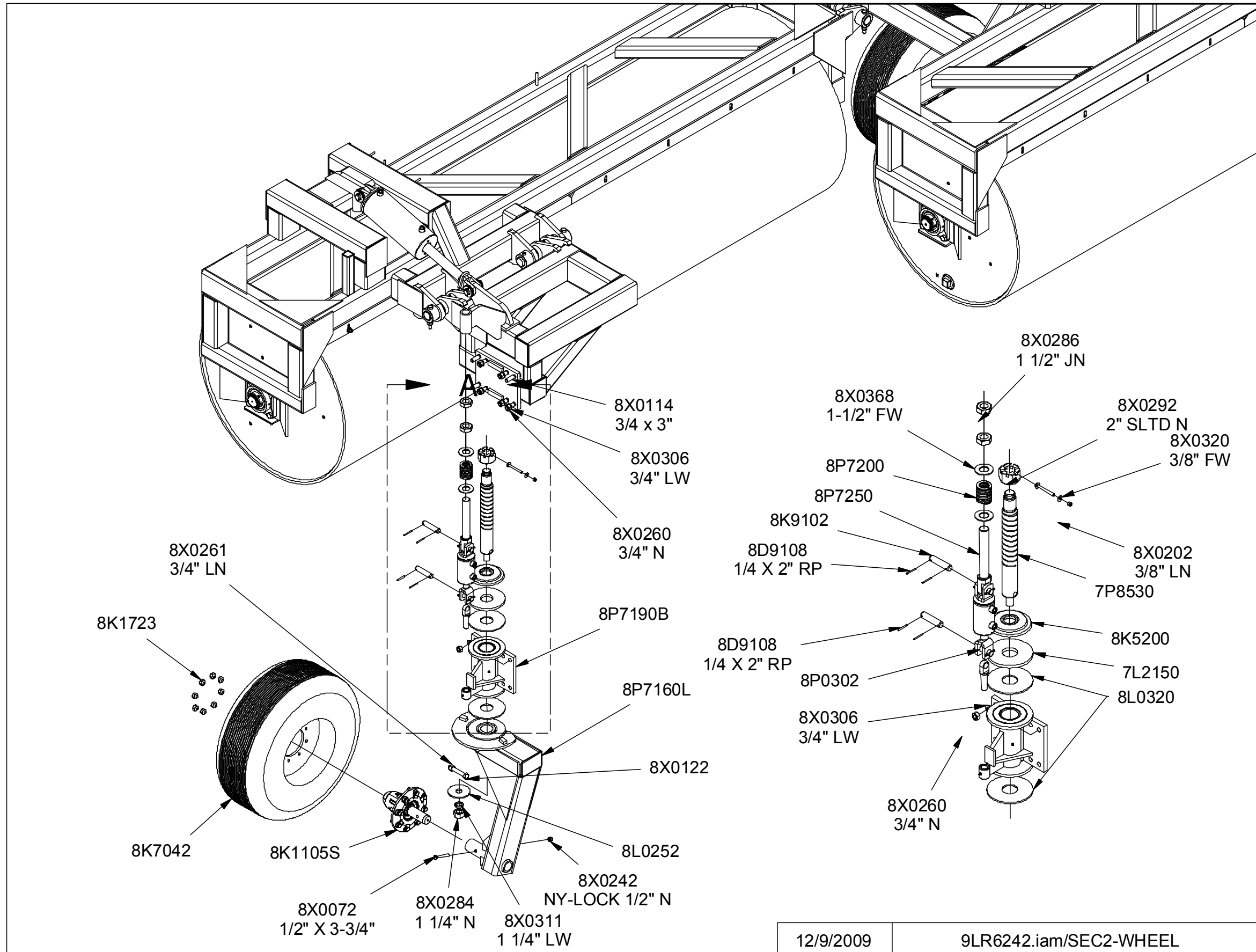
Note: The caster wheel shown in Figure 6 is for the left hand side. The tire should be positioned towards the drum.

- C1. Install 8P7190B as shown in the diagram, center 8P7190B on the caster wing. Attach with the hardware shown, tighten all nuts.
- C2. Install 7P8530 into the caster weldment, attach the spindle with the hardware shown and tighten all fasteners.
- C3. Install the assembled caster into the caster holder, be sure to install the wear plates and spacers in the correct order.
- C4. Tighten the Caster Castle nut so the caster assembly cannot be turned by human force. Install the hardware in the castle nut as shown to ensure that it will not loosen.
- C5. Install the castor pivot lock cylinder (8P0302) and all associated hardware as shown in the diagram. Make sure the cylinder ports are pointing towards the roller.

Scraper Installation

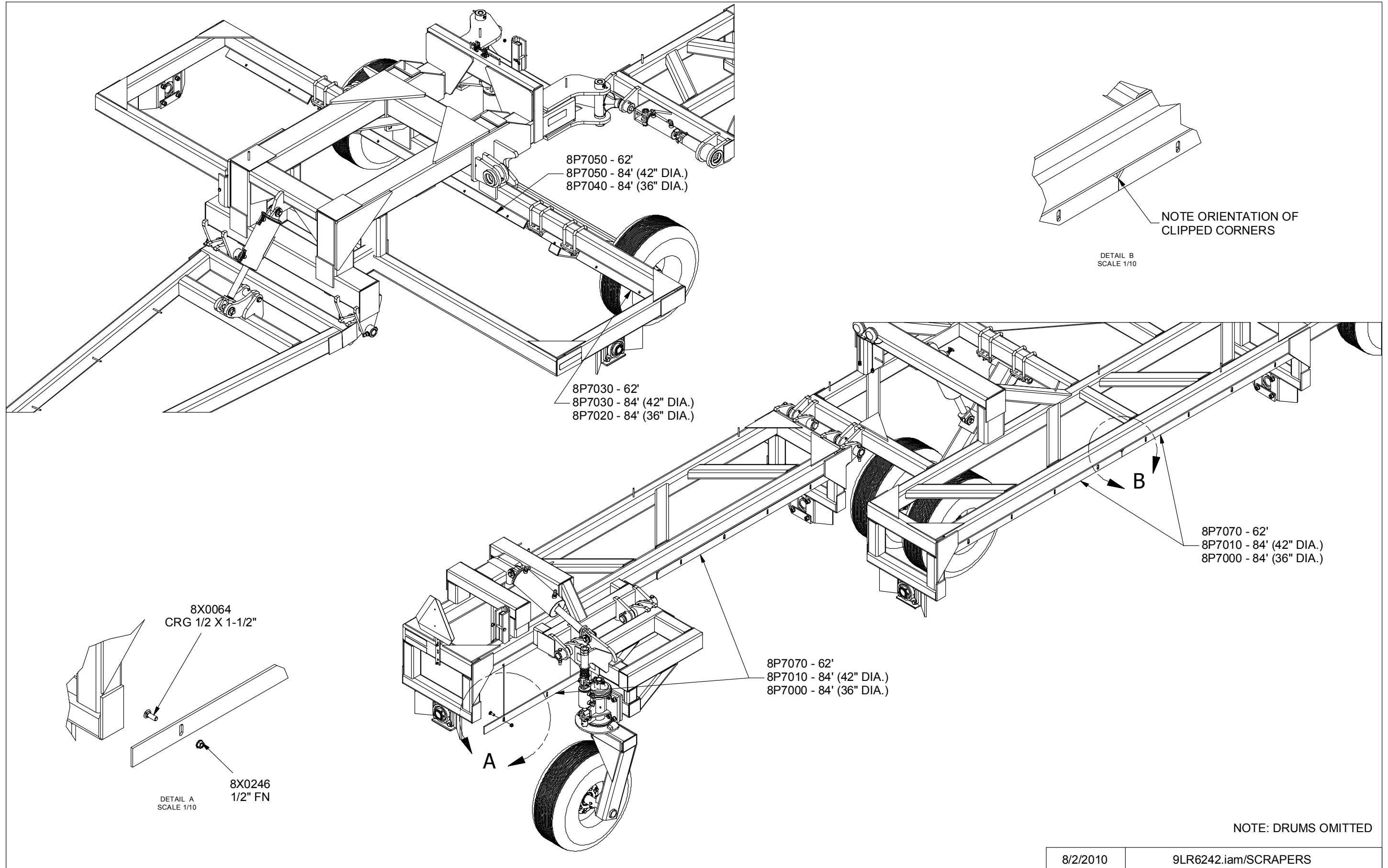
- S1. Install scrapers as shown in drawing on page 2-14. Use the hardware shown in detail A.
- S2. Adjust scraper so they do not touch the roller.

Figure 6



12/9/2009

9LR6242.iam/SEC2-WHEEL



SECTION 2 - ASSEMBLY

Hydraulic Installation

- H1. Install Hydraulic components as shown in Figure 7 provided.
- A. Leave enough slack at all pivot points to allow folding machine without stretching or pinching hydraulic hoses.
 - B. Secure hoses with nylon ties and clamps provided. Do not over tighten clamps.
- H2. Install 8J5300 (one to each port) on front cylinder. Install 8J5700 to each end of tees. Attach 8N3312 (312" hoses) to bottom 8J5700 on each port of front cylinder and run forward to the hitch leaving enough slack in hose by cylinders for movement.
- H3. Install 8N3432 (432" hose) to 8J6000 (90° fitting). Attach 8J6000 to 8J5300 on center port. Hydraulic Tees should be centered on machine as shown in Figure 7 - Detail F.
- H4. Attach one end of 8N2088 (88" hose) to 8J5300 on center port and connect other end to 8J6010 on inside port of folding cylinder on first section of landroller. Attach one end of 8N0276 (276" hose) to 8J5300 on tee and connect other end to 8J6010 on outside port of folding cylinder of first section. (See Figure 7 - Detail C)
- H5. Attach 8J5620 to both ports on center rear lift cylinder. Install 8C0650 (manifold) to each port according to Figure 7 - Detail A. Install 8J5500 on center port of top 8C0650 and all three ports of bottom 8C0650 (as shown in Figure 7 - Detail A).
- H6. Install 8N3150 to 8J5700 on top port of front cylinder. Attach other end to center port of top 8C0650 (manifold). Install 8N3156 to 8J5700 on bottom port of front cylinder. Attach other end to center port of bottom 8C0650 (manifold). Run both hoses along frame as shown in Figure 7.
- H7. Attach one each 8N3276 for 62' (or 8N3312 for 84') to each of the outside ports on both 8C0650 (manifold) as shown in Figure 7 - Detail A. Run hoses along frame as shown in Figure 7 toward lift cylinder on first section. Attach 8J5620 to each port on cylinders. Attach center port of 8J5700 (tee) to each 8J5620 on lift cylinder. Attach end of hose to one port of tee.
- H8. Attach 8N3252 for 62' (or 8N3276 for 84') to other side of tee on section 1 lift cylinder. Run along frame as shown in Figure 7. Attach 8J6010 to each port on rear lift cylinder as shown in Figure 7 - Detail E. Attach other end of 8N3252 to each port of rear lift cylinder.
- H9. Install two 8P6010 into each port on the pivot lock cylinder.
- 62 Ft. LandRoller:** Attach 8N3534 to each port of cylinder and route hose toward the front of the machine as shown in Figure 7.
- 84 Ft. LandRoller:** Attach 8N3136 to each port of cylinder and route hose towards the front of the machine as shown in Figure 7. Using 8J5100 attach the 8N3534 and continue running the hose towards the front of the machine.

