

SUMMERS[®]

Operator's Manual



RT8451

(5 Section 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

DEVILS LAKE, NORTH DAKOTA 58301

(701) 662-5391

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Preface

This manual is intended for use with RT8451 Superroller for Summers® Manufacturing Company, Inc.

This book is composed of these basic sections: Safety, Operation & Maintenance, Troubleshooting and Parts. The Operation & Maintenance section provides information for the proper operation and maintenance of your Summers RT8451 Superroller. A complete Parts breakdown is provided in the Parts section.

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 the back section of the manual for description of each part.

Reference to “Right” and “Left” in this book is determined when the machine is viewed from the rear.

Disclaimer

It is the policy of this company to 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 the obligation to install such changes on products previously delivered.

Summers Manufacturing Company, Inc. strongly recommends that each RT8451 Superroller operator READ and UNDERSTAND the Operator’s Manual before using the machine. In addition, the Operator’s Manual should be REVIEWED at least Annually thereafter.

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

Contact Information

Summers Manufacturing Company, Inc.

103 Summers St. NW

Devils Lake, ND 58301

Toll Free: 1-800-732-4392

Local: 1-701-662-5391 (Devils Lake, ND)

1-605-226-3644 (Aberdeen, SD)

www.summersmfg.com



Owner Registration Information

Bring this information when ordering parts (Serial Number is located at front of hitch).

Name _____

Size _____

Address _____

Serial Number _____

City _____

(located by the hitch)

State/Prov. _____

Date Purchased _____

Mail Code _____

Dealer _____

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 by the end user from Summers' dealer.

Summers' obligation is to replace, free of charge, any part of the 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 therein 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, ND 58301

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Safety Information



This safety alert symbol is used to denote possible danger and care should be taken to prevent bodily injury. When you see this symbol it means ATTENTION, BECOME ALERT! and/or YOUR SAFETY IS INVOLVED!

WARNING: Safe practices must be followed when working on or operating this equipment. All personnel involved must:



- Read and understand the instructions and manuals for this machine.
- Be instructed in the safe use of tools and all lifting devices involved in the assembly of this equipment.
- Clear the area of all personnel not involved in the assembly of this machine.

General Safety Practices

1. READ and UNDERSTAND the Operator's Manual before using any equipment. Review at least annually thereafter.
2. VERIFY all safety devices and shields are in place before using any equipment.
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. DO NOT ALLOW RIDERS.

Safety During Transportation

1. ONLY TOW at a safe speed. Use caution when making corners and meeting traffic.
2. USE safety chain between tractor drawbar and implement hitch when transporting on public roads.
3. ALWAYS use transport locks when transporting on public roads.
4. COMPLY with local lighting, marking and oversize regulations when transporting on highways.
5. FREQUENTLY check for traffic from rear, especially during turns.

Safety Decals



Indicates an immediate hazardous situation that will result in death or serious injury. The color associated with Danger is RED.



Indicates a potentially hazardous situation that could result in death or serious injury. The color associated with Warning is ORANGE.



Indicates a potentially hazardous situation that may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.



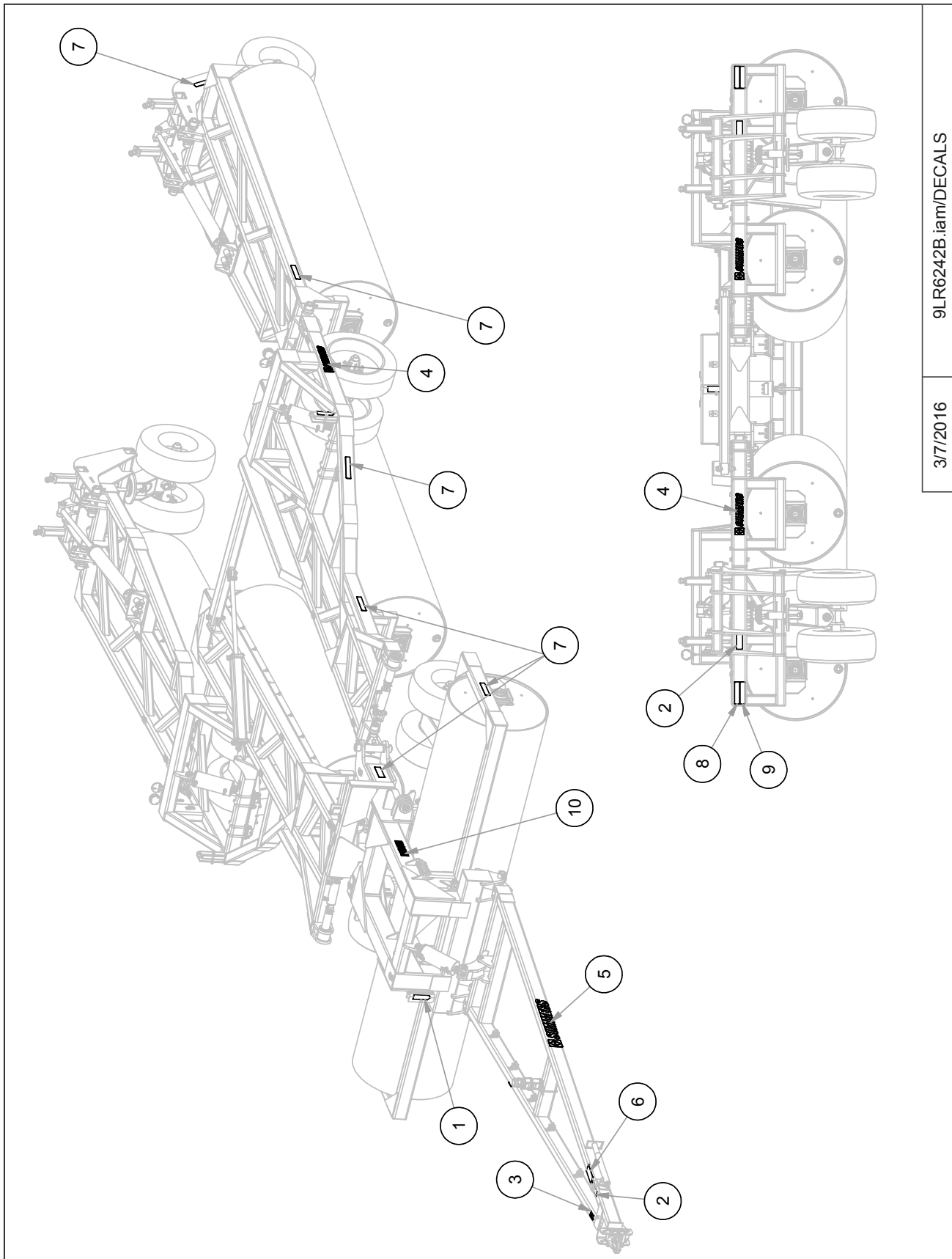
The Notice decals and statements in this manual are to inform the operator of the correct fluids or operational practices for this machine. Failure to follow these notices will result in damage to the machine. The color associated with Notice is GREEN.

1. Keep safety signs clean and legible at all times.
2. Replace safety signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety signs are available from your dealer's parts department or the factory.

How to install safety signs?

1. Be sure that the installation area is clean and dry.
2. Be sure the temperature is above 50° F (10° C).
3. Decide on the exact position before removing the backing paper.
4. Remove the smallest portion of the split backing paper.
5. Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
6. Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
7. Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.





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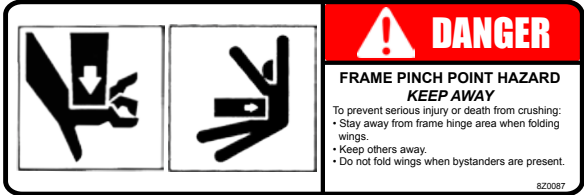



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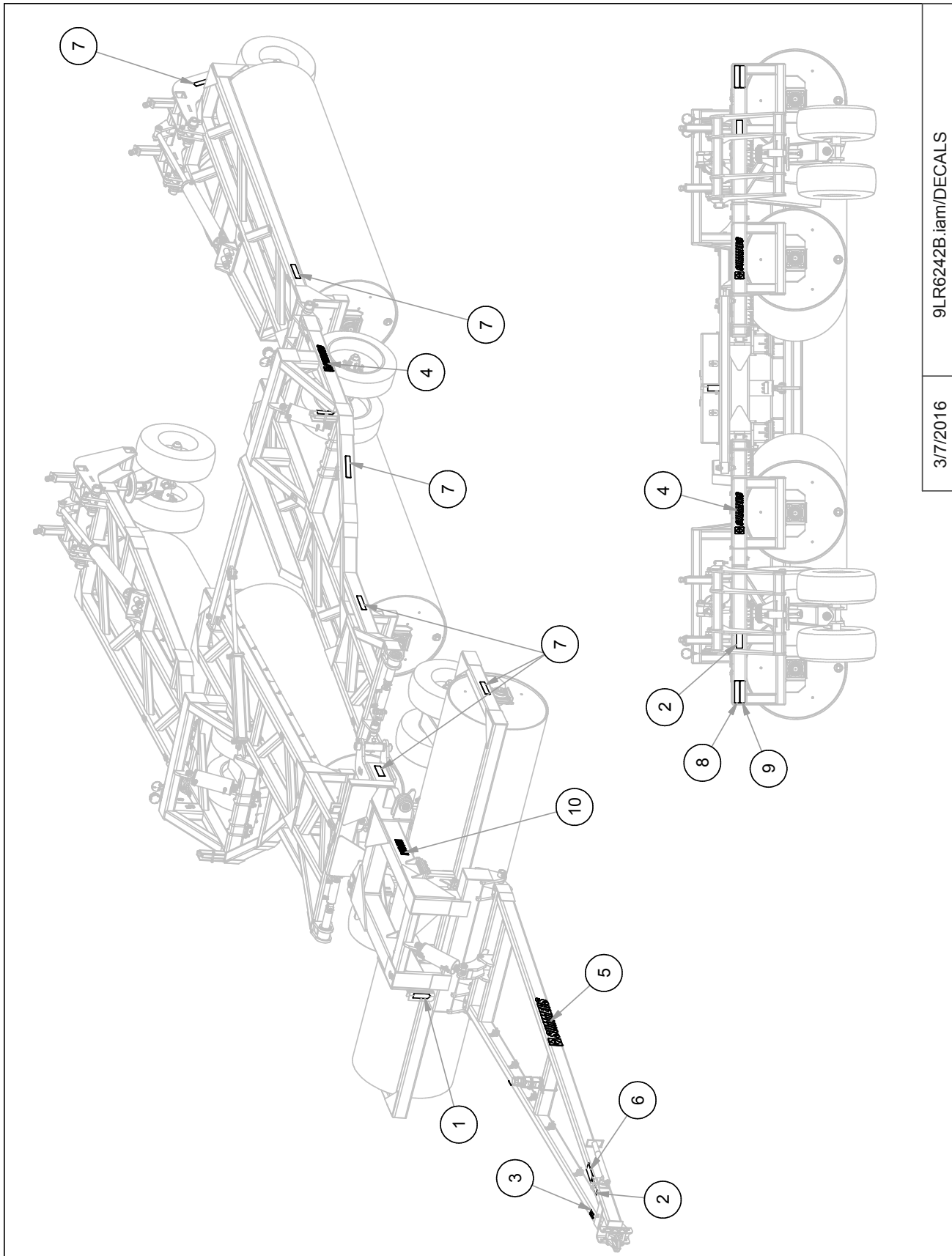
Safety Decal Locations

The types of safety signs and locations on the equipment are shown in the illustrations below. Good safety requires that you familiarize yourself with the various safety signs, the type of WARNING and the area or particular function related to that area, that requires your SAFETY AWARENESS.

