



# **FORWARD FOLD LAND ROLLER**

**OPERATORS MANUAL  
& PART LIST**



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# **SECTION 1**

## **INTRODUCTION**

***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 machinery is the culmination of years of agricultural and engineering experience and has been designed to deliver you with many years of successful operation service.

For the most efficient operation of your **LAND ROLLER** we have provided this owner's manual. In this manual we have included proper maintenance and functional procedures to offer maximum longevity for your new equipment. Before operating we urge a careful study of this manual to provide a thorough understanding of your new **LAND ROLLER.** We also recommend that you take care of this manual so it will be available for future reference. Should your manual become lost or destroyed a new copy can be obtained from your **Rite Way Manufacturing** dealer. We will also be happy to answer any questions you might have concerning the use or care of this product.

***Rite Way Manufacturing Co. Ltd.***

***P.O. Box 328***

***Imperial, Saskatchewan, Canada***

***S0G 2J0***

***PH: 306-963-2180***

***Fax: 306-963-2660***

***Web Site: [www.ritewaymfg.com](http://www.ritewaymfg.com)***

***Email: [info@ritewaymfg.com](mailto:info@ritewaymfg.com)***

## MANUAL INFORMATION

Unit Model Number	Forward Fold Land Roller
Manual Revision Number	1.6
Manual Revision Date	October 2020
Manual Serial Number Range	18-3178 to Current

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

### 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
- 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

- Insure 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 zerks locations and maintenance schedules.
- Level the unit per operators manual and instruct the customer on the proper procedures.
- Verify that the center harrow section has been rotated to working position.
- Level the unit per operators manual and instruct the customer on the proper procedures.

Pre-delivery Inspection Completed By (Sign Below)

Pre-delivery Inspection Confirmed By (Sign Below)



## **SPECIFICATIONS**

### **GENERAL INFORMATION**

- Patented FORWARD™ unfolding system
- Auto-fold hydraulic wing lock
- Adjustable hitch height c/w perfect hitch clevis
- Dual wing transport tires
- Over-center wing lockups
- Triple Lip Seal Bearings
- Large diameter drum with premium heavy wall:
- 42" diameter; 0.50" wall thickness (1067mm x 13mm)
- Taper lock replaceable drum shafts
- Wing tie bar (F5 & F7)
- Safety Chains
- Adjustable Hitch Height c/w Perfect Hitch Clevis
- Light Kit

### **MAIN FRAME**

- Heavy Duty Centre Frame:
- 8" x 6" x 0.250" (200 mm x 150 mm x 6 mm)

### **WINGS**

- Heavy Duty Wing Frame:
- 6" x 4" x 0.250" (150 mm x 100 mm x 6 mm)

### **HYDRAULIC SYSTEM**

- Standard unit requires - 4 Hydraulic Banks.
- Heavy duty hydraulic cylinders.
- Zinc plated steel hydraulic lines

### **OPTIONS**

- Acrometer kit
- Highway Tires
- Mud Scraper Kit
- Wing Tie Bar (F3)
- 5/8" Wall Drums
  - 42" diameter; 0.65" wall thickness

# SPECIFICATIONS

## F3 - 3 Section Land Roller

MODEL	WORKING WIDTH	WING CONFIGURATION	TRANSPORT LENGTH	TRANSPORT WIDTH	WEIGHT 1/2" DRUM	WEIGHT 5/8" DRUM
F3-32	32'	10'-12'-10'	38'	14'	17,640 lbs	19,560 lbs
	(9.8 m)	(3.1 m-3.6 m-3.1 m)	(11.6 m)	(4.3 m)	(8,001 kg)	(8,872 kg)
F3-36	36'	12'-12'-12'	40'	14'	19,000 lbs	21,160 lbs
	(11.0 m)	(3.6 m-3.6 m-3.6 m)	(12.2 m)	(4.3 m)	(8,618 kg)	(9,598 kg)
F3-42	42'	15'-12'-15'	45'	14'	21,220 lbs	23,740 lbs
	(12.8 m)	(4.5 m-3.6 m-4.5 m)	(13.7 m)	(4.3 m)	(9,625 kg)	(10,768 kg)
F3-46	46'	17'-12'-17'	47'	14'	22,910 lbs	25,670 lbs
	(14.1 m)	(5.2 m-3.6 m-5.2 m)	(14.3 m)	(4.3 m)	(10,392 kg)	(11,644 kg)
F3-52	52'	20'-12'-20'	50'	14'	24,400 lbs	27,520 lbs
	(15.8 m)	(6.1 m-3.6 m-6.1 m)	(15.2 m)	(4.3 m)	(11,068 kg)	(12,483 kg)
F3-40 NT	40'	15'-10'-15'	45'	12'	20,600 lbs	23,000 lbs
	(12.2 m)	(4.5 m-3.1 m-4.5 m)	(13.7 m)	(3.7 m)	(9,344 kg)	(10,433 kg)
F3-50 NT	50'	20'-10'-20'	50'	12'	23,100 lbs	26,100 lbs
	(15.2 m)	(6.1 m-3.6 m-6.1 m)	(15.2 m)	(3.7 m)	(10,478 kg)	(11,839 kg)

## F5 - 5 Section Land Roller

MODEL	WORKING WIDTH	WING CONFIGURATION	TRANSPORT LENGTH	TRANSPORT WIDTH	WEIGHT 1/2" DRUM	WEIGHT 5/8" DRUM
F5-46	46'	8'-8'-12'-8'-8'	47' 4"	14'	23,000 lbs	25,640
	(14 m)	(2.4 m-2.4 m-3.6 m-2.4 m-2.4 m)	(14.4 m)	(4.3 m)	(10,433 kg)	(11,630 kg)
F5-50	50'	10'-8'-12'-8'-10'	49' 4"	14'	24,800 lbs	27,680
	(14.4 m)	(3.1 m-2.4 m-3.6 m-2.4 m-3.1 m)	(15.0 m)	(4.3 m)	(11,249 kg)	(12,555 kg)
F5-54	54'	10'-10'-12'-10'-10'	51' 4"	14'	26,490 lbs	29,610
	(16.4 m)	(3.1 m-3.1 m-3.6 m-3.1 m-3.1 m)	(15.6 m)	(4.3 m)	(12,016 kg)	(13,431 kg)
F5-58	56'	12'-10'-12'-10'-12'	53' 4"	14'	28,478 lbs	31,838
	(17.7 m)	(3.6 m-3.1 m-3.6 m-3.1 m-3.6 m)	(16.2 m)	(4.3 m)	(12,917 kg)	(14,441 kg)
F5-62	62'	12'-12'-12'-12'-12'	55' 4"	14'	30,250 lbs	33,850
	(18.9 m)	(3.6 m-3.6 m-3.6 m-3.6 m-3.6 m)	(16.9 m)	(4.3 m)	(13,721 kg)	(15,354 kg)
F5-68	68' 4"	12'-15'-12'-15'-12'	61' 6"	14'	32,620 lbs	36,580
	(20.8 m)	(3.6 m-4.5 m-3.6 m-4.5 m-3.6 m)	(18.7 m)	(4.3 m)	(14,796 kg)	(16,592 kg)
F5-74	74'	15'-15'-12'-15'-15'	64' 6"	14'	35,520 lbs	—
	(22.5 m)	(4.5 m-4.5 m-3.6 m-4.5 m-4.5 m)	(19.7 m)	(4.3 m)	(16,112 kg)	
F5-78	78'	17'-15'-12'-15'-17'	66' 6"	14'	37,440 lbs	—
	(23.7 m)	(5.2 m-4.5 m-3.6 m-4.5 m-5.2 m)	(20.3 m)	(4.3 m)	(16,983 kg)	
F5-84	84'	20'-15'-12'-15'-20'	69' 6"	14'	40,320 lbs	—
	(25.6 m)	(6.1 m-4.5 m-3.6 m-4.5 m-6.1 m)	(21.2 m)	(4.3 m)	(18,289 kg)	

## F7 - 7 Section Land Roller

MODEL	WORKING WIDTH	WING CONFIGURATION	TRANSPORT LENGTH	TRANSPORT WIDTH	WEIGHT 1/2" DRUM	WEIGHT 5/8" DRUM
F7-65	65'	8'-8'-8'-12'-8'-8'-8'	59' 8"	14'	32,500 lbs	—
	(19.8 m)	(2.4 m-2.4 m-2.4 m-3.6 m-2.4 m-2.4 m-2.4 m)	(18.2 m)	(4.3 m)	(14,742 kg)	
F7-69	69'	10'-8'-8'-12'-8'-8'-10'	61' 8"	14'	33,740 lbs	—
	(21.0 m)	(3.1 m-2.4 m-2.4 m-3.6 m-2.4 m-2.4 m-3.1 m)	(18.2 m)	(4.3 m)	(15,304 kg)	
F7-73	73'	10'-10'-8'-12'-8'-10'-10'	62' 6"	14'	35,040 lbs	—
	(22.3 m)	(3.1 m-3.1 m-2.4 m-3.6 m-2.4 m-3.1 m-3.1 m)	(19.0 m)	(4.3 m)	(15,894 kg)	
F7-77	77'	12'-10'-8'-12'-8'-10'-12'	65' 8"	14'	36,960 lbs	—
	(23.5 m)	(3.6 m-3.1 m-2.4 m-3.6 m-2.4 m-3.1 m-3.6 m)	(20.0 m)	(4.3 m)	(16,765 kg)	
F7-81	81'	12'-10'-10'-12'-10'-10'-12'	67' 8"	14'	38,718 lbs	—
	(26.7 m)	(3.6 m-3.1 m-3.1 m-3.6 m-3.1 m-3.1 m-3.6 m)	(20.6 m)	(4.3 m)	(17,562 kg)	
F7-85	85'	12'-12'-10'-12'-10'-12'-12'	69' 8"	14'	39,950 lbs	—
	(25.9 m)	(3.6 m-3.6 m-3.1 m-3.6 m-3.1 m-3.6 m-3.6 m)	(21.2 m)	(4.3 m)	(18,121 kg)	
F7-89	89'	12'-12'-12'-12'-12'-12'-12'	71' 8"	14'	41,190 lbs	—
	(27.1 m)	(3.6 m-3.6 m-3.6 m-3.6 m-3.6 m-3.6 m-3.6 m)	(21.8 m)	(4.3 m)	(18,683 kg)	

## **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 been 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 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 RECOMENDATIONS**

1. Read manual thoroughly before operating machine.
2. Study all warning decals on 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. Ensure that safety chains are in place prior to transporting.
9. Ensure that all transport lock pins are secured in place prior to transport.
10. **DO NOT** lower unit in transport position or swing arm / draft arm damage will occur.
11. 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.**

12. Exercise extra caution when working on hillsides or near ditches.
13. Ensure that the tractor draw-bar is pinned during transport.
14. Maximum speed while transporting the **LAND ROLLER** is 30 mph (48 km/h).
15. Do not work on this machine when hydraulic system is under pressure.
16. Ensure that the **Roller** is lowered to the ground before doing any work on machine.

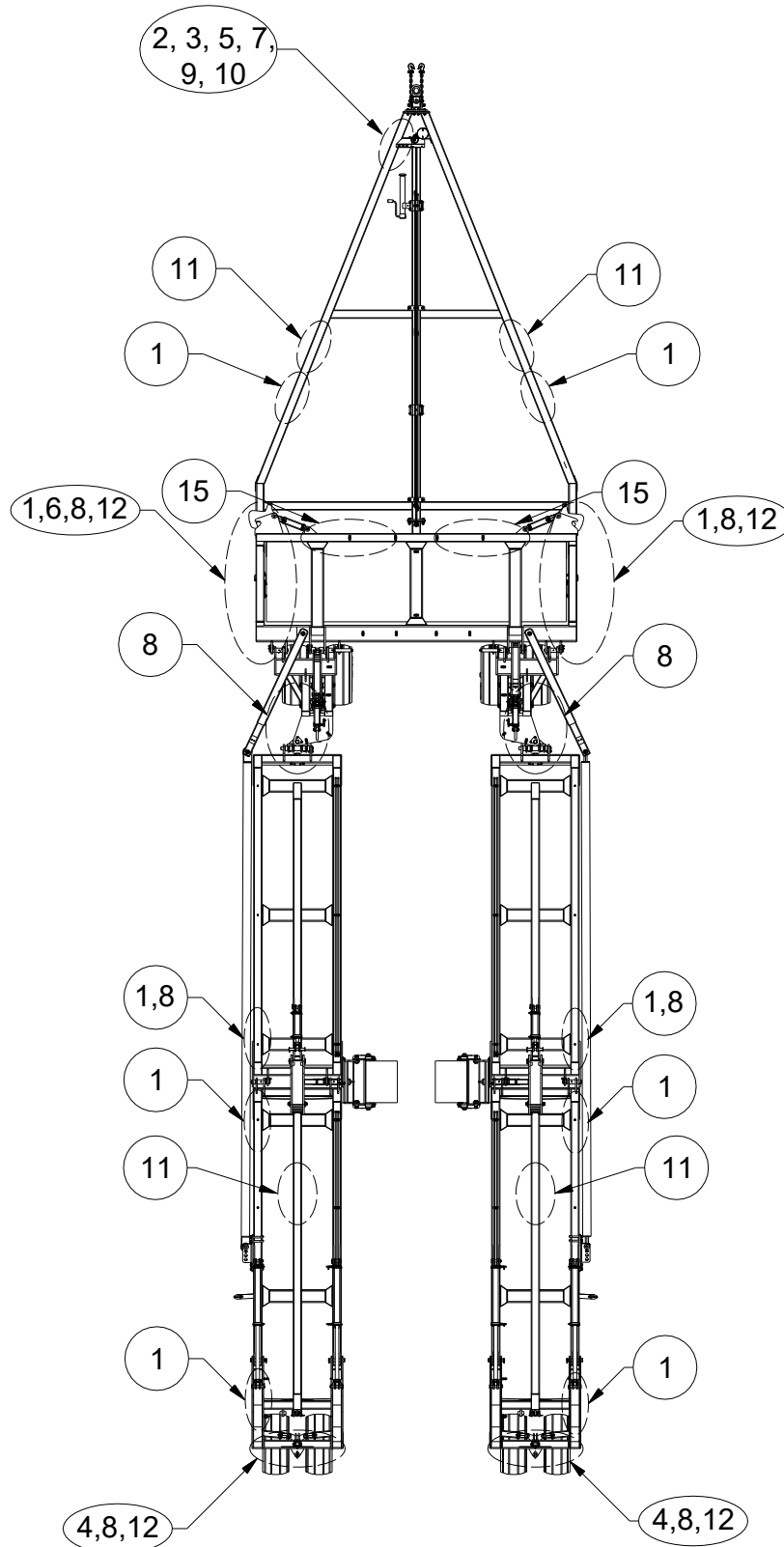
**NOTE: If it is necessary to work on machine with the Roller drums raised, ensure that cylinders are locked in position.**

1. Observe all laws and regulations when transporting unit on public roads.
2. Do not transport this machine on public roads unless all safety & maintenance checks have been completed.
3. Ensure the tires are inflated to the correct pressure:

12.5L-15 :	90 psi
380/55 R16.5 :	70 psi
235/75 R17.5 :	125 psi

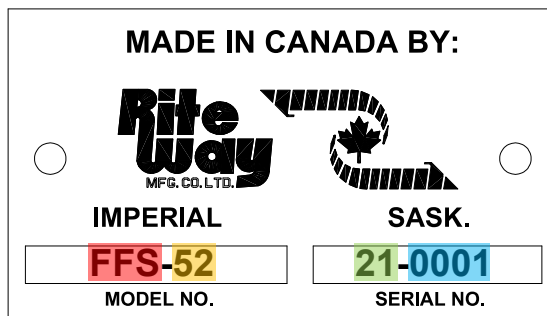
**This machine will provide years of trouble-free & safe operation IF all maintenance and safety instructions are followed.**

**DECAL LOCATIONS**



**DECAL LOCATIONS**

ITEM #	PART #	DESCRIPTION	QTY
1	060-0009	<i>Amber Reflector (3 x 2)</i>	16
2	060-0011	<i>Caution - Escaping Fluid Hazard...</i>	1
3	060-0015	<i>Important - Block Wheels...</i>	2
4	060-0022	<i>Red Reflector (3 x 2)</i>	4
5	060-0028	<i>Warning - Lower or Block Elevated...</i>	2
6	060-0034	<i>Riteway Serial Number Plate</i>	1
7	060-0038	<i>Attention - Insure That All Cylinders Are Retracted...</i>	1
8	060-0046	<i>Grease Every 8 Hours</i>	1
9	060-0061	<i>Important - Hydraulic Hose Application (Three Color)</i>	1
10	060-0067	<i>Warning - Check And Tighten Hub...</i>	1
11	060-0121	<i>Riteway Mfg. (Large Decal, 31 x 5 - White)</i>	2
12	060-0108	<i>www.ritewaymfg.com - (1" x 20")</i>	2
13	060-0032	<i>R (Load Jobs Only) as required</i>	2
14	060-0033	<i>L (Load Jobs Only) as required</i>	2
15	060-0095	<i>Warning—Turns of more than 45°...</i>	2



**UNIT SERIES**  
**UNIT SIZE**  
**MODEL YEAR**  
**UNIT NUMBER**

## **MAINTANENCE**

### **GENERAL**

- Repack the wheel hubs after the first 500 kilometres of travel ; then yearly thereafter.
- Visually inspect the wheel bolts for tightness each day. Torque to 110 ft lbs. (149 Nm) after the first few hours of operation and frequently thereafter.

- Ensure the tires are inflated to the correct pressure:

12.5L-15 :        90 psi

380/55 R16.5 :   70 psi

235/75 R17.5 :   125 psi

### **EVERY 8 HOURS (DAILY)**

- Grease all pins and knuckles. (See decals locations)
- Grease harrow chain bearings.

### **EVERY 100 HOURS (MONTHLY)**

- Visually inspect hydraulic hoses & fittings for leaks or damage.

### **ANNUALLY**

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

### **STORAGE**

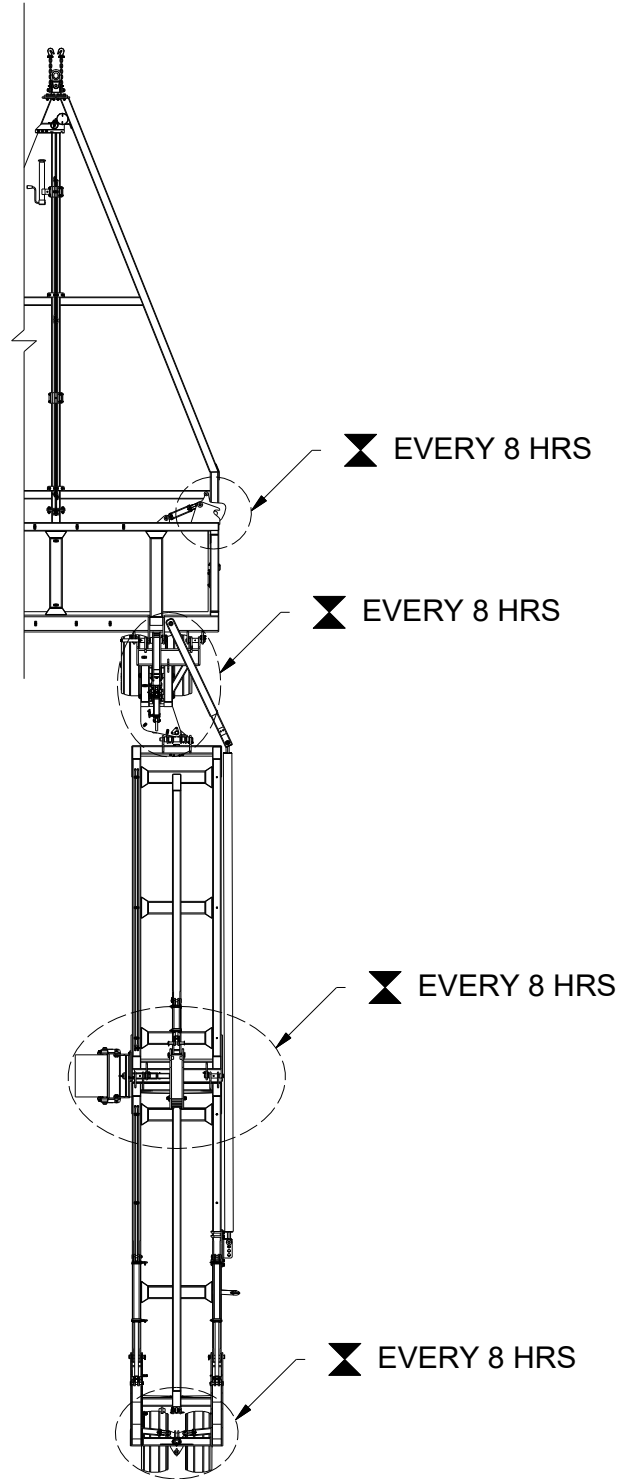
- Coat any exposed cylinder shafts with thick oil or grease.
- Ensure that parking jacks are situated on firm ground. Failure to do so may cause the hitch to rise sharply as the jack pads sink into the ground.
- Lock all applicable safety pins into place.

**NOTE: All fasteners with locknuts that are used to join moving pieces should not be tightened completely to allow for movement.**



# MAINTANENCE – GREASE LOCATIONS

Grease should be applied to both sides of the machine.