Attach 8J5300 to the end of the 8N3534 and join the hose from each side of the machine together with the tee. Attach 8N3432 to the remaining port and run the hose towards the front of the machine as shown.

Install the adapter fitting and hydraulic tips as shown.

- H9. Secure all hoses with hose hold downs and zip ties, leaving slack in hose near pivot points and cylinders.

SECTION 2 - ASSEMBLY

NOTES

Figure 7

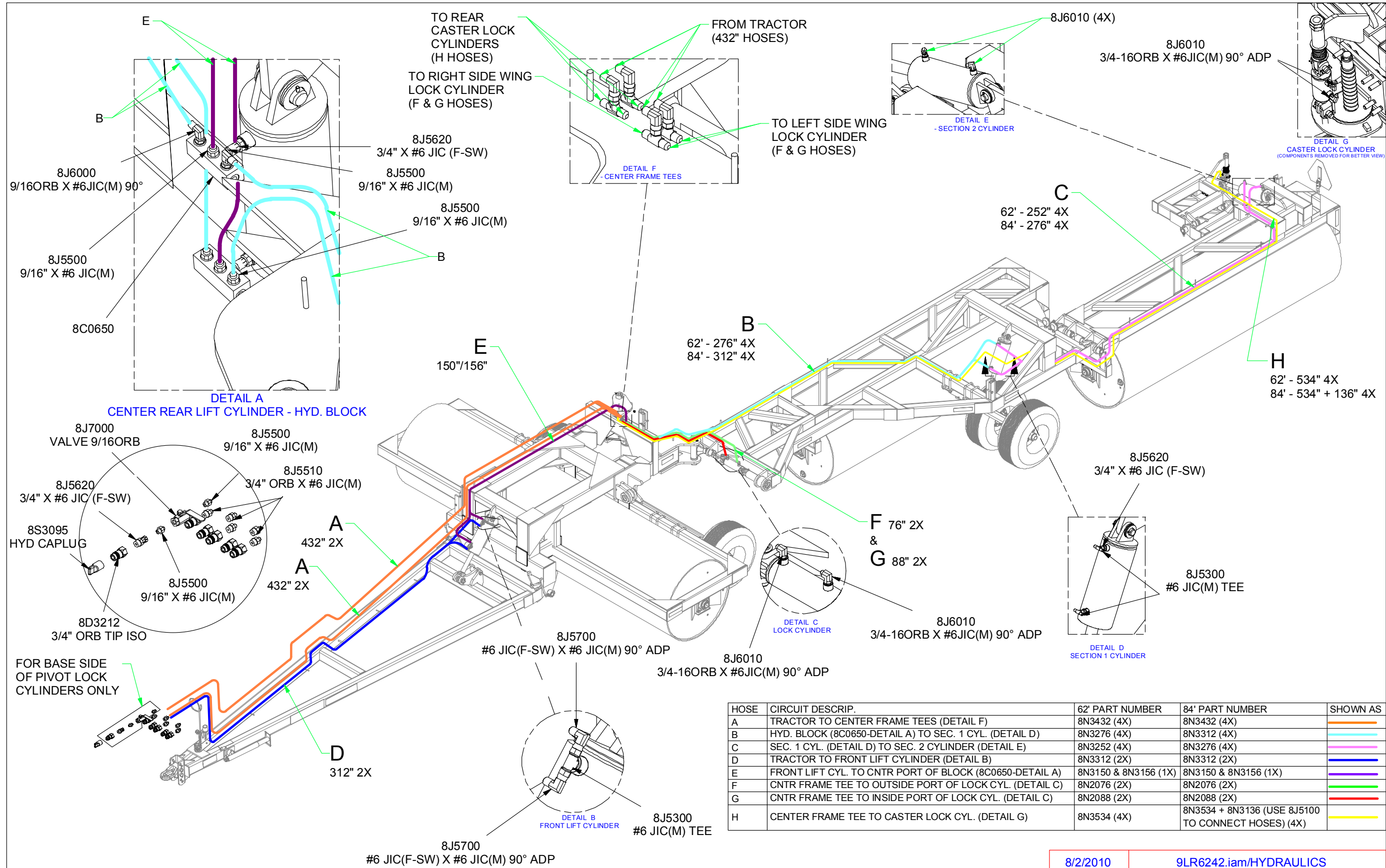
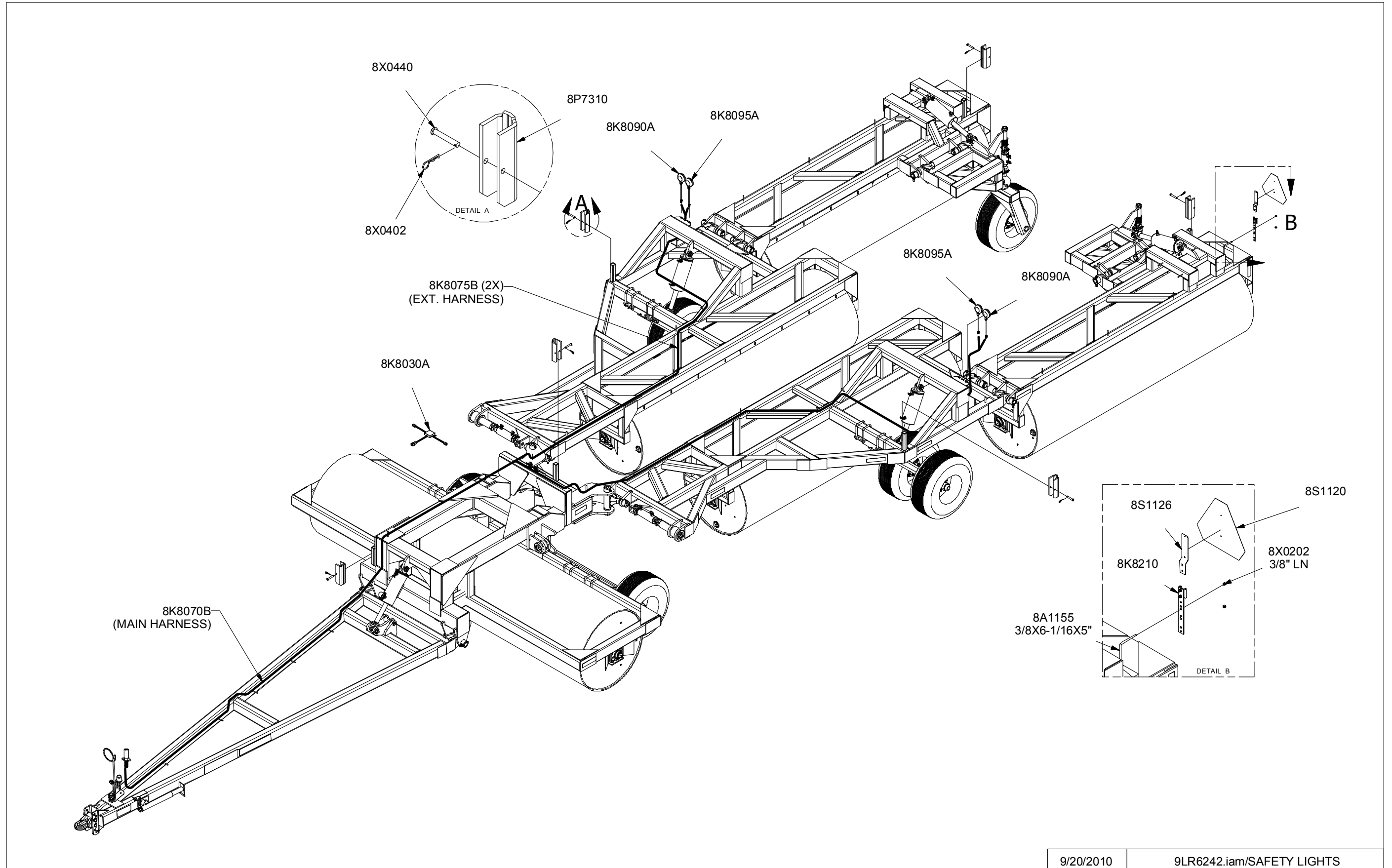


Figure 8 - Wiring and Safety Installation



SECTION 3 – OPERATION

LAND ROLLER OPERATION SAFETY

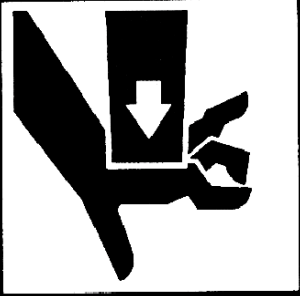
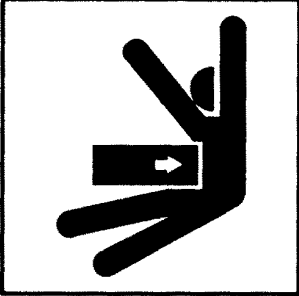

1. READ AND UNDERSTAND Operator's Manual before using machine. Review at least annually thereafter.
2. VERIFY all safety devices and shields are in place before using machine.
3. KEEP hands, feet, hair and clothing away from moving parts.
4. STOP engine, place all controls in neutral, set parking brake, 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 (cylinders retracted), 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 30,000 lbs. Minimum tractor engine horsepower is 300. 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 1150 lb. of tongue weight during transport and field operation.

SECTION 3 – OPERATION

INITIAL HOOKUP:

		<p> DANGER</p> <p>FRAME PINCH POINT HAZARD <i>KEEP AWAY</i></p> <p>To prevent serious injury or death from crushing:</p> <ul style="list-style-type: none">• Stay away from frame hinge area when folding wings.• Keep others away.• Do not fold wings when bystanders are present. <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 Lockpin 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. Plug Pivot Lock Cylinder hoses into desired tractor outlet, adjust hydraulic flow rate to 35% of maximum.
6. Connect safety Light Kit wiring harness to 7 pin receptacle.
7. If Land Roller is in Transport Position, follow “Steps Required to Unfold from Transport to Field Position”.
8. 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 4-2), check that wheel nuts are tightened to 170 ft-lb and check that wheel bearings are correctly adjusted.

SECTION 3 – OPERATION

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 30,000 lb. vehicle
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 30,000 lb. Minimum tractor engine horsepower is 300. 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 1150 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. Remove all cylinder locks and store in the provided storage locations.
6. Make sure the Landroller is following straight behind the tractor. Pull into the field straight and far enough to back up the Land Roller without hitting any obstructions.
7. Fully retract the pivot lock cylinders. **The caster wheel will not pivot if the pivot lock cylinder is extended. Machine damage may occur if care is not taken to make sure the locks have been retracted. Damage is not covered under warranty.**
8. Back machine up slowly, maneuvering it so wings open evenly. If wings do not open evenly pull ahead and try again. The caster wheels are designed to pivot in the direction that wing needs to travel to open up. Once the caster wheels have pivoted the open process should go smoothly.
9. Once the wings have opened up, continue backing until the wings are fully engaged in the wing guides. If the wings are not opening up equally they will not engage the wing guides at the same time. Pull ahead and make adjustments so both wings enter the wing guides at the same time.
10. Fully extend the lock pin cylinders.
11. Lower the machine to the ground, continue retracting the cylinders until all cylinders are fully retracted.