IMPORTANT: If Safety Signs have been damaged, removed, become illegible or parts replaced without safety signs, new signs must be applied. New safety signs are available from your authorized dealer.

Safety Decals

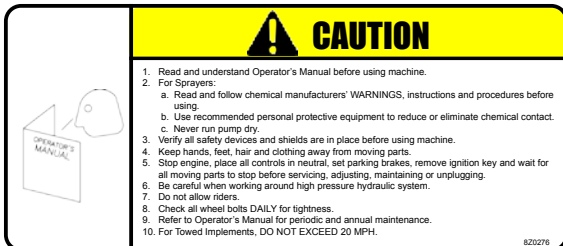




DECALS				
ITEM	PN	QTY	DESCRIPTION	
1	8Z0075	1	TRANSPORT LOCK DECAL	
2	8Z0087	4	PINCH POINT DECAL	
3	8Z0100	1	MADE IN THE USA DECAL	
4	8Z0202	4	3.5" SUMMERS DECAL	
5	8Z0204	2	5.5" SUMMERS DECAL	



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Safety Decal Locations (cont'd)

6	8Z0276	1	GENERAL MACHINE CAUTION DECAL	
7	8Z0800	4	REFLECTOR - YELLOW - ADHESIVE BACKED	
8	8Z0805	4	REFLECTOR - RED- ORANGE ADHESIVE BACKED	
9	8Z0810	6	REFLECTOR - RED - ADHESIVE BACKED	
10	8Z2206	2	RT8451 DECAL	

Safety Light Operation

Figure 1

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.



General Maintenance Safety Practices

NOTE: Read the entire section before beginning work.

Before You Begin

- **YOU ARE RESPONSIBLE** for the safe maintenance of the Land Roller.
- **DO NOT ALLOW CHILDREN** or other unauthorized persons within the Land Roller operational area.
- **WEAR PERSONAL PROTECTIVE EQUIPMENT** which includes a hard hat, eye protection, work gloves and steel toed boots with slip resistant soles.
- **DO NOT MODIFY** the equipment or substitute parts in any way. Unauthorized modifications may impair the function and/or safety of the machine.
- **USE SUITABLE LIFTING DEVICE** for components which could cause personal injury.
- **BLOCK UP ANY RAISED PART** of the machine. Be sure machine is stable after blocking.
- **ALWAYS INSPECT LIFTING CHAINS AND SLINGS** for damage or wear.
- **BE SURE LIFTING DEVICE IS RATED TO HANDLE THE WEIGHT.**
- **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.
- **BE SURE PRESSURE IS RELIEVED** from hydraulic circuits before servicing or disconnecting from tractor.
- **USE EXTREME CARE** when assembling, servicing or adjusting.

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:

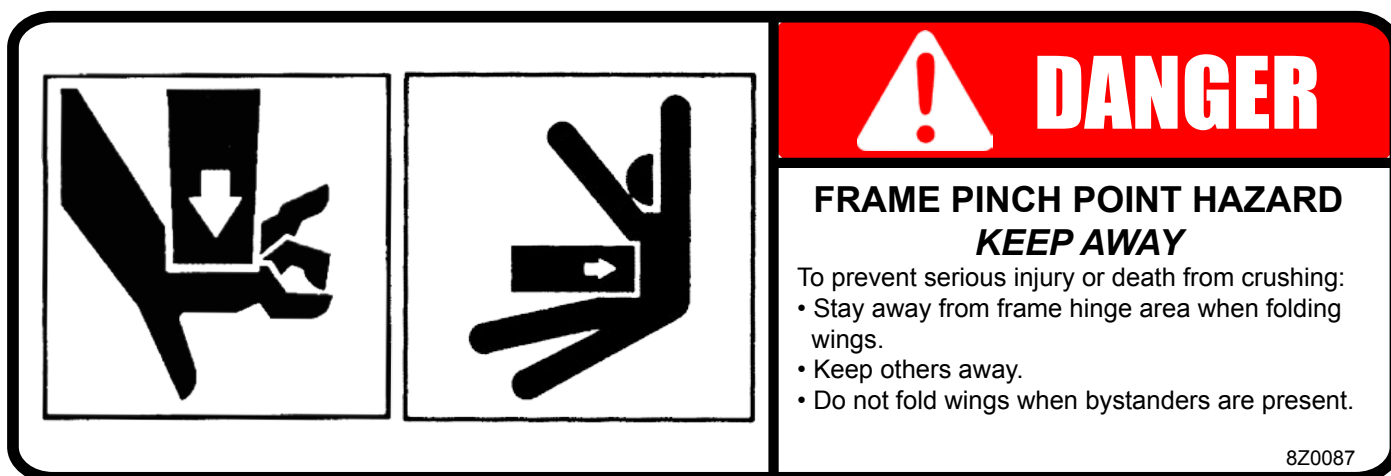
1. COMPLETE WARRANTY REGISTRATION CARD.

- 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.

INITIAL HOOKUP:

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 Unfold Arm 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 specifications page), check that wheel nuts are tightened to 170 ft-lb and check that wheel bearings are correctly adjusted.

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 Land Roller 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. Back machine up slowly, while simultaneously extending unfold arm cylinder. Maneuver machine so wings open evenly. If wings do not open evenly pull ahead and try again.
8. 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.
9. Fully extend the lock pin cylinders.
10. Lower the machine to the ground, continue retracting the cylinders until all cylinders are fully retracted.
11. Fully retract unfold arm cylinder.

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.

CASTER WHEEL BRAKE OPERATION & ADJUSTMENT:

1. The rear caster arm is equipped with a spring loaded brake. The plastic brake pad must have adequate pressure to dampen motion and prevent “whipping” of the caster wheels. The pressure can be adjusted by tightening the bolt on top of the brake assembly shown at right.

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

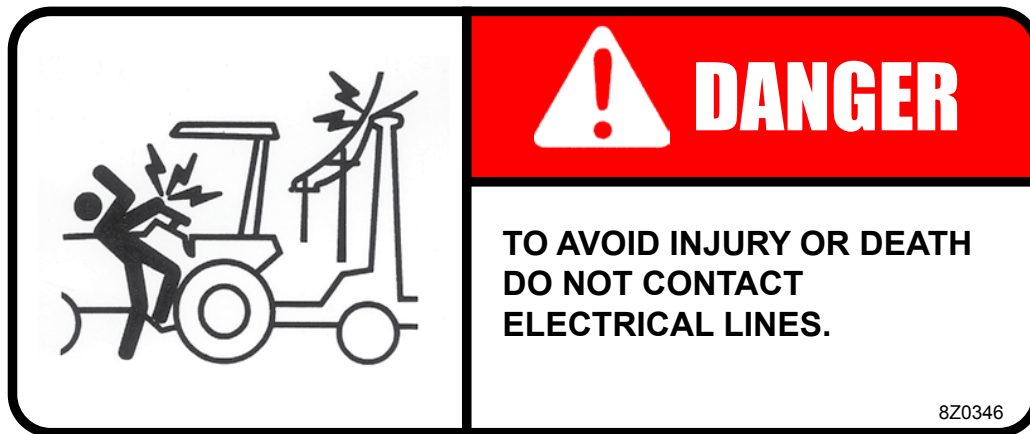
TRANSPORTING LAND ROLLER:

1. If Land Roller is in Field Position, follow “Steps Required to Fold Land Roller from Field to Transport Position”.
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. Frequently check for traffic from rear, especially during turns.



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.

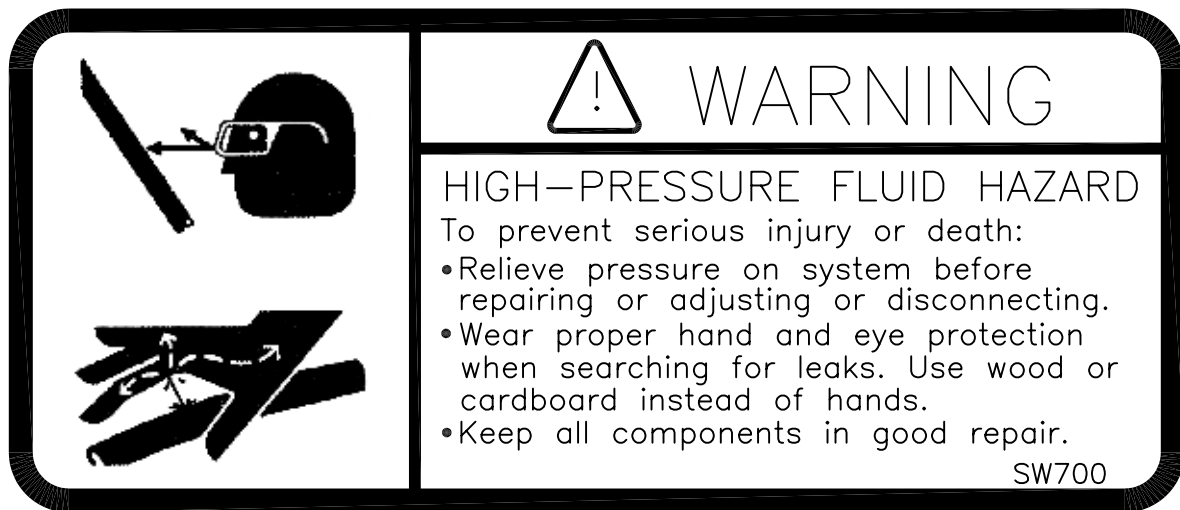
9. Carefully drive ahead.