## **OPERATING INSTRUCTIONS**

### **GENERAL INFORMATION**

**NOTE:** Always choose a level area when folding unit either into or from transport position.

**NOTE:** Lubricate all pins, axles and bearings regularly to prevent premature failure of components. (See Page 14 Section 1 for lubrication diagram).

**NOTE:** Maximum field operating **SPEED OF the LAND ROLLER** is 8 mph (13 km/h).

**Above this speed damage can occur and will not be covered by warranty.**

### **TRACTOR HOOK-UP**

- Move tractor into position where pin can be dropped into 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 the machine.

**NOTE:** Ensure that parking jack handle is secured by chain prior to moving the machine (Failure to do so may damage the jack handle).

**NOTE:** Clean hydraulic hose ends prior to coupling with tractor hydraulic system.

### **TRACTOR DISCONNECTING**

- Ensure that the roller sections are either; Fully raised in transport position, or Fully lowered into field position.

**NOTE:** If the Roller is in transport position, ensure that all lock pins are in place.

- Chock block all tires front and back before disconnecting from the tractor.

**NOTE:** Failure to properly block unit may result in damage or injury. Negative hitch weight may result if tires are not blocked properly in position.

- Lower parking jack (s) into position, lowering until roller hitch is raised off of the tractor clevis.

**NOTE:** Ensure that the jack is placed on firm ground prior to un hooking.

### **CORNERING FIELD WORK**

- During field operation, always make turns so that the inside wing drum continues to rotate. Sharp turns will increase the stress applied to the auto-fold system & inside wing drum and may cause damage to the unit.

## **OPERATING INSTRUCTIONS**

### **TRANSPORT TO FIELD POSITION**

1. When entering the field from transport, find a location that is as level as possible and stop the tractor / roller.
2. Remove all wing axle safety lock pins and tee lock pins.
3. While moving forward in low gear, feather wing axle wheels by activating the hydraulic steering cylinders to maximum angle (approximately 45 degrees) - the slow moving sign will indicate the position.
4. Continue to drive forward slowly, wings will open to about 45 degrees, Stop.
5. Feather wing axle wheels back to straight (transport) position while backing up.
6. Continue to back up until the draft arms / swing arms move into the cam lock sockets.
7. Activate the hydraulics to lower the unit (roller drums) to the ground, hold hydraulic lever until the wing axles are fully raised.

***NOTE: Ensure that all wing transport locks are fully open and draft arm lock is fully closed.***

**NOTE: F3 (3 Section Roller) does not use / require wing transport lock.**

## **OPERATING INSTRUCTIONS**

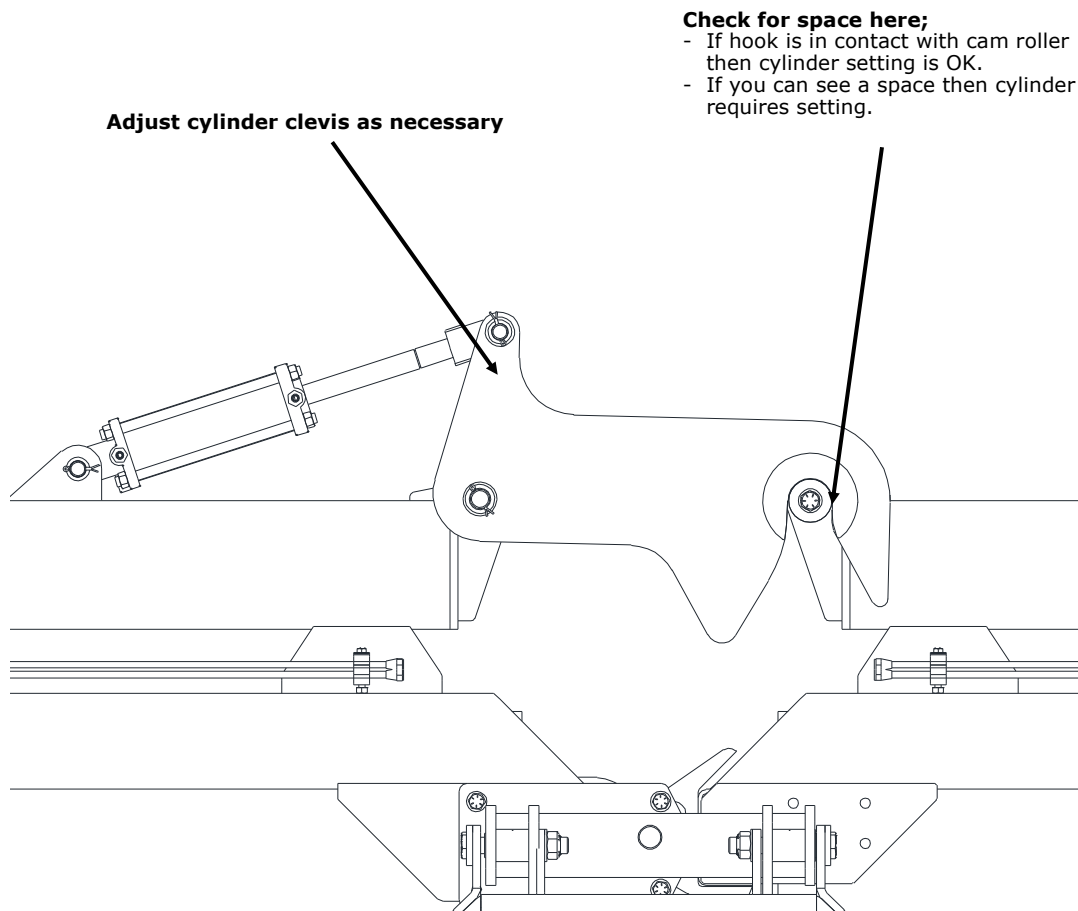
### **FIELD TO TRANSPORT POSITION (ALL MODELS)**

1. Bring unit to a complete stop in a level area of the field.
2. Use hydraulic system to raise drums / lower wing axle & walking axle.
  - **NOTE: Ensure that all wing cam locks are fully engaged.**
  - **NOTE: Ensure that draft arm locks are fully retracted / released.**
3. Slowly drive forward until wings have moved into transport position.
4. Replace all safety lock pins and tee lock pins.
5. Unit is ready for road transport.
  - **NOTE: Ensure safety chains are properly attached to tractor and lighting system has been activated.**

## OPERATING INSTRUCTIONS

### SETTING WING LOCK CYLINDER

1. Cycle hydraulic system to ensure all air has been purged.
2. With unit in transport position, inspect wing cam lock—look for space between hook and cam roller.
3. If hook is not in contact with cam roller—adjust the cylinder clevis.
4.
  - A) Remove cylinder clevis pin.
  - B) Loosen cylinder clevis lock screw.
  - C) Turn cylinder clevis CCW 1/2 to 1 turn.
  - D) Re-install cylinder clevis to wing lock.



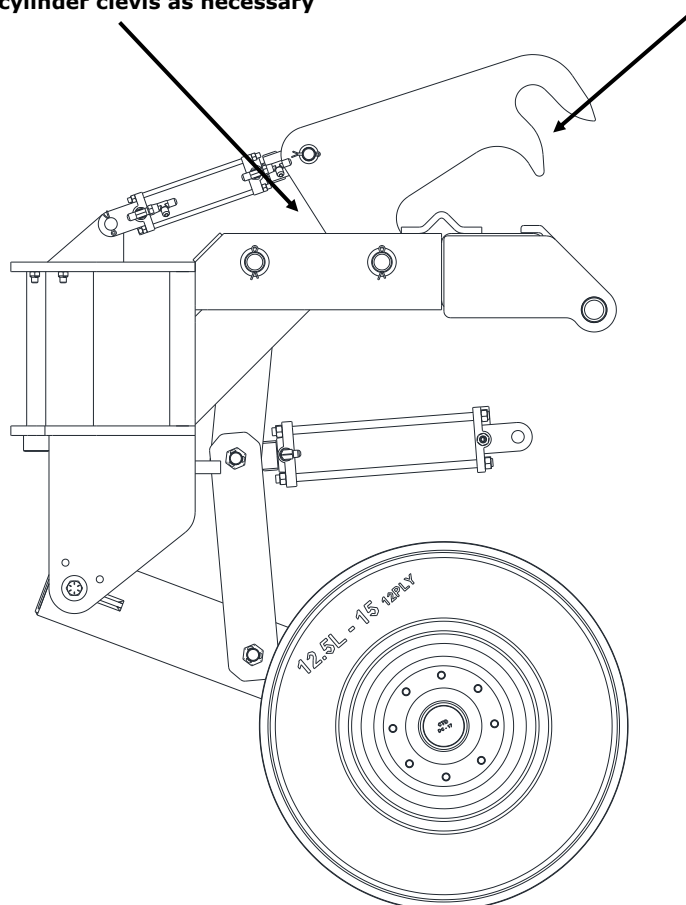
## OPERATING INSTRUCTIONS

### SETTING CENTER FRAME LOCK CYLINDER

1. Cycle hydraulic system to ensure all air has been purged.
2. With unit in transport position, inspect wing cam lock—look for space between hook and cam roller.
3. If hook is not in contact with cam roller—adjust the cylinder clevis.
4.
  - A) Remove cylinder clevis pin.
  - B) Loosen cylinder clevis lock screw.
  - C) Turn cylinder clevis CCW 1/2 to 1 turn.
  - D) Re-install cylinder clevis to wing lock.

**Check for space here when latch is engaged**  
- If hook is in contact with cam roller then cylinder setting is OK.  
- If you can see a space then cylinder requires setting.

**Adjust cylinder clevis as necessary**

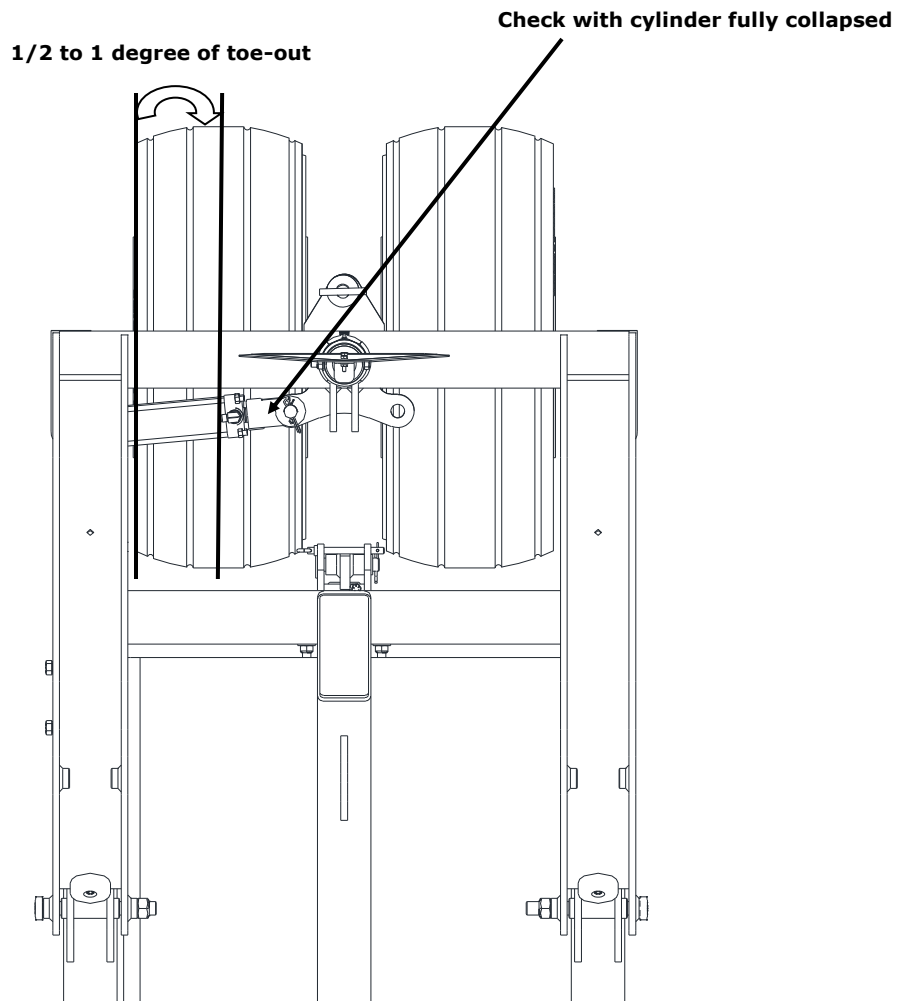


## OPERATING INSTRUCTIONS

### SETTING WING AXLE STEERING TOE-IN / OUT

**NOTE:** Steering Axle adjustment is necessary if roller does not properly follow the tow vehicle when in transport position. Adjustment must be made to left and right axles.

1. With unit in transport position, inspect the wing axle steering. With hydraulic steering cylinder set to transport position (fully retracted), the tires must be aligned with a very slight toe-out (approximately 1/2 to 1 degree). The front center line of the tire should be wider than the rear center line by approximately 1/2".
2. After adjustment, the unit should be transported a short distance to ensure that it trails properly.



## **ASSEMBLY INSTRUCTIONS**

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

### **DRUM END CAP ASSEMBLY**

1. Reference to “left” or “right” and “forward” or “rear” are always determined from the rear of the machine facing the direction of forward travel.
2. Refer to page 2, 7 and 42 for detailed wing, centre frame drawings and wing list.
3. Place the drum shaft into the drum cross (item 27, page 2) using the three capscrews and lock washers. (items 7, 17, page 2).
4. Place the two end caps on the drum ends using the capscrews, flats washers and lock washers (items 8, 15, 18 and 28, page 2).
5. Use a hoist or tractor to set the completed wing (page 2) or centre frame (page 7) assembly onto the drum, lining up the drum lug on the frame with the drum shaft.
6. Put a good even coat of anti-seize on the drum shafts (items 27, page 2).
7. Now place the drum bearings onto the drum shafts (items 6, page 2).
8. Next, insert the four capscrews and flat washers (item 13 & 16, page 2) through the holes on the bearing (item 6, page 2) and the frame drum lug. Place stovers on the bolts and tighten, check torque according to torque chart.

### **FINISHING ROLLER ASSEMBLY**

1. Refer to page 3 for detailed drawing, if finish drum is pre-assembled make sure drum is centred on frame and set screws are tight.
2. **Unit must be in transport position** to install finish roller springs.
3. Put a good even coat of anti-seize on the finish roller drum shafts.
4. Use a hoist or tractor to set the finish drum mount weldment with the finish roller drum weldment shaft (item 1, 2 & 3).
5. Now place the drum bearings onto the drum shafts, centre in frame. (items 3 & 5).
6. Next, insert the capscrews through the holes on the bearing and the frame drum lug (items 17, 12 & 22), tighten all capscrews, stovers and set screws.
7. Attach the finish roller left and right wing attachment weldments using 5/8” x 2” capscrews and 5/8” stover lock nuts (items 2, 9 & 11).
8. Place finish roller spring on to finish roller drum mount weldment (items 8, 19 & 23).
9. Bolt the finish roller drum mount weldment to the finish roller left or right wing attachment weldment using 1” x 5” (cut to 3-3/4”) capscrew and stover lock nut (items 13 & 18).
10. Place finish roller spring tensioning weldment on the finish roller spring pin weldment (item 5 & 19).
11. Repeat for all finish roller assemblies. (5 & 7 sections only).



## **ASSEMBLY INSTRUCTIONS**

### **HITCH (A-FRAME) ASSEMBLY**

1. Refer to page 5 for detailed drawing.
2. Place left and right hitch on stands approximately 30" off ground (item 1). (Ensure decals are right side up).
3. Leave all bolts loose until directed to tighten.
4. Bolt hitch tie retainers, top and bottom pieces to hitch using capscrews, washers and stover lock nuts (items 1, 4, 6, 16 & 20).
5. Use capscrew, stover lock nuts to connect hitch sides at the front of hitch assembly (items 17, 22 & 28).
6. Bolt hydraulic tongue and electrical holder to hitch using capscrew, washer and stover lock nut (items 13, 16, 21 & 26), snug these bolts.
7. Bolt hitch tongue attachment to main hitch assembly using capscrew, stover lock nut (items 18 & 23), snug these bolts.
8. Attach Perfect Hitch to hitch tongue attachment using 1" x 7" capscrew and 1" stover lock nut. (items 24, 27 & 19), these bolts can be torqued.
9. Place side winder jack on unit (item 9). Bolt the manual tube on to the hitch using the 3/8" x 1-1/4" capscrew, 3/8" flat washer and 3/8" stover lock nut (items 11, 12, 13, 15 & 25).
10. The hitch assembly can now be attached to the centre frame using 3/4" x 2-1/2" capscrews and 3/4" stover lock nuts (item 1, 23, 29 & 18). All bolts can now be torqued to specs.

### **CENTRE FRAME SWING ARM LOCK-UP ASSEMBLY**

1. Refer to page 7 for detailed drawing.
2. Set centre frame on level ground with the drum chocked to keep from rolling and braced frame front and back to keep frame horizontal.
3. Make sure the walking arm and centre axles are pulled away from the centre frame.
4. Attach the hitch assembly to the centre frame, this will help stabilize the unit.
5. Remove the pins for the auto fold hook weldment. (front on centre frame).
6. Place the auto fold hook weldment into the centre frame lugs, use auto fold pin, machinery washer and cotter pin (items 3, 4, 5, 17 & 18). This will have to be matched as required with the telescopic swing arm.
7. Attach the cylinder base to the centre frame lug, use cylinder pin (item 1, 3, 16 & 18).
8. Attach the cylinder stroke to the auto fold hook weldment use the cylinder pin (item 1, 4, 6, 16 & 18).

## ASSEMBLY INSTRUCTIONS

### TELESCOPIC SWING ARM ASSEMBLY

1. Refer to page 9 for detailed drawing.
2. Begin by threading one 1/2" hex nut halfway down the threaded rod (items 3 & 12). Next, place the tension pipe on the threaded rod, followed by the second hex nut and the 1/2" jam nut (items 6, 12 & 22). Thread the jam nut far enough so that 4 or 5 threads are visible from the jam nut to the edge of the threaded rod (approximately 1/2"). Now tighten the hex nuts against the jam nut. Finally, once you have everything tight; hook the tension spring on the tension rod assembly. (Refer to pages 7 & 8).
3. Place the tension rod assembly inside the outer telescopic swing arm half, tension pipe in first (items 2 & 3).
4. Place the inner telescopic swing arm half inside the outer telescopic swing arm half (items 1 & 2). Insert the 1/2" x 4-1/2" capscrew through the inner telescopic swing arm half (items 10 & 22) **make sure to thread the capscrew through the spring end of the tension spring inside the assembly.** Place 1/2" stover on bolt and tighten (item 12). **Be careful not to unhook the spring prior to complete assembly.**
5. Place the two 3/8" x 4-1/2" bolts (item 10) through the outer telescopic swing arm half, starting with the bottom one **these bolts will have to thread through the spring retainer pipe (item 22).** Place the bolt in angling it down, then pry the bolt up on the tension rod assembly to get it through completely. Next place the second bolt in, followed by threading the two 3/8" stover (item 11) onto the bolts and tightening. Pull on the assembly to make sure spring is still attached.
6. Place the swing arm pin in the centre frame. Once you have the inner swing arm in the centre frame pry out the inner far enough from the outer swing arm half you can place the slider stop plate on the inner swing arm half, while continuing to pry the halves apart. Thread the two 1/2" x 1" bolts with lock washers through the slider stop plate and into the inner swing arm (items 9, 17 & 22). With the shorter half of the slider stop plate towards the 1" swing arm pin. Finally, tighten the two 1/2" x 1" bolts.

## **ASSEMBLY INSTRUCTIONS**

### **DRAFT ARM & TELESCOPIC SWING ARM ASSEMBLY**

1. Refer to page 11 for detailed drawing. Refer to Page 27 & 28 Section 1 for installation dimensions.
2. Attach draft arm pin to telescopic swing arm using pin 3/4" x 1-3/4" capscrew, spring lock washer and flat washer (items 34, 18, 21 & 26).
3. Attach draft arm to telescopic swing arm using swing arm pin, bushing and 1" stover lock nut (items 2, 8, 32 & 14) thread the draft arm swivel ball joint through and then tighten see #5.
4. Attach the draft arm clevis to the wing using the 3/4" x 6-1/16" x 5-3/4" inside leg length Sq. U-Bolt and stover lock nut (items 16, 19 & 22). Refer to insert for proper location of draft arm, sizes, clevis locations and draft clevis hole locations.
5. Attach the opposite end of the draft arm to the wing clevis using cylinder pin weldment, machine washers, draft arm spacers and cotter pin (items 6, 24, 29 & 33).

### **WALKING ARM / CENTRE AXLE ASSEMBLY**

1. Refer to page 13 for detailed drawing.
2. Attach the walking arm weldment (item 3) to the centre frame using two walking arm pin weldments (item 9), capscrews and stover lock nuts (items 22, 26 & 33).
3. Put a good even coat of anti-seize on the long plated walking arm pins (item 39).
4. Attach centre axle upper link weldment to the walking arm using long plated walking arm pin (items 7, 18, 21, 30, & 39).
5. Attach walking arm hook weldment to the walking arm using long plated walking arm pin (item 7, 18, 21, 30, & 39).
6. Attach centre axle lower link weldment (item 6), lower centre axle link arm painted (item 41), and the stroke of the 4" x 12" cylinder (item 2) to the centre axle upper link weldment (item 7) using a 1" x 7-1/2" capscrew (item 28), with 1" flat washers (item 32) between the centre axle upper link weldment and the centre axle lower link weldments and 1" stover lock nut (item 23).
7. Attach base of 4" x 12" cylinder to the centre frame using 1" x 8-3/4" useable pin weldment (Page 38, items 9, 23 & 27). Attach centre axle weldment (item 6) to walking arm weldment (item 4) using centre axle pin weldment (item 8, 22, 26, 27, 31, 33 & 36), 3/4" x 2" capscrew, 3/4" split lock washer, 3/4" flat washer plated.
8. Attach centre axle weldment (item 5) to centre axle lower link weldments (item 6 & 41) using 1" x 7-1/2" capscrew and 1" stover lock nut (23 & 28).
9. Attach base of 2-1/2" x 6" cylinder to walking arm weldment (items 1 & 3) using 1" x 3-1/2" OD cylinder pin, and two 3/16" x 2" cotter pins (items 37 & 38).