SECTION 3 – OPERATION

LAND ROLLER FIELD OPERATION:

1. 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.
2. Slow down for turns. Because of the weight of the roller turning at high speeds may cause the tractor to “fish tail”. Control will be more easily maintained at slow rates of turns.

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 30,000 lb vehicle.
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 1150 lb of tongue weight during transport and field operation.
3. **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.**
4. Activate the wing lock cylinders valve and fully retract the wing lock cylinders.
5. Raise the machine into transport position. Make sure all cylinders have fully extended.
6. Install cylinder safety locks.

ROAD OPERATION:

1. Pivot Lock Cylinder must be used to avoid damage to the machine.
2. Note position of nut when Pivot Lock Cylinder is extended. This can be observed from the operating station.



SECTION 3 – 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 3-4.
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 30,000 lbs. Minimum tractor engine horsepower is 300. 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 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.

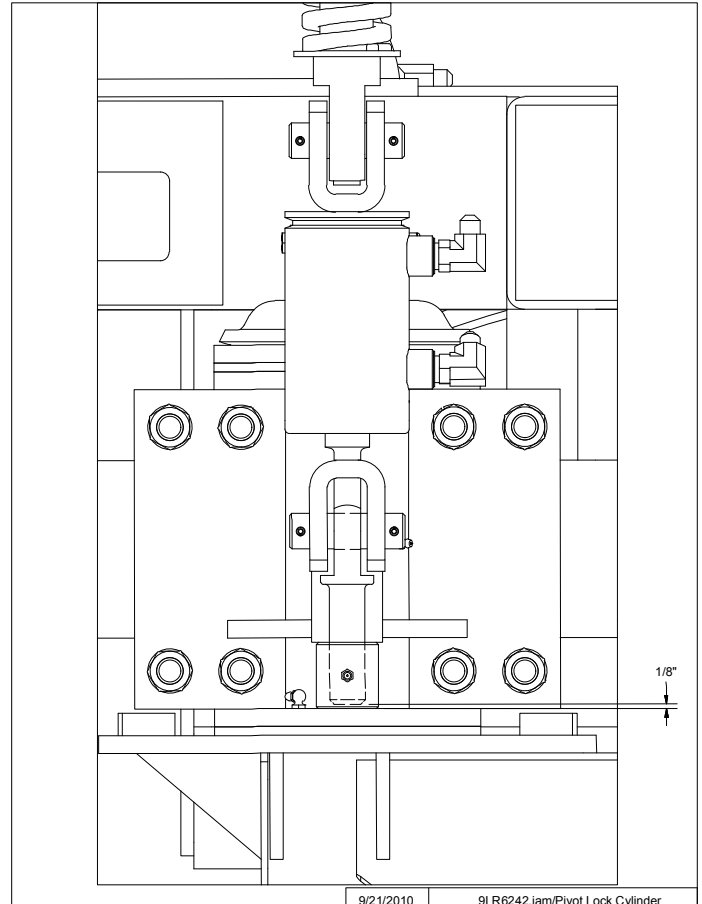
CASTER WHEEL PIVOT LOCK OPERATION & ADJUSTMENT:

The caster wheel pivot lock has been designed to provide tension to the caster wheel assembly. This tension will help to provide stability to the caster wheel at transport speed. When transporting the machine the pivot lock cylinder should be extended when traveling in a straight forward direction.

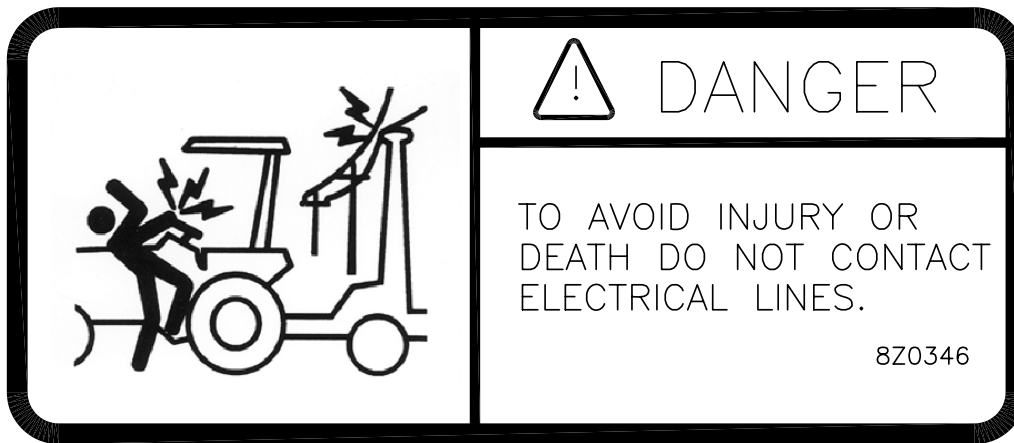
When turning the machine around corners or into fields the pivot lock cylinders should be retracted to allow the caster wheel to rotate. The pivot lock cylinders should be extended as soon as the turn is completed and before speed is increased.

The pivot lock cylinders will require periodic adjustment. With the pivot lock cylinder retracted, adjust the lock pin so it is 1/8” inside the lock collar as shown.

Failure to comply with the above recommendations can result in damage to the machine which will not be covered under warranty.



SECTION 3 – OPERATION



UNHOOKING LAND ROLLER FROM TRACTOR IN FIELD POSITION:

1. **NEVER** unhook Land Roller if positioned 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.

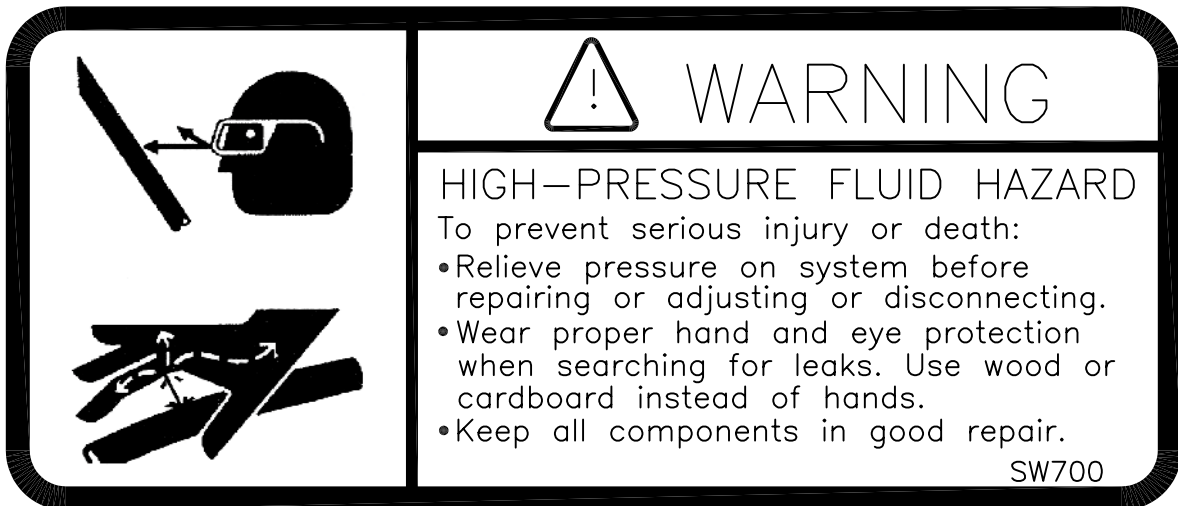
UNHOOKING LAND ROLLER FROM TRACTOR IN TRANSPORT POSITION:

1. **NEVER** unhook Land Roller if positioned 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 sideways 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 4 – 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

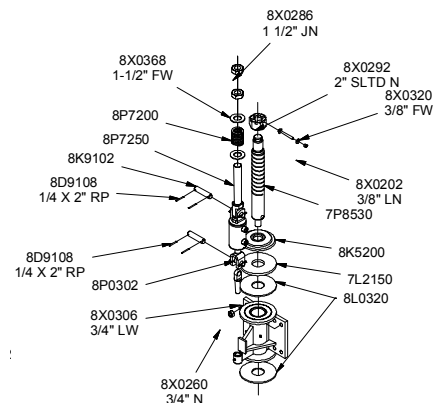
1. Grease wing and hitch pivots.
2. Check all hydraulic components for leaks. (SEE HIGH-PRESSURE FLUID WARNING ABOVE.)
3. Check tightness of wheel nuts. Recommended torque 170 ft. lbs.
4. Check tightness of wheel bearings.
5. Check tightness of all hardware. Pay special attention to hitch and pivot pin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

BALL BEARINGS ON ROLLERS: 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.

CASTER MAINTENANCE: Castle nut on the caster needs to be checked daily for tightness using the following procedure: Tighten the Caster Castle nut so the caster assembly cannot be turned by human force. Install the hardware in the castle nut as shown to ensure that it will not loosen.



SECTION 4 – MAINTENANCE

PERIODIC MAINTENANCE

Caster Wheel Pivot Lock Adjustment

The pivot lock cylinders will require periodic adjustment. With the pivot lock cylinder retracted, adjust the lock pin so it is 1/8" inside the lock collar as shown on Page 3-5.

Grease all zerks shown in the diagram daily.

Check tightness of castle nuts and all component of the caster wheel.

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.

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.