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.

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 240 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. See specifications for recommended inflation pressure.

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 240 ft. lbs.
4. Check tire air pressure. See specifications for recommended inflation pressure.

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. Reinstall the hardware in the castle nut to ensure that it will not loosen.

PERIODIC MAINTENANCE

Caster Wheel Brake Adjustment

The caster brake will require periodic adjustment. With the rear dual transport wheels lifted approximately 3" off the ground, adjust bolt on the top of the caster brake until the plastic brake pad just contacts the ring on caster arm, then tighten an additional 2 full revolutions.

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"	60'9"	37,800#	42"
68'	17'3"	6'0"	62'9"	39,700#	42"
84'	17'3"	6'0"	71'9"	44,500#	42"
84'	17'3"	6'0"	71'9"	40,000#	36"
91'	17'3"	6'0"	72'4"	46,600#	42"

Tire Size	Rating	Recommended Inflation Pressure
255/70R 22.5	H	120 PSI
340/60R 16.5	145A8	73 PSI
340/65R 18	148A8	78 PSI

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

PROPER BOLT USE

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

BOLT SIZE	WRENCH SIZE	GRADE 5		GRADE 8	
		ft.-lbs	N • m	ft.-lbs	N • m
1/4"	7/16" or 3/8"	7	9.5	12	17
5/16"	1/2"	15	20	25	34
3/8"	9/16"	30	41	45	61
7/16"	5/8" or 11/16"	45	61	70	95
1/2"	3/4"	70	95	105	142
9/16" wheel bolts	7/8"	170	231		
5/8"	15/16"	170	231	210	285
5/8" wheel nuts	1-1/16"	240	325		
3/4"	1-1/16"* or 1-1/8"	250	339	375	509
7/8"	1-5/16"	350	475	600	814
1"	1-1/2"	450	610	880	1193
1-1/4"	1-7/8"	500	678		
1-1/2"	2-1/4"	570	773		
2"	3-1/8"	1200	1627		

*Nylon Lock Nut

3/8/12 TILLAGE



SAE
GRADE 5

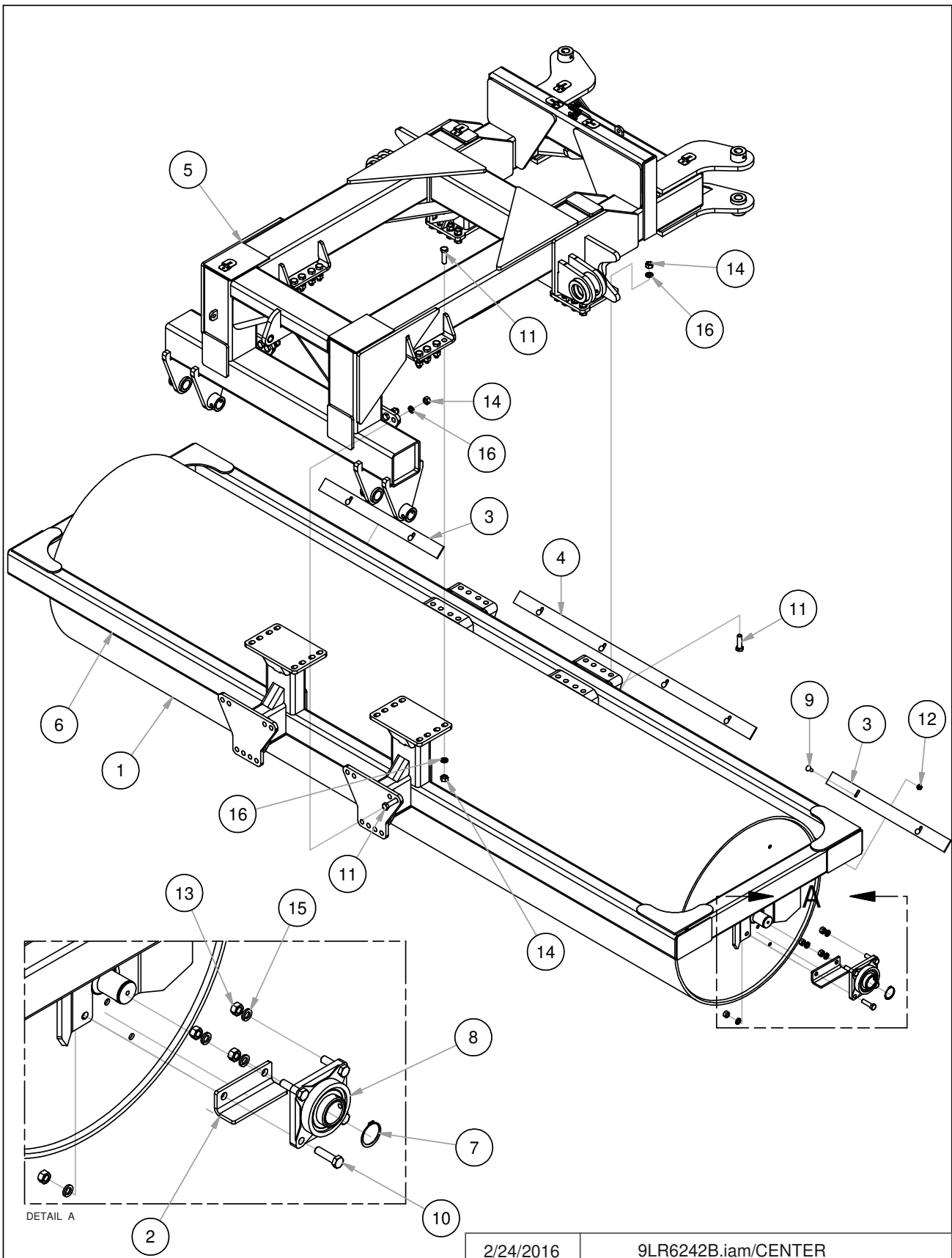


SAE
GRADE 8



Parts Ordering Procedure

When ordering parts for your Summers RT8451 Superroller, please contact an authorized Summers dealer in your area. If the parts are associated with a possible warranty claim, make sure that you contact the original dealer from which you purchased the Summers implement. Make sure to provide the Summers implement model, Serial number, Part number, Part description and quantity.

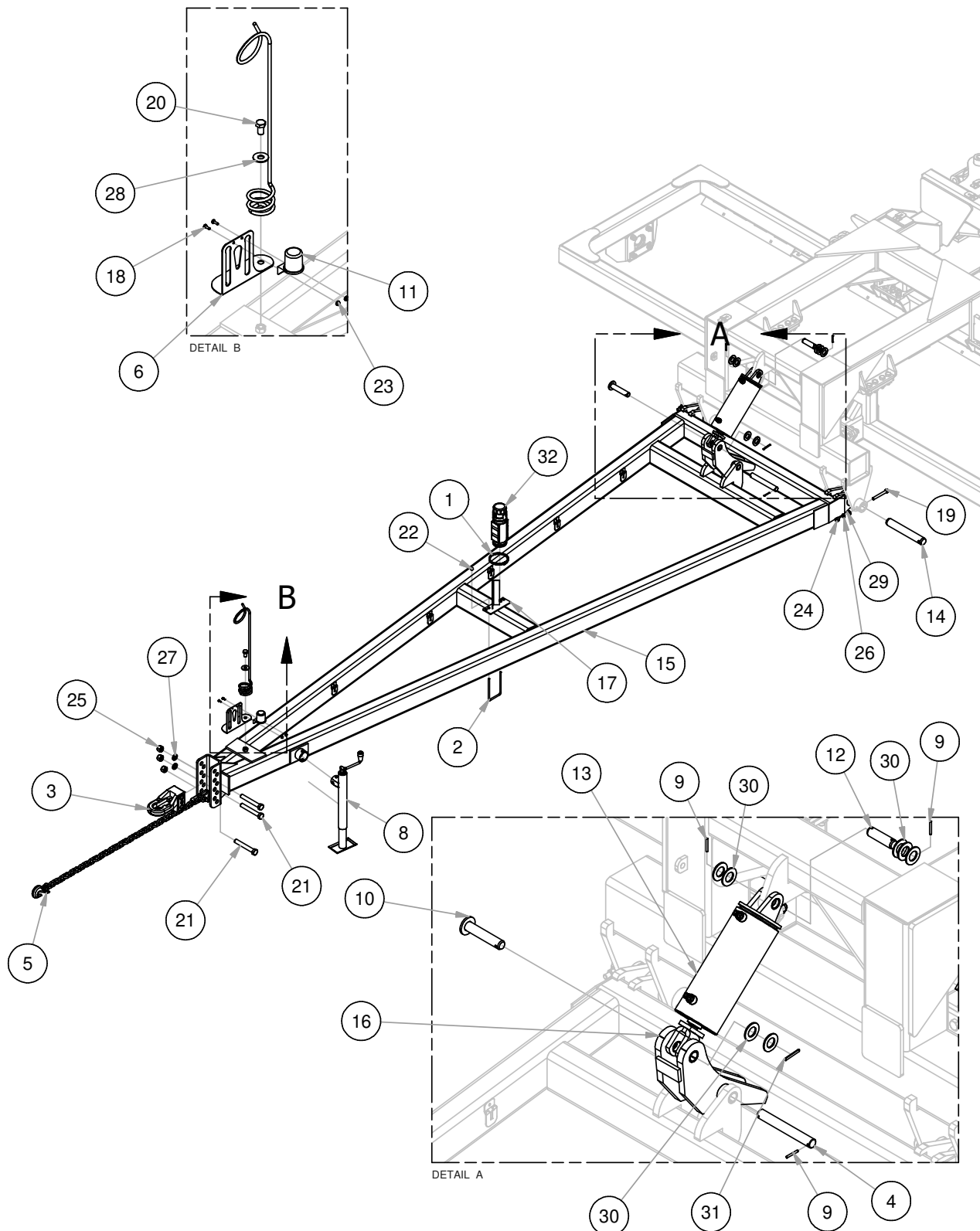


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CENTER

ITEM	PART NUMBER	DESCRIPTION
1	8P4215	ROLLER 42"DIAMETER 15'
2	8P5080	ANGLE BRNG 3/8X2.5X2.5- 7-7/8"
3	8P7030	SCRAPER 42" ROLLER 34" 09-
4	8P7050	SCRAPER 42" ROLLER 68" 09-
5	8P7125	MAIN FRAME UPPR TRAIL LR
6	8P7129	MAIN FRAME LOWR 62-84 LR
7	8R8005	SNAP RING .078"FOR 2-1/2"DIA.
8	8R8010	BEARING 2-1/2"FLNG 4BLT-49/64"
9	8X0064	CRG 1/2-13NC X 1-1/2" GR5 YZ
10	8X0111A	BOLT 3/4-10NC X 2-3/4" GR5 ZDI
11	8X0133	BOLT 7/8-9NC X 3" GR5 ZDI
12	8X0246	NUT 1/2"-13NC SERFLANG GR2 YZ
13	8X0260	NUT 3/4"-10NC HEX GR2 YZ
14	8X0268	NUT 7/8"-9NC HEX GR2 YZ
15	8X0306	LOCKWASHER 3/4" YLW ZNC
16	8X0307	LOCKWASHER 7/8" YLW ZNC

