



ROCK WINDROWER 1200

**OPERATORS MANUAL
& PART LIST**

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SECTION 1

Thank you for making the decision to purchase a RITE WAY product

We are pleased to welcome you as an owner of a product from **RITE WAY MFG.** This product is the result of years of agricultural and engineering experience, and is built to give you many years of successful operating service.

For the best efficiency and smoothest operation of your **Rock Windrower**, we have provided this Owners Manual. Its preparation is the result of years of experience gained in field testing and normal usage of this and similar implements. We urge you to carefully study this manual so that it will give you a thorough understanding of your **Rock Windrower** before operation. We also urge your care of this manual so that it will be available for future reference when needed. If your manual should be lost, damaged or destroyed, a new copy can be purchased from your **RITE WAY MFG.** dealer. We will also be happy to answer any questions that you might have regarding the use or care of this product.

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Manual Details

Unit Model Number	RW-1200 Rock Windrower
Manual Revision Number	Revision 1.3
Manual Revision Date	25/7/2023
Manual Serial Number Range	18-120418R – Current
Previous Serial Number Range	14-12027R - 18-120418R

The area below is provided for the owner / end-user to make notes regarding the equipment.

Owner / Equipment Information

Serial Number of Unit	
Date of Purchase	
Dealer Name	
Dealer Address	
Dealer Phone Number	
Salesman Name	
Salesman Phone Number	
Notes	

Pre-delivery Inspection Check List

General

- ☐ Remove wrapping and wash unit, removing all road debris. (Road salt, mud, snow, etc.)
- ☐ Inspect paint, decals and general appearance of unit.
- ☐ Verify that the owners manual is in the manual storage tube.
- ☐ Verify 'SLOW MOVING VEHICLE' sign (SMV) is on unit (if applicable)
- ☐ Verify that jacks are with the unit and function properly.
- ☐ Check wheel bolts for proper torque.
- ☐ Check for proper tire pressure (PSI).
- ☐ Verify that the wheel hubs are lubricated.
- ☐ Verify that locking pins and / or ram locks are in place.
- ☐ Lubricate all components as per operators manual recommendation.
- ☐ Check that all bolts and fasteners are at the proper torque specifications.

(NOTE: All cap screws that have lock nuts joining moving pieces should not be tightened completely, they must allow movement. i.e. Spring pressure kits, rock shaft connector, draft arm, etc.

- ☐ Check sprocket alignment and chain tension. (If applicable)
- ☐ Check locking collars and set screws for proper tension. (If applicable)
- ☐ Verify operation of lights. (If applicable)
- ☐ Verify the unit moves 'IN' and 'OUT' of transport without any binding.
- ☐ Verify that tires are tracking properly when in transport mode.

Hydraulics

- ☐ Ensure that all hydraulic hoses and lines are routed properly and secured.
- ☐ Verify that all hydraulic fittings / hoses are secure and there are no oil leaks.
- ☐ Inspect all cylinders for leakage and the cylinder shaft for rust, pits, or scratches.
- ☐ Verify operation of all hydraulic functions - Cycle hydraulic cylinders to remove air from the system.

Delivery

- ☐ Verify that 'The customer is aware of warning decals and proper jack placement for transport.'
- ☐ Verify that 'The customer is aware of proper operation and transportation of the unit'.
- ☐ Verify that 'The customer has received an operators manual'.
- ☐ Explain all maintenance and service intervals to the customer (From operators manual).
- ☐ Advise the customer of grease zerk locations and maintenance schedules.
- ☐ Level the unit per operators manual and instruct the customer on the proper procedures.

Date: _____ Signature of Technician who performed the inspection _____

Specifications

Standard Equipment:

- Replaceable hard surfaced teeth
- 10" Side Wind Parking Jack
- Safety chain

<i>Drive</i>	<i>Hydraulic Drive</i>
<i>Chain</i>	<i>#80</i>
<i>Weight</i>	<i>1,350 lbs / 612 kg</i>
<i>Working Width</i>	<i>11' 10" / 3.6 m</i>
<i>Transport Height</i>	<i>42" / 1.07 m</i>
<i>Transport Length</i>	<i>8' 11" / 2.7 m</i>
<i>Transport Width</i>	<i>12' 3" / 3.7 m</i>
<i>Minimum Rock Diameter</i>	<i>1.5" / 4 cm</i>
<i>Maximum Rock Diameter</i>	<i>12" / 30 cm</i>
<i>Tires</i>	<i>9.5 L x 15</i>
<i>Hydraulic Requirements</i>	<i>12-15 gal/min. @ 1200-1500 PSI 45-57 L/min @ 83-103 bar</i>
<i>Power Requirements</i>	<i>3-1/2 to 4-1/2 HP per foot.</i>

Notes

Service & Warranty Policy

Rite Way Manufacturing Co. Ltd. (hereafter referred to as Rite way) warrants each new machine to be free from defects in materials and workmanship for a period of one (1) year from date of purchase under normal agricultural use and service. In addition, Rite Way will supply at no charge, (F.O.B Rite Way Factory) any part that has failed within the 2nd year. Rite Way's obligation under this warranty is limited to the repair or replacement of any defective parts of the equipment at its own discretion.

Any alterations, modifications or additions done to a finished product will **void this warranty** unless prior written permission from Rite Way is obtained.

Items that are not manufactured by Rite Way are covered by the warranty of the supplier of these items. We will therefore extend, without assuming any responsibility, any warranty given to us by our suppliers.

This warranty shall-not apply to any machine, that in the company's judgment has be subjected to misuse, negligence or accident. In no event shall the owner be entitled to recover costs for incidental, special or consequential damages such as, but not limited to; Loss of crop, loss of profit or revenue, other commercial losses, inconvenience or rental costs.

This warranty shall not apply unless Rite Way or its designated dealer is promptly notified of claimed defects and the allegedly defective part is held for inspection.

Repair parts purchased for machines 'Out of Warranty', are warranted to be free from defects in material and workmanship under normal use and service for a period of ninety (90) days from the date of delivery to the customer.

The warranty shall only become valid when delivery notification for warranty is received by Rite Way within 20 days of the completion of sale.

OWNER'S / USERS OBLIGATION: It is the responsibility of the user to read the Operators Manual and understand the safe and correct operating procedures as it pertains to the operation of the product, and to lubricate and maintain the product according to the maintenance schedule in the Manual.

The user is responsible for inspecting the machine, and for having parts repaired or replaced when continued use of the product could cause damage or excessive wear to any other parts. It is the user's responsibility to deliver their machine to a Rite Way dealer for service or replacement of defective parts which are covered by the standard warranty.

Rite Way **will not** be held responsible for charges such as transportation, fuel, lodging when a dealer / dealer representative travels to a customer location for warranty or inspection.

Service & Warranty Claim Procedure

1. All claims must be handled through a dealer / distributor. All claims must be submitted on a properly completed warranty claim form within 30 days of the date of repair.
2. A warranty registration claim form must be on file at Rite Way Mfg. to validate a warranty claim.
3. Defective parts are to be held at the dealer / distributor's place of business until the warranty claim form has been processed. Rite Way will advise when parts can be released.
4. Parts that require inspection by Rite Way personnel must be accompanied by a Return Goods Form number, and must be sent by pre-paid freight. Rite Way will refund pre-paid freight charges on any items determined to be defective.
5. Rite Way will not assume responsibility for repairs or expenses incurred without authorization. Warranty labour in excess of \$150.00 must be authorized before such work is performed and photographs before and after repairs are required.
6. Warranty labour is to be claimed on the warranty claim form, only if the warranty labour was performed by the dealer. Travel time is not covered by warranty and should not be included. Rite Way reserves the right to adjust or allocate labour times and values based on its experience.
7. It is the responsibility of the dealer to ensure that the warranty registration forms are properly completed and returned to Rite Way Mfg., Imperial, SK.

Safety Warnings (General)

1. Read the manual thoroughly and understand before operating or working on the machine.
2. Study all safety and warning decals on the implement.
3. Most accidents occur because of neglect or carelessness.
4. Do not allow riders on the tractor or implement during operation.
5. Do not allow children on or near the machine.
6. Connect the implement hitch to the tractor before operating the hydraulic system.
 - **NOTE: Be aware of any hydraulic leaks.**
7. Always throttle the tractor down and use caution when connecting the implement to the tractor hitch.
 - **NOTE: Never stand between the tractor and implement.**
8. Lower the hitch jack onto firm ground and chock the tires when un-hooking implement from tractor.
 - **NOTE: Ensure the unit is on level ground prior to un hooking tractor.**
9. Exercise extra caution when working on hillsides or near ditches.
10. Ensure that the tractor draw-bar is pinned during transport.
11. Maximum speed while transporting the unit is 18 mph (29 km).
12. Do not work on this machine when hydraulic system is under pressure.
13. Observe all laws and regulations when transporting unit on public roads.
14. Do not transport this machine on public roads unless all safety & maintenance checks have been completed.
15. Ensure that safety chains are in secured prior to transporting.

This machine will provide years of trouble-free & safe operation IF all maintenance and safety instructions are followed.