## **ASSEMBLY INSTRUCTIONS**

10. Attach stroke of 2-1/2" x 6" cylinder pin to walking arm hook weldment (items 1 & 4) using 1" x 4-1/4" useable cylinder pin weldment (items 10, 34 & 37).
11. Attach two wheel and tire assemblies to centre axle weldment (items 14 & 15).
12. Attach knuckle pin weldment to walking arm weldment (items 40) using two 1/2" x 3" capscrews and two 1/2" stover lock nuts and flat washers (items 19, 25 & 33).
13. **These cylinders will need to be adjusted, refer to page 20 (Section 1) for details.**

### **INNER / OUTER WING ASSEMBLY**

1. Refer to page 15 for detailed drawing.
2. Attach the inner wing to the walking arm / knuckle assembly (items 2 & 4) Use the knuckle pin and the 1/2" x 3" capscrew and 1/2" stover lock nut and flat washer (items 16, 18, 24 & 33).
3. Attach the light kit onto the wing using the light bracket along with the 3/8" flat washer, 3/8" spring lock washer and the 3/8" x 1" scotch grip capscrew (items 15, 20, 25 & 35).
4. Now using a forklift or overhead crane attach the inner wing assembly to the walking arm assembly using the knuckle pins and 1/2" x 3" capscrews and 1/2" stover lock nuts and flat washers (items 16, 18 24 & 33). All units will have this inner wing section assembly.
5. Attach claw cylinder base to inner wing or mid wing using cylinder claw pin weldment, 1" flat washer and cotter pin (items 8, 22 & 29).
6. Attach wing hook transport lock claw weldment to inner or mid wing using 1-1/4" claw pin weldment 1-1/4" machinery washer, 1-1/4 flat washer SAE and cotter pin (items 6, 23, 27 & 29).
7. Attach the clevis stroke end of the cylinder to the wing hook transport lock claw weldment using 1" cylinder pin weldment 1" flat washer SAE & cotter pin (items 6, 23 & 29).
8. Attach the wing connecting pin to the mid wing or outer wing (refer to page 42) using the connex bushing, 1-1/2 ID machinery bushing, 1-1/2 ID flat washer, 3/4" flat washer, 3/4" spring lock washer and 3/4" x 2" capscrew (items 12, 19, 21, 26, 28, 30 & 31).
9. Using a forklift or overhead crane attach the outer wing to the mid or inner wing using the short and long finish roller pins (item 32, 34), 1/2" x 3" capscrews, and 1/2" stover lock nuts and flat washers (items 16, 18 & 24).
10. This process will need to be repeated for F5 and F7 wing sections.
11. Refer to page 36 for finish roller details.
12. **These cylinders will need to be adjusted, refer to page 19 (Section 1) for details.**

### **OUTER WING / WING AXLE ASSEMBLY**

## **ASSEMBLY INSTRUCTIONS**

1. Refer to page 17 for detailed drawing.
2. Attach 3-1/2" x 24" cylinder base to outer wing lugs using 1" x 4-3/16" useable pin weldment 1" machine washer and cotter pin (items 2, 20 & 22).
3. Attach outer wing to wing axle assembly using 1" x 8-1/2" capscrews, 1" machine bushings, and 1" stover lock nuts (items 1, 5, 6, 13, 16 & 20).
4. Attach 3-1/2" x 24" cylinders clevis stroke to the wing axle assembly using 1" x 5-11/16" pin, 1" machine bushing, and cotter pin (item 1, 4, 6, 20 & 22).
5. Attach light bracket to wing using 3/8" x 1" capscrew scotch grip, 3/8" spring lock washer and 3/8" flat washer (items 14, 18, 21). Attach light assembly to light bracket (Page 50, items 9 & 17) using 1/2" **NF** hex nut and 1/2" flat washer (items 9, 17 & 19).
6. Attach wing lock up to outer wing (items 4 & 10) using 1" x 5-1/2" capscrew and 1" stover lock nut (items 12, 16 & 20). This can be pinned in place with a red handled safety pin c/with #9 hitch pin clip (items 10 & 23) and lock up pin c/with lynch pin (items 11 & 24).

## **WING AXLE ASSEMBLY**

1. Refer to page 19 for detailed drawing.
2. Attach spindle with hub to wing pivot axle using 1/2" x 4" capscrews and 1/2" stovers (items 21, 23 & 28).
3. Put a good even coat of anti-seize on the wing pivot axle shaft, then insert the shaft into the wing axle weldment (Item 3 & 4).
4. Place a connex bushing into wing axle weldment and 3-1/2" OD x 2-1/2" ID flat washer over the wing pivot axle shaft (items 4, 5 & 11), then attach the slow moving sign bracket to the wing pivot axle shaft using 1/2" x 4" capscrew and 1/2" stover lock nut (items 5, 19, 22 & 27).
5. Insert wing tee lock pin through wing axle weldment and wing pivot axle, insert #9 hitch pin clip in tee lock pin (items 3, 4, 6 & 30).
6. Attach the slow moving sign to the slow moving sign bracket using 1/4" x 1" capscrew and 1/4" flange nuts (items 5, 15, 16 & 20).
7. Attach base end of 2-1/2" x 6" cylinder to wing axle weldment using 1" x 3-1/2" cylinder pin and cotter pin (items 2, 29 & 31). Attach stroke end of 2-1/2" x 6" cylinder to wing pivot axle using another 1" x 3-1/2" cylinder pin and cotter pin (items 2, 29 & 31).
8. Attach tire and rim assembly to wing pivot axle using wheel nuts (items 9, 10 & 24).
9. Mount wing wheels to wing axle assembly, torque wheel nuts (page 12 section 1)

## **ASSEMBLY INSTRUCTIONS**

### **WING TRANSPORT TIE BAR ASSEMBLY**

1. Refer to page 21 for detailed drawing.
2. Attach the wing tie bar mount weldment to the outer wings using 3/4" x 6-1/16" x 5-3/4" U-Bolts and 3/4" stover lock nuts (items 3, 12 & 16). Repeat for opposite wing.
3. When attaching the tie bar assembly to 10' or 12' outer wings the wing tie bar mount weldment can capture the cross member, on the 32' and 36' use item # 7 part # 105-0486r1.
4. Attach wing transport tie bar to both outer wings using mount pin weldment, 1-1/4" ID machine washer, cotter pin, removable pin weldment, #9 hitch pin clip, 1/2" stover lock nuts, 1/2" x 4-1/16" x 7-1/2" U-bolt, and 1/2" transport mount lock nut weldment (items 4, 19 & 21). When unit is in transport position pin the wing transport tie bar assembly across to the opposite wing tie bar mount weldment using the removable pin weldment and #9 hitch pin (items 5 & 23).
5. When in field position tie bar can rest in the wing tie bar mount weldment (items 6 or 7).

### **CENTER SCRAPER ASSEMBLY**

1. Mount the angle brackets (Part 7, Page 23) under the truss tubes as shown with a spacer (Part 8, Page 23) between the truss and bracket. Do not fully tighten the nut, allowing it to slide on the truss.
2. Install the scraper (Part 6, Page 23) on the flat side of the angle brackets with the scraper angling toward the rear of the machine. Measure 1/4" between the scraper and drum.

## **ASSEMBLY INSTRUCTIONS**

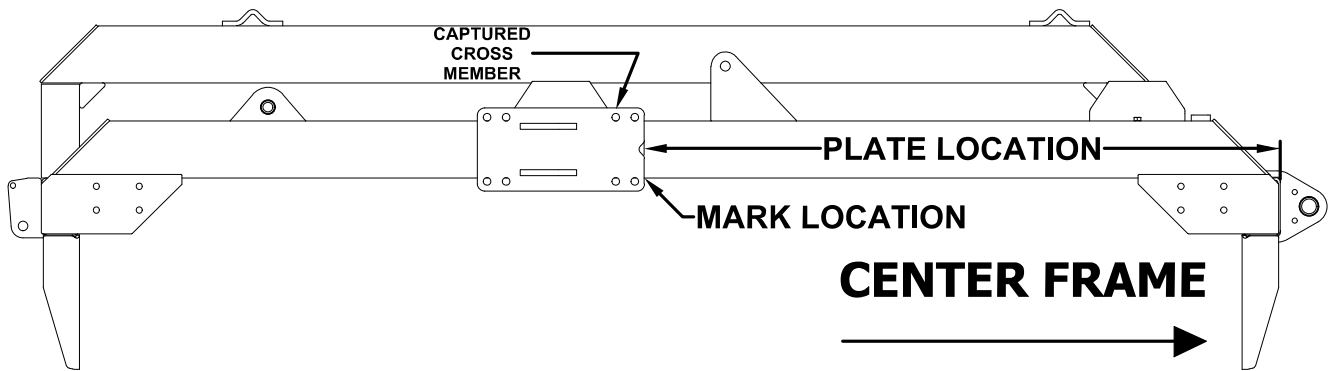
### **WING SCRAPER ASSEMBLY**

1. Loosely mount the ½" Brackets using the U-bolts, only using nuts on the top of the bracket.
2. Position the lower U-bolts to coincide with the farthest hole to the ends of the blades but also clear any lugs or mounts on the wing frame then loosely install the nuts and washers on the lower U-bolt.
3. Align the blade to be ¼" from the drum, then repeat the steps until the entire roller surface has blade coverage.

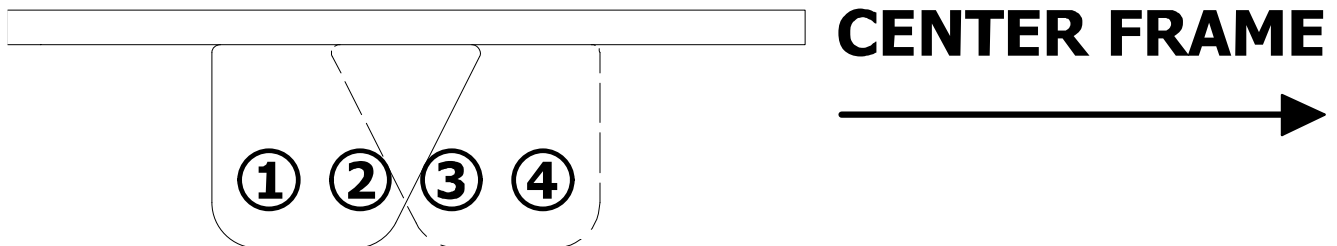
## ASSEMBLY INSTRUCTIONS—DRAFT ARMS

### WING SCRAPER ASSEMBLY

- A. Identify the size of your **LAND ROLLER**
- B. Confirm the draft arm length. This length is measured from center to center of the ball joint holes.
- C. Measure from the end of the wing (end closest to center frame) and make a mark on the wing at the indicated measurement. On a F3 & F5, the measurement applies to the outermost wing. On a F7, the measurement applies to the middle wing.



- D. Install the draft arm clevis plate with the leading edge at the mark. This may require flipping the plate around. The clevis hole number is as shown:



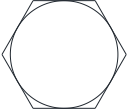
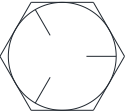

- E. Some installations have the clevis plate surrounding a wing cross member. This is a final double check that the clevis is properly installed.



## ASSEMBLY INSTRUCTIONS—DRAFT ARMS

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>UNIT</b>	<b>DRAFT ARM LENGTH (INCHES)</b>	<b>PLATE LOCATION (INCHES)</b>	<b>CLEVIS HOLE</b>	<b>CROSS MEMBER CAPTURED?</b>
F3-32	137	0	1	No
F3-34NT	153-7/8	0	1	No
F3-36	153-7/8	0	1	No
F3-40NT	161-1/2	143	2	No
F3-42	161-1/2	143	2	No
F3-44NT	161-1/2	148-1/2	4	Yes
F3-46	161-1/2	148-1/2	4	Yes
F3-48	161-1/2	143	2	No
F3-50NT	171-1/8	154	2	No
F3-52	171-1/8	154	2	No
F5-46	171-1/8	43	3	Yes
F5-50	171-1/8	46	4	Yes
F5-54	171-1/8	19-1/2	3	No
F5-58	237-3/8	90-1/2	2	Yes
F5-62	237-3/8	70-1/8	4	Yes
F5-68	237-3/8	32	4	No
F5-74	237-3/8 HD	32	4	No
F5-78	237-3/8 HD	32	4	No
F5-84	237-3/8 HD	32	4	No
F7-65	171-1/8	44-1/4	3	Yes
F7-69	171-1/8	44-1/4	3	Yes
F7-73	171-1/8	41	1	No
F7-77	171-1/8	41	1	No
F7-81	237-3/8 HD	88	1	No
F7-85	237-3/8 HD	92	3	No
F7-89	237-3/8 HD	68	3	Yes

**FASTENER GRADE CHART**

Specification	Material	Size Range (inches)	Min. Proof Strength (psi)	Min. Tensile Strength (psi)	Min. Yield Strength (psi)	Grade Identification Marking
Grade 2	Low or Medium Carbon Steel	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	

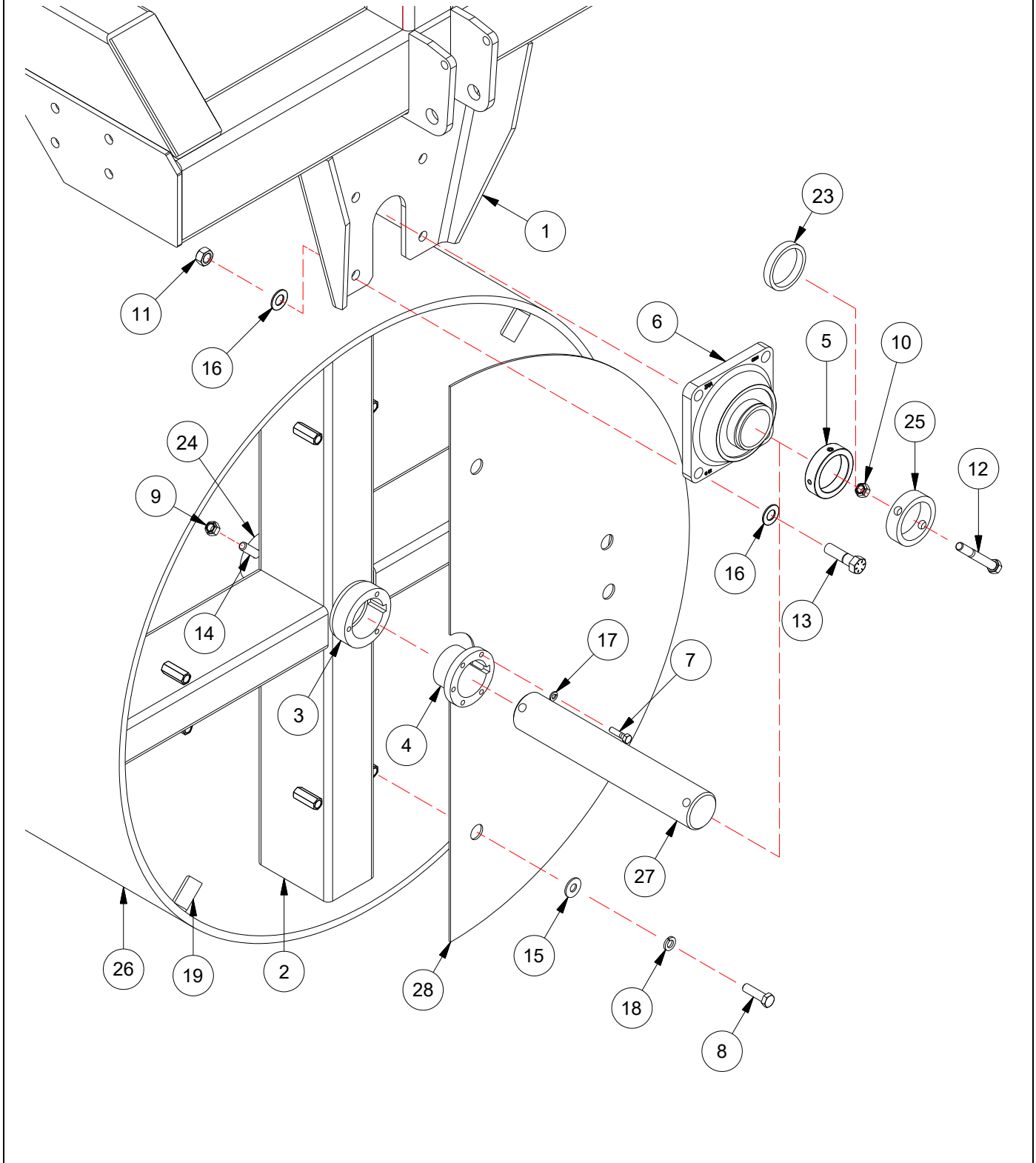
# FASTENER TORQUE CHART

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



# **SECTION 2**

**PARTS DETAILS – DRUM ASSEMBLY**



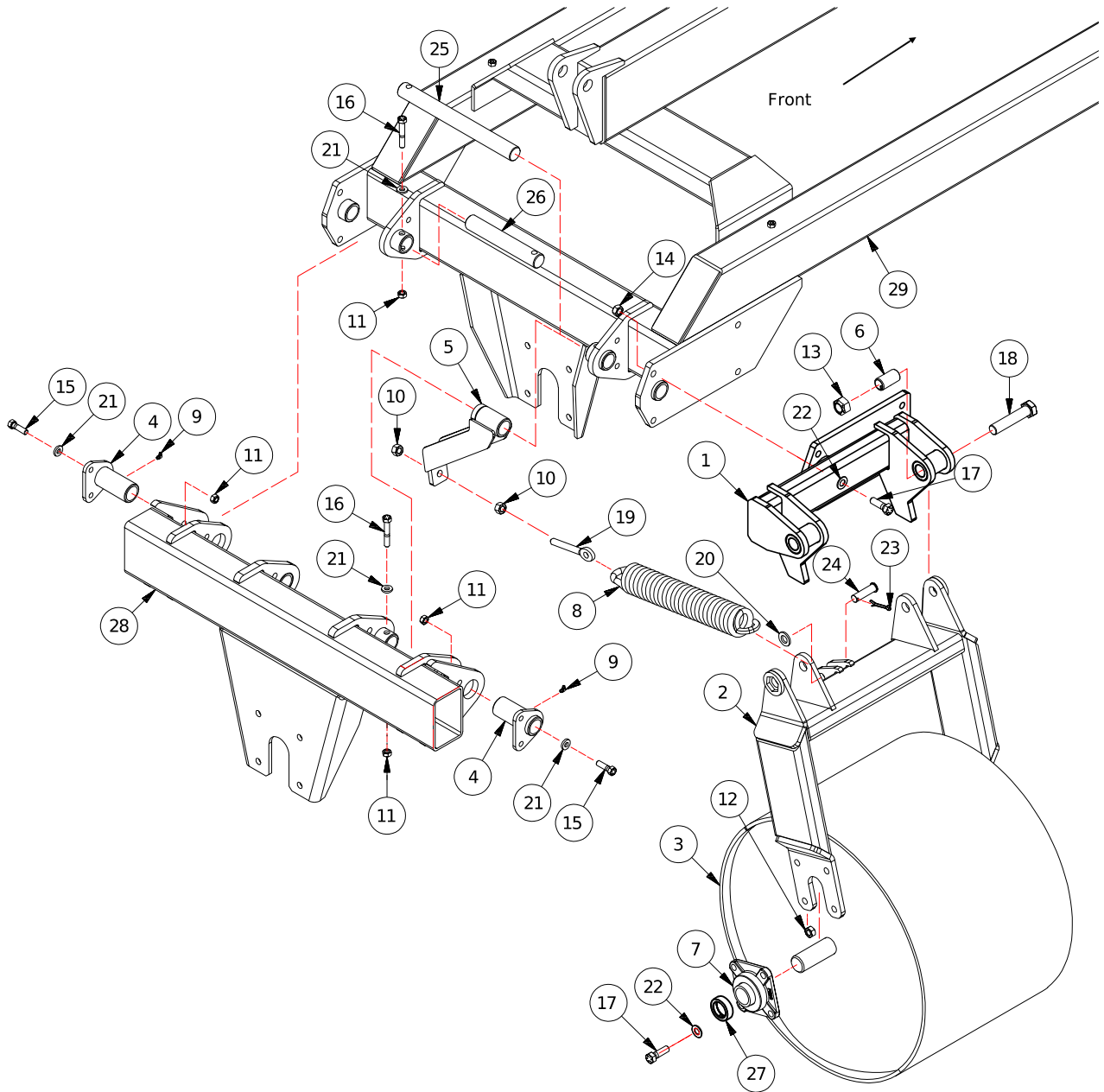
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**DRUM ASSEMBLY**