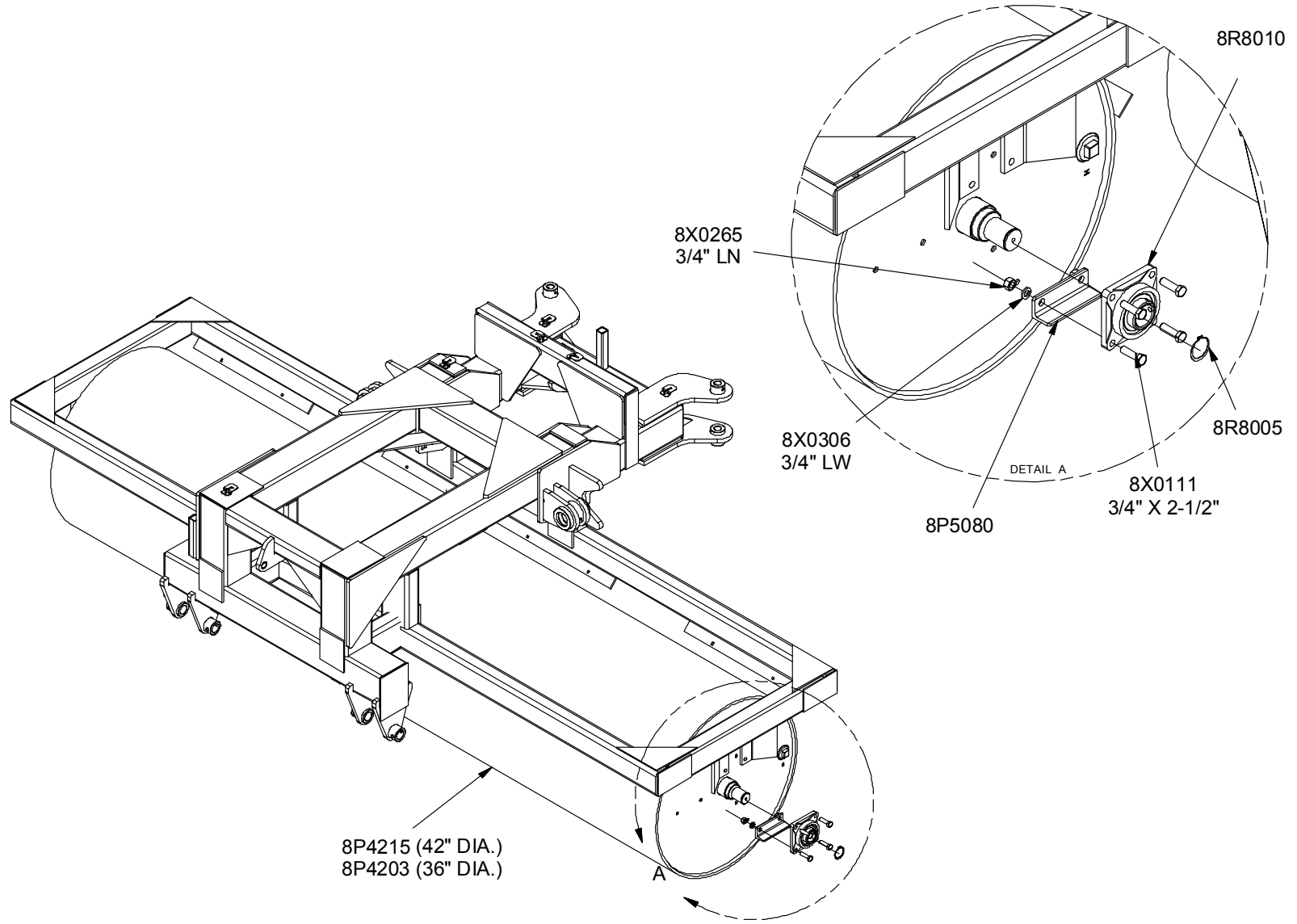
SPECIFICATIONS

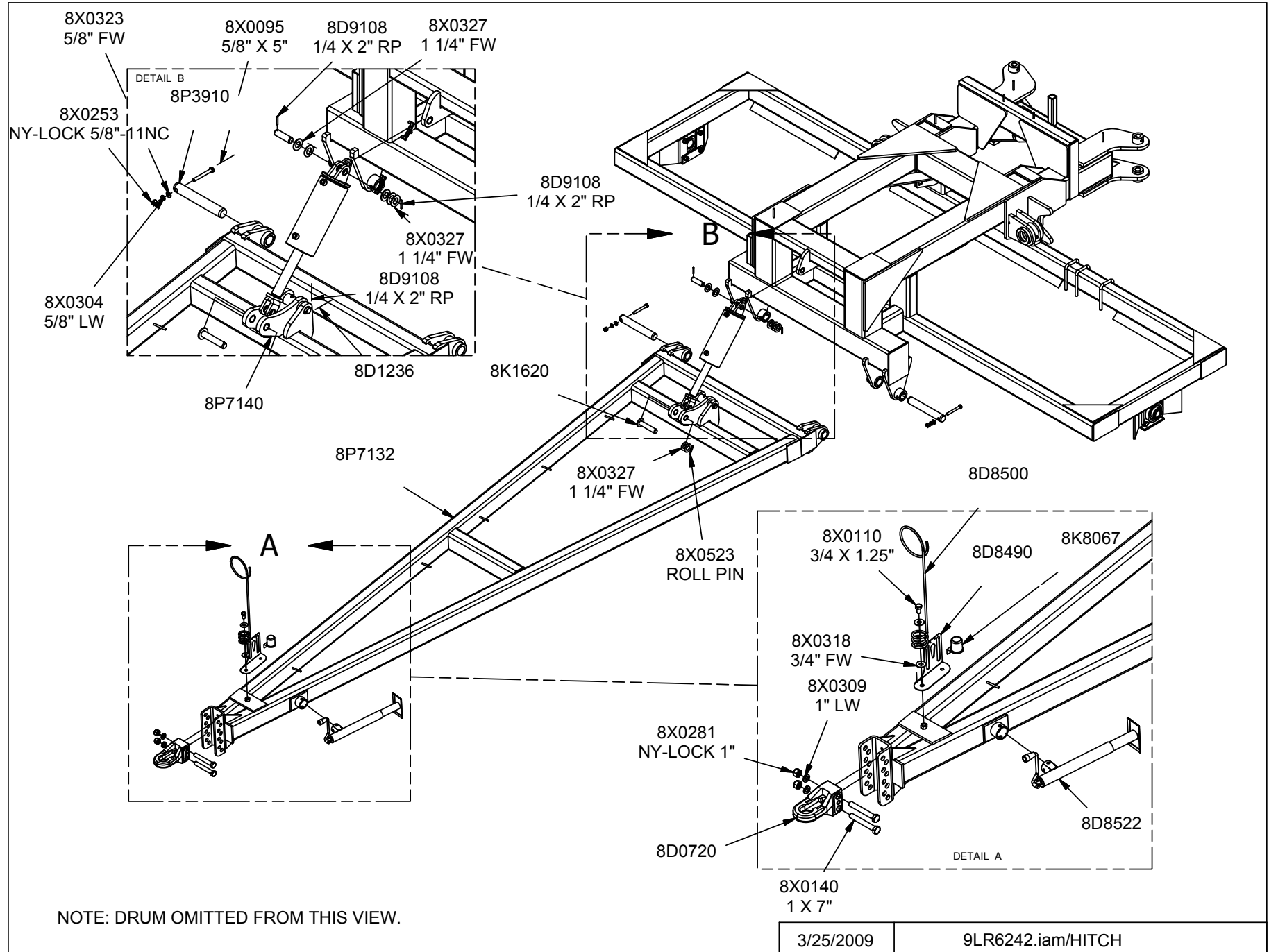
Working Width	Transport Width	Transport Height	Transport Length	Machine Weight	Roller Diameter
62'	17'3"	6'0"	56'10"	35,600#	42"
84'	17'3"	6'0"	67'10"	42,400#	42"
84'	17'3"	6'0"	67'10"	38,000#	36"

Tire Size	Rating	Recommended Inflation Pressure
12.5Lx15	LRF	90 PSI

Hub Size	Rating	Recommended Wheel Nut Torque	Recommended Axle Nut Torque
HD812	6100 LB. 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.

OWNER REGISTER INFORMATION, LOCATED AT THE BEGINNING OF THIS MANUAL, MAY BE NEEDED WHEN ORDERING PARTS (SERIAL NUMBER IS LOCATED BY THE FRONT OF THE HITCH).