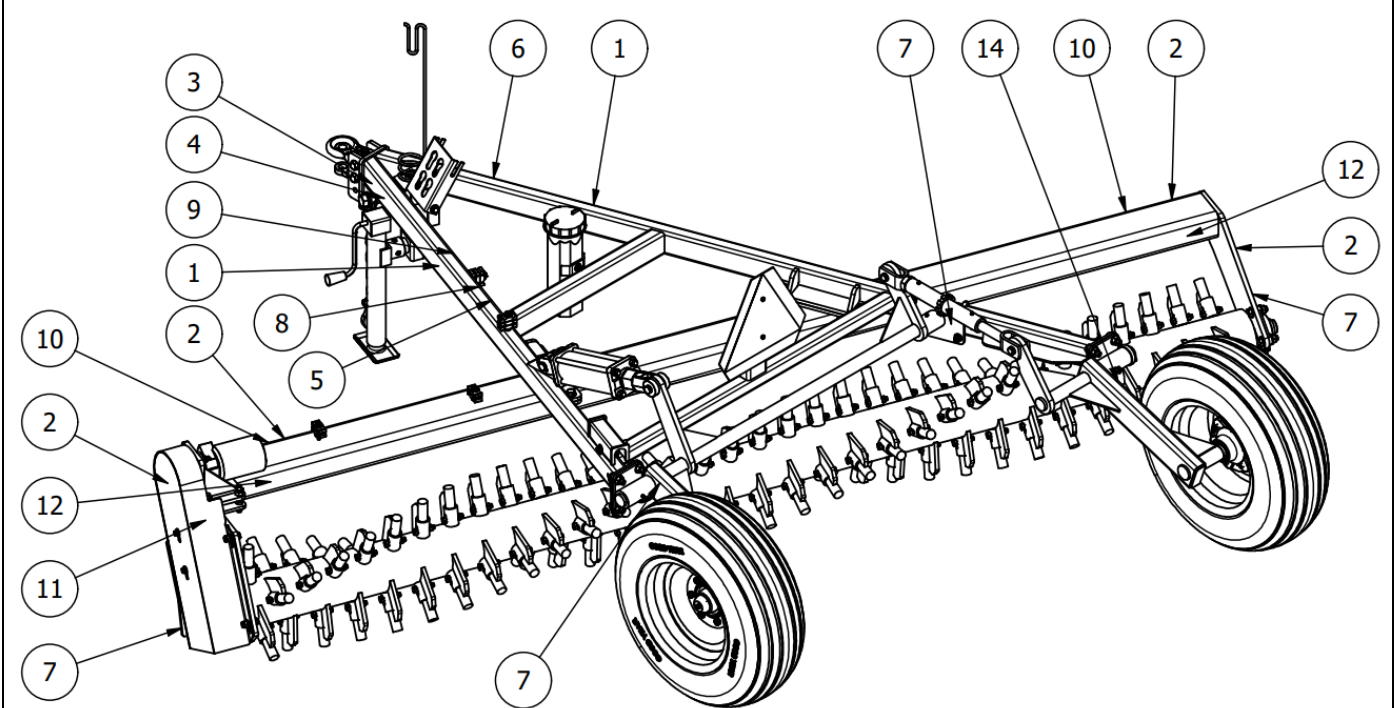
Safety Warnings (Equipment Specific)

1. Read manual thoroughly before operating or working on the machine.
2. Study all warning decals on implement.
3. Most accidents occur because of **neglect** or **carelessness**.
4. Only the operator should be on the tractor during operation.
5. Connect the ROCK WINDROWER to the tractor before operating hydraulics.

NOTE: Be aware of hydraulic oil leaks.

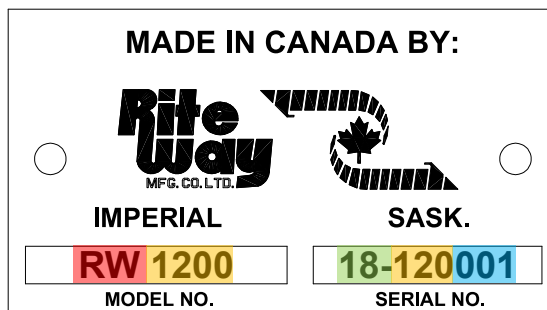
6. Always throttle the tractor down and use caution in attaching the machine to the tractor. Never stand between the implement and the tractor.
7. Be very cautious when unhooking the tractor and the ROCK WINDROWER .
The ***parking jack must be securely lowered on firm ground (on blocking with tires blocked)*** or the hitch will rise abruptly causing serious injury and other damage.
8. Proceed carefully when performing maintenance on the machine. The drum should be on the ground; however, if the nature of the work requires that the implement be in transport position, be sure to use the cylinder lock up.
9. The hydraulic cylinder should be locked up during transport
- 10. Limit towing to a maximum of 25 mph (40 km/h).**
11. Exercise caution when working on hillsides or near ditches.
12. Do not work on this machine when hydraulic system is under pressure.
13. Observe all laws and regulations when transporting unit on public roads.
14. Do not transport this machine on public roads unless all safety & maintenance checks have been completed.

Decals



Decals (cont)

Item #	Part #	Qty	Description
1	060-0122	2	<i>Rite Way Mfg. (9" x 3"), white (if applicable)</i>
2	060-0009	6	<i>Amber Reflector Decal (3" x 2")</i>
3	060-0015	1	<i>Important – Block wheel...</i>
4	060-0028	1	<i>Warning – Lower or block elevated...</i>
5	060-0011	1	<i>Caution – Escaping fluid hazard...</i>
6	060-0034	1	<i>Serial Number Plate</i>
7	060-0046	5	<i>Grease Every 8 hrs</i>
8	060-0038	1	<i>Attention – Insure that all cylinders...</i>
9	060-0067	1	<i>Warning – Check and tighten hubs...</i>
10	060-0107	2	<i>RW - 1200, White</i>
11	060-0069	1	<i>Warning - Rotating Part Hazard</i>
12	060-0022	2	<i>Red Reflector Decal (3" x 2")</i>



UNIT SERIES
UNIT SIZE
MODEL YEAR
UNIT NUMBER

Maintenance

General

- Repack the wheel hubs after the first 500 travel miles; then yearly thereafter.
- Visually inspect the wheel bolts for tightness each day. Riteway torque recommendation to 110 ft - lbs after the first few hours of operation and frequently there after, (manufactures torque recommendations 90 to 131 ft - lbs).
- Ensure the tires are inflated to the correct pressure: 90 PSI

Every 8 Hours (Daily)

- Grease all pins and knuckles. (See page 13 for detailed diagram).

Every 100 Hours (Monthly)

- Visually inspect hydraulic hoses & fittings for leaks or damage.
- Inspect lighting system and electrical harness for damage

Annually

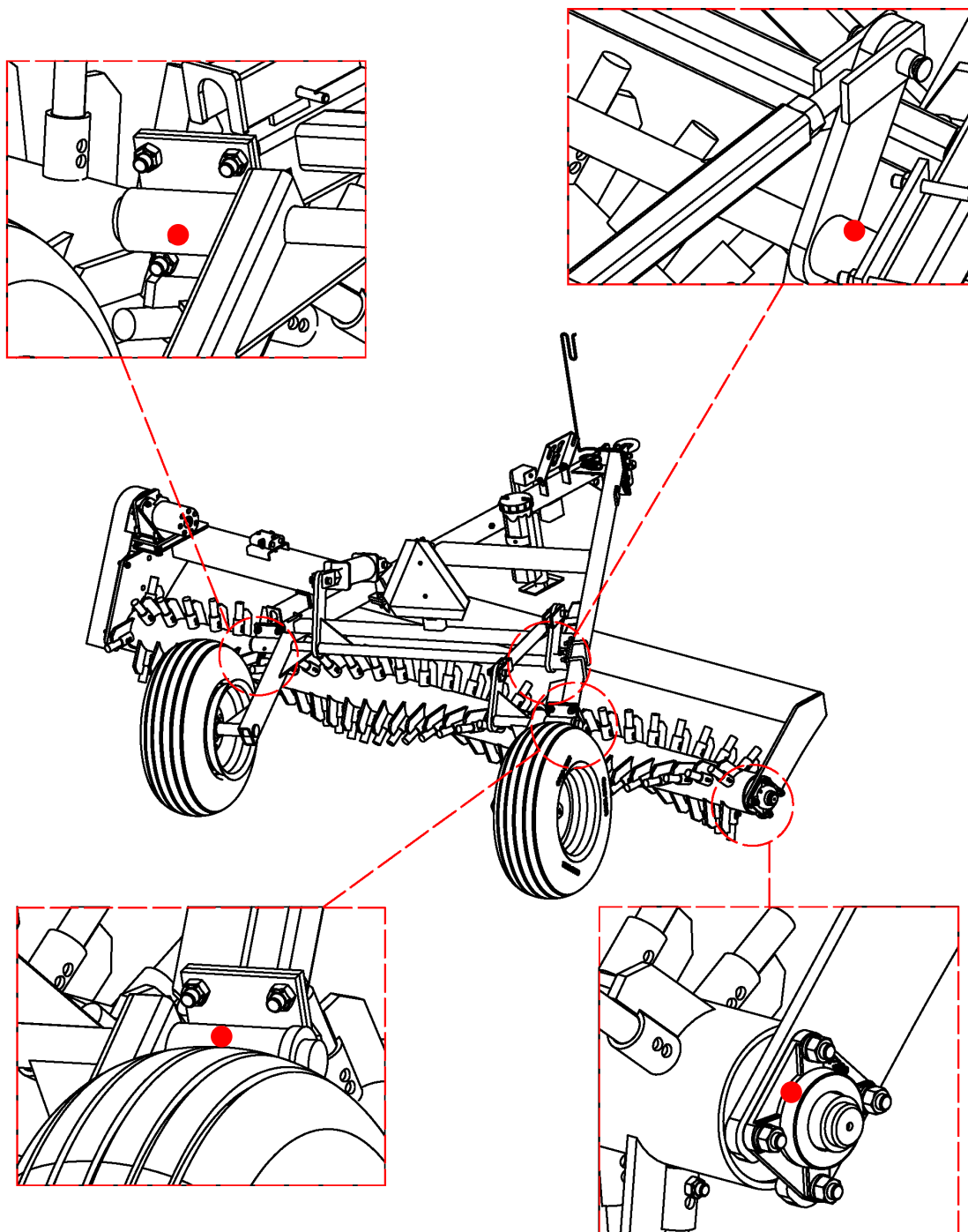
- Inspect wheel bearings / hubs and grease.
- Check wheel bolts and re-torque.
- Check tire pressure
- Visually inspect unit for loose, worn or damaged components.