## PARTS DETAILS – DRUM ASSEMBLY

ITEM #	PART #	DESCRIPTION
1	Varies	Refer to Section 2 page 44
2	112-0529	Offset Drum Cross c/w Coupling Nuts
3	200-9002	Weld On Bushing
4	261-6001	Ø3-11/16" x 1-5/16" Split Tapered Bearing
5	292-4018	Ø2-7/16" Eccentric Lock Collar, Pltd.
6	292-4022	Ø2-7/16" ID 4-Bolt Flange Bearing
7	525-0510	5/16" x 1-1/4" Capscrew, NC, Gr.5, Pltd.
8	526-0815	1/2" x 1-3/4" Capscrew, NC, Gr.5, Pltd.
9	526-6105	1/2" Stover Lock Nut, NC, Gr.5, Pltd.
10	526-7308	1/2" Stover Lock Nut, NC, Pltd.
11	526-7610	5/8" Stover Lock Nut, <b>NF</b> , Gr.8, Pltd.
12	530-0754	1/2" x 4" Capscrew, NC, Gr.8, Pltd.
13	538-1018	5/8" x 2-1/4" Capscrew, <b>NF</b> , Gr.8, Pltd.
14	540-0836	1/2" x 4-1/2" Socket Head Capscrew, NC, Gr.5, Black
15	550-5208	1/2" Flat Washer, Pltd.
16	550-5617	5/8" SAE Flat Washer, Gr.8 (F436), Pltd.
17	551-4905	5/16" Spring Lock Washer. Black
18	551-5008	1/2" Spring Lock Washer, Pltd.
19	802-2047	Drum Cross Mount Angle
23	805-7041	Spacer, Ø OD x .240w CDSM - 1/8"
24	825-0260	Back Bushing
25	805-8023	Offset Drum Collar, Ø3-1/4" OD x .375w CDSM - 7/8"
26	Varies	Refer to Section 2 Page 45
27	827-0017	Replaceable Drum Shaft Ø2-7/16" OD x 14-3/4"
28	835-1044	1/2 Section Drum End Cap

**PARTS DETAILS – FINISHING ROLLER**

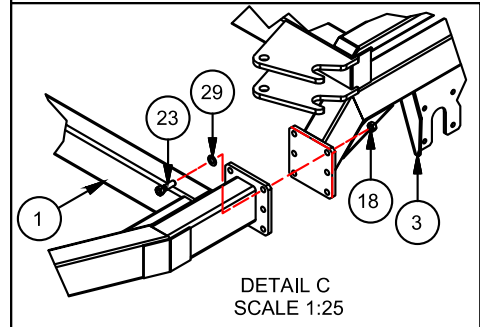
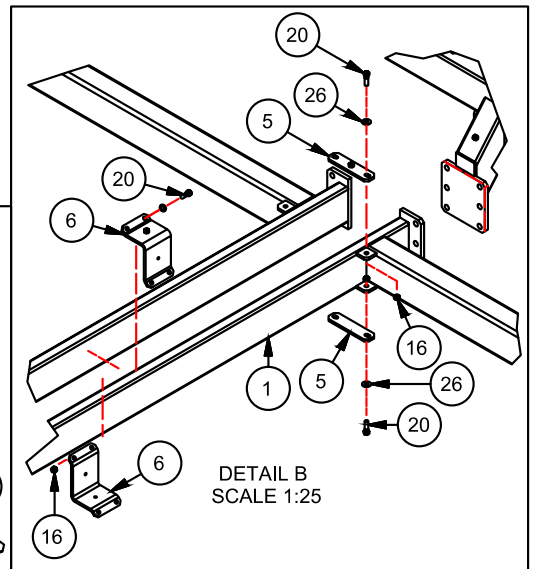
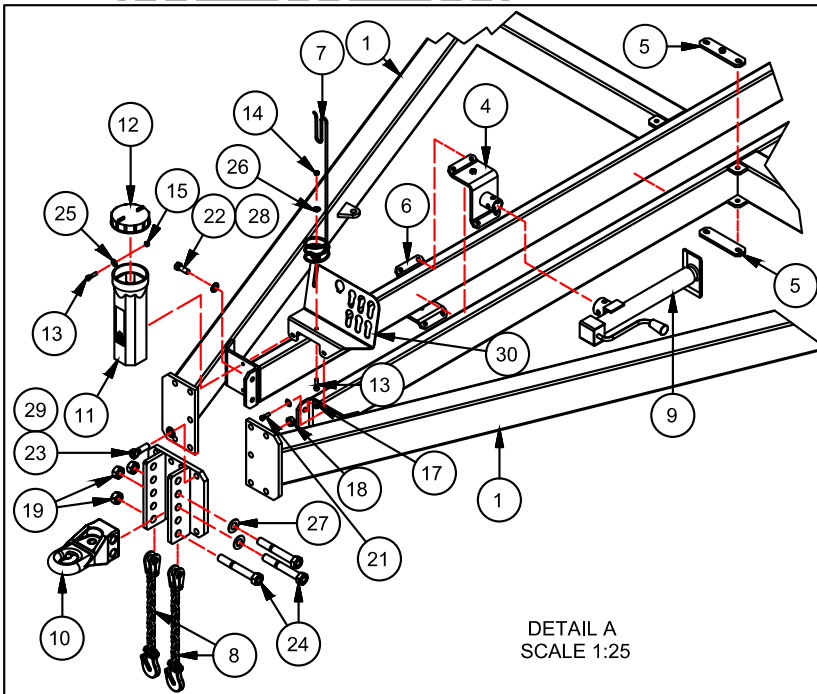
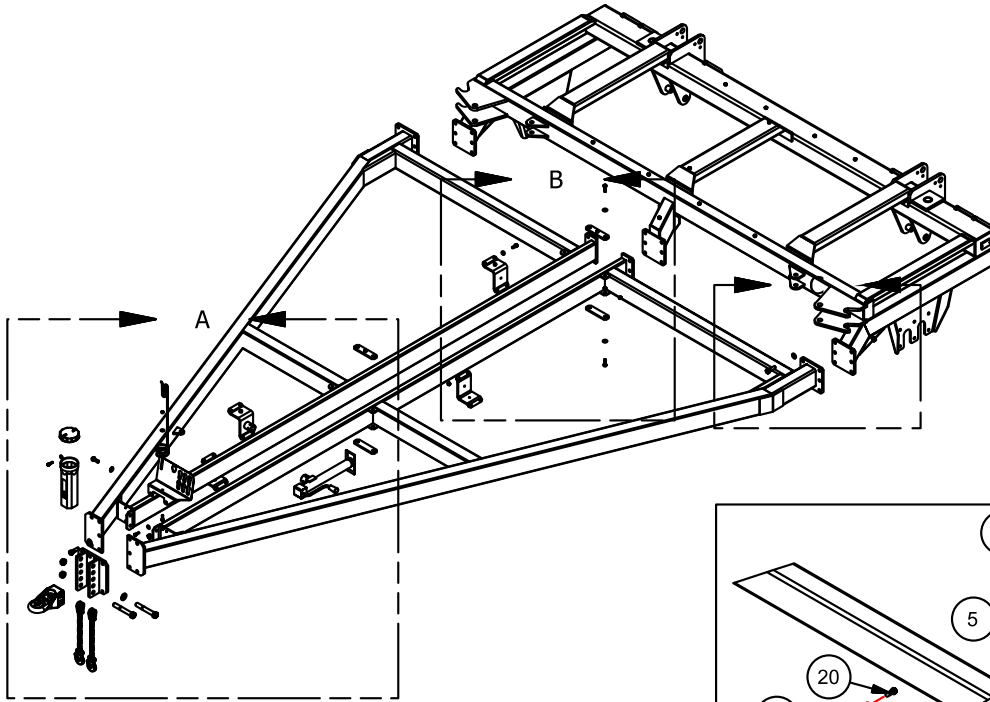




## PARTS DETAILS – FINISHING ROLLER

ITEM #	PART #	DESCRIPTION
1	105-0053	Wing Attachment Weldment, Universal
2	105-0054	Finish Drum Mount Weldment
3	105-0067	Finish Drum Weldment, Ø28" x 20" wide
4	105-0490	Inner Bolt On Boss Weldment, Ø1-1/2" ID x 4-7/8" overall
5	105-0510	Spring Tension Weldment
6	261-5108	Connex Steel Bushing, 1" ID x 3-5/16" long
7	292-4021	1-3/4" ID 4 Bolt Flange Bearing, c/w Eccentric Lock Collar
8	403-0282	Finish Roller Tension Spring
9	419-0006	1/4" Grease Zerk, NF, 90° Elbow, Pltd.
10	526-6210	5/8" Hex Nut, NC, Gr.5, Pltd.
11	526-7308	1/2" Stover Lock Nut, NC, Gr.8, Pltd.
12	526-7310	5/8" Stover Lock Nut, NC, Gr.8, Pltd.
13	526-7316	1" Stover Lock Nut, NC, Gr.8, Pltd.
14	526-7610	5/8" Stover Lock Nut, NF, Gr.8, Pltd.
15	530-0742	1/2" x 1-3/4" Capscrew, NC, Gr.8, Pltd., Full Thread
16	530-0748	1/2" x 3" Capscrew, NC, Gr.8, Pltd.
17	530-1002	5/8" x 2", Capscrew, NC, Gr.8, Pltd.
18	530-1656-5.5	1" x 7" Capscrew, NC, Gr.8, Pltd. (cut to 5-1/2")
19	546-0219	5/8" x 4" Spade Bolt
20	550-5312	3/4" SAE Flat Washer, Pltd.
21	550-5613	1/2" SAE Flat Washer, Gr.8, Pltd.
22	550-5617	5/8" SAE Flat Washer, F436 (Gr.8), Pltd.
23	556-0908	1/4" x 2" Cotter Pin, Pltd.
24	560-1211	Ø3/4" x 2-3/8" Useable, Headed Pin Pltd.
25	827-0088	Spring Tension Mount Pin, Ø1-1/2" x 15-5/16", Pltd.
26	827-0091	Wing Connecting Pin, Ø1-1/2" x 9-3/8", Pltd.
27	292-4021	1-3/4" Eccentric Lock Collar
28	Varies	Refer to Section 2 page 44
29	Varies	Refer to Section 2 page 44

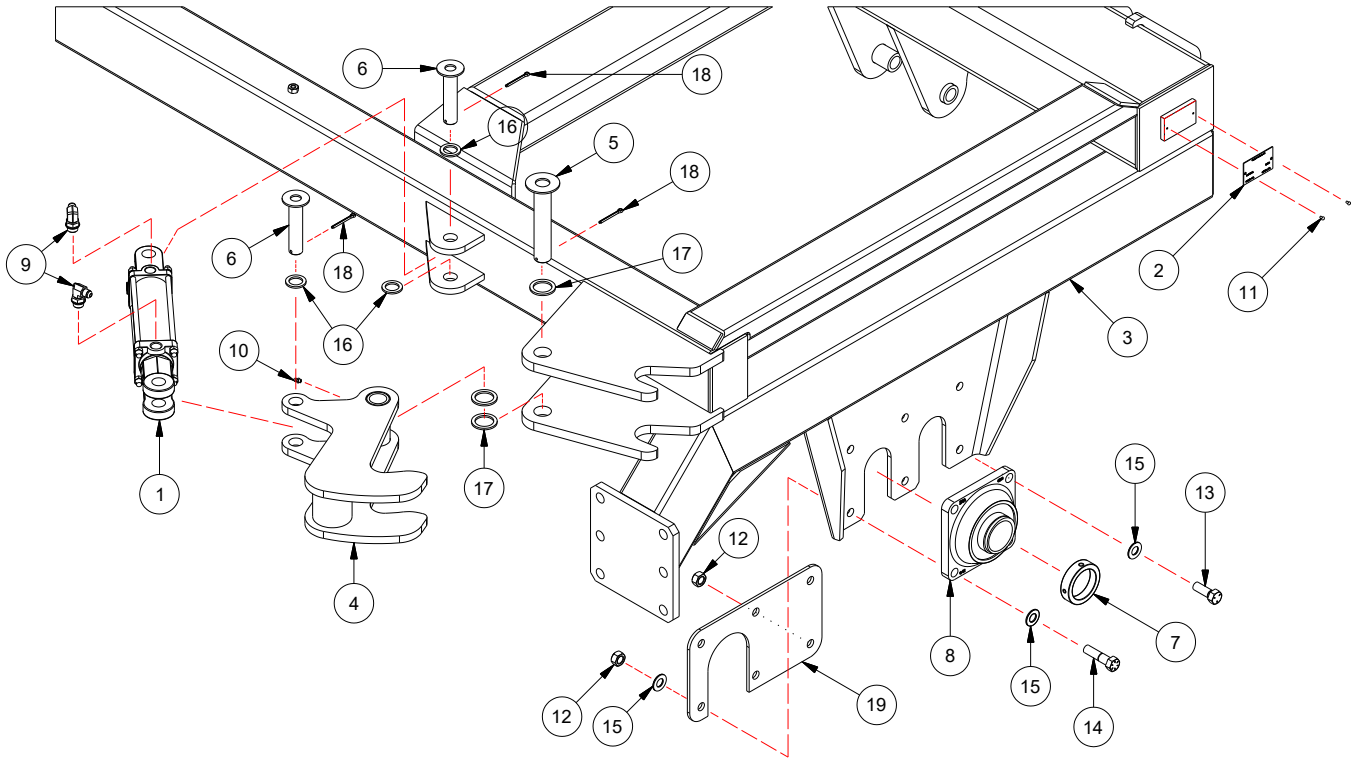
# PARTS DETAILS – HITCH (A-FRAME)



## PARTS DETAILS – HITCH (A-FRAME)

ITEM #	PART #	DESCRIPTION
1*	105-0001	Short Hitch, Side Weldment
*	105-0002	Long Hitch, Side Weldment (65' and Larger)
*	105-0122	Narrow Hitch, Side Weldment (Narrow Transport)
2	105-0003	Tongue Attachment Weldment
3	105-0004	Centre Frame Wld., Dual Bearing Hanger (12' wide)
*	105-0097	Narrow Centre Frame Wld., Dual Bearing Hanger (10' wide)
4	105-0037	Hitch, Jack Tube & Hydraulic Mount (@ 29-7/8" edge of tip & chain plate to edge)
5	105-0039	Hitch Tie Retainer c/w Hydraulic Mount
6	105-0071	Hitch Clamp c/w Hydraulic Mount
7	407-0003	24" Shepherds Hook Hose Standoff
8	409-9050	20,000 lbs. Safety Chain, Clevis Mount, Pltd.
9	420-0161	20" (15 + 5) Side Wind Parking Jack 5,000 lbs. Ø5/8" pin
10	423-0001	Perfect Hitch Cushion Assembly
11	426-0001	Storage Tube
12	426-0002	Storage Tube Cap
*	426-0003	Storage Tube Cap and Tube Assembly
13	526-0612	3/8" x 1-1/4" Capscrew, NC, Gr.5, Pltd.
14	526-0814	1/2" x 1-3/4" Capscrew, NC, Gr.5, Pltd.
15	526-6103	3/8" Stover Lock Nut, NC, Gr.B, Pltd.
16	526-6105	1/2" Stover Lock Nut, NC, Gr.B, Pltd.
17	526-7310	5/8" Stover Lock Nut, NC, Gr.C, Pltd.
18	526-7312	3/4" Stover Lock Nut, NC, Gr.C, Pltd.
19	526-7316	1" Stover Lock Nut, NC, Gr.8, Pltd.
20	530-0609	1/2" X 1-1/2" Capscrew, NC, Gr.8, Pltd.
21	530-0742	1/2" X 1-3/4" Capscrew, NC, Gr.8, Pltd.
22	530-1014	5/8" x 1-3/4" Capscrew, NC, Gr.8, Pltd.
23	530-1266	3/4" x 2-1/2" Capscrew, NC, Gr.8, Pltd.
24	530-1656	1" x 7" Capscrew, NC, Gr.8, Pltd.
25	550-5206	3/8" Flat Washer, Pltd.
26	550-5307	1/2" SAE Flat Washer, Pltd.
27	550-5316	1" SAE Flat Washer, Pltd.
28	550-5617	5/8" SAE Flat Washer, Pltd.
29	550-5621	3/4" SAE Flat Washer, Pltd.
30	839-0034	Tip and Chain holder, Painted

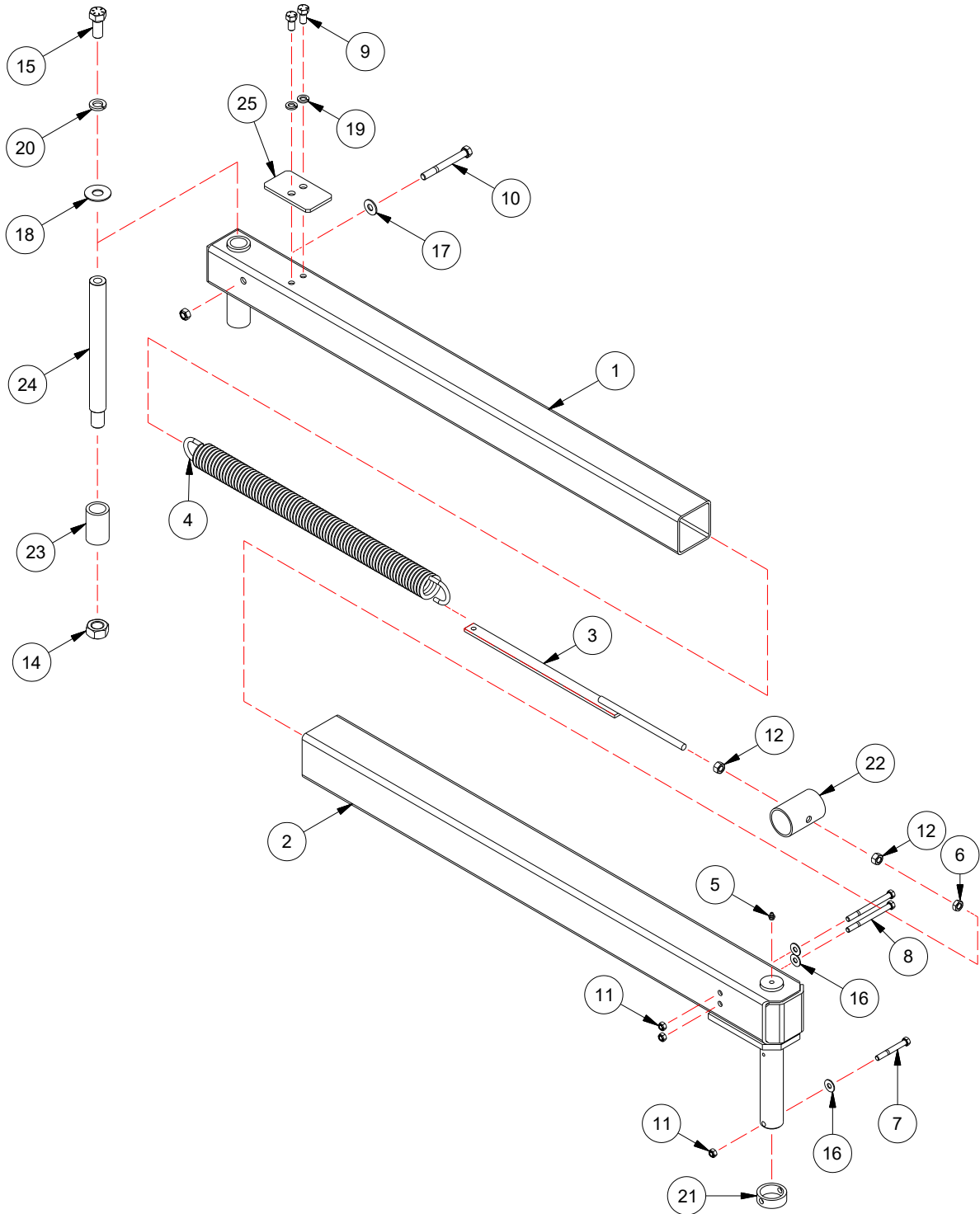
**PARTS DETAILS – SWING ARM LOCK-UP**



## PARTS DETAILS – SWING ARM LOCK-UP

ITEM #	PART #	DESCRIPTION
1	030-5993	Cylinder, Tie-Rod, 2-1/2" X 6"
2	060-0034	Riteway Serial Number Plate
3	105-0004	Centre Frame Weldment, (12' Wide)
*	105-0097	Narrow Centre Frame Weldment, (10' Wide)
4	105-0012	Auto Fold Hook Weldment
5	105-0083	Auto Fold Pin, Ø1-1/4" x 6-1/4" useable, Pltd.
6	105-0087	Cylinder Pin Weldment, Ø1" x 4-1/4" useable, Pltd.
7	292-4018	2-7/16" Ø Lock Collar, Pltd. c/w set screw
8	292-4025	2-7/16" Ø - 4 - Bolt Flange Bearing
9	319-5710	1/2" ORB M x 3/8" JIC M - 90° Elbow
10	419-0004	1/4 <b>NF</b> Grease Jerk, Straight, Pltd.
11	510-0001	3/16" Round Head Pop Rivet, 1/4" x 3/18", Pltd.
12	526-7610	5/8" Stover Lock Nut, <b>NF</b> , Gr.C, Pltd.
13	534-1014	5/8" x 1-3/4" Capscrew, <b>NF</b> , Gr.5, Pltd.
14	538-1020	5/8" x 2-1/2" Capscrew, <b>NF</b> , Gr.8, Pltd.
15	550-5617	5/8" SAE Flat Washer, F436 (Gr.8), Pltd.
16	554-5404	1" ID x 10 Ga., Machine Washer, Pltd.
17	554-5407	1-1/4" ID x 10 Ga., Machine Washer, Pltd.
18	556-0906	3/16" x 1-3/4" Cotter Pin, Pltd.
19	839-0014	Dual Bearing Hanger Selector Plate, Painted