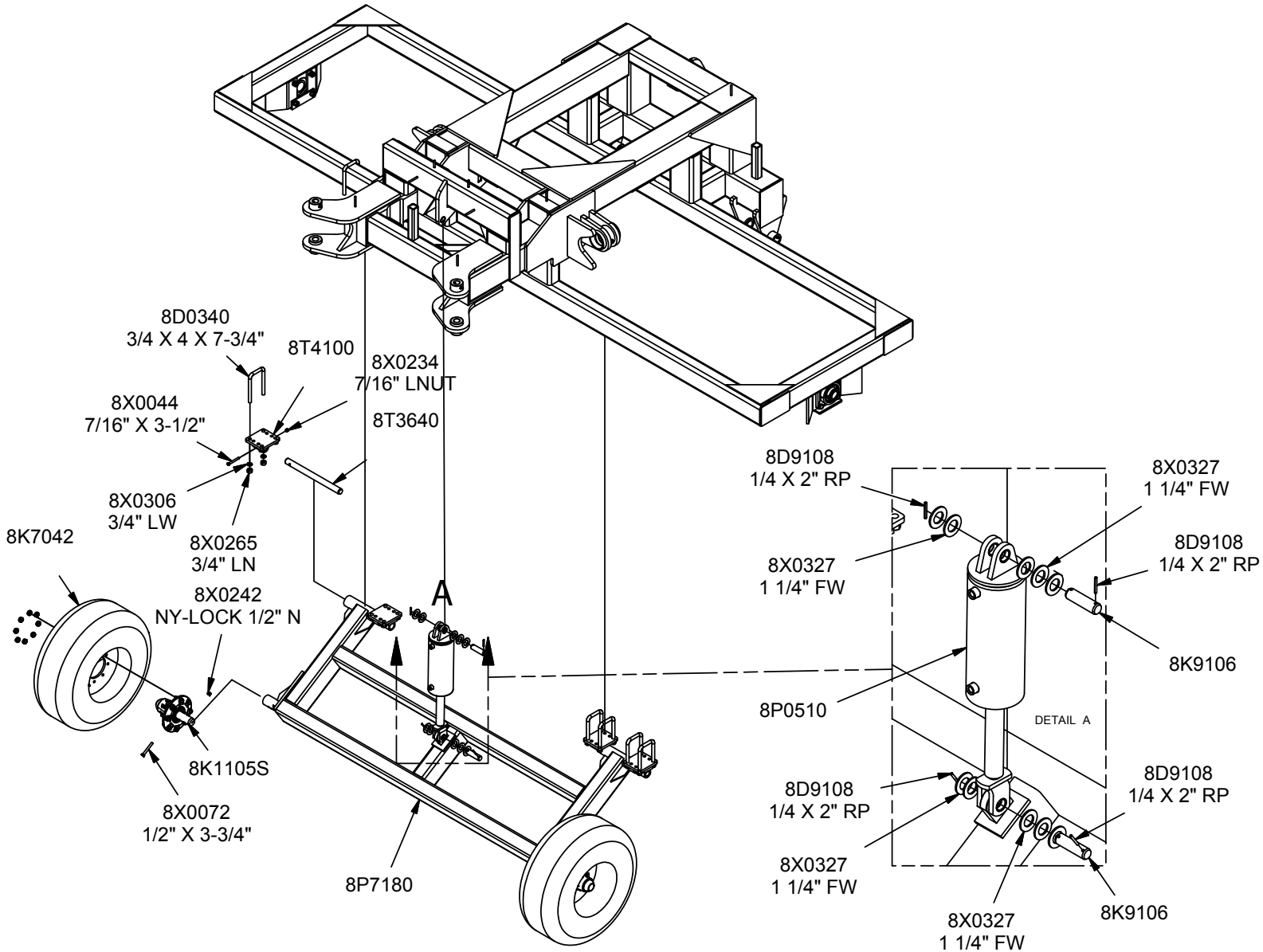




5-3

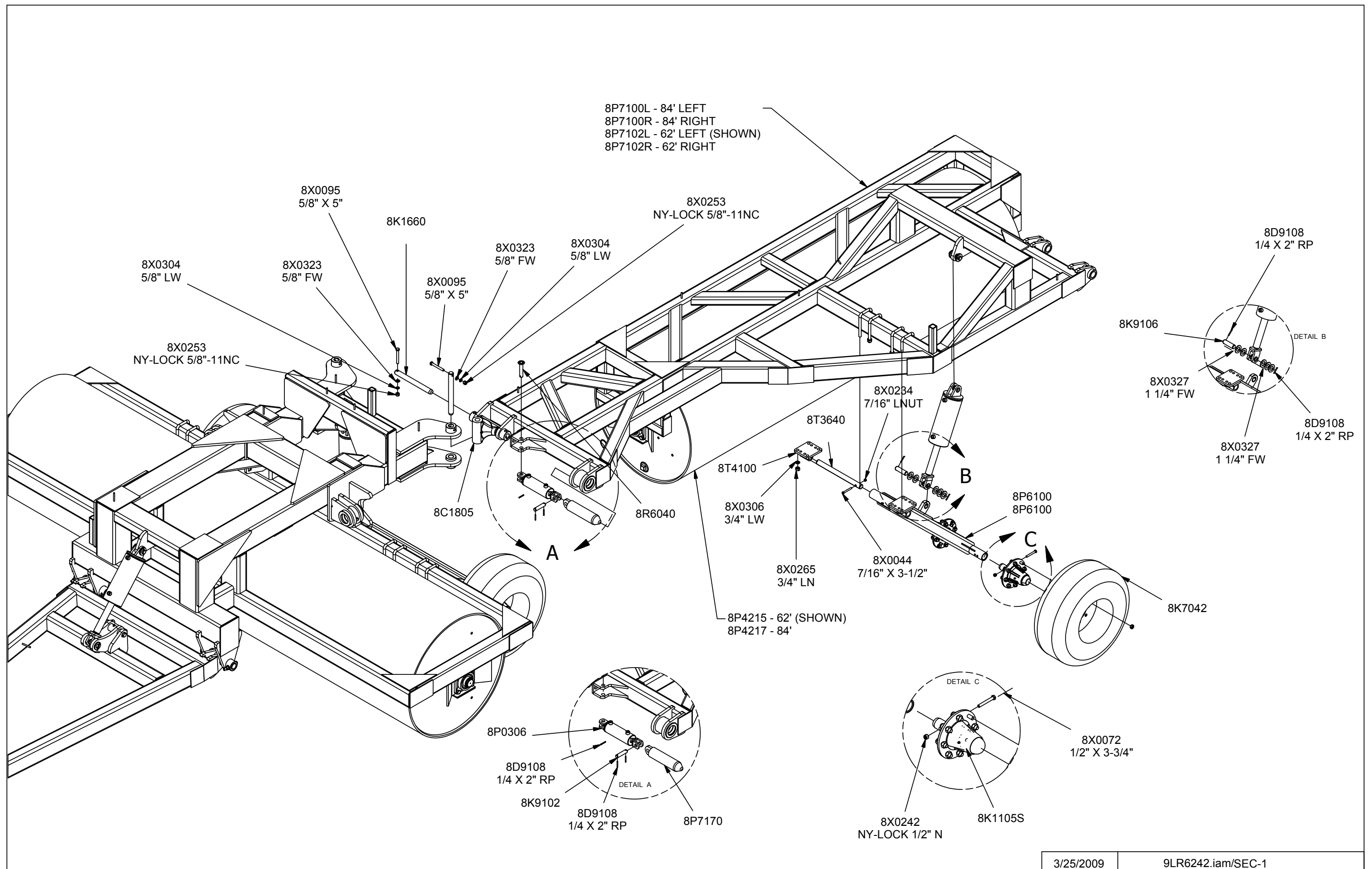
HITCH AND DRUM OMITTED FOR CLEARER VIEW

5-4



SECTION 5 - PARTS

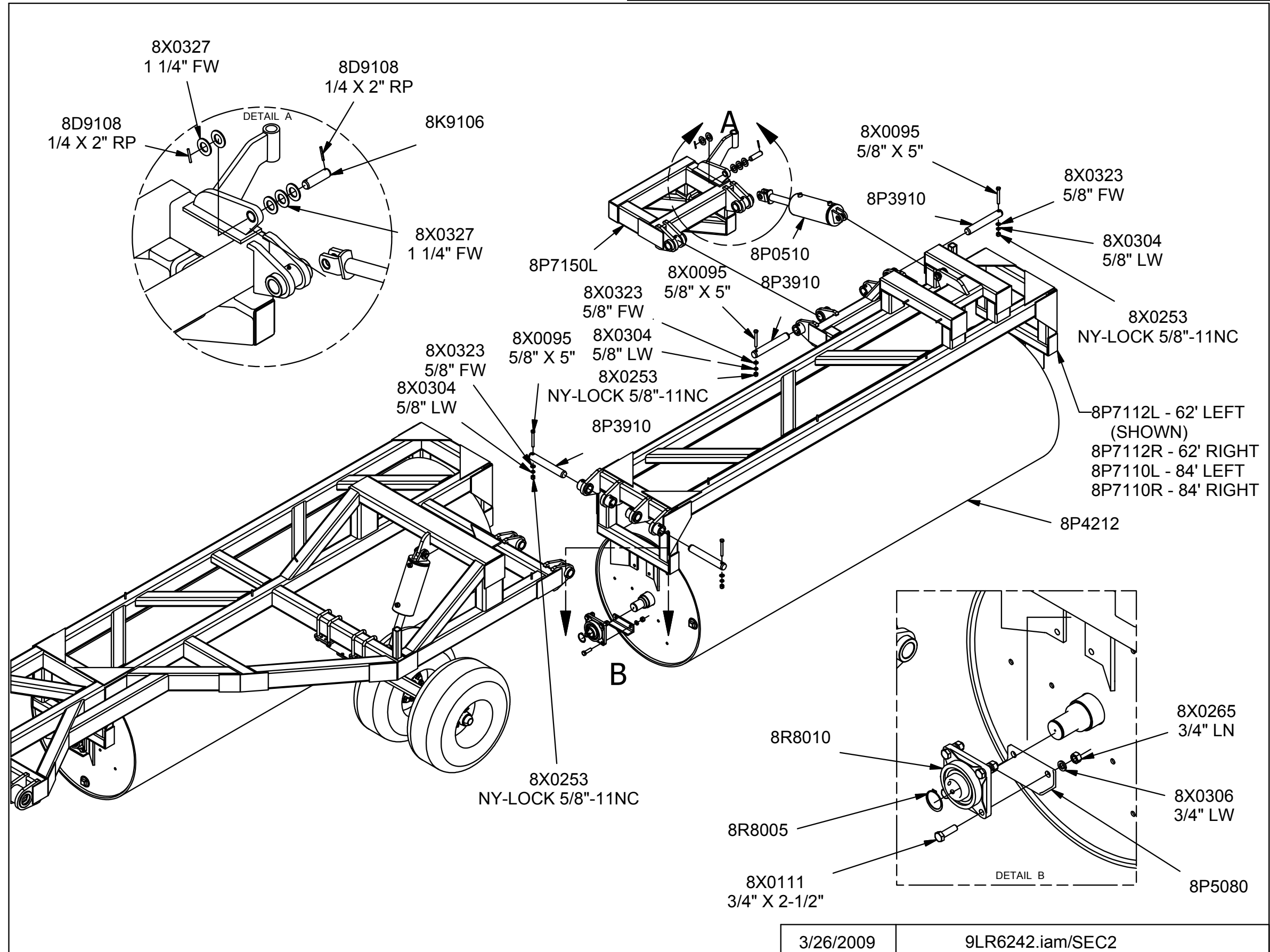
SECTION 5 – PARTS

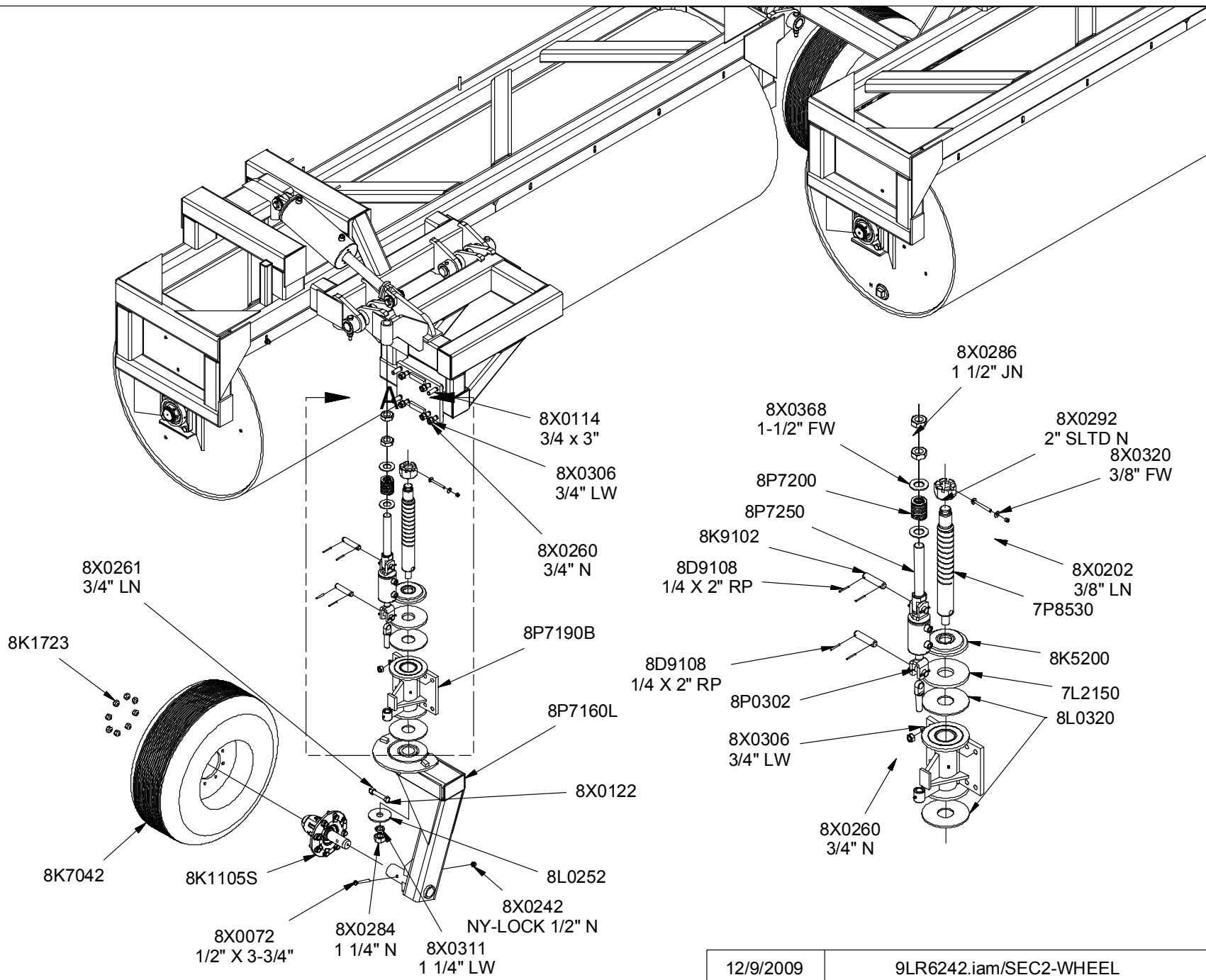


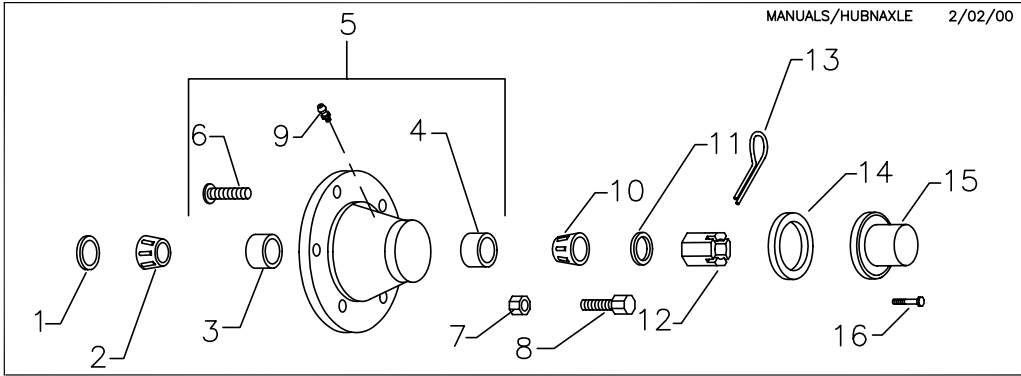
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SECTION 5 – PARTS







MANUALS/HUBNAXLE 2/02/00

HUB AND AXLE COMPONENTS

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.

Legend:

SMC	Part Number
INDUSTRY	Part Number or Size

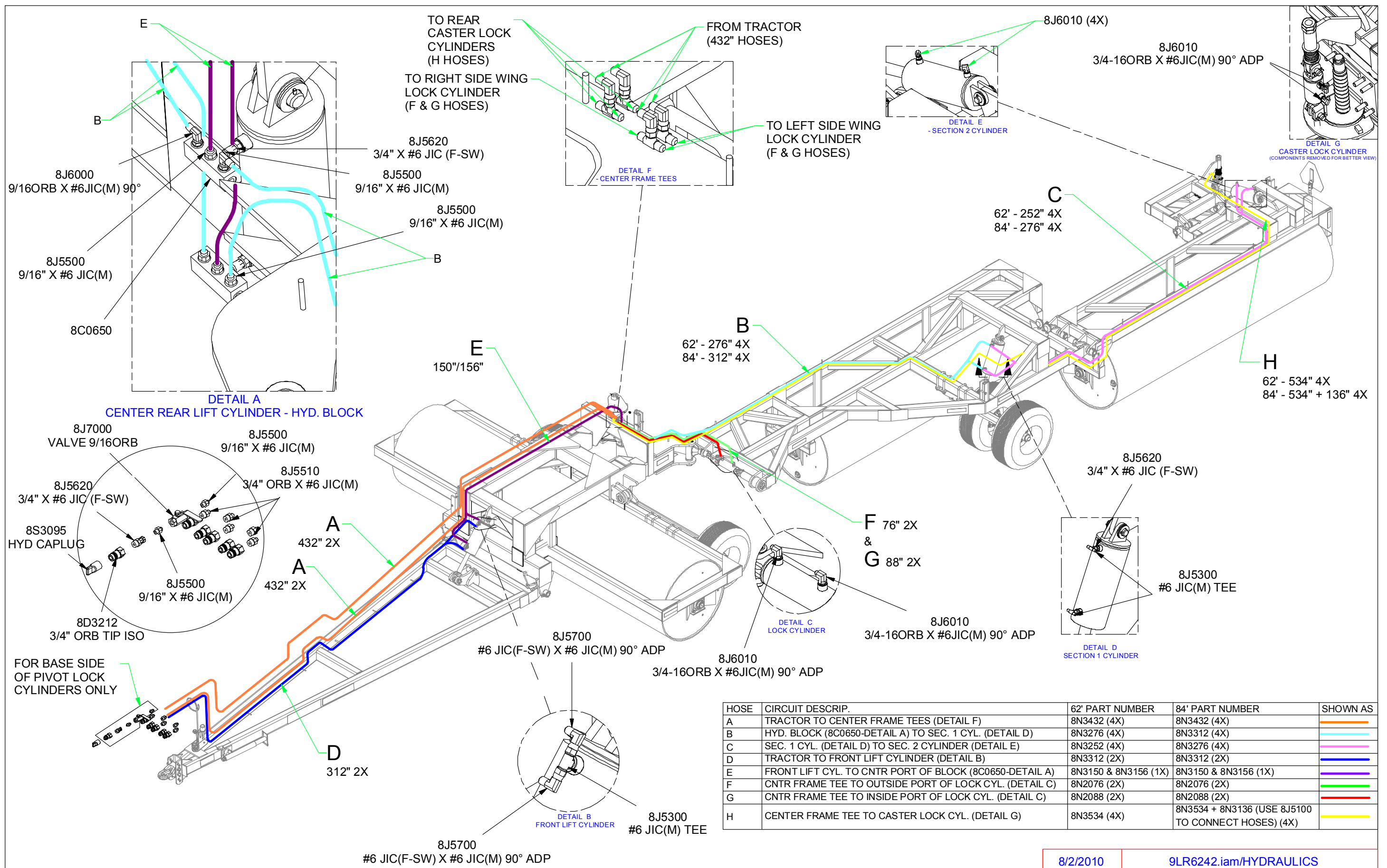
5-8

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	16. 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" I.D.	3/4"-16	3/16X1"		DC11	
H517	8D5234 8D5236 8D5238	8D5217	8D5332	8D5336	8D5210	8D5215	8D5214	N/A	8X0708	8D5117	8S5219	8D5212	8X0415	N/A	8D5213	N/A
	LM48548	LM48510	LM67010	H517	WB16	1/2-20UNF	1/4-28NF		LM67048	7/8" I.D.	7/8"-14	3/16X1-1/2"	DC13			
H611	8D5221	8D5317	8D5334	8D5336	8D5311 -09 8D5316 10-	N/A	N/A	8D5114 WB10 -09 8R6914	8X0708	8D5117	8D5319	8D5312	8X0415	N/A	8D5213	N/A
	SE13	LM29749	LM29710	LM67010	H611			WB12 10-	1/4-28NF	LM67048	1" I.D.	1"-14	3/16X1-1/2"		DC13	