Storage

- Coat any exposed cylinder shafts with thick oil or grease.
- Ensure that parking jacks are situated on firm ground.
- **NOTE: If jack pads sink into ground, it will be difficult to hook up unit.**
- Lock all applicable safety pins into place.

Maintenance

Grease Locations



Assembly Instructions

*All page numbers refer to **Section 2**, unless otherwise noted.

- Study the general layout on pages 2 through 10.
- Assemble in a large open area free of obstacles.
- References to “Left”, “Right”, “Forward”, and “Rear” are always determined from the rear of the machine facing the direction of forward travel.
- Grease all points either during assembly or immediately after.
- Double check wheel bolts and all other bolts after assembly.
- Use thread sealant on all hydraulic connections that are not flared fittings.

Main Frame Assembly

1. Block up the main frame (item 1, page 2) approximately 20”.
2. Assemble the perfect hitch (item 8, 9, page 2). Attach the perfect hitch body to the main frame using two *Bolt, 5/8-11 UNC - 5, Gr.5* and two *Nut, Stover Lock, 5/8-11 UNC, Gr.5* (item 21, 25, page 2).
3. Attach parking jack (item 6, page 2)
4. Attach the tip & chain holder (item 35, page 2) to the main frame using two *Bolt, 1/2-13 UNC - 1.25, Gr.5* two *Nut, Stover Lock, 1/2-13 UNC, Gr.5* (item 18, 24, page 2).
5. Attach the 24” shepherd hook hose standoff (item 3, page 2) to the main frame using a *Bolt, 1/2-13 UNC - 1.5, Gr.5* and *Nut, Stover Lock, 1/2-13 UNC, Gr.5* (item 19, 24, page 2).
6. Attach the storage tube (item 12, page 2) to the main frame using a *Bolt, 3/8-16 UNC - 1.25, Gr.5* and *Nut, Stover Lock, 3/8-16 UNC, Gr.5* (item 23, 16, page 2).
7. Attach the slow-moving sign spade (item 11, page 2) to the main frame using two *Bolt, 1/4-20 UNC - 0.75, Gr.5* and *Nut, Flange, 1/4-20 Nc, Gr.5* (item 15, 27, page 2). Attach the slow-moving sign (item 10, page 2) to the slow-moving sign spade using two *Bolt, 5/16-18 UNC - 0.75, Gr.5* and *Nut, Stover Lock, 5/16-18 UNC, Gr.5* (item 14, 28, page 2).
8. Attach the safety chain (item 4, page 2) using a *Bolt, 1-8 UNC - 2.25, Gr.5* and *Nut, Stover Lock, 1-8 UNC, Gr.5* (item 22, 26, page 2).
9. Attach the *Hydraulic Clamp, 2 Line, Black Plastic* (item 5, page 2) using a *Bolt, 3/8-16 UNC - 2.5, Gr.5* (item 17, page 2).

Assembly Instructions (cont)

Axle Assembly

1. Attach the axle bearing weldment (item 10, page 6) to the left side of main frame using four *Nut, Stover Lock, 5/8-11 UNC, Gr.5*, and *Bolt, 5/8-11 UNC - 1.75, Gr.5* (item 13, 15, page 6), leave loose at this time.
2. Attach the bushing mount weldment (item 11, page 6) to the right side of the main frame using two *1/2" X 3-1/2" X 3-1/4" U-Bolt, Nc, Gr. 5* and *Nut, Stover Lock, 1/2-13 UNC, Gr.5* (item 14, 16, Page 6), leave loose at this time.
3. Insert the long axle weldment (item 7, page 6) and tighten up the bushing mount and left axle bearing weldment (item 11, page 6). Measure the distance from the axle to main frame cross member at each end and keep equal distance from left to right to make sure the axle is straight with the main frame weldment.
4. Attach the hydraulic cylinder (item 5, page 6) to the cylinder lug on the main frame and to the long axle using the assembly kit items on page 10. Ensure that the cylinder is in extended position and locked with cylinder lock up and pins (item 2, page 2). Connect hoses to cylinder, making sure they are connected properly.
5. Attach the axle bearing weldment (item 10, page 6) to the right side of main frame using four *Nut, Stover Lock, 5/8-11 UNC, Gr.5*, and *Bolt, 5/8-11 UNC - 1.75, Gr.5* (item 13, 15, page 6).
6. Insert the short axle weldment (item 8, page 6) into the right axle bearing and secure it using the axle washer & cotter pin (item 19, 20, page 6).
7. Attach the ratchet jack assembly (item 6, page 6) to the right side of the long axle.

Drum Carriage & Drum Assembly

1. Align the assembled main frame with the drum carriage (item 2, 3, page 4) and attach using *Bolt, 5/8-11 UNC - 2, Gr.5* and *Nut, Stover Lock, 5/8-11 UNC, Gr.5* (item 18, 21, page 4).
2. Align the assembled main frame and drum carriage with the drum weldment (item 2, 5, page 4). Ensure that the drum assembly is secure and will not move. Place the 4-bolt flange bearings on to the drum shafts. Lower the assembly so that the drum is in position to be attached.
3. Mount the 4-bolt flange bearings to the drum carriage (item 10, page 4) using *1-3/4 Id - 4 Bolt Flange Bearing C/W Eccentric Collar Or Set Screw Collar* (item 21, 29, page 4). Make sure to have equal spacing on each end of the drum between the carriage plates and drum ends. Ensure that the grease zerks are facing in the opposite direction of travel. If there is an Eccentric lock collar, then it should be locked in place to match the direction of forward rotation. If there are two set screws then tighten both.

Assembly Instructions (cont)

Drum Carriage & Drum Assembly (cont)

4. When mounting the motor to the motor mount (item 4, 11, page 4) on the carriage weldment use the four 5/8" jam nuts (item 13, page 4) on the carriage weldment (these will have to be adjusted equally to tighten the chain and keep the motor and sprocket true).
5. The 5/16" x 1-1/4" motor key stock (item 8, page 4) should be ground to match the radius of the keyway on the hydraulic motor shaft. This key stock comes with the motor. It should be removed and modified as required.
6. The motor sprocket (item 6, page 4) should be mounted flush with end of the motor shaft. It will be held in place by a *Washer, Flat, 5/8" - USS, Gr.5, Bolt, Hex, Inch, Grade 5, Washer, Spring, 5/8, Gr.5* (item 24, 27, 31 page 4).
7. The motor mount when placed on the motor should not move from side to side. If this occurs, the motor mount may have to be replaced.
8. The drum sprocket (item 7, page 4) will have to be aligned with the motor sprocket. Make sure that the 3/8 X 3 Key Way (item 9, page 4) is completely flush with drum shaft (all the way in) into the drum shaft sprocket. Use **Blue Loc-tight** on drum shaft sprocket set screws when installing on shaft.
9. Once the Sprockets are aligned you can then install the #80 chain, and connector.
10. Refer to page 22 (Section 1) for chain installation tightening. Once you are satisfied with the tension of the chain, tighten the *Nyloc Lock-Nut, Hex, Inch, Grade 5, Nut, Jam, 5/8-11 UNC, Gr.5*, (item 23, 13, page 4).
11. Once the drum (item 5, page 4) has been attached, assemble the 611 hubs as shown on page 8. Attach the two-wheel rims (item 1, 2, page 6) using 9/16" *Wheel Stud UNF* (item 12, page 8) per hub.
12. When mounting the chain guard (item 1, page 4) on the drum carriage, using *Bolt, 3/8-16 UNC - 1, Gr.5, Nut, Stover Lock, 1/2-20 UNF, Gr.5* (item 14, 34, page 4) and two *Bolt, 1/2-13 UNC - 1.75, Gr.5, Nyloc Lock-Nut, Hex, Inch, Grade 5* (item 22, 17, page 4).
13. Tighten all grease zerks and grease as required.
14. Assemble hydraulic lines to the main frame (refer to page 10), fill with hydraulic fluid.
15. Apply decals; refer to page 10 and 11 (Section 1) as required.
16. Test the operation of the implement to ensure standards of quality are met.