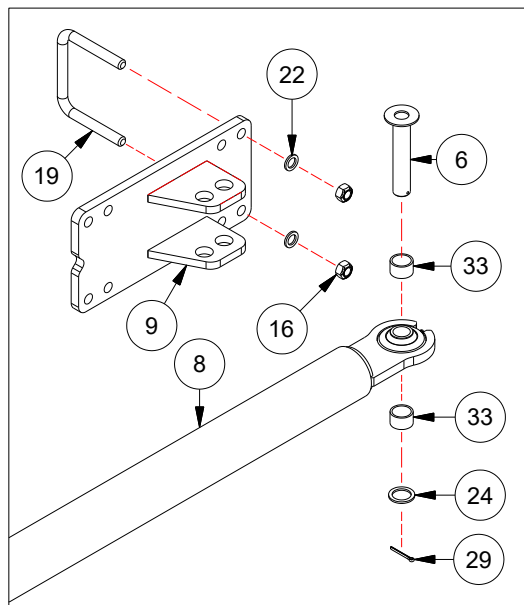
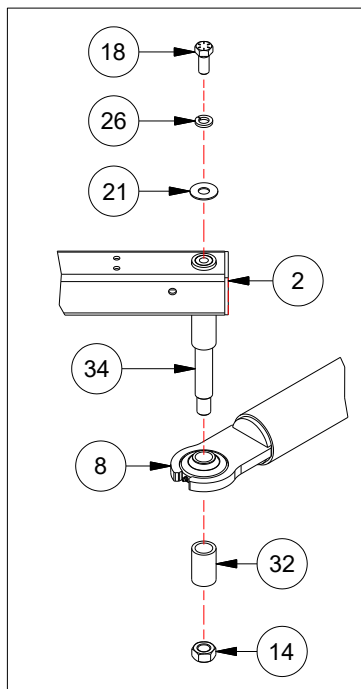
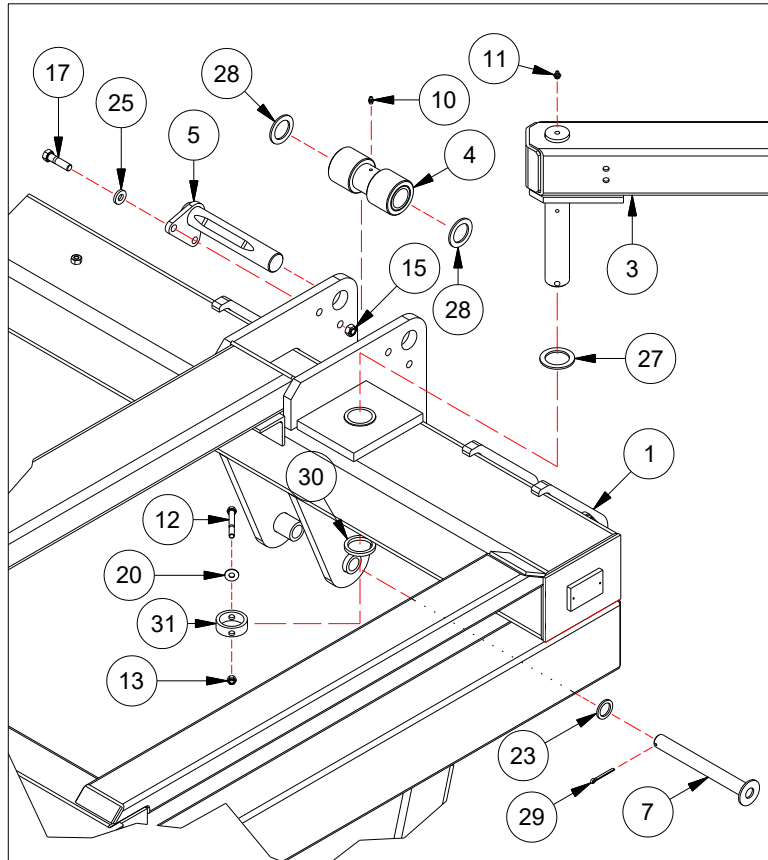
**PARTS DETAILS – TELESCOPING SWING ARM**



## PARTS DETAILS – TELESCOPING SWING ARM

ITEM #	PART #	DESCRIPTION
1	105-0010	Auto Fold Arm Inner Weldment
2	105-0011	Auto Fold Arm Outer Weldment
3	105-0084	Auto Fold Swing Arm Spring Linkage
4	403-0276	Swing Arm Spring, 5/16" Wire x 2" OD x 27-1/2 Long
5	419-0100	3/8" NF Grease Zerk Straight, Pltd.
6	525-6108	1/2" Hex Jam Nut, NC, Gr.5, Pltd.
7	526-0624	3/8" x 3" Capscrew, NC, Gr.5, Pltd
8	526-0636	3/8" x 4-1/2" Capscrew, NC, NC, Gr.5, Pltd.
9	526-0808	1/2" x 1" Capscrew, NC, Gr.5, Pltd.
10	526-0836	1/2" x 4" Capscrew, NC, Gr.5, Pltd.
11	526-6103	3/8" Stover Lock Nut, NC, Gr.5, Pltd.
12	526-6208	1/2" Hex Nut, NC, Gr.B, Pltd.
13	526-7308	1/2" Stover Lock Nut, NC, Gr.C, Pltd.
14	526-7316	1" Stover Lock Nut, NC, Gr.C, Pltd.
15	530-1248	3/4" x 1-3/4 Capscrew, NC, Gr.8, Pltd.
16	550-5206	3/8" Flat Washer, Pltd.
17	550-5208	1/2" Flat Washer, Pltd.
18	550-5212	3/4" Flat Washer, Pltd.
19	551-5008	1/2" Spring Lock Washer, Pltd.
20	551-5012	3/4" Spring Lock Washer, Pltd.
21	805-6043	Swing Arm Collar, Offset, Painted, Ø2-1/3" OD - 3/4
22	806-2415	Spring Retainer Pipe, Ø2" ID x 3-1/2" Long, Black
23	825-0025	Swing Arm / Draft Arm Pin Bushing, Ø1-1/4" ID x 2-3/4", Pltd.
24	827-0019	Swing Arm / Draft Arm Pin, Ø1-1/4" x 13-1/4", Pltd.
23	839-0131	Slide Stopper Plate, Painted, 3/8: HR plate 2-3/4" x 4-7/8"

**PARTS DETAILS – DRAFT & SWING ARM**

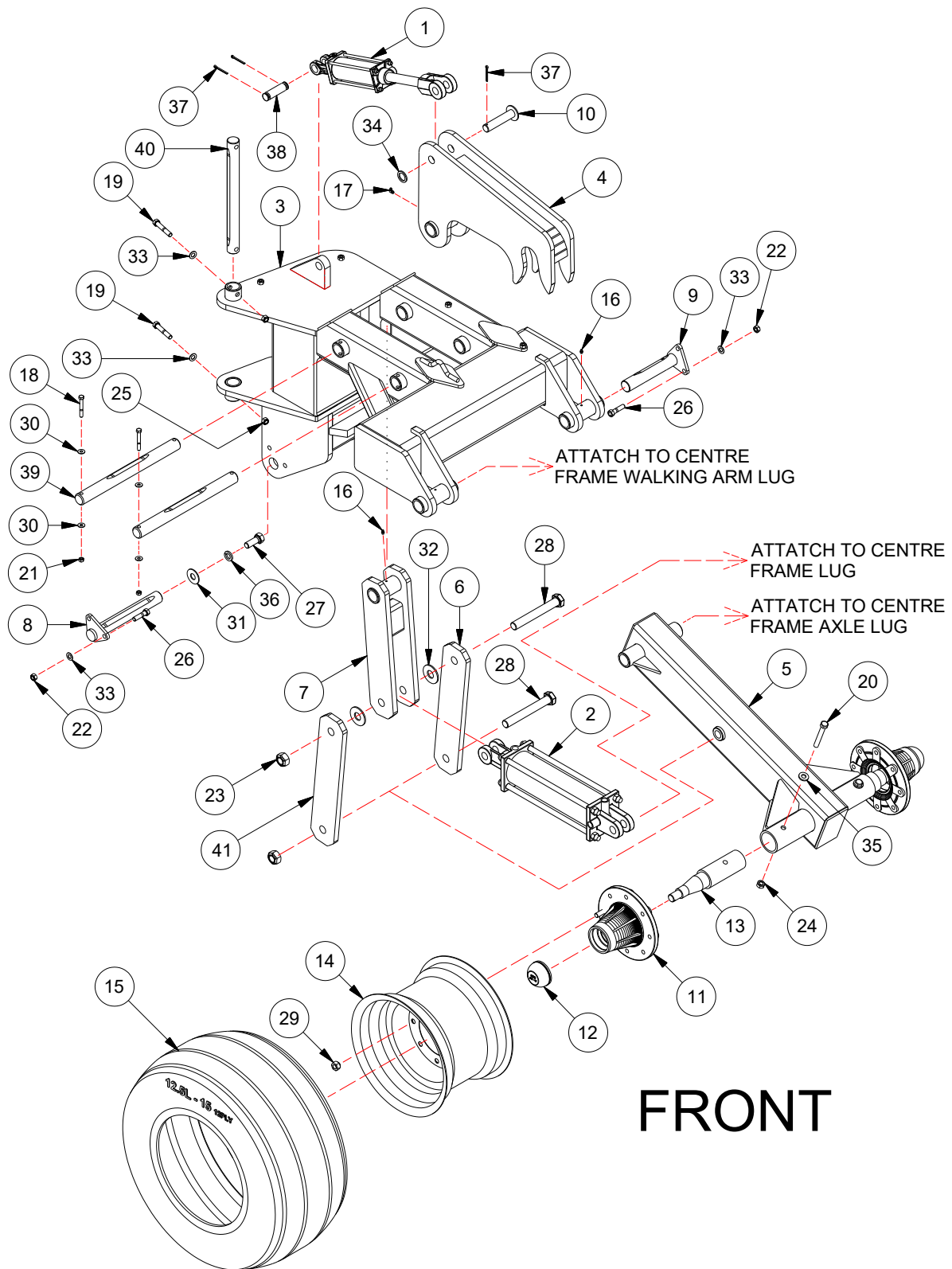




## PARTS DETAILS – DRAFT & SWING ARM

ITEM #	PART #	DESCRIPTION
1	105-0004	Centre Frame Weldment, 12' Wide
*	105-0097	Centre Frame Weldment, 10' Wide (Narrow)
2	105-0010	Swing Arm Inner Arm Weldment
3	105-0011	Swing Arm Outer Arm Weldment
4	105-0069	Centre Frame Hook Roller Weldment
5	105-0078	Walking Arm Pin Weldment, Ø1-1/2" x 8-1/4" useable
6	105-0083	Wing Attachment Draft Arm Pin, Ø1-1/4" x 6-1/4" useable
7	105-0088	Centre Axle Pin, Ø1" x 8-3/4" useable
8	105-0494	Draft Arm - 237-3/8" C to C Long, F7 - 81', 85', 89' (Heavy Duty)
*	105-0095	Draft Arm - 237-3/8" C to C Long, F5 - 58', 62', 68', 74', 78', 84', F7 - 77'
*	105-0094	Draft Arm - 171-1/8" C to C Long, F3 - 52', F5 - 46', 50', 54', F7 - 65', 69', 73'
*	105-0093	Draft Arm - 161-1/2" C to C Long, F3 - 42', 46', 48'
*	105-0474	Draft Arm - 153-7/8" C to C Long, F3 - 36'
*	105-0531	Draft Arm - 137" C to C Long, F3 - 32'
9	105-0511	Wing Attachment Clevis Weldment
*	105-0486	Wing Attachment Clevis Weldment, (F3-32 & 36)
10	419-0004	1/4" NF Grease Zerk, Pltd.
11	419-0100	3/8" NF Grease Zerk, Pltd.
12	526-0624	3/8" x 3" Capscrew, NC, Gr.5, Pltd.
13	526-6103	3/8" Stover Lock Nut, NC, Gr.5, Pltd.
14	526-6109	1" Stover Lock Nut, NC, Gr.5, Pltd.
15	526-7308	1/2" Stover Lock nut, Gr.C, Pltd.
16	526-7312	3/4" Stover Lock Nut, NC, Gr.C, Pltd.
17	530-0744	1/2" x 2" Capscrew, NC, Gr.8, Pltd.
18	530-1248	3/4" x 1-3/4" Capscrew, NC, Gr.8, Pltd.
19	546-5181	3/4" x 6-1/16" x 5-3/4" Inside Leg, U-Bolt, NC, Gr.5, Pltd.
20	550-5206	3/8" Flat Washer, Pltd.
21	550-5212	3/4" Flat Washer, Pltd.
22	550-5318	3/4" SAE Flat Washer, Pltd.
23	550-5316	1" SAE Flat Washer, Pltd.
24	550-5318	1-1/4" SAE Flat Washer, Pltd.
25	550-5613	1/2" SAE Flat Washer, Gr.8, Pltd.
26	551-5012	3/4" Spring Lock Washer, Pltd.
27	554-5401	Ø1-3/4" ID x 10 Ga. Machine Washer, Pltd.
28	554-5410	Ø1-1/2" ID x 10 Ga. Machine Washer, Pltd.
29	556-0906	3/16" x 1-3/4" Cotter Pin, Pltd.
30	805-6005	Swing Arm Shaft Spacer, Ø2-1/4" OD x .240w CDSM - 1/4"
31	805-6043	Offset Swing Arm Collar, Ø2-1/4" OD x .240w CDSM - 3/4"
32	825-0025	Swing Arm / Draft Arm Bushing Ø1-3/4 OD x 2-3/4 long
33	826-0006	Draft Arm Pin Bushing , Pltd. Ø1-1/4 OD x 1 long
34	827-0019	Swing Arm / Draft Arm Pin Ø1-1/4 OD x 13-1/4 long

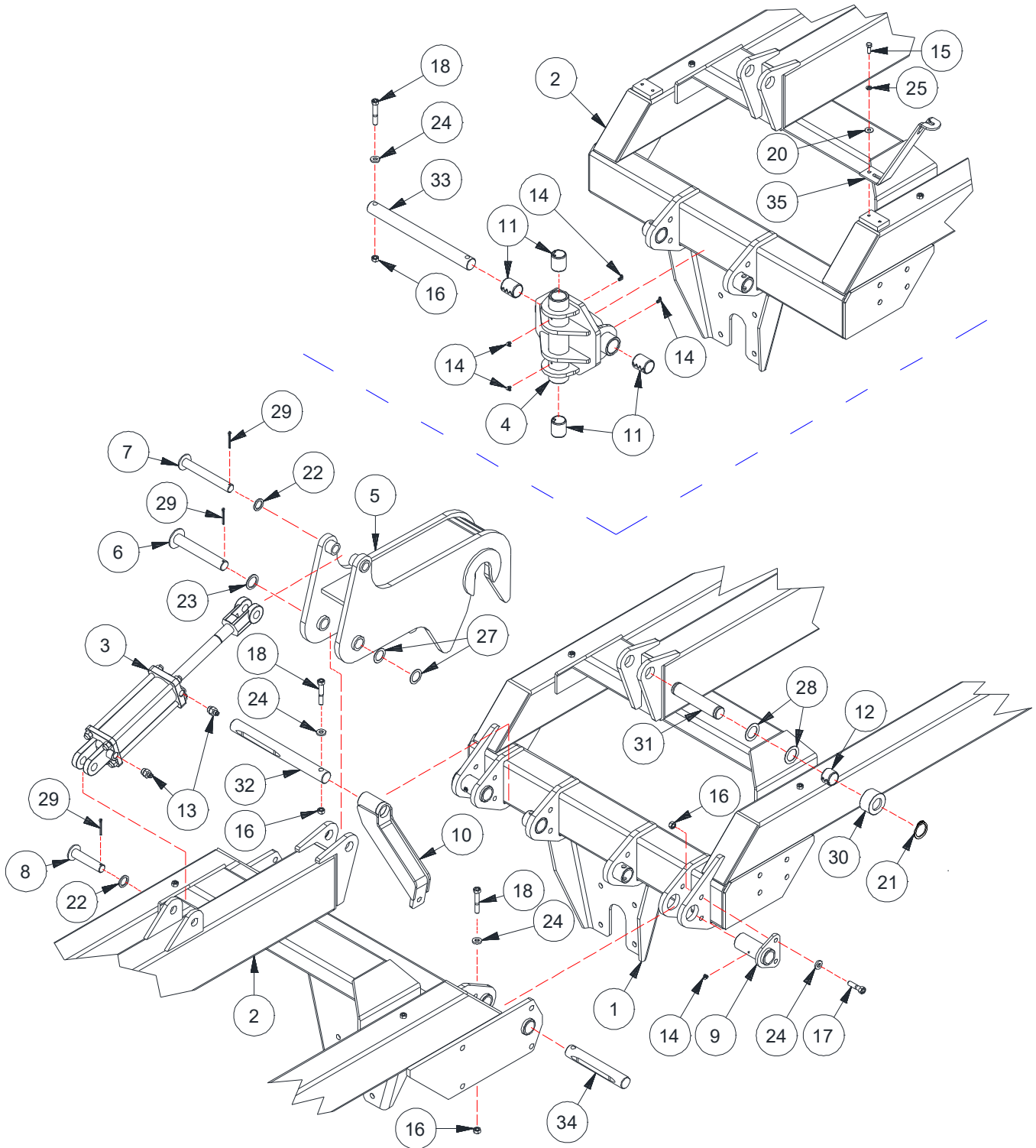
**PARTS DETAILS – WALKING ARM**



## PARTS DETAILS – WALKING ARM

ITEM #	PART #	DESCRIPTION
1	030-5993	Cylinder, Tie-Rod, 2-1/2" X 6"
2	030-5967	40THC12-175, 3/4" ORB Ports @ 90°
3	105-0013	Left Walking Arm Weldment, <b>shown</b>
*	105-0014	Right Walking Arm Weldment
4	105-0015	Walking Arm Hook Weldment
5	105-0016	Centre Axle Weldment c/with Bolt In Spindles
6	105-0035	Centre Axle Lower Link Weldment (x2)
7	105-0036	Centre Axle Upper Link Weldment (x2)
8	105-0074	Centre Axle Pin Weldment, Ø1-1/2" x 11" Useable, Tapped 3/4", NC, Pltd.
9	105-0078	Walking Arm Pin Weldment, Ø1-1/2" x 8-1/4" useable
10	105-0087	Cylinder Pin Weldment, Pltd. Ø1" x 4-5/16" Useable
11	200-6011-1	812 Hub c/w Cups (CTD), Refer to Page 59 for Details
12	202-6013	Dust Cap - DC 17 (CTD)
13	203-6044	Ø2-1/2" 812 Spindle - Bolt-In, 11-3/4" Long
14	Varies	Refer to Section 2 page 25
15	Varies	Refer to Section 2 page 25
16	419-0004	1/4 NF Grease Zerk, Straight, Pltd.
17	419-0006	1/4 NF Grease Zerk, 90°, Pltd.
18	526-0622	3/8" x 2-3/4" Capscrew, NC, Gr.5, Pltd.
19	526-0824	1/2" x 3" Capscrew, NC, Gr.5, Pltd.
20	526-0932	9/16" x 4" Capscrew, NC, Gr.5, Pltd.
21	526-6103	3/8" Stover Lock Nut, NC, Gr.B, Pltd.
22	526-6105	1/2" Stover Lock Nut, NC, Gr.B, Pltd.
23	526-6109	1" Stover Lock Nut, NC, Gr.B, Pltd.
24	526-6112	9/16" Stover Lock Nut, NC, Gr.B, Pltd.
25	526-7308	1/2" Stover Lock Nut, NC, Gr.C, Pltd.
26	530-0744	1/2" x 4" Capscrew, NC, Gr.8, Pltd.
27	530-1250	3/4" x 2" Capscrew, NC, Gr.8, Pltd.
28	530-1672-7.5	1" x 9" Capscrew, NC, Gr.8, Pltd. (cut to 7.5)
29	543-5563	9/16" Wheel Nut, NF, Gr.5, Pltd.
30	550-5205	5/16" Flat Washer, Pltd.
31	550-5212	3/4" Flat Washer, Pltd.
32	550-5216	1" Flat Washer, Pltd.
33	550-5307	1/2" SAE Flat Washer, Pltd.
34	550-5316	1" SAE Flat Washer, Pltd.
35	550-5615	9/16" SAE Flat Washer, Gr.8, Pltd
36	551-5012	3/4" Spring Lock Washer, Pltd.
37	556-0906	3/16" x 1-3/4" Cotter Pin, Pltd.
38	560-1614	1" x 3-1/2" OD Cylinder Pin , Pltd.
39	827-0089	Walking Arm Linkage Pin, Ø1-1/2" x 17", Useable
40	827-0090	Knuckle Pin, Ø1-1/2" x 16-5/8, Pltd.
41	839-0074	Lower Centre Axle Link Arm Painted