H614	8R6922**	8R6917	8R6925	8D5332	8R6911	N/A	N/A	8R6914	8X0708	8D5217	8D5319	8D5312	8X0415	N/A	8R6913	N/A
	SEE GBGI INSTRUCTIONS	LM603049	LM603011	LM48510	H614			WB12	1/4-28NF	LM48548	1" I.D.	1"-14	3/16X1-1/2"		DC15	
HD812	8K7127*** SEAL SE77	8K7117	8K7130	8K7132	8K7111	8K7115-9/16**	8K7116-9/16**	N/A	8X0708	8K7118	8D5319	8D5312	8X0415	N/A	8K7113	N/A
	8K7128*** SLEEVE SE77 1	LM3780	LM3720	LM2720	HD812	WB41	WB40		1/4-28NF	LM2790	1" I.D.	1"-14	3/16X1-1/2"		DC17	
						WB46	WB118									
HD817	8K7344	7K7342	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	WB118		1/4-28NF	LM501349	1.312 I.D.	1-1/4"-12	1/4X2"		DC26	
H1010 LT	8K7220	7K7217	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 I.D.	1-1/4"-12	1/4X2"	SE49	DC27	WB53
H1010 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 I.D.	1-1/4"-12	1/4X2"	SE49	DC27	WB53
H1020	8K7320	8K7317	8K7330	8K7332	8K7209	8K7215	8K7216	N/A	8X0708	8K7318	8X0366	N/A	8X0418	8K7312	8K7313	8K7214
	SE55	HM218248	HM218210	HM212010	HDA1020	WB51	WB52		1/4-28NF	HM212049	2.03" ID	2" - 160	5/16 X 2-1/2"	SE59	DC28	WB53

* Pre 2000

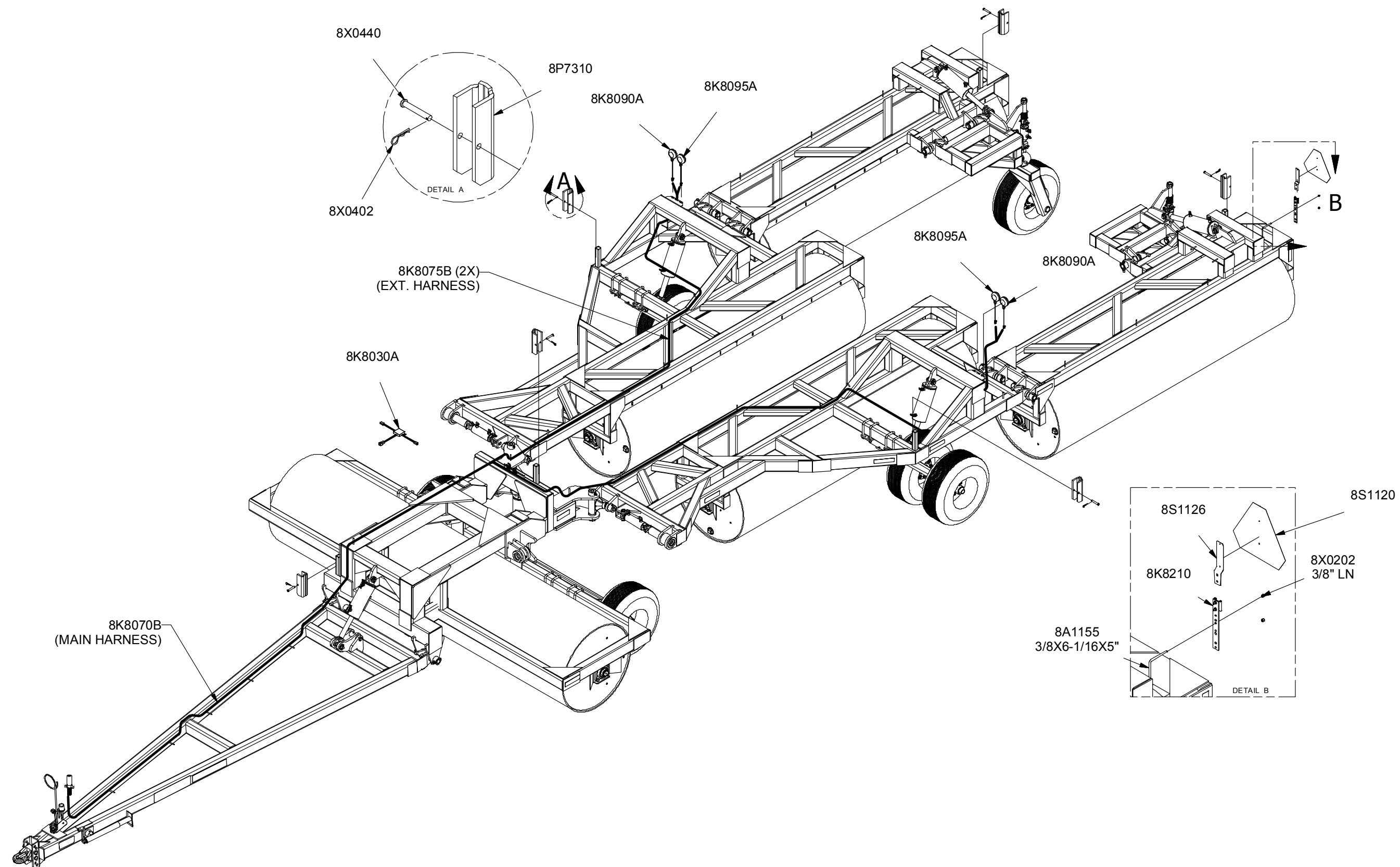
** GBGI (Not Shown), 8R6921 Triple Lip (Shown)