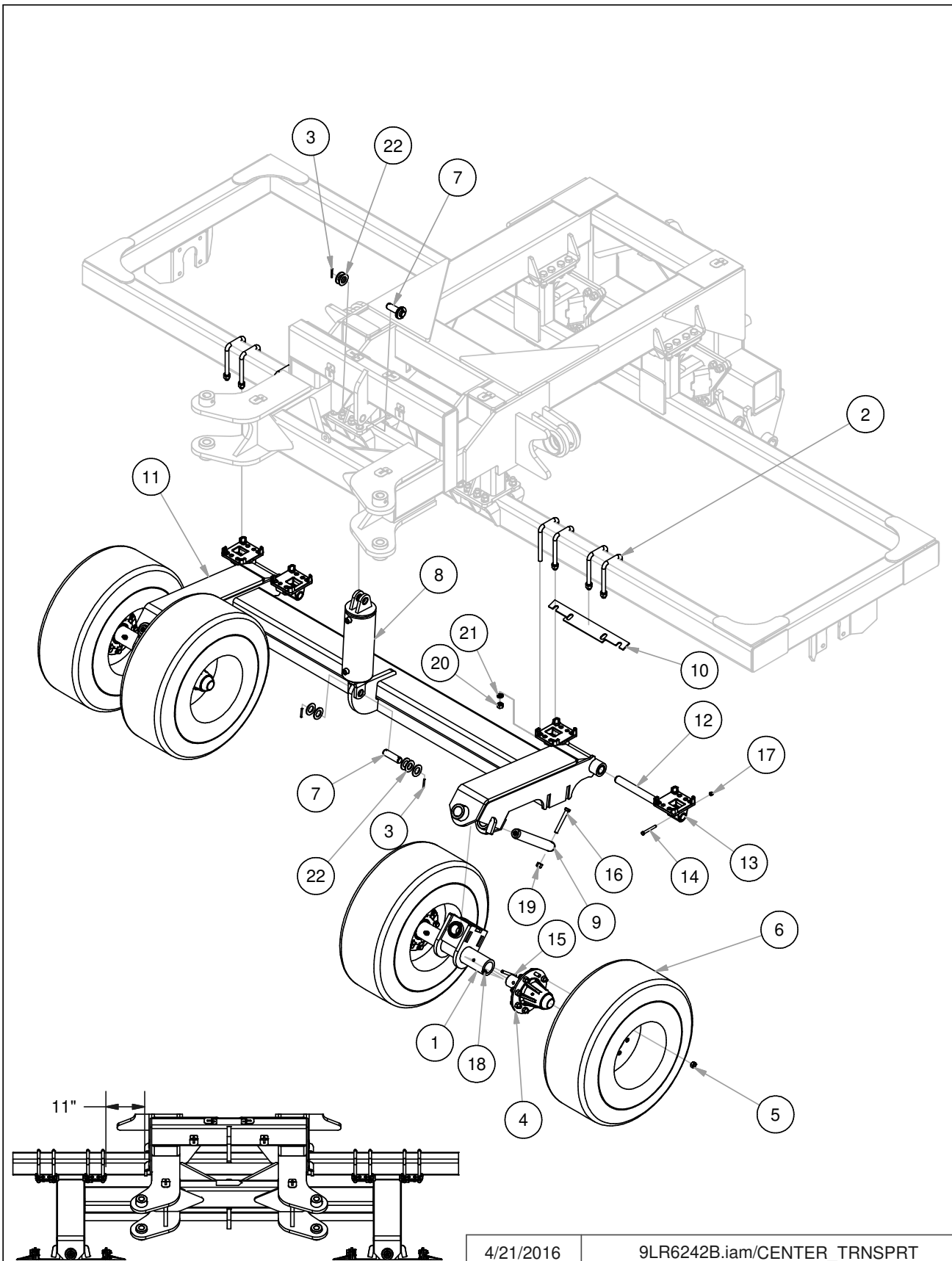


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HITCH

ITEM	PART NUMBER	DESCRIPTION
1	8A1004	CLAMP HOSE 5" #72
2	8A1157	U-BOLT 3/8 X 4-1/16 X 7" SQ
3	8D0720	HITCH PIECE CAST CAT.3CTD PNTD
4	8D1236	PIN
5	8D2470	SAFETY CHAIN 7/16" X 5'
6	8D8490	PIONEER/ISO TIP HLDR BNT
7	8D8500	HYD HOSE HOLDER PNTD BLK 91-
8	8D8522	JACK 5000# TOP CRANK 15"LIFT
9	8D9108	ROLL PIN 1/4 X 2" YLW ZNC
10	8K1620	PIN 1-1/4 X 6-1/8"
11	8K8067	DUST CAP FOR 7PIN CONNECT00-
12	8K9106	PIN 1-1/4 X 4-3/8" HARDENED
13	8P0510	HYD CYL 5.5"DIA X 10"3500PSI 2"RD
14	8P3910	PIN 2 X 13-1/2" HARDENED
15	8P7132	HITCH 62'-84' LR LONG
16	8P7140	PIVOT LOCK 62'-84' LR
17	8T4385	HOLDER MANUAL-PAK
18	8X0000	BOLT 1/4-20 X 3/4" FLLTHD GR5 YZ
19	8X0095	BOLT 5/8-11NC X 5" GR5 ZDI
20	8X0110	BOLT 3/4-10NC X 1-1/4" GR5 YZ
21	8X0140	BOLT 1-8NC X 7" W/1.5"THD GR5 YZ
22	8X0203	NUT 3/8"-16NC SERFLANG GR2 YZ
23	8X0223	NUT 1/4"-20NC SERFLANG GR2 YZ
24	8X0253	NUT 5/8"-11NC NY-LOCK GR2 YZ
25	8X0281	NUT 1"-8NC NY-LOCK GR2 YZ
26	8X0304	LOCKWASHER 5/8" YLW ZNC
27	8X0309	LOCKWASHER 1" YLW ZNC
28	8X0318	WASHER 3/4" (13/16"ID) FLAT YZ
29	8X0323	WASHER 5/8" SAE FLAT YZ
30	8X0327	WASHER 1-1/4" SAE FLAT YZ
31	8X0523	ROLL PIN 5/16 X 2-1/2" PLN
32	8Z1000	MANUAL-PAK 3DIA X 11.75" 09-