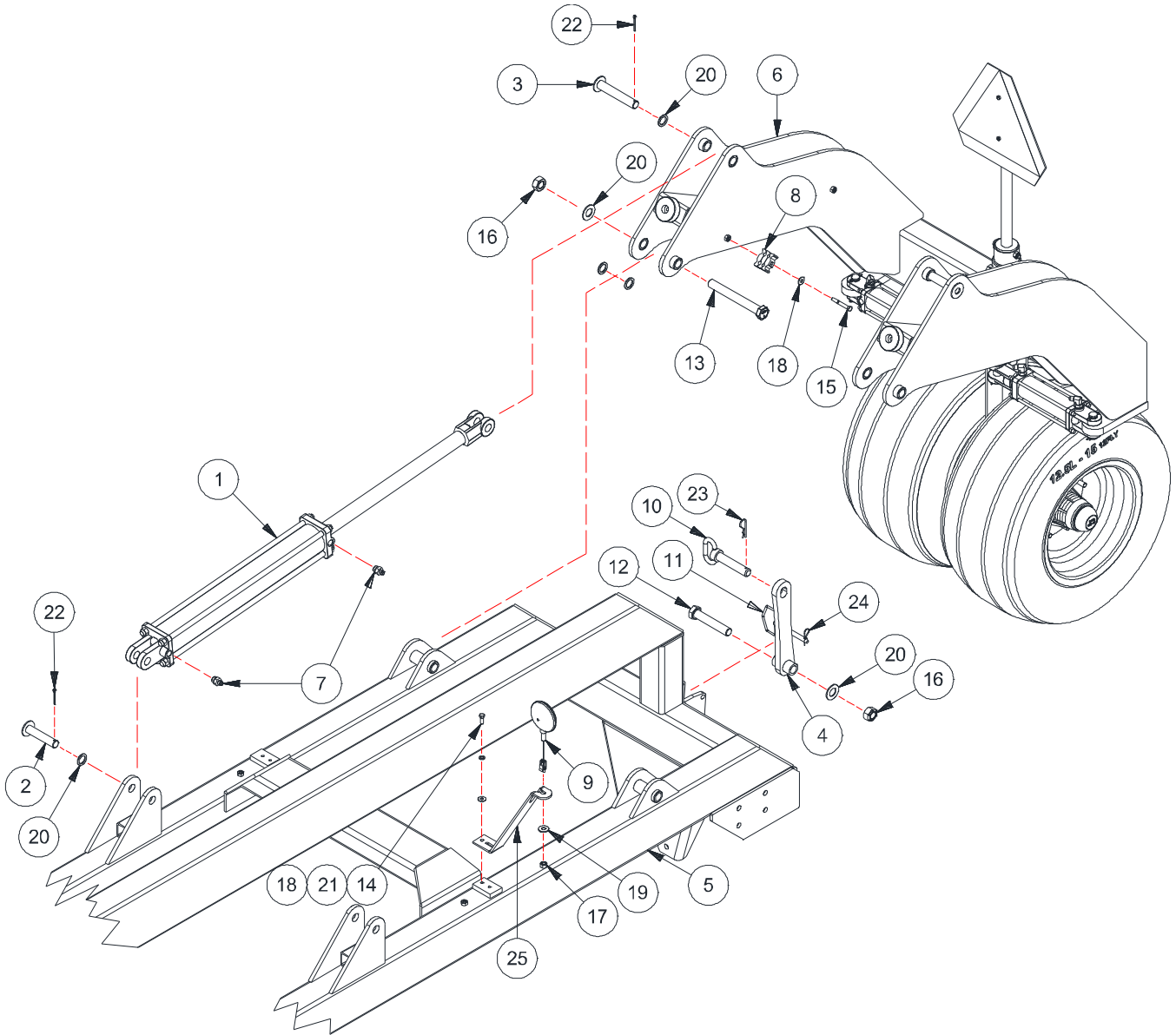
**PARTS DETAILS – INNER/MID WING**



## PARTS DETAILS – INNER/MID WING

ITEM #	PART #	DESCRIPTION
1	Varies	Refer to Section 2 page 44
2	Varies	Refer to Section 2 page 44
3	030-5935	Cylinder, Tie - Rod, 3-1/2" X 8"
4	105-0017	Knuckle Weldment for Ø1-1/2" Pin
5	105-0047	Transport Lock Weldment (Truss Claw)
6	105-0082	Transport Lock Pin Weldment, Ø1-1/4" x 7-9/16" Useable
7	105-0086	Cylinder Claw Pin Weldment, Ø1" x 7-5/16" Useable
8	105-0087	Cylinder Pin Weldment, Ø1" x 4 -5/16" Useable
9	105-0490	Inner bolt-In Boss Weldment, Ø1-1/2" ID x 4 -7/8" Overall
10	105-0510	Spring Tension Weldment, (Ø1-9/16" Hole Through)
11	261-5101	Connex Steel Bushing, Ø1-1/2" ID x 2" long
12	261-5103	Connex Steel bushing, Ø1-1/2" ID x 1-1/4 long
13	316-0302	1/2" ORB M x 3/8" JIC M - Adaptor
14	419-0006	1/4" Grease Zerk, NF, Pltd. 90°
15	526-2016	3/8" x 1" Capscrew, DC, Gr.5, Pltd., Scotch Grip
16	526-7308	1/2" Stover Lock Nut, NC, Gr.C, Pltd.
17	530-0744	1/2" x 2" Capscrew, NC, Gr.8, Pltd.
18	530-0748	1/2" x 3" Capscrew, NC, Gr.8, Pltd.
20	550-5206	3/8" Flat Washer, Pltd.
21	403-0501	Snap Ring, HD, for 1-1/2" Shaft
22	550-5316	1" SAE Flat Washer, Pltd.
23	550-5318	1-1/4" SAE Flat Washer, Pltd.
24	550-5613	1/2" SAE Flat Washer, Gr.8, Pltd.
25	551-5006	3/8" Spring lock Washer, Pltd.
27	554-5407	Ø1-1/4" ID Machine Washer, Pltd. 10 Ga.
28	554-5410	Ø1-1/2" ID Machine Washer, Pltd. 10 Ga.
29	556-0906	3/16" x 1-3/4" Cotter Pin, Pltd.
30	805-7101	Wing Hook Roller Bearing, Ø2-3/4" x .625w CDSM - 1-1/2"
31	827-0266	Wing Connecting Pin, Ø1-1/2" - Snap Ring Style
32	827-0088	Spring Tension Mount Pin, Ø1-1/2" x 15-5/16" Overall
33	837-0090	Knuckle Pin, Ø1-1/2" x 16-5/8" Overall
34	827-0091	Wing Connecting Pin, Ø1-1/2" x 9-3/8" Overall
35	830-0305	Light Mount Bracket, Painted, 1/4" HR Plate 19" x 2"

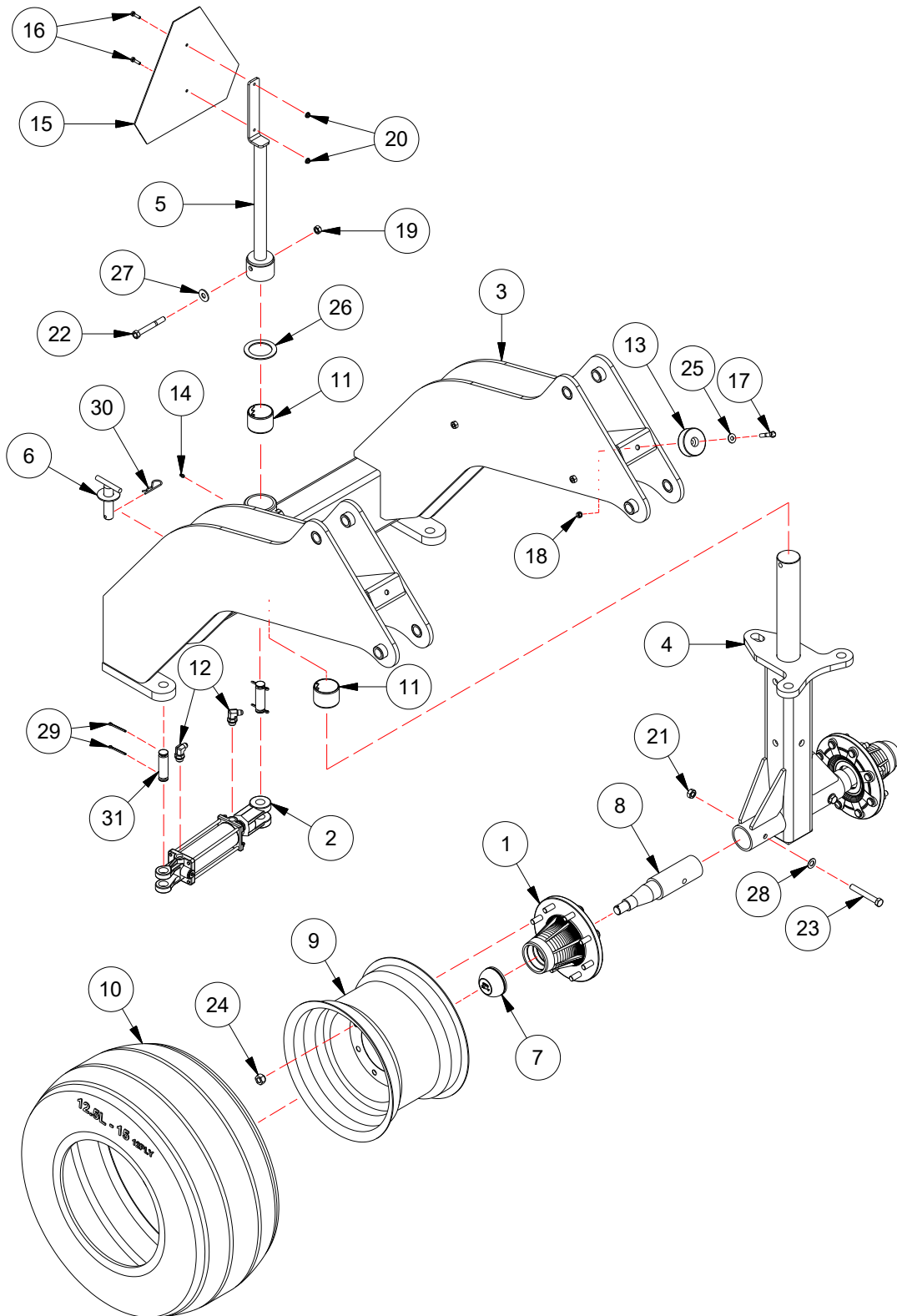
**PARTS DETAILS – OUTER WING**



## PARTS DETAILS – OUTER WING

ITEM #	PART #	DESCRIPTION
1	030-5982	Cylinder, Tie - Rod, 3-1/2" X 24"
2	105-0087	Cylinder Pin Weldment, Ø1"Ø x 4-3/16" Useable
3	105-0089	Cylinder Stroke Pin Weldment, Ø1"Ø x 5-11/16" Useable
4	105-0091	Wing Lock Up Weldment, Painted, 3/4' x 13-13/16 long
5	Varies	Refer to Section 2 page 44
6	160-0012	Wing Axle Assembly
7	316-0302	1/2" ORB Male x 3/8" JIC Male - Adaptor
8	413-0008	Small Black Plastic Clamp
9	417-0123	Red Light Assembly, 2 Prong Female End
10	422-0010	Ø1" x 4-1/2" Lock Pin, Pltd. (Dynaline Red Handle)
11	422-0018	Ø1/2" x 4-1/4" Lock Up Pin, Pltd. (3-7/8" useable)
12	526-1644	1" x 5-1/2" Capscrew, NC, Gr.5, Pltd.
13	530-1678-8.5	1" x 10 Capscrew, NC, Gr.8, Pltd. (cut to 8-1/2")
14	526-2016	3/8" x 1" Capscrew, NC, Gr.5, Pltd. Scotch Grip
15	526-6038	3/8" x 2-3/4" Capscrew, NC, Gr.5, Pltd. Scotch Grip
16	526-6109	1" Stover Lock Nut, NC, <b>Gr.C</b> , Pltd.
17	534-6308	1/2" Hex Nut, <b>NF</b> , Gr.5, Pltd.
18	550-5206	3/8" B.S. Flat Washer, Pltd.
19	550-5208	1/2" B.S. Flat Washer, Pltd.
20	550-5316	1" Machine Bushing, SAE, Pltd.
21	551-5006	3/8" Spring Lock Washer, Pltd.
22	556-0906	3/16" x 1-3/4" Cotter Pin, Pltd.
23	558-2057	#9 Hitch Pin Clip, Pltd.
24	558-2059	#7 Hitch Pin Clip, Pltd.
25	830-0305	Light Mount Bracket, Painted

**PARTS DETAILS – WING AXLE**

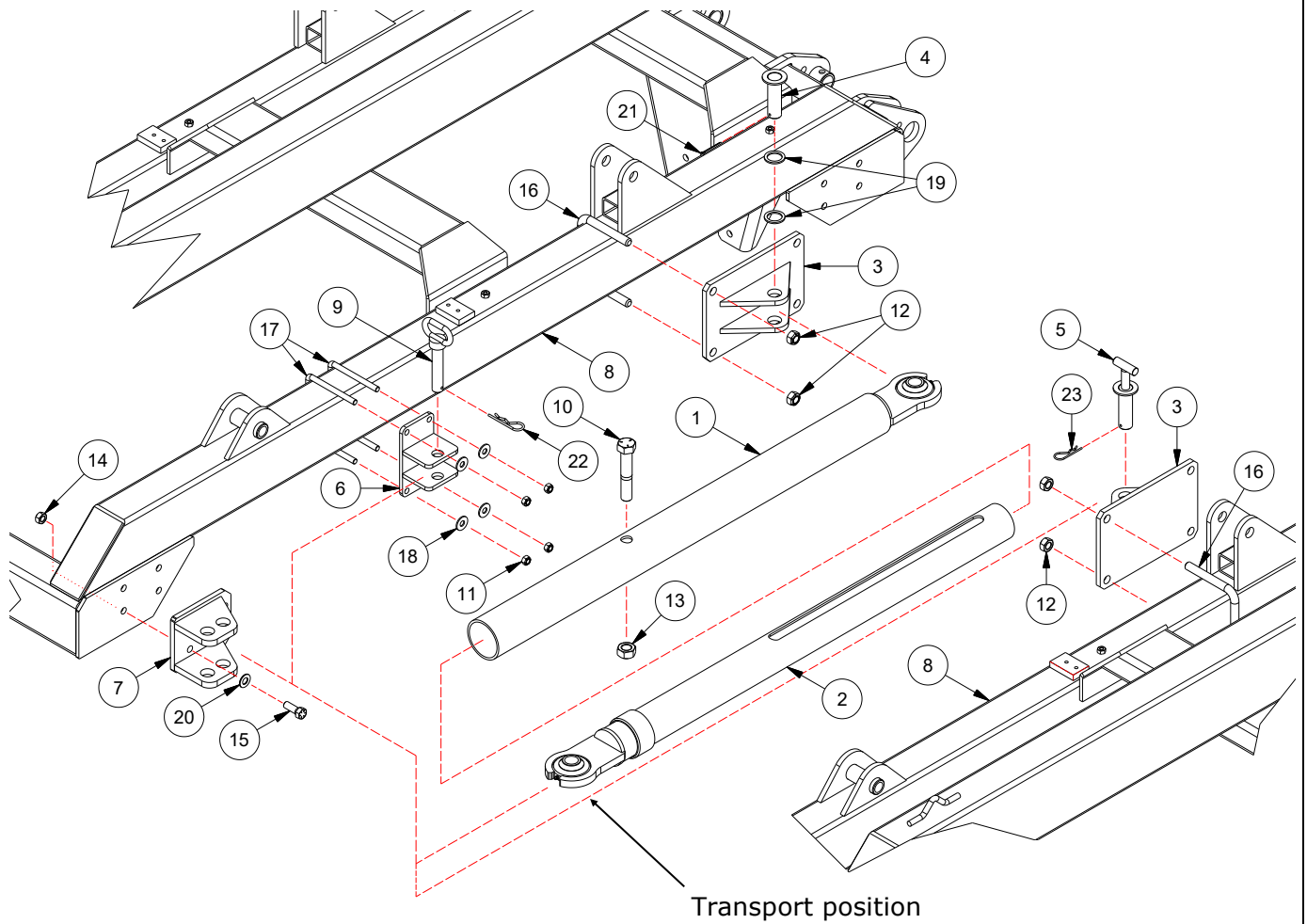




## PARTS DETAILS – WING AXLE

ITEM #	PART #	DESCRIPTION
1	020-6014	CTD 812 Hub Assembly c/w Drive in Studs & Wheel Nuts
2	030-5993	Cylinder, Tie-Rod, 2-1/2" X 6" (Monarch PN 662386)
3	105-0056	Wing Axle Weldment
4	105-0058	Wing Pivot Axle, Bolt In Spindle Weldment
5	105-0068	Wing Axle Slow Moving Sign Bracket, Painted
6	123-2229	Tee Lock Pin Wld., Ø1" x 2-3/4" Useable, Pltd.
7	202-6013	CTD Dust Cap, DC 17 (CTD)
8	203-6044	812 Spindle, Ø2-1/2" x 11-3/4" long
9	Varies	Refer to Section 2 page 25
10	Varies	Refer to Section 2 page 25
11	261-5100	Connex Steel bushing, 2-3/4 OD x .121w x 2
12	319-5710	1/2" ORB M x 3/8" JIC M – 90° Elbow
13	406-0011	3" Ø x 1" Rubber Puck Stop
14	419-0004	1/4" NF Grease Zerk, Straight, Pltd.
15	424-0001	Slow Moving Sign
16	526-0408	1/4" x 1" Capscrew, NC, Gr.5, Pltd.
17	526-0616	3/8" x 2" Capscrew, NC, Gr.5, Pltd.
18	526-6103	3/8" Stover Lock Nut, NC, Gr.B, Pltd.
19	526-6105	1/2" Stover Lock Nut. NC, Gr.B, Pltd.
20	526-6102	1/4" Stover Lock Nut. NC, Gr.B, Pltd.
21	526-7309	9/16" Stover Lock Nut, NC, <b>Gr.C</b> , Pltd.
22	530-0754	1/2" x 4" Capscrew, NC, <b>Gr.8</b> , Pltd.
23	530-0812	9/16" x 4" Capscrew, NC, <b>Gr.8</b> , Pltd.
24	543-5563	9/16", Wheel Nut, NF, Gr.5, Pltd.
25	550-5206	3/8" Flat Washer, Pltd.
26	550-5233	Ø2-1/2" ID Flat Washer, Pltd.
27	550-5308	1/2" SAE Flat Washer, Pltd.
28	550-5309	9/16" SAE Flat Washer, Pltd.
29	556-0906	3/16" x 1-3/4" Cotter Pin, Pltd.
30	558-2057	#9 Hitch Pin Clip, Pltd.
31	560-1614	1" x 3-1/2" Cylinder Pin, Pltd.