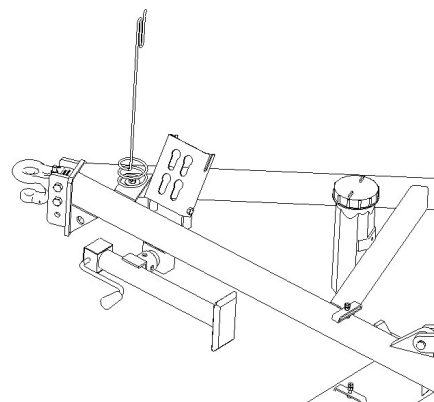
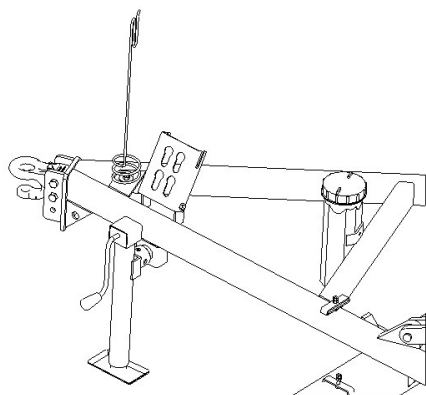
Operating Instructions

General Information

- Your RiteWay rock windrower requires a single hydraulic system with a pump capable of delivering 12 to 15 gallons per minute at 1200 to 1500 PSI.
- The proper speed for the windrower drum is 125 to 150 RPM which you can achieve in most cases by throttling faster or slower, or some tractors may have hydraulic flow controls. Check your tractor manual for details on the hydraulic system.
- If the machine is jammed, simply reverse the motor by reversing the hydraulic control lever.
- **References to “Left”, “Right”, “Forward” and “Rear” are always determined from the rear of the machine facing the direction of forward travel.**
- **NOTE: Always choose a level area when raising and lowering unit into or from transport position.**
- **NOTE: Lubricate all pins, axles and bearings regularly to prevent premature failure of components.**

Tractor Hook-Up

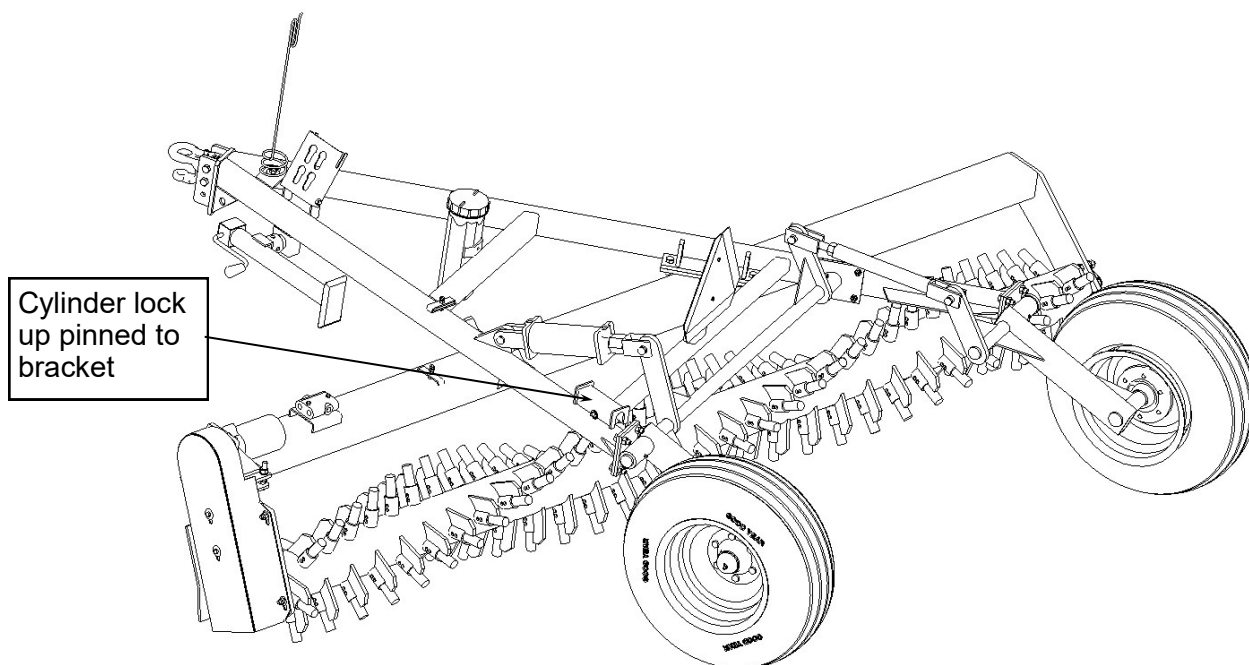
- Move tractor into position where pin can be dropped in place through draw bar hitch
- **NOTE: Use a clevis type tractor hitch with a retained type of hitch pin.**
- Retract parking jack and secure in transport position prior to moving machine
- **NOTE: Ensure that parking jack handle is secured by chain prior to moving the machine (Failure to do so will destroy the jack handle).**



Operating Instructions (cont)

Transport to Field Position

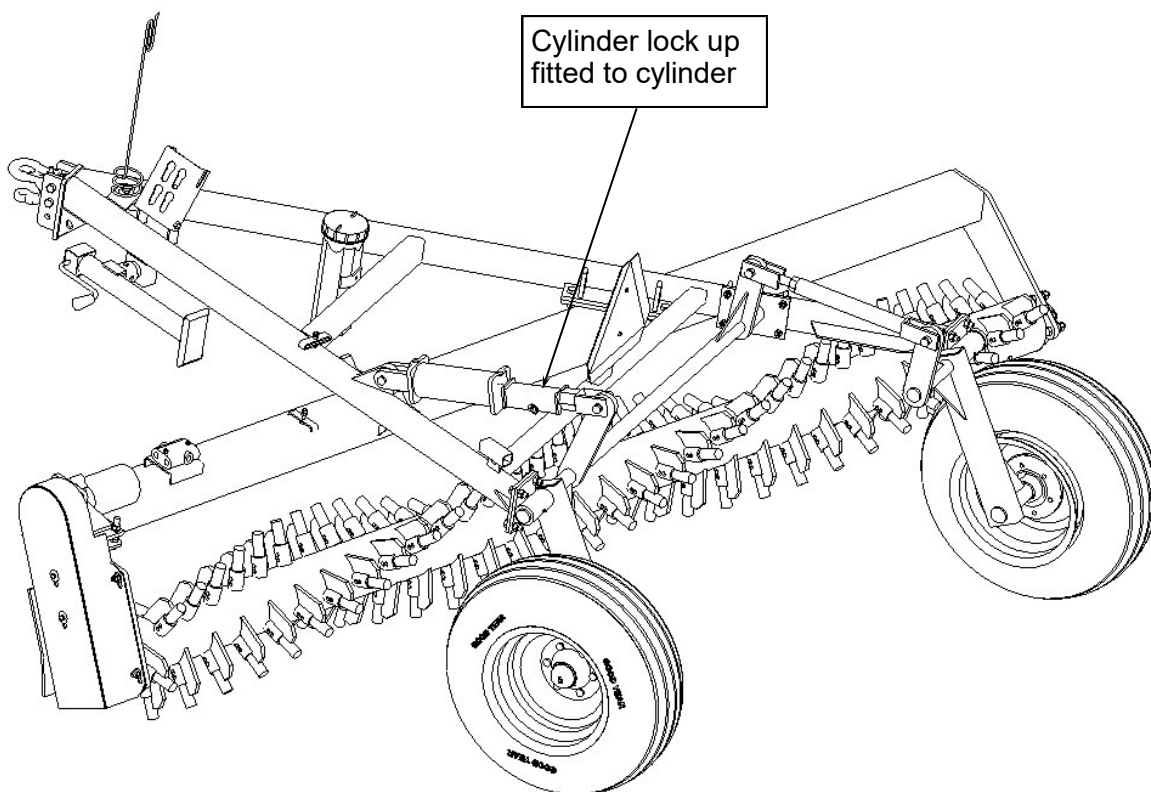
1. Park on level ground.
2. Remove transport frame cylinder lock up from cylinder and pin into bracket.
3. **FROM INSIDE THE TRACTOR**, lower the unit until the drum is parallel to the ground and just off the ground surface.
4. Retract the transport frame cylinder completely to raise the transport frame.



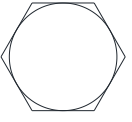
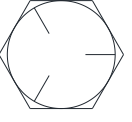
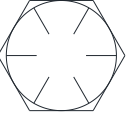
Operating Instructions (cont)

Field to Transport Position

1. **STOP** the tractor before trying to lifting up the **Rock Windrower**
2. Lift the unit slowly just off the ground.
3. Extend the transport frame cylinders completely.
4. Place transport frame cylinder lock up in place.
5. Unit is now ready for transportation.