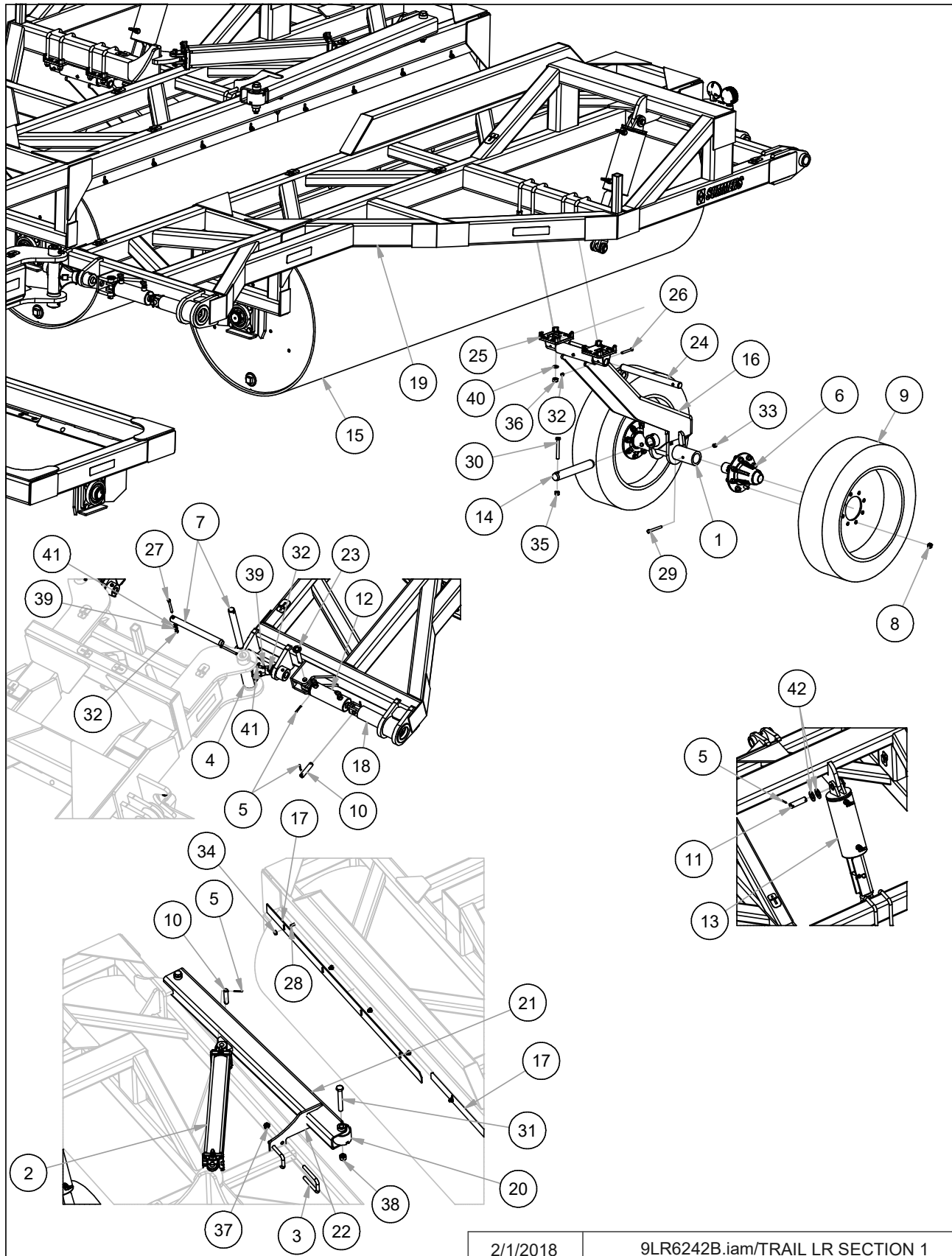


4/21/2016

9LR6242B.iam/CENTER_TRNSPRT

CENTER TRANSPORT

ITEM	PART NUMBER	DESCRIPTION
1	8B1270	OSC AXLE SPNDLE HLDR 2.5"
2	8D0340	U-BOLT 3/4 X 4-1/16 X 7-3/4" SQ
3	8D9108	ROLL PIN 1/4 X 2" YLW ZNC
4	8K1105	HUB&AXLE ASSY HD812(2.5"RCVR)
5	8K7123	NUT 5/8"-18UNF WHEEL BOLT 97-
6	8K7520	IF320/70 15 144D ON 15X 10X8 WHL
7	8K9106	PIN 1-1/4 X 4-3/8" HARDENED
8	8P0510	HYD CYL 5.5"DIA X 10"3500PSI 2"RD
9	8P3912	PIN 2 X 13-1/2" HARDENED GREASABLE
10	8P7022	SCRAPER 42" ROLLER 21.5"
11	8P7180B	TRANSPORT FRAME 62-91' LR
12	8T3640	PIN 1-1/2 X 19" HARDENED 98-
13	8T4100	CAST PIVOT W/BLT PLATE PTD
14	8X0044	BOLT 7/16-14NC X 3-1/2" GR5 ZDI
15	8X0074	BOLT 1/2-13NC X 4-1/2" GR5 ZDI
16	8X0095	BOLT 5/8-11NC X 5" GR5 ZDI
17	8X0234	NUT 7/16"-14NC NY-LOCK GR2 ZDI
18	8X0242	NUT 1/2"-13NC NY-LOCK GR2 YZ
19	8X0253	NUT 5/8"-11NC NY-LOCK GR2 YZ
20	8X0260	NUT 3/4"-10NC HEX GR2 YZ
21	8X0306	LOCKWASHER 3/4" YLW ZNC
22	8X0327	WASHER 1-1/4" SAE FLAT YZ

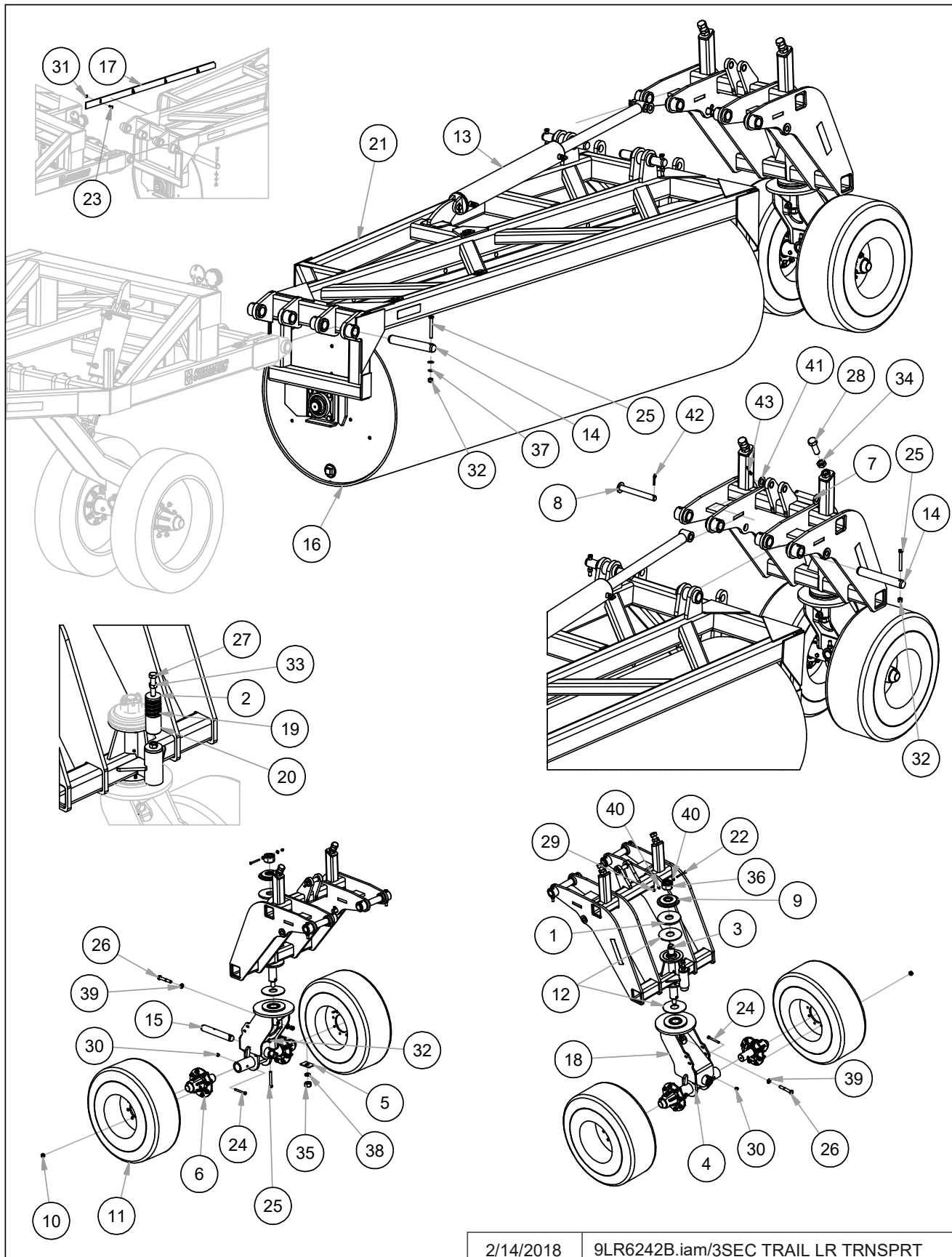


2/1/2018

9LR6242B.iam/TRAIL LR SECTION 1

ITEM	PART NUMBER	DESCRIPTION
1	8B1270	OSC AXLE SPNDLE HLDR 2.5"
2	8C0432	HYD CYL 4 X 32" 3000PSI
3	8C1751	U-BOLT 3/4 X 3-1/16 X 6" SQ
4	8C1805	KNUCKLE 90 DEG.OFFSET
5	8D9108	ROLL PIN 1/4 X 2" YLW ZNC
6	8K1105	HUB&AXLE ASSY HD812(2.5"RCVR)
7	8K1660	PIN 1-1/2 X 15-1/2" HARDEND
8	8K7123	NUT WHEEL BOLT 5/8-18UNF
9	8K7490	255/70R22.5 ON 22.5X8.25X8WHL
10	8K9102	PIN 1 X 4" CYL-FOR1/4"ROLL PIN
11	8K9106	PIN 1-1/4 X 4-3/8" HARDENED
12	8P0306	HYD CYL 3"DIA X 6" 3500PSI 2"ROD
13	8P0510	HYD CYL 5.5"DIA X 10" 3500PSI 2"RD
14	8P3912	PIN 2 X 13-1/2" HARDENED GREASABLE
15	8P4212 8P4217	ROLLER 42" DIAM 12' 07- ROLLER 42" DIAM 17.5' 07-
16	8P6112	LIFTARM PT1 OSC AXLE
17	8P7070	SCRAPER 42" ROLLER 72" 09-
18	8P7170	SHOT PIN 62'-84' LR
19	8P7340LP 8P7342LP 8P7340RP 8P8342RP	WING P1 LEFT 84'/91' LR WING P1 LEFT 62' LR WING P1 RGHT 84'/91' LR WING P1 RGHT 62' LR
20	8P7360	UNFOLD ARM ROLLER 5SEC LR

ITEM	PART NUMBER	DESCRIPTION
21	8P7365	UNFOLD ARM 5SEC LR
22	8P7370	UNFOLD ARM CRADLE
23	8R6040	PIN 1 X 5-1/2" (BASE3X31CYL)
24	8T3640	PIN 1-1/2 X 19" HARDENED
25	8T4100	CAST PIVOT W/BLTPLATE
26	8X0044	BOLT 7/16-14NC X 3-1/2"GR5
27	8X0045	BOLT 7/16-14NC X 4-1/2"GR5
28	8X0064	CRG 1/2-13NC X 1-1/2" GR5
29	8X0074	BOLT 1/2-13NC X 4-1/2" GR5
30	8X0095	BOLT 5/8-11NC X 5" GR5 ZDI
31	8X0140	BOLT 1-8NCX7" W/1.5" THD GR5 YZ
32	8X0234	NUT 7/16"-14NC NY-LOCK GR2 ZDI
33	8X0242	NUT 1/2"-13NC NY-LOCK GR2 YZ
34	8X0246	NUT 1/2"-13NC SERFLANG GR2 YZ
35	8X0253	NUT 5/8"-11NC NY-LOCK GR2 YZ
36	8X0260	NUT 3/4"-10NC HEX GR2
37	8X0266	NUT 3/4"-10NC SER FLANG GR2 YZ
38	8X0281	NUT 1"-8NC NY-LOCK GR2 YZ
39	8X0302	LOCKWASHER 7/16"
40	8X0306	LOCKWASHER 3/4"
41	8X0320	WASHER 3/8" (7/16" ID)FLAT
42	8X0327	WASHER 1-1/4" SAE FLAT YZ