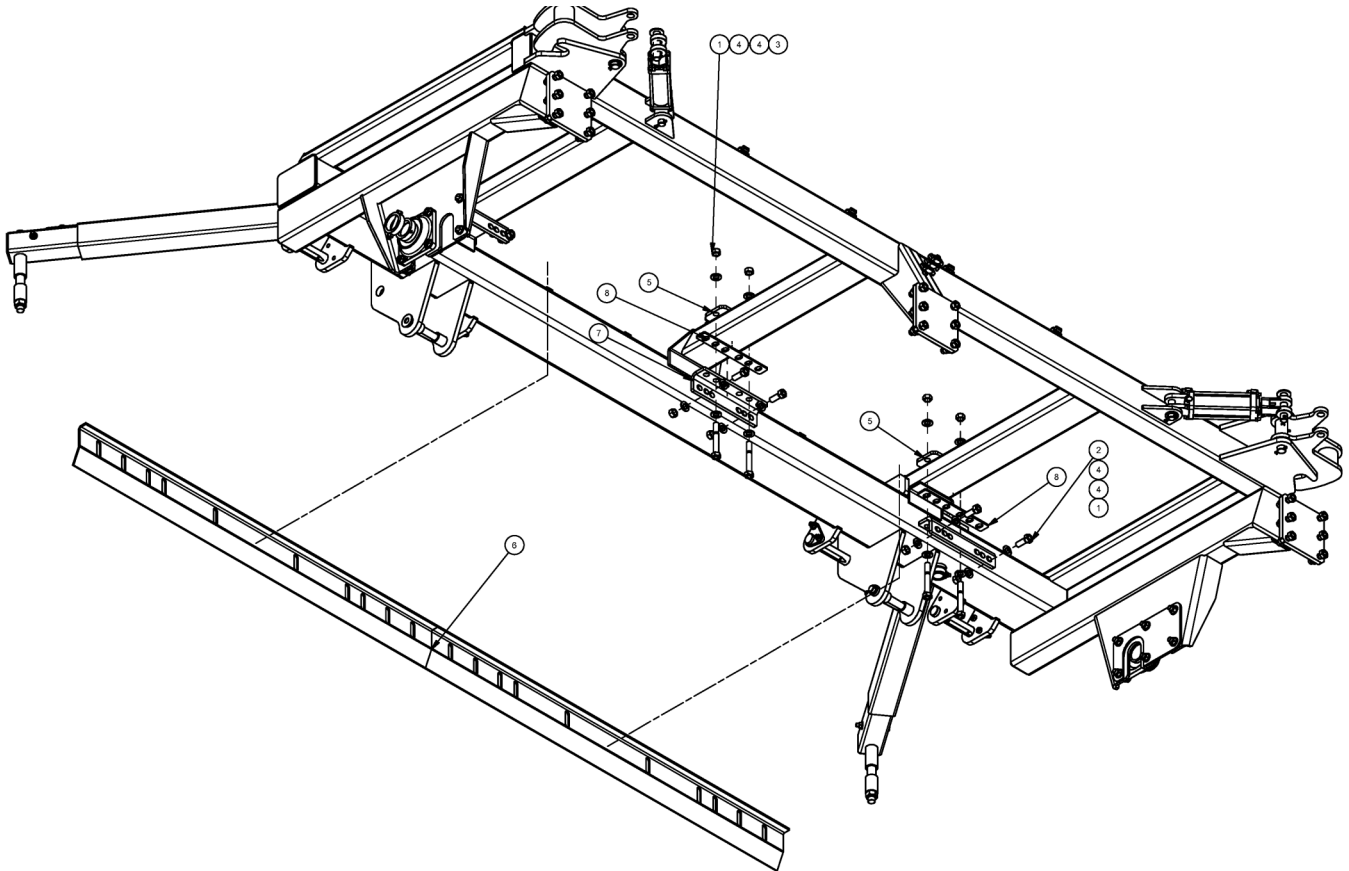
**PARTS DETAILS – TIE BAR**



## PARTS DETAILS – TIE BAR

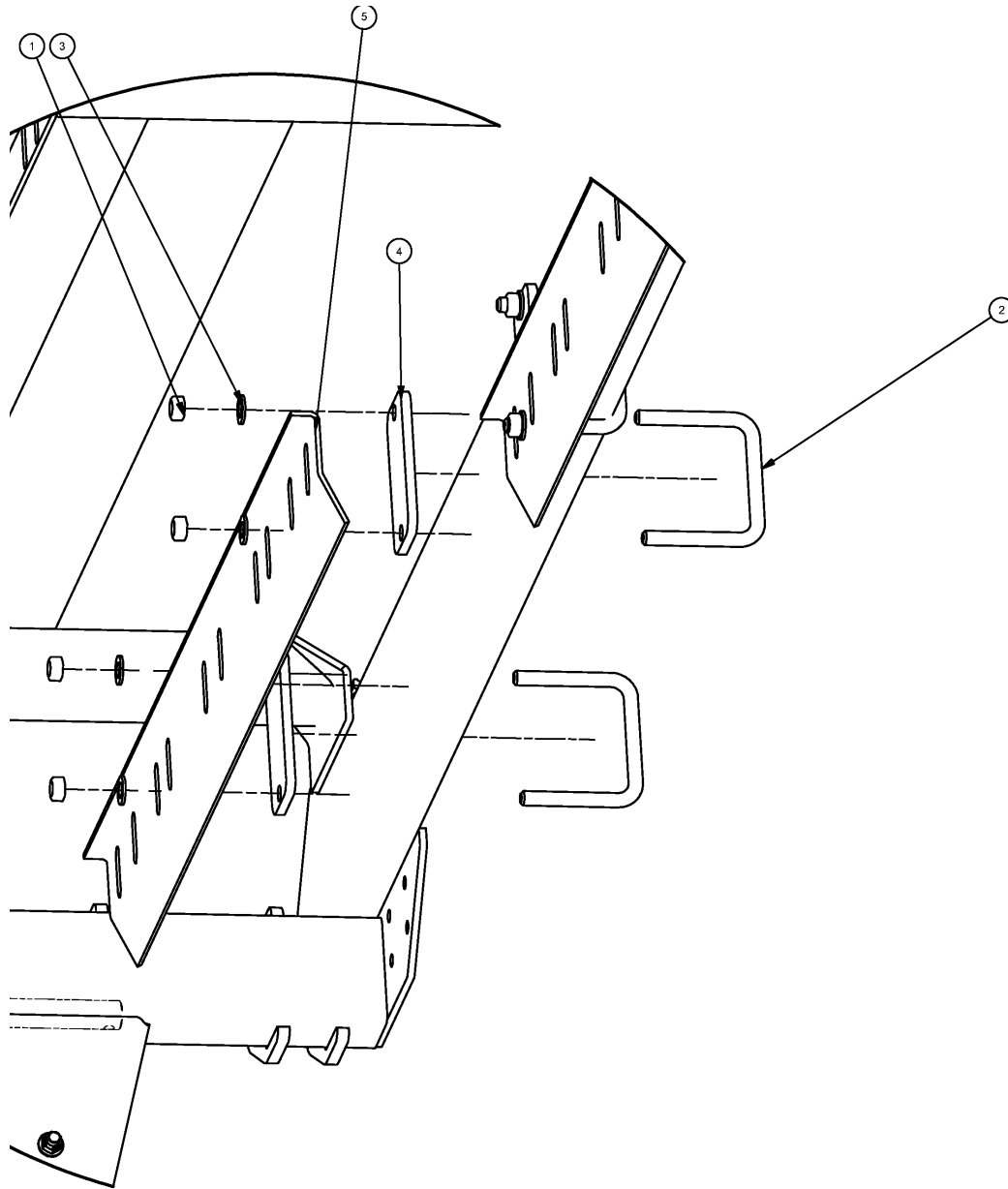
ITEM #	PART #	DESCRIPTION
1	105-0272	Wing Tie Bar Outer Tube Weldment
2	105-0273	Wing Tie Bar Inner Tube Weldment
3	105-0274	Wing Tie Bar Mount Weldment
4	105-0275	Mount Pin Weldment, Ø1-1/4" x 4-1/4" long
5	105-0278	Removable Pin Weldment, Ø1" x 4-1/4" long
6	105-0484	Wing Tie Bar Parking Mount Weldment (10' & 12' Outer Wings Only)
7	105-0486	Draft Arm Mount (F3-32' & 36' Only)
8	Varies	Refer to Section 2 page 44
9	422-0010	Ø1" x 4-1/2" Dynalene Lock Pin
10	526-1652	1" x 5-1/2" Capscrew, NC, NC, Gr.5, Pltd.
11	526-6105	1/2" Stover Lock Nut, NC, Gr.B, Pltd.
12	526-6107	3/4" Stover Lock Nut, NC, Gr.B, Pltd.
13	526-6109	1" Stover Lock Nut, NC, Gr.B, Pltd.
14	526-7310	5/8" Stover Lock Nut, NC, Gr.C, Pltd
15	530-1014	5/8" x 1-3/4" Capscrew, NC, Gr.8, Pltd.
16	546-5181	3/4" x 6-1/16" x 5-3/4" inside leg Sq. U-Bolt, NC, Gr.5, Pltd.
17	546-5198	1/2" x 6-1/16" x 5-1/2" inside leg, Sq. U-Bolt, NC, Gr.5. Pltd.
18	550-5308	1/2" SAE Flat Washer, Pltd.
19	550-5318	1-1/4" SAE Flat Washer, Pltd.
20	550-5617	5/8" SAE Flat Washer, Pltd.
21	556-0906	3/16" x 2" Cotter Pin Pltd.
22	558-1248	Hitch Pin Clip, Pltd.
23	558-2057	#9 Hitch Pin Clip, Pltd.

**PARTS DETAIL – SCRAPER BLADES, CENTER**



<b>ITEM #</b>	<b>PART #</b>	<b>DESCRIPTION</b>
1	526-7312	3/4 Stover Lock Nut, Nc, Gr.8, Pltd.
2	530-1250	Bolt, 3/4-10 Unc - 2, Gr.8, Yellow Zinc Plated
3	530-1263	Bolt, 3/4-10 Unc - 5.5, Gr.8, Yellow Zinc Plated
4	550-5621	Washer, Flat, 3/4 Sae, Gr.8, Yellow Zinc Plated
5	839-0684	Mud Scraper, Bracket, Straight
6	839-0688	Mud Scraper, 5 Foot Blade
*	839-0689	Mud Scraper, 6 Foot Blade
7	839-1032	Scraper Kit, Center Frame Mounting Bracket
8	839-1033	Scraper Kit, Center Frame Mounting Bracket, Spacer

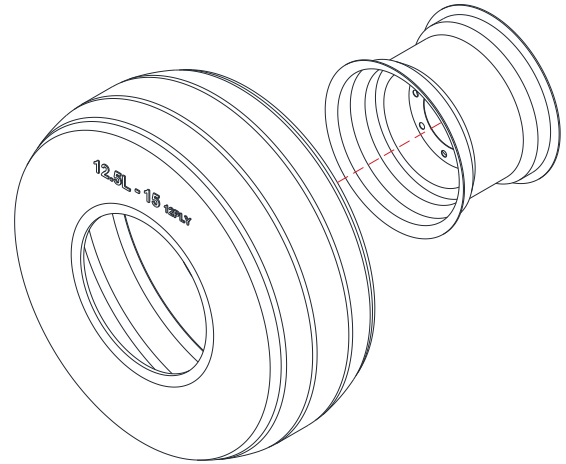
**PARTS DETAIL – SCRAPER BLADES, WINGS**



<b>ITEM #</b>	<b>PART #</b>	<b>DESCRIPTION</b>
1	526-7312	3/4 Stover Lock Nut, UNC, Pltd.
2	546-5181	3/4" UNC, 6" W X 5.75" Lg, U-Bolt
3	550-5621	Washer, Flat, 3/4 SAE, Yellow Zinc Plated
4	839-0684	Mud Scraper, Bracket, Straight
5	839-0688	Mud Scraper, 5 Foot Blade
*	839-0689	Mud Scraper, 6 Foot Blade
*	839-0687	Mud Scraper, 8 Foot Blade

**PARTS DETAILS – WHEELS AND TIRES**

<b>PART #</b>	<b>DESCRIPTION</b>
020-0130	Tire and Wheel Assembly, 11L-15 D
205-1181	Tire, 11L-15
204-5593	Wheel, 11L-15
020-0108	Tire and Wheel Assembly, 12.5L-15 D
205-1193	Tire, 12.5L-15
204-5586	Wheel, 12.5L-15
020-0136	Tire and Wheel Assembly, 380/55R16.5
205-1209	Tire, 380/55R16.5
204-5597	Wheel, 380/55R16.5
020-0154	Tire and Wheel Assembly, ST235/75R17.5
020-0149	Tire and Wheel Assembly, ST235/85R16



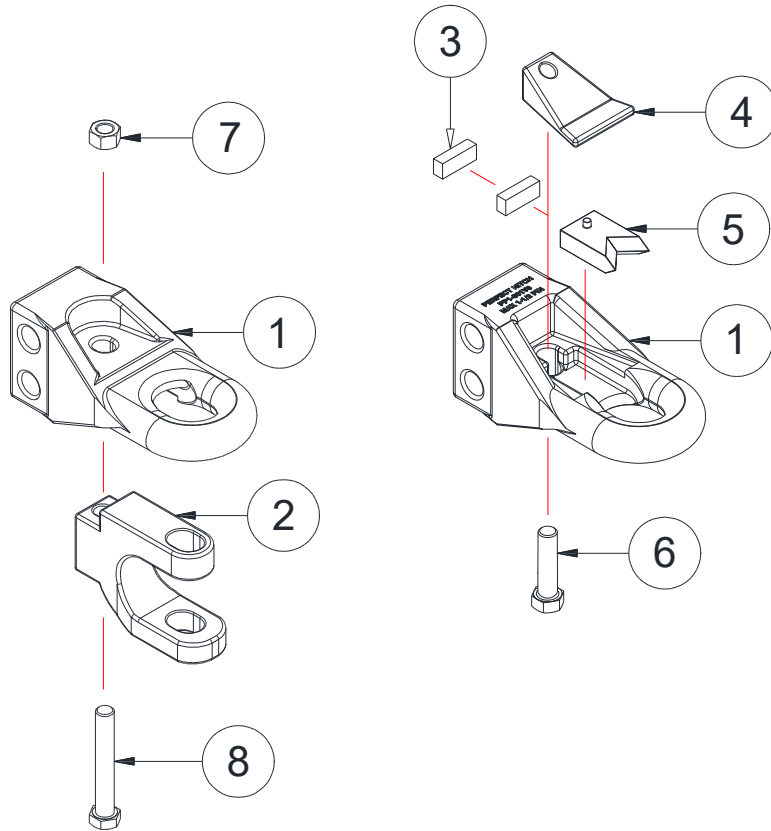
<b>THICKNESS</b>	<b>SIZE</b>	<b>LOCATION</b>	<b>DESCRIPTION</b>
Standard (0.500")	F3-32 to F3-42	Center Axle	11L-15 <sup>2</sup>
		Wing Axle	11L-15 <sup>2 3</sup>
	F3-46 to F5-58	Center Axle	12.5L-15 <sup>2</sup>
		Wing Axle	12.5L-15 <sup>2 3</sup>
	F5-62 to F5-68	Center Axle	380/55R16.5 <sup>2</sup>
		Wing Axle	12.5L-15 <sup>2 3</sup>
	F5-74 to F7-89	Center Axle	380/55R16.5
		Wing Axle	12.5L-15
Heavy (0.654")	F3-32 to F3-42	Center Axle	11L-15 <sup>2</sup>
		Wing Axle	11L-15 <sup>2 3</sup>
	F3-46 to F3-50NT	Center Axle	12.5L-15 <sup>2</sup>
		Wing Axle	12.5L-15 <sup>2 3</sup>
	F3-52 to F5-58	Center Axle	ST235/75R17.5 <sup>1</sup>
		Wing Axle	12.5L-15 <sup>2 3</sup>
	F5-62 to F5-68	Center Axle	380/55R16.5 <sup>2</sup>
		Wing Axle	12.5L-15 <sup>2 3</sup>

<sup>1</sup> 380/55R16.5 Tire can also be used in this application

<sup>2</sup> ST235/75R17.5 Tire can also be used in this application

<sup>3</sup> ST235/85R16 Tire can also be used in this application

**PARTS DETAILS – PERFECT HITCH**



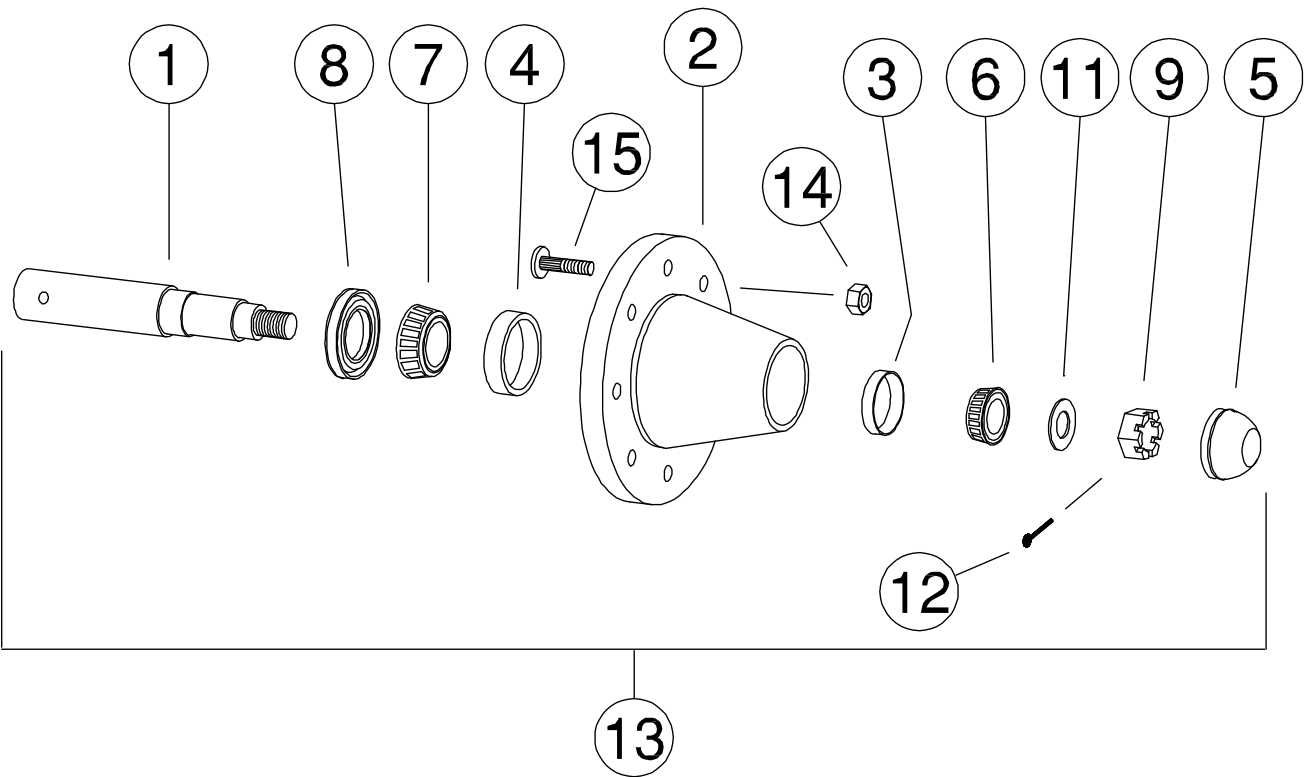
ITEM #	PART #	DESCRIPTION
1	423-0005	Base Hitch (PP1-301VH)
2	423-0006	Clevis (PP1-208VR-10)
3	423-0019	Neoprene Cushion (PP1-205H)
4	423-0017	Top Plate Perfect Hitch (PP1-302V)
5	423-0018	V-Block (PP1-203VR)
6	526-1224	3/4" x 3" Capscrew, NC, Gr.5, Pltd.
7	526-6107	3/4" Stover Lock Nut, NC, Gr.B, Pltd.
8	526-1241	3/4" x 5-1/2" Capscrew, NC, Gr.5, Pltd.

The sliding V-block has a polyurethane cushion which is made to flex. The cushion also acts as a shock absorber to reduce driveline stress, giving driveline components longer life. **Do not remove all the cushions! Install the perfect hitch components with bolt head on the bottom and the top plate on top.**

Always adjust the V-block to your tractor draw pin size by following these steps:

1. Remove top plate by unscrewing 3/4" bolt from bottom of Perfect Hitch and lifting top plate off.
2. The polyurethane cushion can be laid flat to achieve an extra 1/4" of adjustment.
3. If more closure is needed metal spacers (not supplied) can be placed behind the cushions to push the V-block forward and closer to the draw pin hole to tractor draw pin size.
4. Replace top plate and re-install 3/4" bolt tightly (Approx. 200 ft/lb).