Grade Chart

Specification	Material	Size Range (inches)	Min. Proof Strength (psi)	Min. Tensile Strength (psi)	Min. Yield Strength (psi)	Grade Identification Marking
Grade 1	Low or Medium Carbon Steel	1/4 to 1-1/2	33,000	60,000	36,000	
Grade 2		1/4 to 3/4 7/8 to 1-1/2	55,000 33,000	74,000 60,000	57,000 36,000	
Grade 5	Medium Carbon Steel: Quenched and Tempered	1/4 to 1 1-1/8 to 1-1/2	85,000 74,000	120,000 105,000	92,000 81,000	
Grade 8	Medium Carbon Alloy Steel: Quenched and Tempered	1/4 to 1-1/2	120,000	150,000	130,000	

Torque Chart

Nominal Thread Size	Grade 2		Grade 5		Grade 8	
	Clamping Load	Tightening Torque	Clamping Load	Tightening Torque	Clamping Load	Tightening Torque
Coarse Thread						
1/4-20	1,300 lbs	65 in-lbs	2,000 lbs	100 in-lbs	2,850 lbs	143 in-lbs
5/16-18	2,150 lbs	134 in-lbs	3,350 lbs	210 in-lbs	4,700 lbs	305 in-lbs
3/8-16	3,200 lbs	20 ft-lbs	4,950 lbs	31 ft-lbs	6,950 lbs	44 ft-lbs
7/16-14	4,400 lbs	30 ft-lbs	6,800 lbs	50 ft-lbs	9,600 lbs	70 ft-lbs
1/2-13	5,850 lbs	49 ft-lbs	9,050 lbs	75 ft-lbs	12,800 lbs	107 ft-lbs
9/16-12	7,500 lbs	70 ft-lbs	11,600 lbs	109 ft-lbs	16,400 lbs	154 ft-lbs
5/8-11	9,300 lbs	97 ft-lbs	14,500 lbs	151 ft-lbs	20,300 lbs	211 ft-lbs
3/4-10	13,800 lbs	173 ft-lbs	21,300 lbs	266 ft-lbs	30,100 lbs	376 ft-lbs
7/8-9	11,425 lbs	166 ft-lbs	29,435 lbs	430 ft-lbs	41,550 lbs	606 ft-lbs
1-8	15,000 lbs	250 ft-lbs	38,600 lbs	640 ft-lbs	54,540 lbs	900 ft-lbs
Fine Thread						
1/4-28	1,500 lbs	75 in-lbs	2,300 lbs	115 in-lbs	3,250 lbs	163 in-lbs
5/16-24	2,400 lbs	150 in-lbs	3,700 lbs	230 in-lbs	5,200 lbs	325 in-lbs
3/8-24	3,600 lbs	23 ft-lbs	5,600 lbs	35 ft-lbs	7,900 lbs	50 ft-lbs
7/16-20	4,900 lbs	36 ft-lbs	7,550 lbs	55 ft-lbs	10,700 lbs	78 ft-lbs
1/2-20	6,600 lbs	55 ft-lbs	10,200 lbs	85 ft-lbs	14,400 lbs	120 ft-lbs
9/16-18	8,400 lbs	79 ft-lbs	13,000 lbs	112 ft-lbs	18,300 lbs	172 ft-lbs
5/8-18	10,600 lbs	110 ft-lbs	16,300 lbs	170 ft-lbs	23,000 lbs	240 ft-lbs
3/4-16	15,400 lbs	193 ft-lbs	23,800 lbs	298 ft-lbs	33,600 lbs	420 ft-lbs
7/8-14	12,610 lbs	184 ft-lbs	32,480 lbs	473 ft-lbs	45,855 lbs	668 ft-lbs

Roller Chain Information

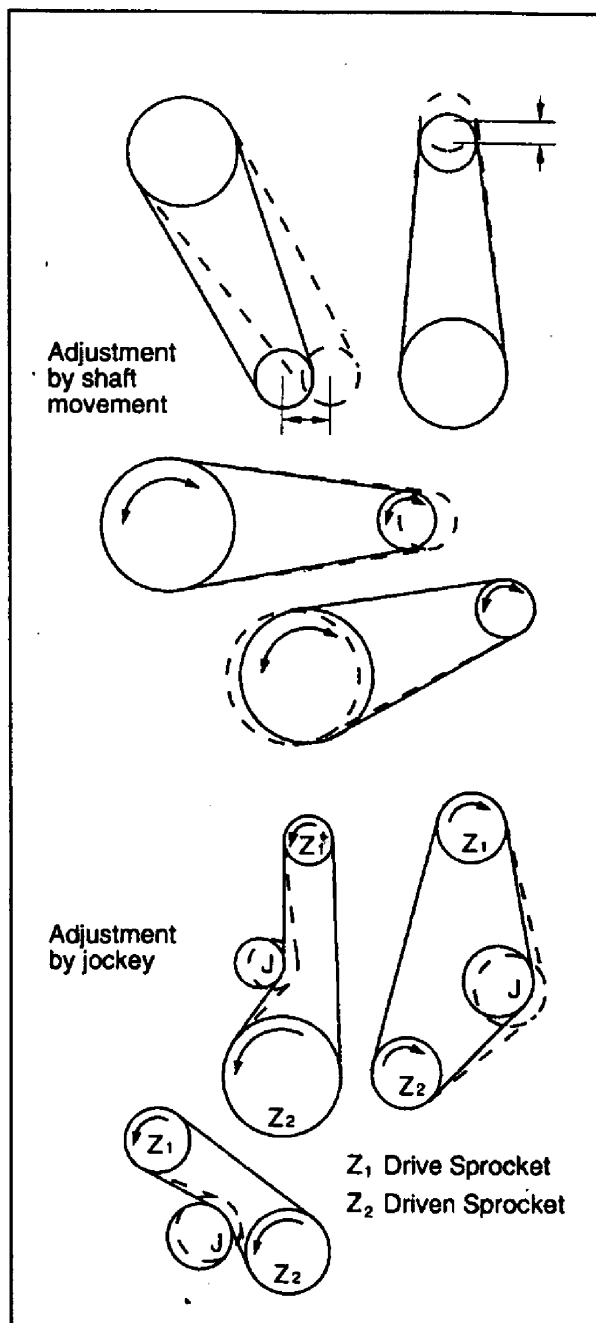
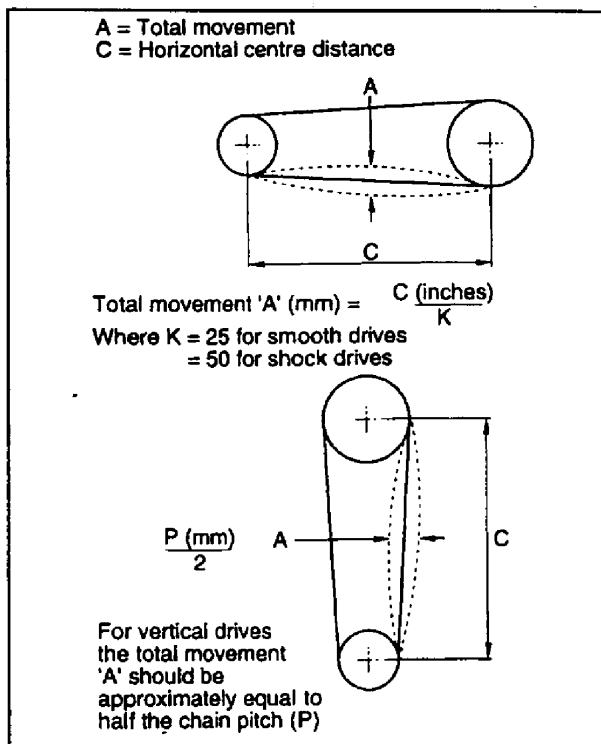
Worldwide Chain Failures

1. Lack of Lubrication
2. Improper chain tensioning
3. Sprocket misalignment

Note: An over tensioned new chain looses around 50% of its running life in the first three hours of running. (See Below)

For a chain of average centre distance (30-50 x chain pitch) correct adjustment is when the mid point of the longest span can be fully moved by hand in accordance with dimension 'A' shown below.

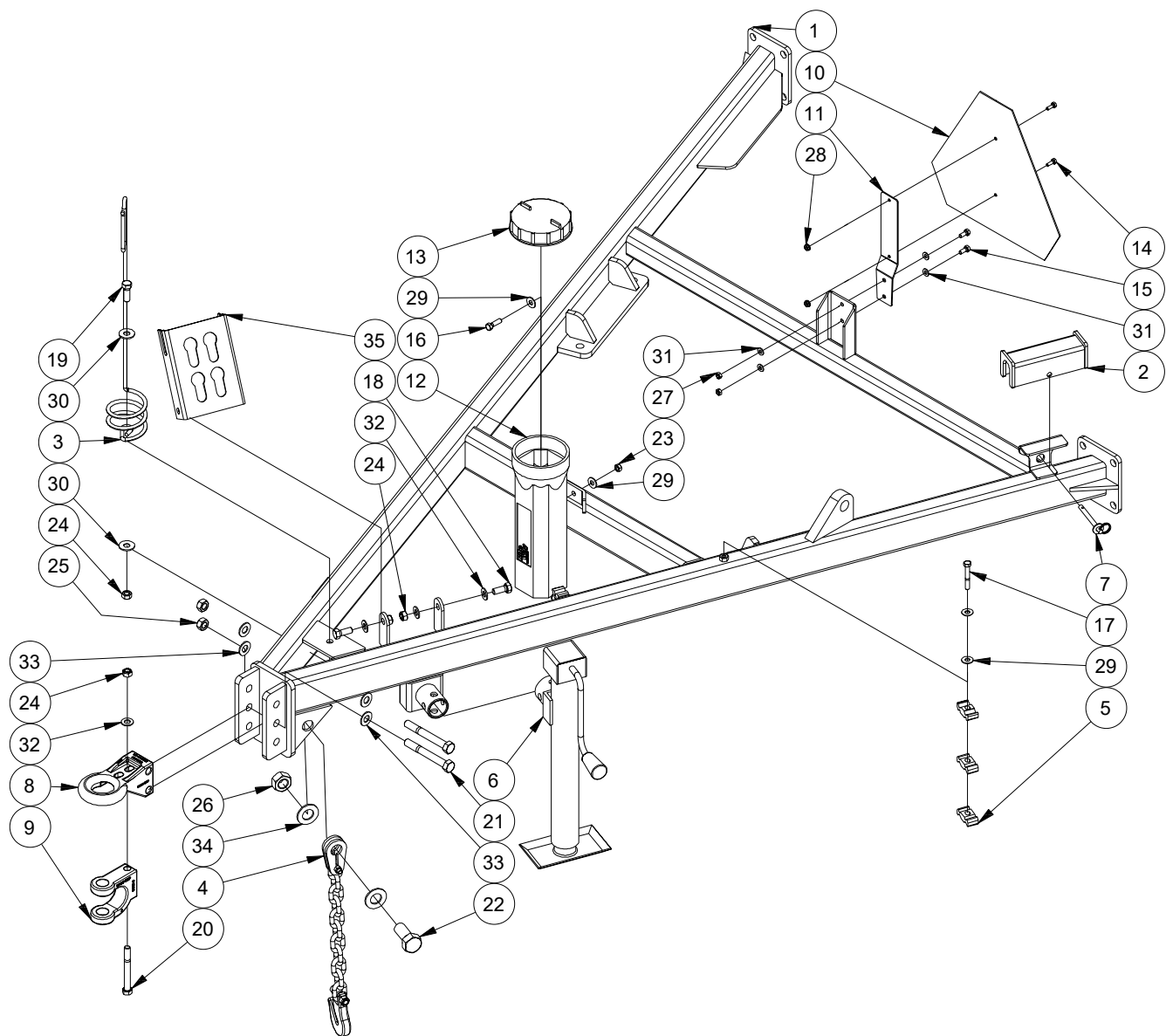
Over-tensioning should be avoided in all cases.