2/14/2018

9LR6242B.iam/3SEC TRAIL LR TRNSPRT

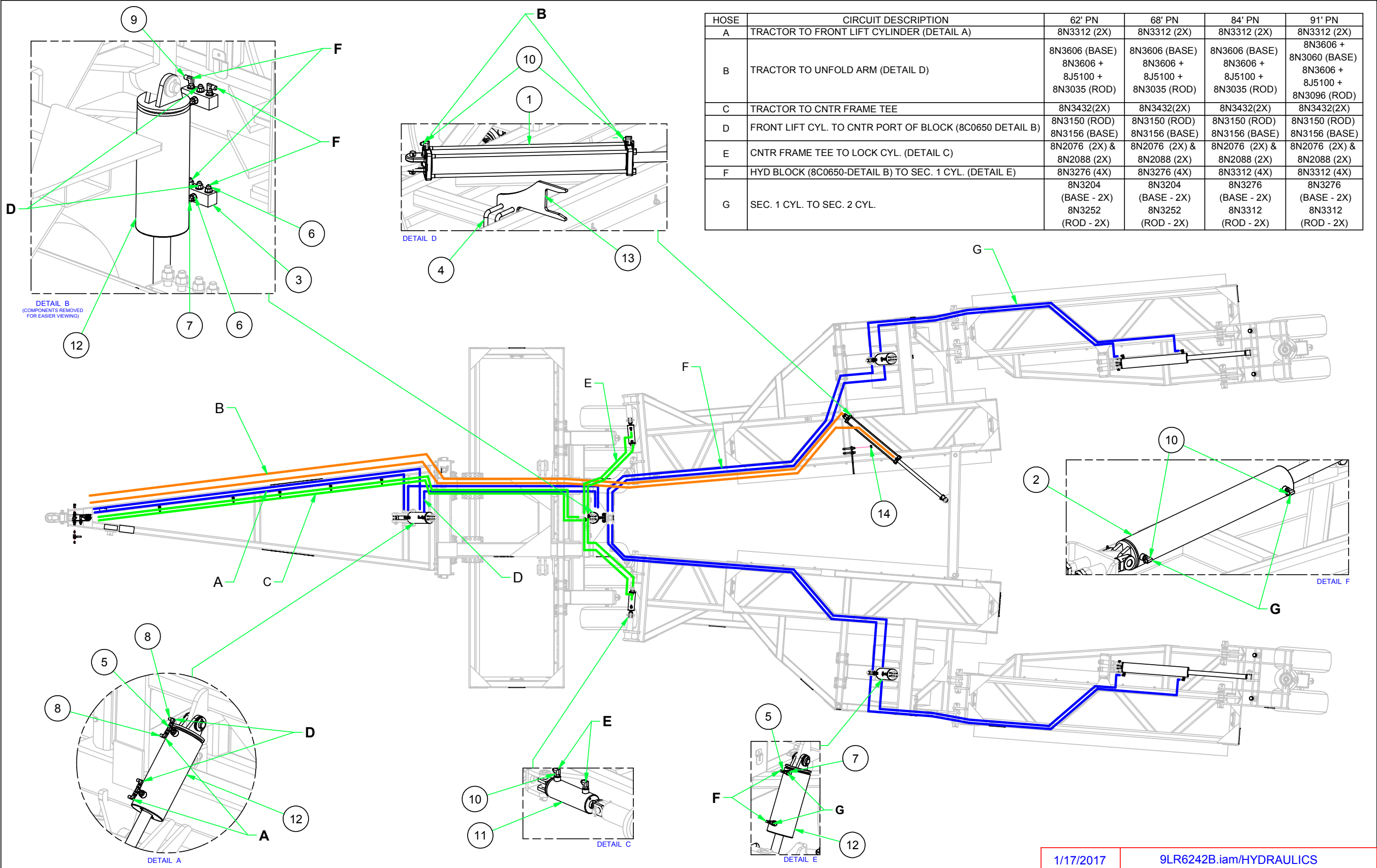
SECTION 2

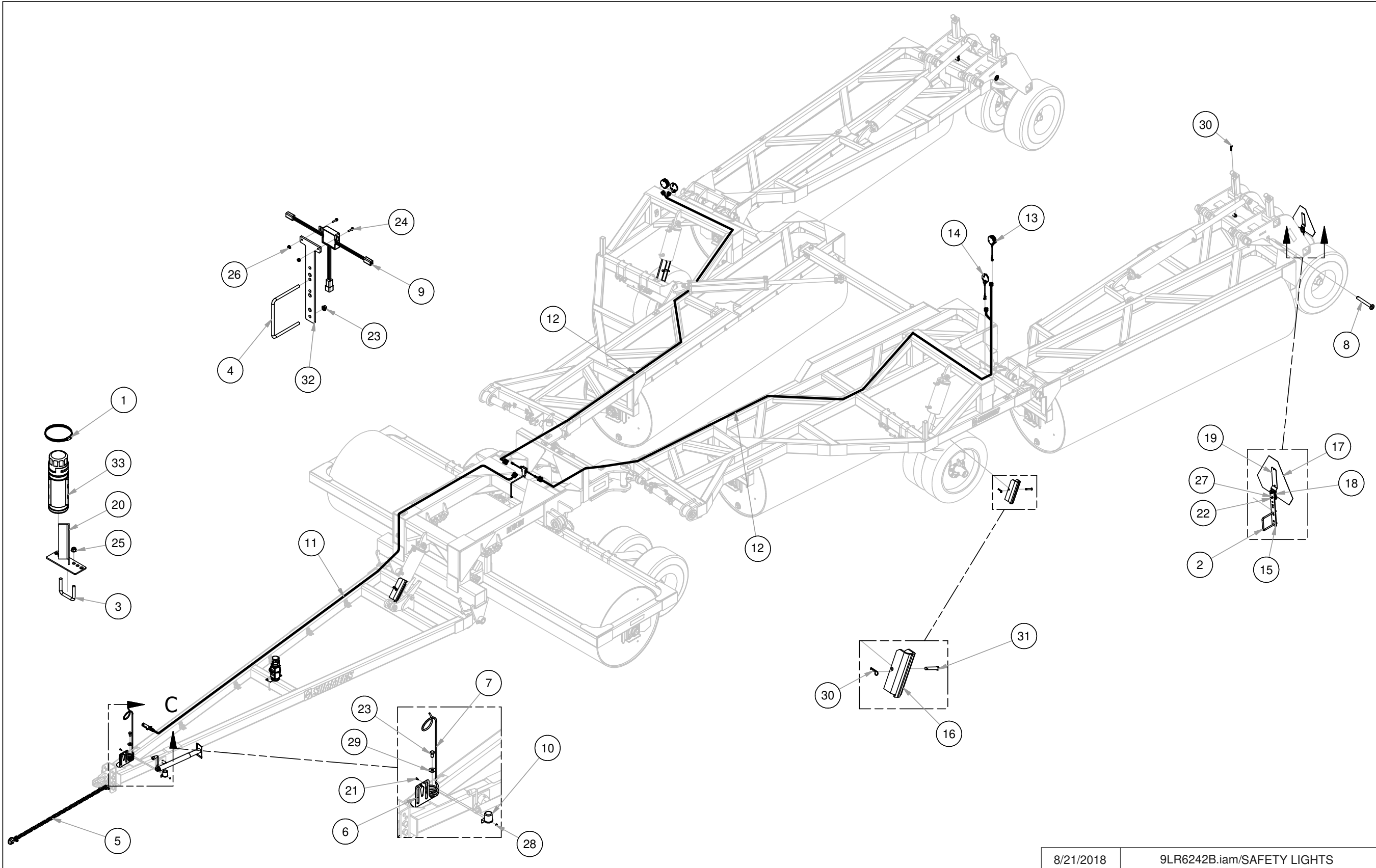
ITEM	PART NUMBER	DESCRIPTION
1	7L2150	STL 1/2 X 7-1/2"OD X 2-9/16"ID
2	7P7289	STEEL 3/8X2.50"DIA. 15-
3	7P8530	ROUND CR 2 1/2"-22 1/4" 07-
4	8B1270	OSC AXLE SPNDLE HLDR
5	8CC6035	WASHER 2.5X4X 1.281ID
6	8K1105	HUB&AXLE ASSY HD812
7	8K1620	PIN 1-1/4 X 6-1/8"
8	8K1623	PIN 1-1/4 X 10-1/2"
9	8K5200	WASHER GANG BOLT 2.030"ID
10	8K7123	NUT 5/8"-18UNF WHEEL BOLT 97-
11	8K7520	IF320\70R15 ON 15X10X8 WH
12	8L0320	PLATE 2PT CASTER WEAR
13	8P0532HD	HYD CYL 5X32" W/STOPTUBE
14	8P3910	PIN 2 X 13-1/2" HARDENED
15	8P3912	PIN 2 X 13-1/2" HARDENED
16	8P4212 8P4215 8P4217 8P4220	ROLLER 42"DIAMETER 12" ROLLER 42"DIAMETER 15" ROLLER 42" DIAMETER 17.5" ROLLER 42" DIAMETER 21"
17	8P6990 8P7070 8P7090	SCRAPER 42" ROLLER 90" SCRAPER 42" ROLLER 72" SCRAPER 42" ROLLER 126"
18	8P7167	CASTR ARM OSC AXL 62-9
19	8P7200	SPRING 2.5 OD-1.5 ID-3" 10-
20	8P7210	ROUND 2.5" UHMW BRAKE

ITEM	PART NUMBER	DESCRIPTION
21	8P7344LP 8P7346LP 8P7348LP 8P7350LP	WING P2 LEFT 84' WING P2 LEFT 62' WING P2 LEFT 91' WING P2 LEFT 68'
21	8P7344RP 8P7346RP 8P7348RP 8P7350RP	WING P2 RGHT 84' WING P2 RGHT 62' WING P2 RGHT 91' WING P2 RGHT 68'
22	8X0015	BOLT 3/8-16NC X 3-3/4" GR5
23	8X0064	CRG 1/2-13NC X 1-1/2" GR5
24	8X0074	BOLT 1/2-13NC X 4-1/2" GR5
25	8X0095	BOLT 5/8-11NC X 5" GR5 ZDI
26	8X0113	BOLT 3/4-10NC X 5" GR5 YZ
27	8X0115A	BOLT 3/4NCX 3.5"FULLTHD
28	8X0152	BOLT 1-1/4-7NCX3.75"FULLTH
29	8X0202	NUT 3/8"-16NC NY-LOCK
30	8X0242	NUT 1/2"-13NC NY-LOCK
31	8X0246	NUT 1/2"-13NC SERFLANG
32	8X0253	NUT 5/8"-11NC NY-LOCK
33	8X0259	NUT JAM 3/4"-10NC GR2
34	8X0283	NUT JAM 1.25"-7NC GR2
35	8X0284	NUT 1-1/4"-7NC HEX GR2 YZ
36	8X0292	NUT 2"-4.5HVY HEXSLOT GR2
37	8X0304	LOCKWASHER 5/8"
38	8X0311	LOCKWASHER 1-1/4"
39	8X0317	WASHER 3/4" SAE FLAT YZ
40	8X0320	WASHER 3/8" (7/16" ID)FLAT
41	8X0327	WASHER 1-1/4" SAE FLAT
42	8X0402	HAIRPIN CLIP 1/8X2-9/16"
43	8X0418	COTTER PIN 5/16 X 2-1/2"