*** Pre 2006 8K7120 (SE17)



HOSE	CIRCUIT DESCRIP.	62' PART NUMBER	84' PART NUMBER	SHOWN AS
A	TRACTOR TO CENTER FRAME TEES (DETAIL F)	8N3432 (4X)	8N3432 (4X)	
B	HYD. BLOCK (8C0650-DETAIL A) TO SEC. 1 CYL. (DETAIL D)	8N3276 (4X)	8N3312 (4X)	
C	SEC. 1 CYL. (DETAIL D) TO SEC. 2 CYLINDER (DETAIL E)	8N3252 (4X)	8N3276 (4X)	
D	TRACTOR TO FRONT LIFT CYLINDER (DETAIL B)	8N3312 (2X)	8N3312 (2X)	
E	FRONT LIFT CYL. TO CNTR PORT OF BLOCK (8C0650-DETAIL A)	8N3150 & 8N3156 (1X)	8N3150 & 8N3156 (1X)	
F	CNTR FRAME TEE TO OUTSIDE PORT OF LOCK CYL. (DETAIL C)	8N2076 (2X)	8N2076 (2X)	
G	CNTR FRAME TEE TO INSIDE PORT OF LOCK CYL. (DETAIL C)	8N2088 (2X)	8N2088 (2X)	
H	CENTER FRAME TEE TO CASTER LOCK CYL. (DETAIL G)	8N3534 (4X)	8N3534 + 8N3136 (USE 8J5100 TO CONNECT HOSES) (4X)	

SECTION 5 – PARTS



SUMMERS MFG. CO., INC.

3/21/12

INSTALLATION AND OPERATION INSTRUCTIONS FOR 8K1800 ACRE METER FOR SUPERROLLER

1. If Roller Shaft is not tapped, weld $\frac{1}{2}$ "-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 $\frac{1}{2}$ " 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
30'	READING x 2.7 = 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
84' (36")	READING x 6.5 = ACRES
84' (42")	READING x 7.5 = ACRES



Cd1\8k\8k1800

<u>Stock Code</u>	<u>Description</u>
8A1155	U-BOLT 3/8 X 6-1/16 X 5" SQ
8A4048	NYLON TIE .18 X 11"
8A4050	NYLON TIE .30 X 8-7/8"
8A4052	NYLON TIE .30 X 15-1/4"
8C0270	SPLITSTEELBUSH1.375ODX1"ID-1"
8C0432	HYD CYLINDER 4" X 32"
8C1760	U-BOLT 3/4 X 8 X 6" SQ
8C1780	U-BOLT 7/8 X 8 X 10" SQ
8D0330	U-BOLT 5/8 X 6-1/16 X 5-5/8"SQ
8D0340	U-BOLT 3/4 X 4 X 7-3/4" SQ
8D0350	U-BOLT 3/4 X 4 X 10" SQ
8D0720	HITCH PIECE CAST CAT.3CTD PNTD
8D0722	PERFECT HTCH BACKSTOP W/HDWE
8D0724	CLEVIS OPT.HITCH CAT.3CTD99-
8D0730	URETHANE CUSHION PERFCTHTCH
8D2440	SAFETY CHAIN 11000#X 84"
8D2460	SAFETY CHAIN 3/8" X 4' 20200#
8D2470	SAFETY CHAIN 7/16" X 5' 30400#
8D3212	MALE TIP 3/4"-16 ORB ISO
8D5314	NUT HEX SLOT 1.25"-12 GR2 PLN
8D8490	PIONEER/ISO TIP HLDR BNT 97-
8D8500	HYD HOSE HOLDER PNTD BLK 91-
8D8522	JACK 5000# TOP CRANK 15"LIFT
8D9102	PIN 1 X 4" CYL CTTR OR HAIRPIN
8D9108	ROLL PIN 1/4 X 2" YLW ZNC
8G2284	NYLON TIE .187 X 7-1/2" YELLOW
8G2285	NYLON TIE .187 X 7-1/2" GREEN
8J5100	#6 JIC(M) X #6 JIC(M) UNION
8J5110	#10 JIC(M) X #10 JIC(M) UNION
8J5200	#10 JIC(F) X #6 JIC(M)HEX BUSH
8J5300	#6 JIC (MALE) 3X TEE
8J5310	#10 JIC (MALE) 3X TEE
8J5500	9/16"-18 ORB X #6 JIC(M) STR
8J5510	3/4"-16 ORB X #6 JIC(M) STR
8J5520	3/4"-16 ORB X #10 JIC(M) STR
8J5600	9/16"-18 ORB X #6 JIC(F-SW)STR
8J5620	3/4"-16 ORB X #6 JIC(F-SW)STR
8J5680	3/4"-16 ORB X 3/4"-16ORB UNION
8J5690	3/4-16X3/4-16 ORB M-SW90*UNION
8J5700	#6 JIC(F-SW) X #6 JIC(M)90*ADP
8J5710	#10 JIC(F-SW)X#10 JIC(M)90*ADP
8J6010	3/4" -16 ORB X #6 JIC(M)90*ADP
8J6020	3/4"-16 ORB X #10 JIC(M)90*ADP
8J6060	3/4"-16ORB X #6JIC(F-SW)90*ADP
8J7000	BALL VALVE HYD 9/16"-18ORB(2X)
8J7040	THERMAL RELIEF MANIFLD 4000PSI
8J7116	3/4"-16 ORB(2X)1WAY 1/16"RESTR
8J7216	#6JIC(M)X6JIC(F)1/16"RSTR GOLD
8J7232	#6JIC(M)X6JIC(F)1/32"RSTR SLVR
8K1105S	HUB&AXLE ASSY HD812 (2"RCVR)
8K5350	SPLITSTEELBUSH 2"ODX1.5"ID- 2"
8K5515	U-BOLT 3/4 X 4 X 6" SQ
8K7020	WHEEL 15 X 10" 8 BOLT-VLV GRD
8K7028	TIRE 12.5L X 15" LRF TL HWYSRV
8K7042	12.5L X 15" LRF ON 8 BLT WHEEL
8K7111	HUB HD812 W/CUPS&ZRK 8BLT3LIP
8K7113	HUB CAP HD812 DC17
8K7117	BEARING INNER HD812 LM3780
8K7118	BEARING OUTER HD812 LM2790

<u>Stock Code</u>	<u>Description</u>
8K7120	SEAL 2-1/2"ID HD812 SE17 -06
8K7122	STUD WHEEL 5/8-18UNFX2.5"97-
8K7123	NUT WHEEL BOLT 5/8-18UNF 97-
8K7127	SEAL TRPL LIP EXTRNL HD812 06-
8K7128	SEAL SLEEVE FOR 3X LIP 812 06-
8K7130	RACE INNER HD812 LM3720
8K7132	RACE OUTER HD812 LM2720
8K7150S	AXLE HD812X 11.5" (2"DIA.RCVR)
8K8000	FLAT LGHT BRCKT3/8X3.5-11.38"
8K8010	TUBE LGHT BRCKT1.5SQ5.5"00-
8K8020	MOUNTNG BRCKT LIGHT 00-
8K8060	EXT HRNSS 12' 3PIN WTHRPCK -07
8K8067	DUST CAP FOR 7PIN CONNECT00-
8K8068	MAIN HRNSS7PIN WTHRPCK SHRT-07
8K8070	MAIN HRNSS7PIN WTHRPCK LONG-07
8K8075	EXT HRNSS NONDRAWBR WPK 00-07
8K8088	LENS ONLY AMBER GROTE LGHT 00-
8K8090	LIGHT AMBER 2WIREWTHRPCK 00-07
8K8092	LENS ONLY RED GROTE LIGHT 00-
8K8094	LIGHT RED 2WIRE WTHRPCK 00-07
8K8095	LIGHT RED 3WIRE WTHRPCK 05-
8K8200	BRCKT SMV ATTCH 4-8"FRAME98-
8K9102	PIN 1 X 4" CYL-FOR1/4"ROLL PIN
8K9106	PIN 1-1/4 X 4-3/8" HARDENED
8L1060	QUICKLINK 3/8" ZDI
8N3018	3/8X 18"HYD HOSE #6FJX3000PSI
8N3028	3/8X 28"HYD HOSE #6FJX3000PSI
8N3035	3/8X 35"HYD HOSE #6FJX3000PSI
8N3048	3/8X 48"HYD HOSE #6FJX3000PSI
8N3060	3/8X 60"HYD HOSE #6FJX3000PSI
8N3070	3/8X 70"HYD HOSE #6FJX3000PSI
8N3084	3/8X 84"HYD HOSE #6FJX3000PSI
8N3096	3/8X 96"HYD HOSE #6FJX3000PSI
8N3124	3/8X 124"HYD HOSE #6FJX3000PSI
8N3136	3/8X 136"HYD HOSE #6FJX3000PSI
8N3150	3/8X 150"HYD HOSE #6FJX3000PSI
8N3156	3/8X 156"HYD HOSE #6FJX3000PSI
8N3160	3/8X 160"HYD HOSE #6FJX3000PSI
8N3180	3/8X 180"HYD HOSE #6FJX3000PSI
8N3204	3/8X 204"HYD HOSE #6FJX3000PSI
8N3216	3/8X 216"HYD HOSE #6FJX3000PSI
8N3228	3/8X 228"HYD HOSE #6FJX3000PSI
8N3252	3/8X 252"HYD HOSE #6FJX3000PSI
8N3288	3/8X 288"HYD HOSE #6FJX3000PSI
8N3312	3/8X 312"HYD HOSE #6FJX3000PSI
8N3330	3/8X 330"HYD HOSE #6FJX3000PSI
8N3348	3/8X 348"HYD HOSE #6FJX3000PSI
8N3360	3/8X 360"HYD HOSE #6FJX3000PSI
8N3390	3/8X 390"HYD HOSE #6FJX3000PSI
8N3432	3/8X 432"HYD HOSE #6FJX3000PSI
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