SECTION 2

Parts Details

Main Frame



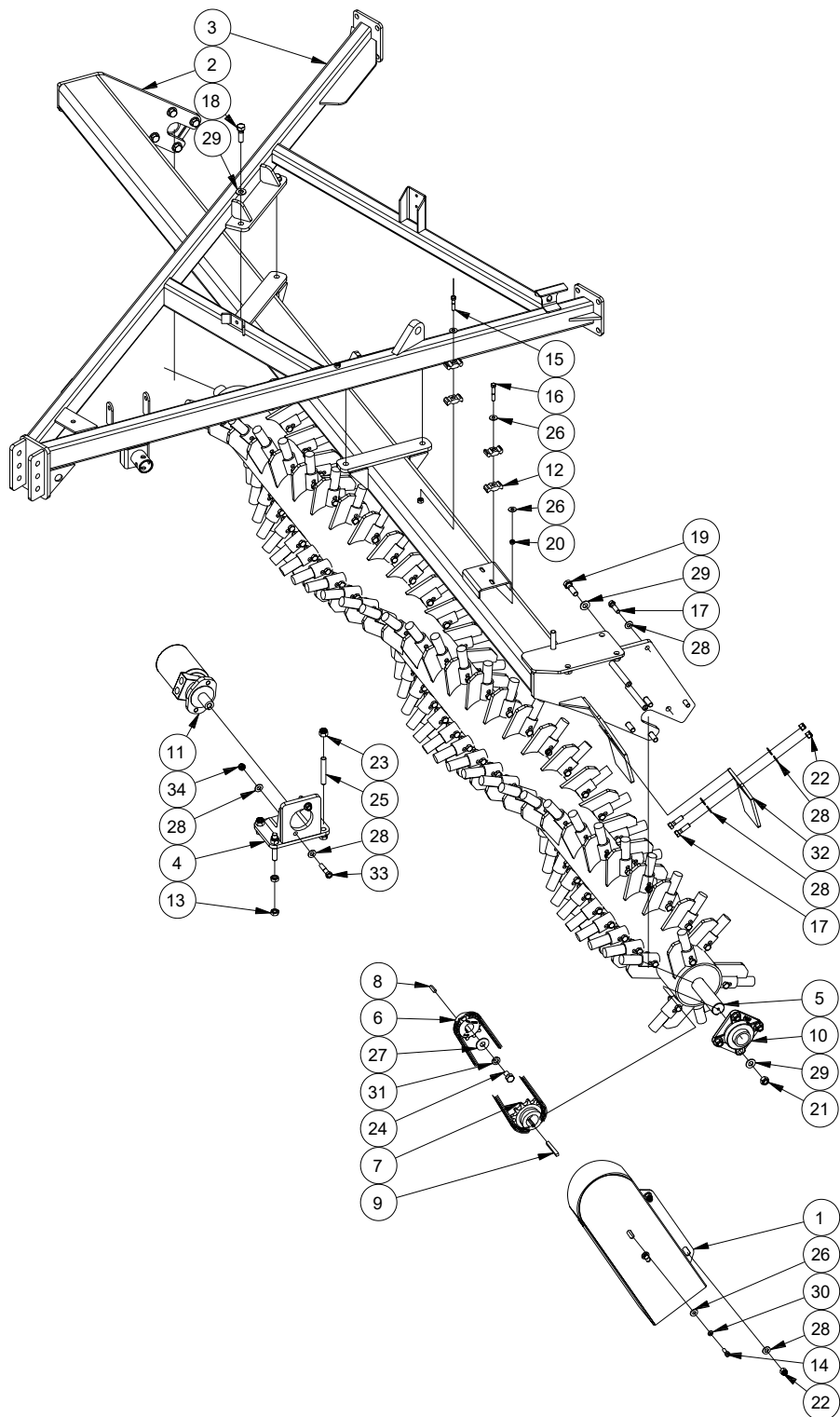
Parts Details

Main Frame

Item #	Part #	Description
1	110-1221	Main Frame Weldment
2	112-1206	Cylinder Lock Up
3	407-0003	24" Shepherd Hook Hose Standoff
4	409-9050	Safety Chain 20,000Lb, Clevis Mount, New Style
5	413-0008	Hydraulic Clamp, 2 Line, Black Plastic
6	420-0132	10", 3000 Lbs. Side Wind Jack
7	422-0007	3/8" X 3" Hitch Pin
8	423-0009	Perfect Hitch Body
9	423-0010	Perfect Hitch Tongue
10	424-0001	Slow Moving Sign (Smv)
11	424-0002	Slow Moving Sign Spade
12	426-0001	Manual Storage Tube
13	426-0002	Manual Storage Tube Cap
14	526-0406	Bolt, 1/4-20 UNC - 0.75, Gr.5, Yellow Zinc Plated
15	526-0506	Bolt, 5/16-18 UNC - 0.75, Gr.5, Yellow Zinc Plated
16	526-0610	Bolt, 3/8-16 UNC - 1.25, Gr.5, Yellow Zinc Plated
17	526-0620	Bolt, 3/8-16 UNC - 2.5, Gr.5, Yellow Zinc Plated
18	526-0810	Bolt, 1/2-13 UNC - 1.25, Gr.5, Yellow Zinc Plated
19	526-0812	Bolt, 1/2-13 UNC - 1.5, Gr.5, Yellow Zinc Plated
20	526-0836	Bolt, 1/2-13 UNC - 4.5, Gr.5, Yellow Zinc Plated
21	526-1040	Bolt, 5/8-11 UNC - 5, Gr.5, Yellow Zinc Plated
22	526-1618	Bolt, 1-8 UNC - 2.25, Gr.5, Yellow Zinc Plated
23	526-6103	Nut, Stover Lock, 3/8-16 UNC, Gr.5, Yellow Zinc Plated
24	526-6105	Nut, Stover Lock, 1/2-13 UNC, Gr.5, Yellow Zinc Plated
25	526-6106	Nut, Stover Lock, 5/8-11 UNC, Gr.5, Yellow Zinc Plated
26	526-6109	Nut, Stover Lock, 1-8 UNC, Gr.5, Yellow Zinc Plated
27	526-6111	Nut, Stover Lock, 5/16-18 UNC, Gr.5, Yellow Zinc Plated
28	526-7104	Nut, Flange, 1/4-20 UNC, Gr.5, Pltd.
29	550-5206	Washer, Flat, 3/8" - USS, Gr.5, Yellow Zinc Plated
30	550-5208	Washer, Flat, 1/2" - USS, Gr.5, Yellow Zinc Plated
31	550-5305	Washer, Flat, 5/16" - SAE, Gr.5, Yellow Zinc Plated
32	550-5308	Washer, Flat, 1/2" - SAE, Gr.5, Yellow Zinc Plated
33	550-5310	Washer, Flat, 5/8" - SAE, Gr.5, Yellow Zinc Plated
34	550-5316	Washer, Flat, 1" - SAE, Gr.5, Yellow Zinc Plated
35	835-1011	Tip & Chain Holder Small