HYDRAULICS

ITEM	PART NUMBER	DESCRIPTION
1	8C0432	HYD CYL 4 X 32" 3000PSI
2	8P0532HD	HYD CYL 5X32" W/STOPTUBE
3	8C0650	MANIFOLD BLOCK, 1-1/2" SQ - 4-1/2"
4	8C1751	U-BOLT 3/4 X 3-1/16 X 6" SQ
5	8J5300	TEE #6 JIC (MALE) 3X
6	8J5500	9/16"-18 ORB X #6 JIC(M) STR
7	8J5620	3/4" -16 ORB X #6 JIC(F-SW) STR
8	8J5700	#6 JIC(F-SW) X #6 JIC(M)90°ADP
9	8J6000	9/16"-18 ORB X #6 JIC(M) 90°ADP
10	8J6010	3/4"-16 ORB X #6 JIC(M)90°ADP
11	8P0306	HYD CYL 3"DIA X6" 3500PSI 2"ROD
12	8P0510	HYD CYL 5.5"DIA X10"3500PSI 2"RD
13	8P7370	UNFOLD ARM CRADLE
14	8X0266	NUT 3/4"-10NC SER FLANG GR2 YZ





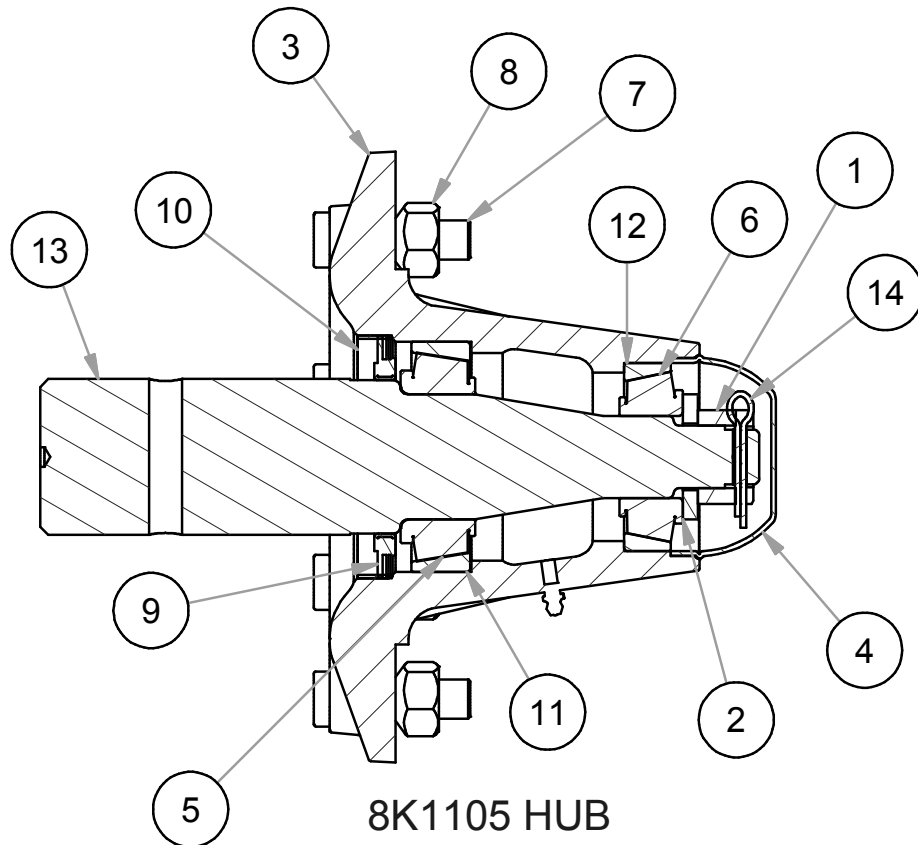
8/21/2018

9LR6242B.iam/SAFETY LIGHTS

SAFETY

ITEM	PART NUMBER	DESCRIPTION
1	8A1004	CLAMP HOSE 5" #72
2	8A1156	U-BOLT 3/8 X 4-1/16 X 5" SQ
3	8A1157	U-BOLT 3/8 X 4-1/16 X 7" SQ
4	8C1710	U-BOLT 3/8 X 8 X 9" SQ
5	8D2470	SAFETY CHAIN 7/16" X 5'
6	8D8490	PIONEER/ISO TIP HLDR BNT
7	8D8502	HYD HOSE HOLDER PNTD BLK 91-
8	8K1623	PIN 1-1/4 X 10-1/2"
9	8K8030A	MODULE AG ENHNCDW/BRAKE6PIN08-
10	8K8067	DUST CAP FOR 7PIN CONNECT00-
11	8K8070B	MAIN HRNSS 7PN 32' W/BRAKE 09-
12	8K8079	EXT HRNSS 36' DTSCH 12-
13	8K8090B	LIGHT LED AMBER 2WR DTSCH 12-
14	8K8095B	LIGHT LED RED 3WIRE DTSCH 12-
15	8K8200	BRCKT SMV ATTCH 4-8"FRAME98-
16	8P7310	LOCK CYL LR PWD COAT RED
17	8S1120	SIGN SLOW MOVING VEHICLE(SMV)
18	8S1124	MOUNTING SOCKET SMV SIGN ZDI
19	8S1126	MNT SPADE W/HRDWR SMV SIGN
20	8T4385	HOLDER MANUAL-PAK
21	8X0000	BOLT 1/4-20X3/4" FLLTHD GR5 YZ
22	8X0021A	BOLT 5/16-18NC X 1" GR5 ZDI
23	8X0110	BOLT 3/4-10NC X 1-1/4" GR5 YZ
24	8X0170	SCREW 8 X .75" FLANGE HD
25	8X0203	NUT 3/8"-16NC SERFLANG GR2 YZ
26	8X0208	NUT 8-32 HEX YZ SER FLNG
27	8X0211	NUT 5/16"-18NC SERFLANG GR2 YZ
28	8X0223	NUT 1/4"-20NC SERFLANG GR2 YZ
29	8X0318	WASHER 3/4"(13/16"ID)FLAT YZ
30	8X0402	HAIR PIN CLIP 1/8 X 2-9/16"
31	8X0440	CLEVIS PIN 5/8 X 3-7/8" ZDI
32	8X0803	LIGHT MODULE BRACKET
33	8Z1000	MANUAL-PAK 3DIA X 11.75" 09-

HUBS & AXLES



ITEM	PART NUMBER	DESCRIPTION
1	8D5312	NUT 1"-14NF HEX SLOT GR2 PLN
2	8D5319	WASHER 1" AXLE
3	8K7111	812 HUB ASSEMBLY
4	8K7113	HUB CAP HD812 DC17
5	8K7117	BEARING INNER HD812 LM3780
6	8K7118	BEARING OUTER HD812 LM2790
7	8K7122	STUD WHEEL 5/8-18UNFX2.5" 97-
8	8K7123	NUT WHEEL BOLT 5/8-18UNF 97-
9	8K7127	SEAL TRPL LIP EXTRNL HD812 06-
10	8K7128	SEAL SLEEVE HD812 06-
11	8K7130	RACE INNER FOR HD812 LM3720
12	8K7132	RACE OUTER FOR HD812 LM2720
13	8K7150	AXLE HD812 X 11.5" (2.5"DIA.)
14	8X0415	COTTER PIN 3/16 X 1-1/2"

SUMMERS MFG. CO., INC.

3/15/16

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
15'	READING x 1.4 = ACRES
21'	READING x 1.9 = ACRES
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
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



Cd1\8k\8k1800

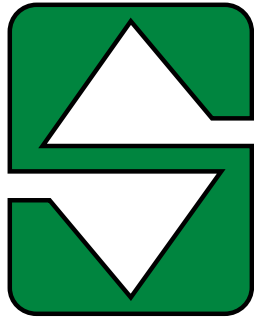
Part Number	Description	Part Number	Description
7L2150	STL 1/2 X 7-1/2"OD X 2-9/16"ID	8K7520	IF320/75 15 144D ON 15X 10X8 WHL
7P7289	STL 3/8 X 2.50" DIA. 15-	8K8030A	MODULE AG ENHNCDW/BRAKE
7P8530	ROUND CR 2-1/2- 22-1/4" 07-		6PIN08-
8A1004	CLAMP HOSE 5" #72	8K8071	MAIN HRNSS 7PN 26' W/BRAKE 09-
8A1155	U-BOLT 3/8 X 6-1/16 X 5" SQ	8K8079	EXT HRNSS 36' DEUTSCH 16-
8A1157	U-BOLT 3/8 X 4-1/16 X 7" SQ	8K8090B	LIGHT LED AMBER 2WR DTSCH 12-
8A4048	NYLON TIE .18 X 11"	8K8095B	LIGHT LED RED 3WIRE DTSCH 12-
8A4050	NYLON TIE .30 X 8-7/8"	8K8210	BRCKT W/SCKT SMV ATCH4-8"98-
8A4052	NYLON TIE .30 X 15.25"	8K9102	PIN 1 X 4" CYL-FOR1/4"ROLL PIN
8A4054	NYLON TIE .30 X 24" BLK	8K9106	PIN 1-1/4 X 4-3/8" HRDND 1/4HL
8B1270	OSC AXLE SPNDLE HLDR 2.5" 15-	8L0246	BUSHING 2.875X2.5ID- 3" 97-
8C0432	HYD CYL 4 X 32" 3000PSI	8L0320	PLATE 2PNT&LR CASTER WEAR 96-
8C0650	MNFLD BLCK ALUMINUM 5 PORT	8L4628	EYEBOLT 1.5"DIA X 1.26"EYE YZ07-
8C1751	U-BOLT 3/4 X 3-1/16 X 6" SQ	8N2076	1/4X 76"HYD HOSE #6FJX3000PSI
8C1805P	KNUCKLE 90 DEG.OFFSET PAINTED	8N2088	1/4X 88"HYD HOSE #6FJX3000PSI
8CC6035	WASHER 1.281"ID X 2.5 X 4" 11-	8N3035	3/8X 35"HYD HOSE #6FJX3000PSI
8D0340	U-BOLT 3/4 X 4-1/16 X 7-3/4"SQ	8N3096	3/8X 96"HYD HOSE #6FJX3000PSI
8D0720	HITCH PIECE CAST CAT.3CTD PNTD	8N3136	3/8X 136"HYD HOSE #6FJX3000PSI
8D1236	PIN 1-1/4 X 9-1/2" HWNG&LR 01-	8N3150	3/8X 150"HYD HOSE #6FJX3000PSI
8D2470	SAFETY CHAIN 30400# 7/16" X 5'	8N3156	3/8X 156"HYD HOSE #6FJX3000PSI
8D3212	MALE TIP 3/4"-16 ORB ISO	8N3180	3/8X 180"HYD HOSE #6FJX3000PSI
8D8490	PIONEER/ISO TIP HLDR BNT 97-	8N3204	3/8X 204"HYD HOSE #6FJX3000PSI
8D8502	HYD HOSE HLDER H-DUTY BLK 14-	8N3252	3/8X 252"HYD HOSE #6FJX3000PSI
8D8522	JACK 5000# TOP CRANK 15"LIFT	8N3276	3/8X 276"HYD HOSE #6FJX3000PSI
8D9108	ROLL PIN 1/4 X 2" ZINC	8N3312	3/8X 312"HYD HOSE #6FJX3000PSI
8G2284	NYLON TIE .187 X 7-1/2" YELLOW	8N3432	3/8X 432"HYD HOSE #6FJX3000PSI
8G2285	NYLON TIE .187 X 7-1/2" GREEN	8N3534	3/8X 534"HYD HOSE #6FJX3000PSI
8J4600	BOLT 1-1/4"-7NC WING STOP 09-	8N3606	3/8X 606"HYD HOSE #6FJX3000PSI
8J5300	TEE #6 JIC (MALE) 3X	8P0306	HYD CYL 3 X 6"3500P 1.25"RD07-
8J5500	9/16"-18 ORB X #6 JIC(M) STR	8P0510	HYD CYL 5.5 X 10" 2"ROD 07-
8J5510	3/4"-16 ORB X #6 JIC(M) STR	8P0532HD	HYD CYL 5 X 32" W/STOPTUBE
8J5620	3/4"-16 ORB X #6 JIC(F-SW)STR	8P3910	PIN 2 X 13-1/2" HARDENED
8J5700	#6 JIC(F-SW) X #6 JIC(M)90*ADP	8P3912	PIN 2 X 13.5" HARDEND GREASABL
8J6000	9/16"-18 ORB X #6 JIC(M)90*ADP	8P4212	ROLLER 42"DIA METER 12' 07-
8J6010	3/4"-16 ORB X #6 JIC(M)90*ADP	8P4215	ROLLER 42"DIA METER 15' 05-
8J7000	BALL VALVE HYD 9/16"-18ORB(2X)	8P4217	ROLLER 42"DIA METER 17.5' 07-
8K1105	HUB&AXLE ASSY HD812(2.5"RCVR)	8P4220	ROLLER 42"DIA METER 21' 09-
8K1620	PIN 1-1/4 X 6-1/8" 84-	8P5080	REINFORCEMENT ANGLE 7-7/8" 05-
8K1660	PIN 1-1/2 X 15-1/2" HARDEND84-	8P6112	LIFTARM PT1 OSC AXLE 15-
8K5200	WASHER GANG BOLT 2.03" ID	8P6990	SCRAPER 42" ROLLER 90" 09-
8K7450	340/60R16.5 ON 16.5X11X8 WHL	8P7010	SCRAPER 42" ROLLER 105" 09-
8K7490	255/70R22.5 ON 22.5X8.25X8WHL	8P7022	SCRAPER 42" ROLLER 21.5" 14-