<u>Stock Code</u>	<u>Description</u>
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
8P0302	HYD. CYL 3"DIAX1.75" 3500 P1.25RD
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-
8P5070	ANGL WNG LCK 1/2X3X3.5- 10.25"
8P5080	ANGLE BRNG 3/8X2.5X2.5- 7-7/8"
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-
8P6115L	WING 15'-30' SWNG FLD LEFT 06-
8P6115R	WING 15'-30' SWNG FLD RIGHT 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-
8P6230	STOP W/RND U-BLT SWNG FLD 06-
8P7150L	CASTER WING LEFT 62'-84' LR 07-
8P7150R	CASTER WING RIGHT 62'-84' LR 07-
8P7160L	CASTER LEFT 62'-84' LR 07-
8P7160R	CASTER RIGHT 62'-84' LR 07-
8P7190	CASTER MOUNT 62'-84' LR 07-
8P7250	EYEBOLT 1.5"DIAX1" EYE1PCYZ
8P7255	PIN 1.5"DIAX1.0624"EYE 1PCYZ
8R6808	SPLITSTEELBUSH1.25 X 1"ID-.75"
8R6810	SPLITSTEELBUSH1.62X1.25"ID- 1"
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
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-
8T5345	SPLITSTEELBUSH2"ODX1.5"ID-1.5"
8X0000	BOLT 1/4-20X3/4"FULLTHDGR5 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

<u>Stock Code</u>	<u>Description</u>
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
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
8X0075	BOLT 1/2-13NC X 6" GR5 ZDI
8X0076	BOLT 1/2-13NC X 5-1/2" GR5 ZDI
8X0077	BOLT 1/2-13NC X 7-1/2" GR5 ZDI
8X0078	BOLT 1/2-13X3.5"SHOULDR GR2ZDI
8X0080	BOLT 1/2-13NC X 11" GR5 ZDI
8X0082	BOLT 1/2-13NC X 6-1/2" GR5 ZDI
8X0083	BOLT 1/2-13NC X 8" GR5 ZDI
8X0084	BOLT 1/2-13NC X 9" GR5 ZDI
8X0087	BOLT 5/8-11NC X 1-1/2" GR5 ZDI
8X0090	BOLT 5/8-11NC X 2-1/4" GR5 ZDI
8X0091	BOLT 5/8-11NC X 1-3/4" GR5 ZDI
8X0092	BOLT 5/8-11NC X 2-3/4" GR5 ZDI
8X0093	BOLT 5/8-11NC X 2" GR5 ZDI
8X0095	BOLT 5/8-11NC X 5" GR5 ZDI
8X0096	BOLT 5/8-11NC X 4" GR5 ZDI
8X0098	BOLT 5/8-11X 3.5"FULLTHDGR5ZDI
8X0099	BOLT5/8-11X6.75"W/3.5THDGR5ZDI
8X0101	BOLT 5/8-11NC X 8" GR5 ZDI
8X0102	BOLT 5/8-11NC X 9" GR5 ZDI
8X0106	BOLT 3/4X2.75"W/1.38THD GR8ZDI

<u>Stock Code</u>	<u>Description</u>
8X0107	BOLT 3/4-10NC X 2" GR5 ZDI
8X0110	BOLT 3/4-10NC X 1-1/4" GR5 ZDI
8X0111	BOLT 3/4-10NC X 2-1/2" GR5 ZDI
8X0112	BOLT 3/4-10NC X 2-1/4" GR5 ZDI
8X0113	BOLT 3/4-10NC X 5" GR5 ZDI
8X0114	BOLT 3/4-10NC X 3" GR5 ZDI
8X0115	BOLT 3/4-10NC X 3-1/2" GR5 ZDI
8X0115A	BOLT 3/4NCX 3.5"FULLTHD GR5ZDI
8X0115B	BOLT 3/4-10NC X 3-1/2" GR8 ZDI
8X0116	BOLT 3/4-10NC X 6" GR5 ZDI
8X0117	BOLT 3/4-10NC X 7" GR5 ZDI
8X0118	BOLT 3/4-10NC X 4" GR5 ZDI
8X0118A	BOLT 3/4-10NC X 4-1/4" GR5 ZDI
8X0119	BOLT 3/4-10NC X 7-1/2" GR5 ZDI
8X0120	BOLT 3/4-10NC X 9" GR5 ZDI
8X0121	BOLT 3/4-10NC X 6-1/2" GR5 ZDI
8X0122	BOLT 3/4-10NC X 4-1/2" GR5 ZDI
8X0123	BOLT 3/4-10NC X 5-1/2" GR5 ZDI
8X0125	BOLT 3/4-10NC X 10" GR5 ZDI
8X0130	BOLT 7/8-9NC X 2" GR5 ZDI
8X0132	BOLT 7/8-9NC X 2-1/2" GR5 ZDI
8X0133	BOLT 7/8-9NC X 3" GR5 ZDI
8X0138	BOLT 1-8NC X 5-1/2" GR5 ZDI
8X0139	BOLT 1-8NC X 3" GR5 ZDI
8X0140	BOLT 1-8NCX7" W/1.5"THDGR5ZDI
8X0143	BOLT 1-8NC X 5" GR5 ZDI
8X0144	BOLT 1-8NC X 9-1/2" GR5 ZDI
8X0145	BOLT 1-8NC X 10-1/2" GR5 ZDI
8X0149	BOLT 1-8NC X 18" GR5 ZDI
8X0201	NUT HEX 3/8"-16NC GR2 ZDI
8X0202	NUT NY-LOCK 3/8"-16NC GR2 ZDI
8X0203	NUT SER FLANG 3/8"-16NC GR2ZDI
8X0204	NUT HEX 3/8"-16NC GR2 GALV
8X0205	NUT HEX 10-24 ZDI
8X0210	NUT HEX 5/16"-18NC GR2 ZDI
8X0211	NUT SER FLANG5/16"-18NC GR2ZDI
8X0212	NUT NY-LOCK 5/16"-18NC GR2 ZDI
8X0218	NUT SQ 1/4"-20NC GR2 SS
8X0220	NUT HEX 1/4"-20NC GR2 ZDI
8X0222	NUT NY-LOCK 1/4"-20NC GR2 ZDI
8X0223	NUT SER FLANG 1/4"-20NC GR2ZDI
8X0232	NUT HEX 7/16"-14NC GR2 ZDI
8X0234	NUT NY-LOCK 7/16"-14NC GR2 ZDI
8X0240	NUT HEX 1/2"-13NC GR2 ZDI
8X0242	NUT NY-LOCK 1/2"-13NC GR2 ZDI
8X0246	NUT SER FLANG 1/2"-13NC GR2 YZ
8X0250	NUT HEX 5/8"-11NC GR2 ZDI
8X0251	NUT JAM 5/8"-11NC GR2 ZDI
8X0253	NUT NY-LOCK 5/8"-11NC GR2 ZDI
8X0256	NUT SER FLANG 5/8"-11NC GR2 YZ
8X0259	NUT JAM 3/4"-10NC GR2 ZDI
8X0260	NUT HEX 3/4"-10NC GR2 ZDI
8X0261	NUT NY-LOCK 3/4"-10NC GR2 ZDI
8X0268	NUT HEX 7/8"-9NC GR2 ZDI
8X0269	NUT JAM 7/8"-9NC GR2 ZDI
8X0277	NUT JAM 1"-8NC GR2 ZDI
8X0278	NUT JAM TOP LOCK1"-8NC GR2 ZDI
8X0280	NUT HEX 1"-8NC GR2 ZDI
8X0281	NUT NY-LOCK 1"-8NC GR2 ZDI

<u>Stock Code</u>	<u>Description</u>
8X0283	NUT JAM 1.25"-7NC GR2 ZDI
8X0284	NUT HEX 1.25"-7NC GR2 ZDI
8X0285	NUT HEX 1.5"-6NC GR2 ZDI
8X0286	NUT JAM 1.5"-6NC GR2 ZDI
8X0290	NUT HEX SLOT 1.25"-7NC GR2 ZDI
8X0300	LOCKWASHER 5/16" YLW ZNC
8X0301	LOCKWASHER 3/8" YLW ZNC
8X0302	LOCKWASHER 7/16" YLW ZNC
8X0303	LOCKWASHER 1/2" YLW ZNC
8X0304	LOCKWASHER 5/8" YLW ZNC
8X0306	LOCKWASHER 3/4" YLW ZNC
8X0307	LOCKWASHER 7/8" YLW ZNC
8X0308	LOCKWASHER 1/4" YLW ZNC
8X0309	LOCKWASHER 1" YLW ZNC
8X0311	LOCKWASHER 1-1/4" YLW ZNC
8X0315	LOCKWASHER 1-1/2" YLW ZNC
8X0316	WASHER SAE FLAT 1" ZDI
8X0317	WASHER SAE FLAT 3/4" ZDI
8X0320	WASHER FLAT 3/8 (7/16" ID) ZDI
8X0323	WASHER SAE FLAT 5/8" ZDI
8X0327	WASHER SAE FLAT 1-1/4" ZDI
8X0329	WASHER FLAT 5/16"(3/8" ID) ZDI
8X0330	WASHER 1.25 X 17/32" ID ZDI
8X0364	MACH BSHNG 3.5 X2.5IDX14GA PLN
8X0366	WASHER 3-1/16"OD X 2"ID X 1/4"
8X0368	WASHER SAE FLAT 1-1/2" PLN
8X0370	WASHER 3.934 X 3.016"ID X 14GA
8X0380	WASHER 4.25 X 3-1/16 ID X3/16"
8X0400	HAIR PIN CLIP 1/8 X 1-15/16"
8X0402	HAIR PIN CLIP 1/8 X 2-9/16"
8X0414	COTTER PIN 1/4 X 2" ZDI
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
8X0725	ZERK 1/8" MPT STR ZDI
8X0727	ZERK 1/8" MPT 90 DEG ZDI
8Z0079	DECAL "SUMMERS" 5 X 20"
8Z0087	DECAL"WARNING"PINCH POINT03-
8Z0132	DECAL ID SUPERROLLER 05-
8Z0276	DECAL GENERAL CAUTION 91-
8Z0800	REFLECTOR AMBER ADHSV-BCK98-
8Z0805	REFLCTR REDORANGE ADHSVBK99-
8Z0810	REFLECTOR RED ADHSV-BCK 98-

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 Supercoulter, 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.
- 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®

... Field Tested TOUGH!

Model 700
Rock Picker



Superrollers



Superchisel

Coulter-Chisel
Disk-Chisel



Hydraulic Fold
Coil Packer &
Hydraulic Fold
Rolling Chopper



Mounted
Harrows



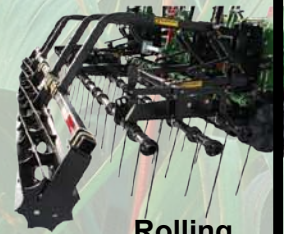
Rolling
Choppers



Superharrow Plus &
Superharrow 2650



Rolling
Baskets



Diamond Disk &
2510 DT



Supercoulter Plus



Ultra & Ultimate NT
Supersprayer



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