Parts Details

Drum and Carriage



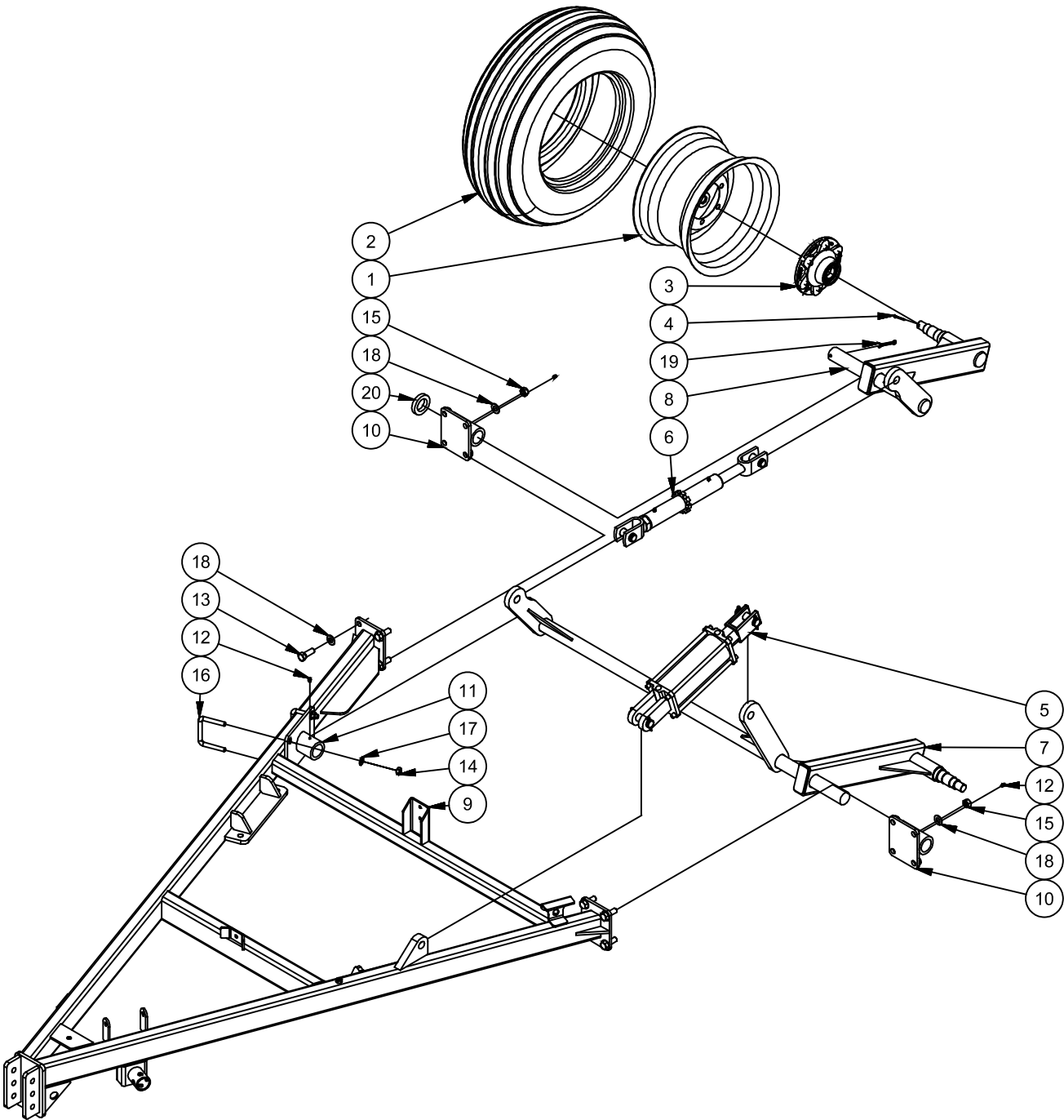
Parts Details

Drum and Carriage

Item #	Part #	Description
1	105-0443	Chain Guard Weldment
2	110-1202	Drum Carriage Weldment
3	110-1221	Main Frame Weldment
4	113-0113	Motor Mount Weldment
5	160-0085	Rw-1200 Drum Assembly
6	252-1180	80B11 Sprocket, 1-1/4 Hole, 5/16 Key
7	252-1480	Sprocket - 14 Tooth 80B14, 1-3/4 Bore, 3/8 Key
8	263-0520	5/16 X 1-1/4 Key Stock
9	263-0648	3/8 X 3 Key Way
10	292-4015	1-3/4 Id - 4 Bolt Flange Bearing C/W Eccentric Collar Or Set Screw Collar
11	307-1003	Parker Hyd. Motor C/W Built In Reliefs
12	413-0008	Hydraulic Clamp, 2 Line, Black Plastic
13	525-6110	Nut, Jam, 5/8-11 UNC, Gr.5, Yellow Zinc Plated
14	526-0608	Bolt, 3/8-16 UNC - 1, Gr.5, Yellow Zinc Plated
15	526-0615	Bolt, 3/8-16 UNC - 1.75, Gr.5, Yellow Zinc Plated
16	526-0618	Bolt, 3/8-16 UNC - 2.25, Gr.5, Yellow Zinc Plated
17	526-0814	Bolt, 1/2-13 UNC - 1.75, Gr.5, Yellow Zinc Plated
18	526-1016	Bolt, 5/8-11 UNC - 2, Gr.5, Yellow Zinc Plated
19	526-1018	Bolt, 5/8-11 UNC - 2.25, Gr.5, Yellow Zinc Plated
20	526-6103	Nut, Stover Lock, 3/8-16 UNC, Gr.5, Yellow Zinc Plated
21	526-6106	Nut, Stover Lock, 5/8-11 UNC, Gr.5, Yellow Zinc Plated
22	526-7008	Nut, Nyloc, 1/2-13 UNC, Gr.5, Yellow Zinc Plated
23	526-7010	Nut, Nyloc, 5/8-11 UNC, Gr.5, Yellow Zinc Plated
24	534-1008	Bolt, 1/2-20 UNF - 1, Gr.5, Yellow Zinc Plated
25	549-1104	Motor Mount Tensioner Rod
26	550-5206	Washer, Flat, 3/8" - USS, Gr.5, Yellow Zinc Plated
27	550-5210	Washer, Flat, 5/8" - USS, Gr.5, Yellow Zinc Plated
28	550-5308	Washer, Flat, 1/2" - SAE, Gr.5, Yellow Zinc Plated
29	550-5310	Washer, Flat, 5/8" - SAE, Gr.5, Yellow Zinc Plated
30	551-5006	Washer, Spring, 3/8, Gr.5, Yellow Zinc Plated
31	551-5010	Washer, Spring, 5/8, Gr.5, Yellow Zinc Plated
32	839-0188	Stone Guard Wear Plate
33	534-0805	Bolt, 1/2-20 UNF - 2.25, Gr.8, Yellow Zinc Plated
34	526-7558	Nut, Stover Lock, 1/2-20 UNF, Gr.5, Yellow Zinc Plated

Parts Details

Frame and Axle



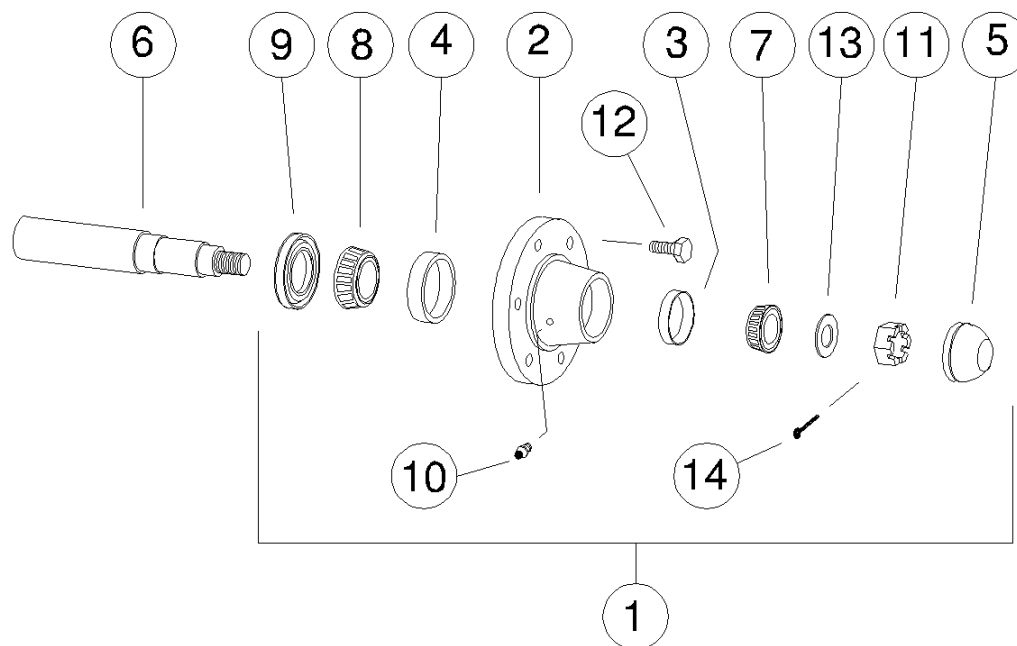
Parts Details

Frame and Axle

Item #	Part #	Description
1	204-5565A	Wheel Hub
2	205-9580	9.5L X 15 - 8 Ply Tubeless Tire
3	020-5590	Hub Assembly, 6 Bolt (611-9)
4	030-5980	3/16 X 1-3/4 Cotter Pin Pltd.
5	030-5980	3-1/2 X 8 C/W Depth Control
6	030-8000	Ratchet Jack Assembly /W Handle Removed
7	110-1204	Long Axle Weldment
8	110-1205	Short Axle Weldment
9	110-1221	Main Frame Weldment
10	112-1201	Axle Bearing Weldment
11	113-0081	Bushing Mount Weldment
12	419-0004	Grease Zerk, 1/4"Nf - Straight
13	526-1014	Bolt, 5/8-11 UNC - 1.75, Gr.5, Yellow Zinc Plated
14	526-6105	Nut, Stover Lock, 1/2-13 UNC, Gr.5, Yellow Zinc Plated
15	526-6106	Nut, Stover Lock, 5/8-11 UNC, Gr.5, Yellow Zinc Plated
16	546-5149R	1/2" X 3-1/2" X 3-1/4" U-Bolt, Nc, Gr. 5, Pltd.
17	550-5308	Washer, Flat, 1/2" - SAE, Gr.5, Yellow Zinc Plated
18	550-5310	Washer, Flat, 5/8" - SAE, Gr.5, Yellow Zinc Plated
19	556-0912	Cotter Pins - Extended Prong Square Cut Type (Inch)
20	805-7005	Axle Washer