Part Number	Description	Part Number	Description
8P7030	SCRAPER 42" ROLLER 34" 09-	8X0000	BOLT 1/4-20X3/4" FLLTHD GR5 YZ
8P7050	SCRAPER 42" ROLLER 68" 09-	8X0015	BOLT 3/8-16NC X 3-3/4" GR5 YZ
8P7070	SCRAPER 42" ROLLER 72" 09-	8X0044	BOLT 7/16-14NC X 3-1/2" GR5 YZ
8P7090	SCRAPER 42" ROLLER 126" 09-	8X0045	BOLT 7/16-14NC X 4-1/2" GR5 YZ
8P7125	MAIN FRAME UPPR TRAIL LR 14-	8X0064	CRG 1/2-13NC X 1-1/2" GR5 YZ
8P7129	MAIN FRAME LOWR 62-84 LR 14-	8X0074	BOLT 1/2-13NC X 4-1/2" GR5 YZ
8P7132	HITCH 62'-84' TRAIL LR 07-	8X0095	BOLT 5/8-11NC X 5" GR5 YZ
8P7140	PIVOT LOCK 41-84' TRAIL LR 07-	8X0110	BOLT 3/4-10NC X 1-1/4" GR5 YZ
8P7157	FRAME TRNSWHL ARM 62-91LR 15-	8X0111A	BOLT 3/4-10NC X 2-3/4" GR5 YZ
8P7167	CASTR ARM OSC AXL 62-91LR15-	8X0113	BOLT 3/4-10NC X 5" GR5 YZ
8P7170	SHOT PIN 41-84' TRAIL LR 07-	8X0115A	BOLT 3/4NCX 3.5"FULLTHD GR5 YZ
8P7180B	TRANSPORT FRAME 62-91' LR 15-	8X0133	BOLT 7/8-9NC X 3" GR5 YZ
8P7200	SPRING 2.5 OD-1.5 ID-3" 10-	8X0138	BOLT 1-8NC X 5-1/2" GR5 YZ
8P7210	ROUND 2.5" UHMW BRAKE 15-	8X0140	BOLT 1-8NCX7" W/1.5"THDGR5 YZ
8P7310	LOCK CYL LR PWD COAT RED 07-	8X0202	NUT 3/8"-16NC NY-LOCK GR2 YZ
8P7325	LOCK TRNSWHL 5SEC LR	8X0203	NUT 3/8"-16NC SERFLANG GR2 YZ
8P7340LP	WING P1 LEFT 84'/91' LR PTD	8X0223	NUT 1/4"-20NC SERFLANG GR2 YZ
8P7340RP	WING P1 RGHT 84'/91' LR PTD	8X0234	NUT 7/16"-14NC NY-LOCK GR2 YZ
8P7342LP	WING P1 LEFT 62' LR PTD	8X0242	NUT 1/2"-13NC NY-LOCK GR2 YZ
8P7342RP	WING P1 RGHT 62' LR PTD	8X0246	NUT 1/2"-13NC SERFLANG GR2 YZ
8P7344LP	WING P2 LEFT 84' LR PTD	8X0253	NUT 5/8"-11NC NY-LOCK GR2 YZ
8P7344RP	WING P2 RGHT 84' LR PTD	8X0259	NUT 3/4"-10NC JAM GR2 YZ
8P7346LP	WING P2 LEFT 62' LR PTD	8X0260	NUT 3/4"-10NC HEX GR2 YZ
8P7346RP	WING P2 RGHT 62' LR PTD	8X0261	NUT 3/4"-10NC NY-LOCK GR2 YZ
8P7348LP	WING P2 LEFT 91' LR PTD	8X0265	NUT 3/4"-10NC CNTRLOCK GR2 YZ
8P7348RP	WING P2 RGHT 91' LR PTD	8X0266	NUT 3/4"-10NC SER FLANG GR2 YZ
8P7350LP	WING P2 LEFT 68' LR PTD	8X0268	NUT 7/8"-9NC HEX GR2 YZ
8P7350RP	WING P2 RGHT 68' LR PTD	8X0281	NUT 1"-8NC NY-LOCK GR2 YZ
8P7360	UNFOLD ARM ROLLER 5SEC LR 15-	8X0283	NUT 1-1/4"-7NC JAM GR2 YZ
8P7365	UNFOLD ARM 5SEC LR 15-	8X0284	NUT 1-1/4"-7NC HEX GR2 YZ
8P7370	UNFOLD ARM CRADLE	8X0285	NUT 1-1/2"-6NC HEX GR2 YZ
8R6040	PIN 1 X 5-1/2" (BASE3X31CYL)	8X0286	NUT 1-1/2"-6NC JAM GR2 YZ
8R8005	SNAP RING .078"FOR 2-1/2"DIA.	8X0292	NUT 2"-4.5 HVY HEXSLOT GR2 PLN
8R8010	BEARING 2-1/2"FLNG 4BLT-49/64"	8X0302	LOCKWASHER 7/16" YLW ZNC
8S1120	SIGN SLOW MOVING VEHICLE	8X0304	LOCKWASHER 5/8" YLW ZNC
8S1126	MNT SPADE W/HRDWR SMV SIGN	8X0306	LOCKWASHER 3/4" YLW ZNC
8S2980	HYD HOSE CLAMP-SMALL-NYLON	8X0307	LOCKWASHER 7/8" YLW ZNC
8S3095	CAPLUG FITS ISO HYD COUPLR 08-	8X0309	LOCKWASHER 1" YLW ZNC
8T3640	PIN 1-1/2 X 19" HARDEND 98-	8X0311	LOCKWASHER 1-1/4" YLW ZNC
8T4100	CAST PIVOT W/BLTPLATE PTD 96-	8X0317	WASHER 3/4" SAE FLAT YZ
8T4385	HOLDER MANUAL-PAK 3/4/6 MNT	8X0318	WASHER 3/4"(13/16"ID)FLAT YZ
8W1357	HEX HEAD PLUG 9/16"-18 ORB	8X0320	WASHER 3/8"(7/16" ID)FLAT YZ

Part Number	Description	Part Number	Description
8X0323	WASHER 5/8" SAE FLAT YZ	8X0962	CAN SPRAY PAINT SUMMERS BLCK
8X0327	WASHER 1-1/4" SAE FLAT YZ	8X1120	CRG 3/8-16NC X 2" GR2 ZN
8X0402	HAIRPIN CLIP 1/8 X 2-9/16"	8X1130	CRG 3/8-16NC X 3" GR2 ZN
8X0414	COTTER PIN 1/4 X 2" YZ	8Y1850	KIT DCL 62'-91' RT8450
8X0418	COTTER PIN 5/16 X 2-1/2" YZ	8Z0055	PLATE SERIAL NUMBER UNIVRSL
8X0440	CLEVIS PIN 5/8 X 3-7/8" YZ	8Z0800	REFLECTOR AMBER ADHSVBCK98-
8X0523	ROLL PIN 5/16 X 2-1/2" PLN	8Z0805	REFLCTR REDORANGE ADHSVBK
8X0721	ZERK 5/16"-24 NF STR YZ	8Z0810	REFLECTOR RED ADHSV-BACK 98-
8X0750	PIN XEDNI16P8 BOSTR3/220MA RE	8Z1000	MANUAL-PAK 3DIA X 11.75" 09-
8X0960	CAN SPRAY PAINT SUMMERS GREN	8Z1085	OPER MAN 62'-91' SUPR ROLLR 16-

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[®]

... Field Tested TOUGH!



Tillage



Rock Picker



Land Rollers/Packers



Cultivators/Harrows



Mounted Attachments



Sprayers