Parts Details

Hub & Spindle



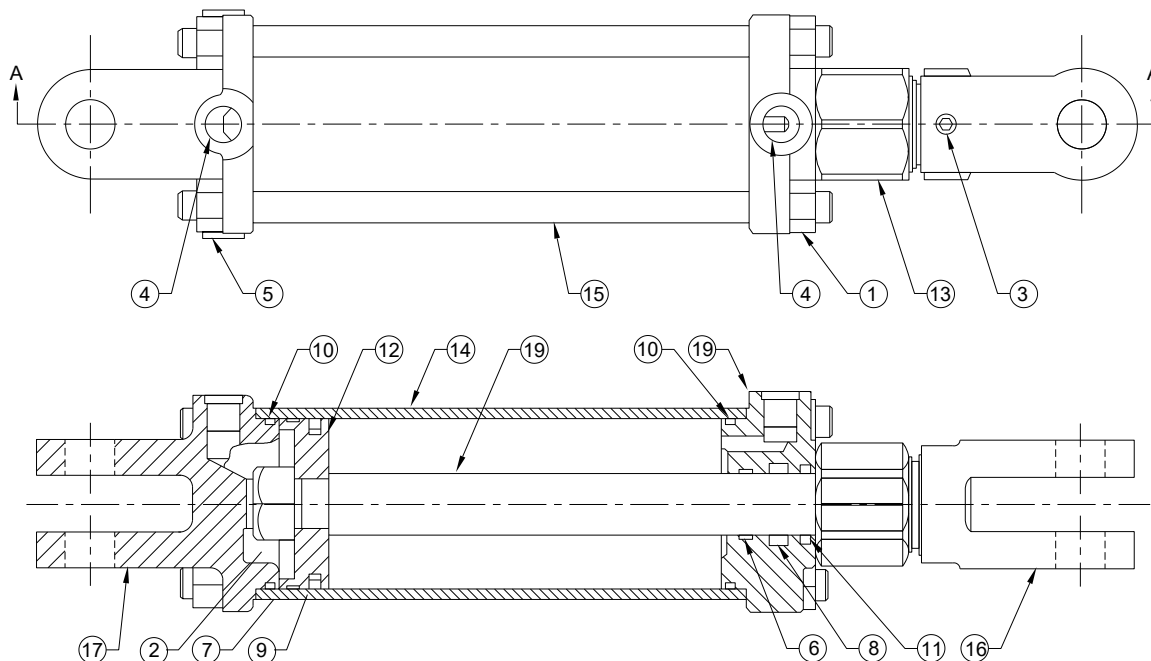
Item #	Part #	Description
1	020-5590	H611 Hub Assembly
2	200-5589	H611-9 Hub c/w Cups Only
3	201-5522	Outer Cup (LM67010)
4	201-5547	Inner Cup (LM29710)
5	202-6010	Dust Cap (DC-13)
6	203-5594	S611 Spindle - 2" x 11"
7	290-5514	Outer Wheel Bearing (LM67048)
8	290-5546	Inner Wheel Bearing (LM29749)
9	295-5518	Seal (SE13)
10	419-0004	1/4" Grease Nipple NF Straight
11	525-7816	1"-14 UNS Castle Nut
12	543-5562	9/16" Wheel Stud UNF
13	554-5303	1" Spindle Washer WA-17
14	556-0614	3/16" x 1-3/4" Cotter Pin

Parts Details

MONARCH 3-1/2" x 8" x 1-1/4"

MONARCH PART NUMBER 645666

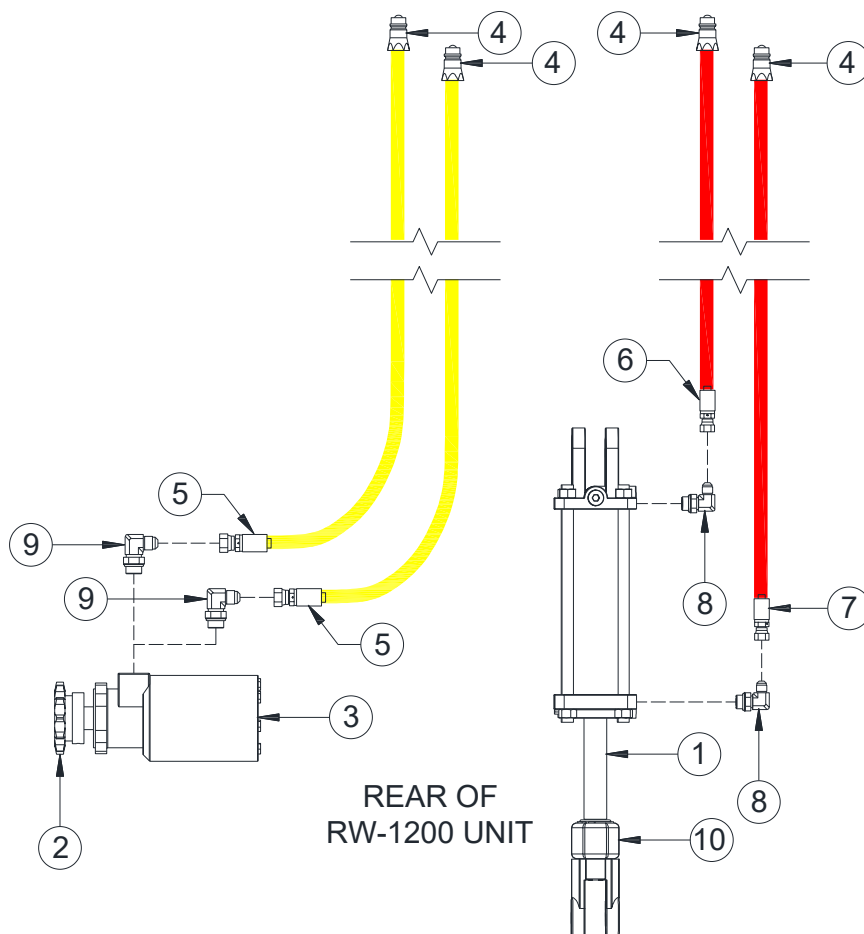
RITE WAY PART NUMBER 030-5980



Item #	Part #	Description
1	128271	Hex Nut, Ø5/8-18 UNF, Gr.5
2	130560	Hex Nut, Ø1-1/4 Lock, Gr.5
3	148000	Set Screw Socket 3/8 x 1/2 UNC KNUR
4	174164	Trod Prot 3/4 ORB Int Plastic
5	186562	Fitting Plug 3/4-16 ORB Socket
6	190131	Wear Ring 1.37 – 1.25 – 0.250
7	190188	Wear Ring 3.50 – 3.38 – 0.250
8	194016	Seal Zurcon U-Cup RU9 1.25
9	197066	Seal Zurcon Wynseal 3.50 - I
10	199141	Seal Dual 3.50
11	199157	Seal Wiper 1.25 MNUC TSS
12	258827	Piston 3.50 – 1.00 – TSS – ISO - W
13	292638	Stroke Control Assembly Ø1-1/4 Rod
14	491798	Tube Cylinder 3.50 – 8.00
15	492388	Tie Rod Ø5/8 – 8.00
16	492652	Rod Clevis 1.25 – 1.00
17	492676	Clevis Cap 3.50 – 3/4 ORB – 1.00
18	492700	Rod Cylinder 1.25 – 08 – 1.00 – 1.25 - A
19	494286	Rod Cap 3.50 – 1.25 – 3/4 ORB - TS
	649216	Repair Kit, 3.50 x 8 – 1.25

Parts Details

Hydraulic Drive System



Item #	Part #	Description
1	030-5980	3-1/2" x 8 Hydraulic Cylinder c/w Depth Control
2	252-1180	80 q 11 Sprocket, Ø1-1/4" Hole, 5/16" Key
3	307-1003	Parker Hydraulic Motor c/w Built in Reliefs
4	308-0001	1/2" NPT F Pioneer Tip
5	312-1867	1/2" Hose, 1/2" JIC Sw. F z 1/2" NPT M - 167"
6	313-6542	3/8" Hose, 3/8" JIC Sw. F x 1/2" NPT M - 112"
7	313-6545	3/8" Hose, 3/8" JIC Sw. F x 1/2" NPT M - 123"
8	319-5710	1/2" ORB M x 3/8" JIC M - 90° Elbow
9	319-5712	5/8" ORB M x 1/2" JIC M - 90° Elbow
10	292638	STR 1-1/4" Stroke Control Assembly

NOTES