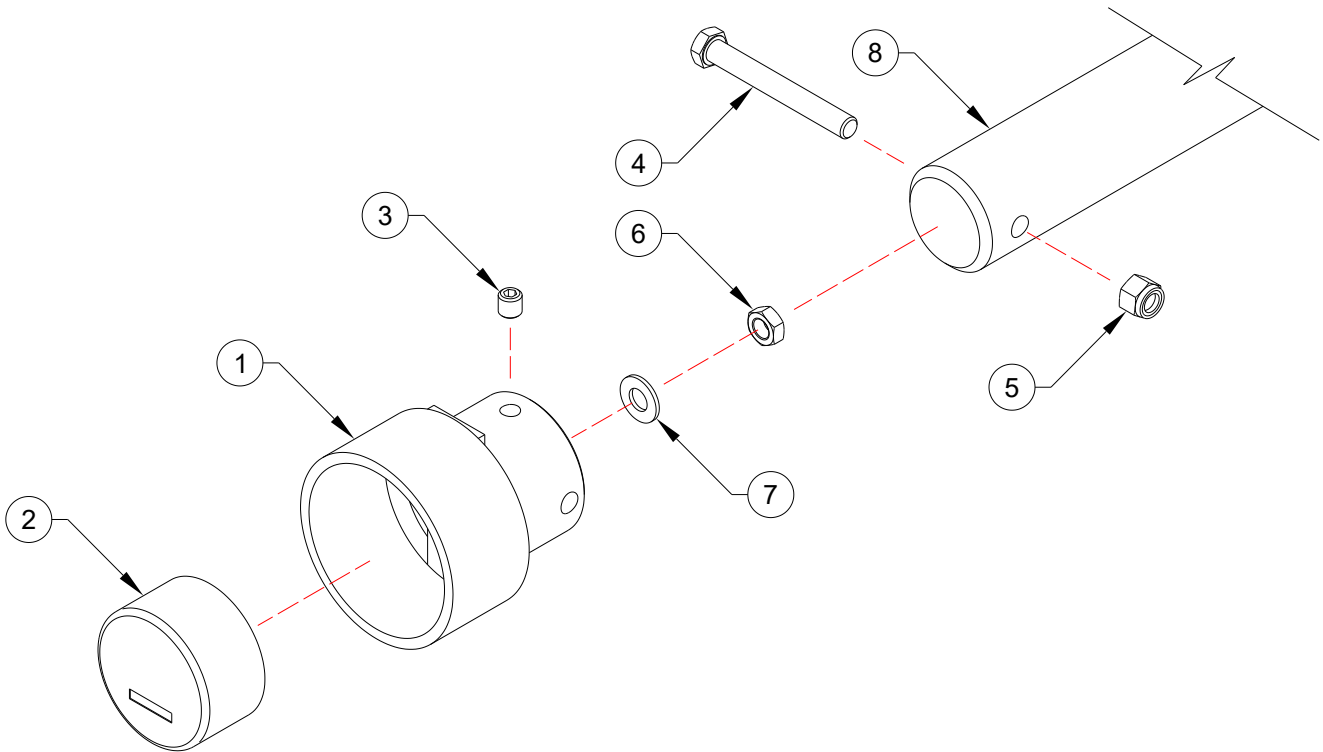
**PARTS DETAILS – HUB & SPINDLE**



ITEM #	PART #	DESCRIPTION
1	203-6044	812 Spindle, Ø2-1/2" X 11-3/4" Long
2	200-6011	812 Hub (complete)
3	201-6016	Outer Cup LM2720
4	201-6017	Inner Cup 3720
5	202-6013	DC 17 Dust Cap
6	290-6013	Outer Bearing, 2790
7	290-6014	Inner Bearing, 3780
8	295-6016	SE 17 Seal
9	534-7816	1" Castle Nut, NF, Gr.5, Black
11	554-5303	1" Spindle Washer, Black
12	556-0614	3/16" x 1-3/4" Cotter Pin, Pltd.
13	120-1246	812 Hub & Spindle Assembly
14	543-5563	9/16" Wheel Nut, UNF
15	543-5564	9/16" Wheel Stud



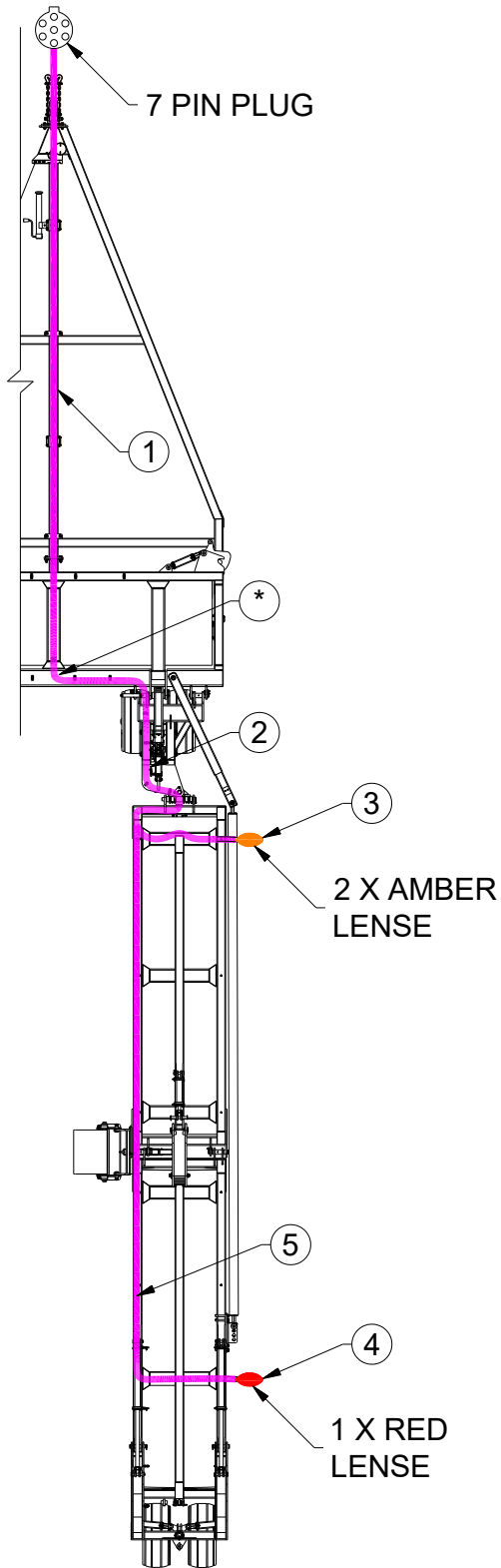
**PARTS DETAILS – ACRE METER**



ITEM #	PART #	DESCRIPTION
1	112-0258	Acre Meter Housing (Ø4") Measure before ordering replacement meter
2	Varies	Acre Meter To Order an Acre Meter Please Call Forster Toll Free # <a href="tel:1-800-661-2994">1-800-661-2994</a>
3	518-0608	1/2" x 1/2" Set Screw, NC, Black
4	526-0832	1/2" x 4" Capscrew, NC, Gr.5, Pltd.
5	526-7508	1/2" Stover Lock Nut, NC, Gr.5, Pltd.
6	525-6108	1/2" Jam Hex Nut, NC, Gr.5, Pltd.
7	550-5208	1/2" B.S. Flat Washer, Pltd.
8	827-0017	2-7/16"Ø x 14-3/4" Replaceable Drum Shaft

**NOTE:** Use *Loc-Tite* with jam nut when assembling to housing. **DO NOT OVER TIGHTEN.**

**PARTS DETAILS – LIGHTING SYSTEM**

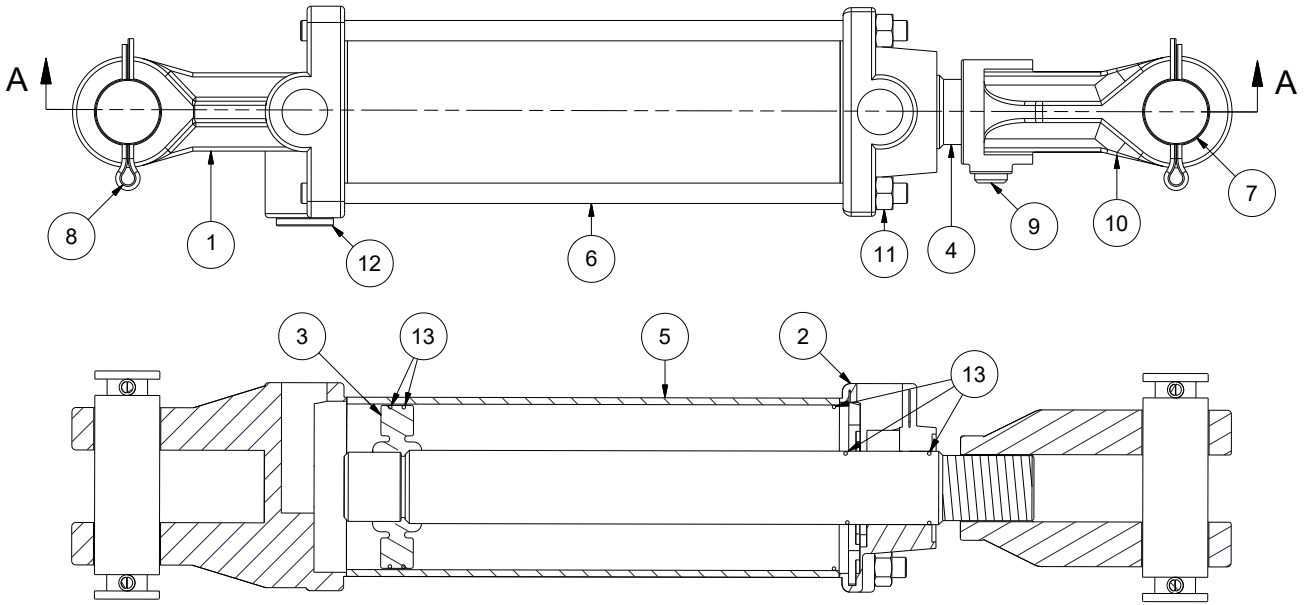


**PARTS DETAILS – LIGHTING SYSTEM**

<b>ITEM #</b>	<b>PART #</b>	<b>DESCRIPTION</b>
1	417-0061	28'-0" Main Frame Harness Section
2	417-0159	Main Wing Harness
3	417-0122	Amber Light Assembly
4	417-0123	Red Light Assembly
5	417-0150	10' 2-Wire Extension
*	417-0152	15' 2-Wire Extension
6	417-0151	20' 2-Wire Extension
*	417-0170	6' Hitch Harness Extension

**PARTS DETAIL – CYLINDERS**

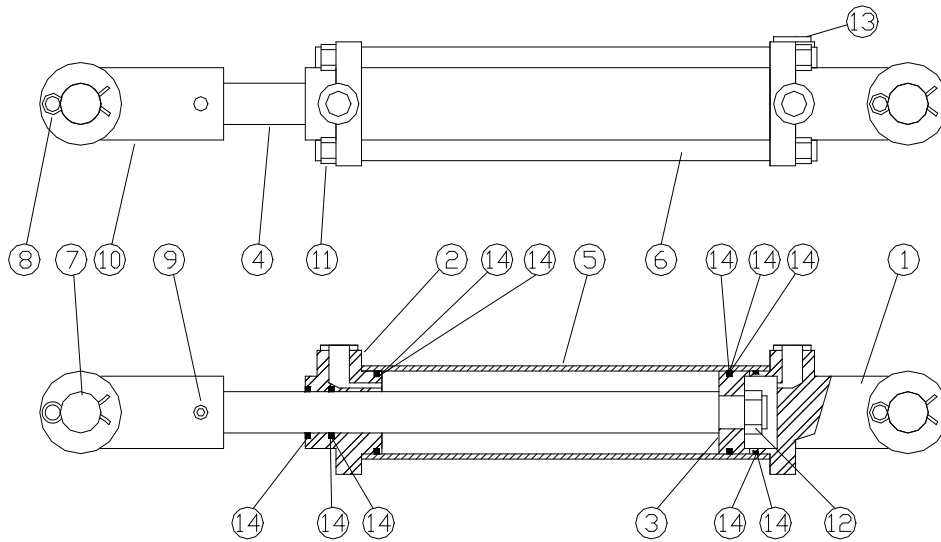
**MONARCH 2-1/2" X 6" X 1-1/8"**  
**MONARCH PART NUMBER 662386**  
**RITE WAY PART NUMBER 030-5993**



<b>ITEM #</b>	<b>PART #</b>	<b>DESCRIPTION</b>
1	293014	Clevis Cap, 2-1/2" - 3/4" ORB
2	293017	Rod Cap, 2-1/2" - 3/4" ORB, 1-1/8" ID
3	293011	Piston, 2-1/2 - TX
4	194893	Seal Hallite 605 Rod 1-1/8
5	498512	Cylinder Tube, 2-1/2" x 6" - TX
6	494182	Tie Rod, 3/8" x 6" - TX - Washed
7	134953	Cylinder Pin, 1" x 3.37 for HP / COT
8	135995	Cotter Pin, 3/16" x 1-1/2", Pltd.
9	148000	Set Screw, NF, 3/8" x 5/16", Pltd.
10	293009	Rod Clevis, 1" x 1" - TX
11	128230	Hex Nut, 3/8", NC, Gr.5, Painted
12	186562	Plug, 3/4" NF, Socket Head c/with O-ring
13	649198	Seal Kit, RK 25L-112 Lion Hyd. Rep. Kit

**PARTS DETAIL – CYLINDERS**

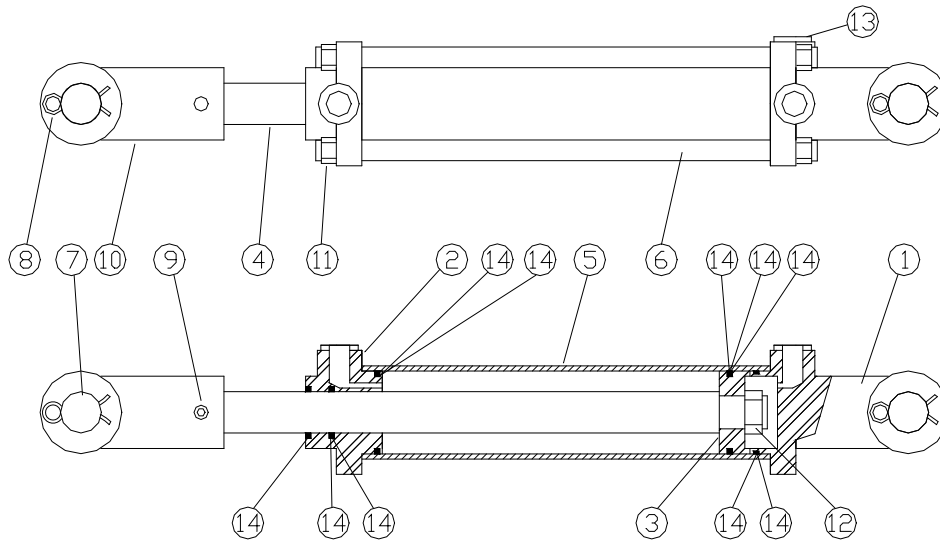
**MONARCH 3-1/2" X 8" X 1-1/4"**  
**MONARCH PART NUMBER 645665**  
**RITE WAY PART NUMBER 030-5935**



<b>ITEM #</b>	<b>PART #</b>	<b>DESCRIPTION</b>
1	492676	Clevis Cap, 3-1/2" - 3/4" ORB
2	492677	Rod Cap, 3-1/2" - 3/4" ORB, 1-1/4" ID
3	292518	Piston, 3-1/2 - TL / TC
4	199130	Seal Wiper Rod, 1-1/4", Metal
5	491798	Cylinder Tube, 3-1/2" x 8" - TL / TC
6	492338	Tie Rod, 5/8" x 8" - TL / TC, ASAE
7	134953	Cylinder Pin, 1" x 3.37 for HP / COT
8	135995	Cotter Pin, 3/16" x 1-1/2", Pltd.
9	148000	Set Screw, NF, 3/8" x 5/16", Pltd.
10	492652	Rod Clevis, 1-1/4" x 1" - TL / TC
11	128271	Hex Nut, 5/8", NF, Gr.5, Painted
12	186562	Plug, 3/4" NF, Socket Head c/with O-ring
13	130560	Hex Nut, 1-1/4", Lock GRB
14	649216	Seal Kit, RK 35L-125 Lion Hyd. Rep. Kit

**PARTS DETAIL – CYLINDERS**

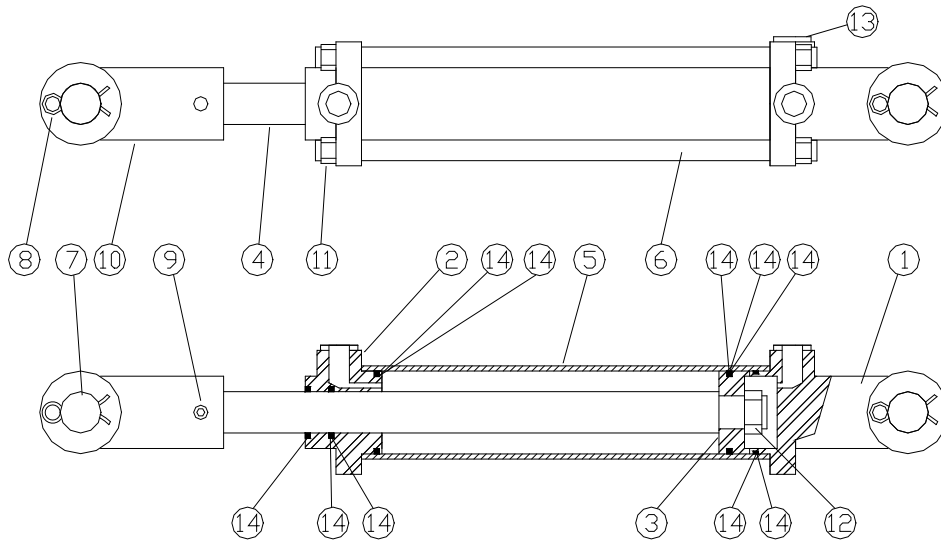
**MONARCH 4" X 12" X 1-3/4"**  
**MONARCH PART NUMBER 648381**  
**RITE WAY PART NUMBER 030-5967**



<b>ITEM #</b>	<b>PART #</b>	<b>DESCRIPTION</b>
1	492680	Clevis Cap, 4" - 3/4" ORB @ 90°, 1" Cyl. Pin
2	492695	Rod Cap, 4" - 1-3/4" ID, 3/4" ORB
3	294033	Piston, 4"- 1-1/8" TH / TP - Cast
4	194897	Seal Hallite 605 Rod, Ø1-3/4"
5	467312	Cylinder Tube, 4" x 12"
6	492342	Tie Rod, 5/8" x 12"
7	134953	Cylinder Pin, 1" x 3.37 for HP / COT
8	135995	Cotter Pin, 3/16" x 1-1/2", Pltd.
9	148000	Set Screw, NF, 3/8" x 5/16", Pltd.
10	493168	Rod Clevis, 1-1/2" x 1" - Short / N
11	128271	Hex Nut, 5/8", NF, Gr.5, Painted
12	186562	Plug, 3/4" NF, Socket Head c/with O-ring
13	130559	Hex Nut, 1-1/8", NF, Lock GRB
14	649229	Seal Kit, RK 40H-175 Lion Hyd. Rep. Kit

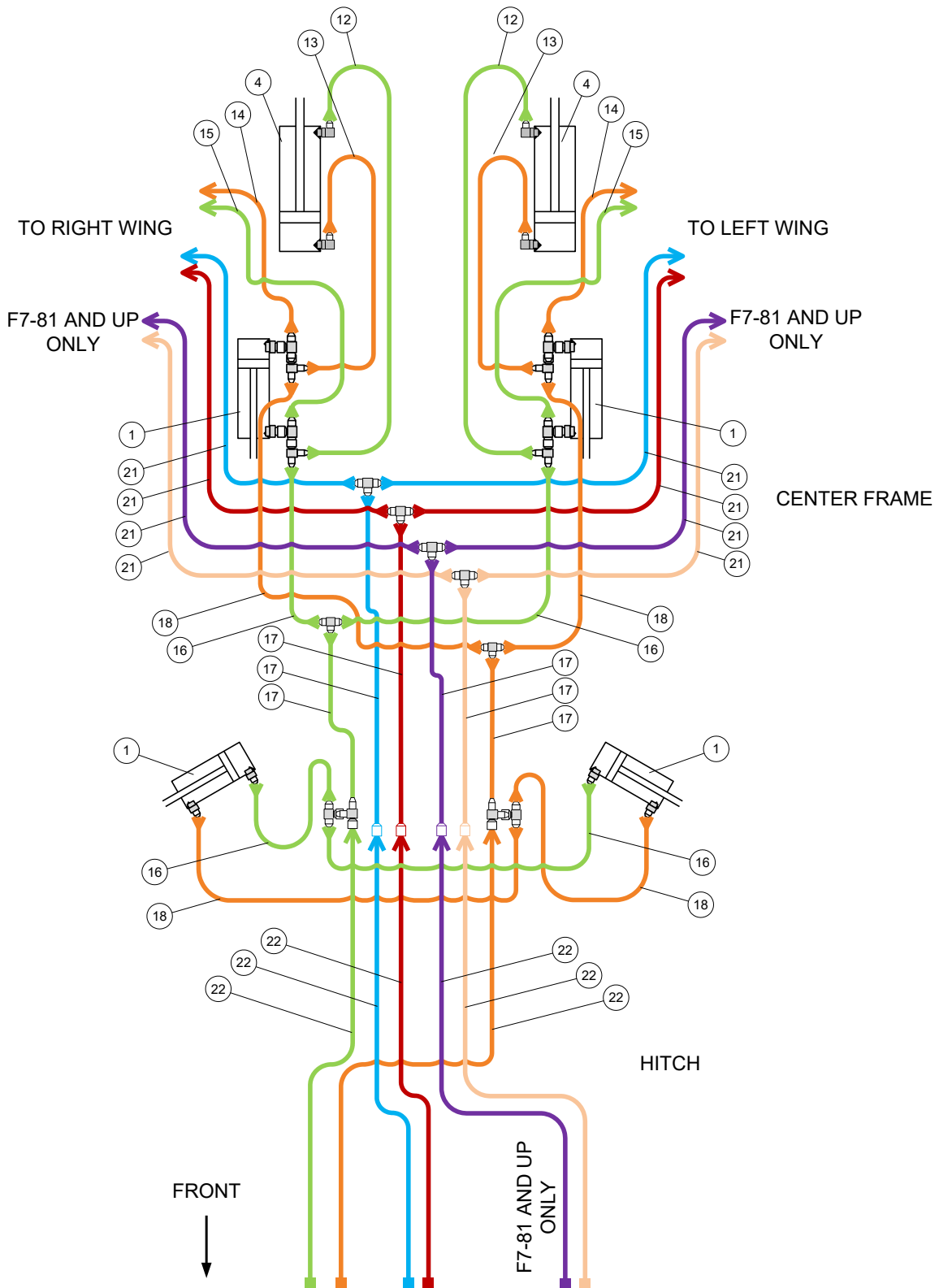
**PARTS DETAIL – CYLINDERS**

**MONARCH 3-1/2" X 24" X 1-3/4"**  
**MONARCH PART NUMBER 671642**  
**RITE WAY PART NUMBER 030-5982**



<b>ITEM #</b>	<b>PART #</b>	<b>DESCRIPTION</b>
1	492676	Clevis Cap, 3-1/2" - 3/4" ORB
2	492290	Rod Cap, 3-1/2" - 3/4" ORB, 1-3/4" ID
3	258827	Piston, 3-1/2 - 1 - TSS-ISO-WR
4	437243	Rod Cyl. 1-3/4 x 24 - 1 x 1-1/2
5	491814	Cylinder Tube, 3-1/2" x 24"
6	492354	Tie Rod, 5/8" x 24"
7	134953	Cylinder Pin, 1" x 3.37 for HP / COT
8	135995	Cotter Pin, 3/16" x 1-1/2", Pltd.
9	148000	Set Screw, NF, 3/8" x 5/16", Pltd.
10	493168	Rod Clevis, 1-1/2" x 1" - Short / N
11	128271	Hex Nut, 5/8", NF, Gr.5, Painted
12	186562	Hex Nut, 1-1/4", Lock GRB
13	186562	Fitting Plug, 3/4" NF, Socket Head c/with O-ring
14	649219	Seal Kit, RK 35L-175 Lion Hyd. Rep. Kit

# PARTS DETAILS – HYDRAULICS, HITCH

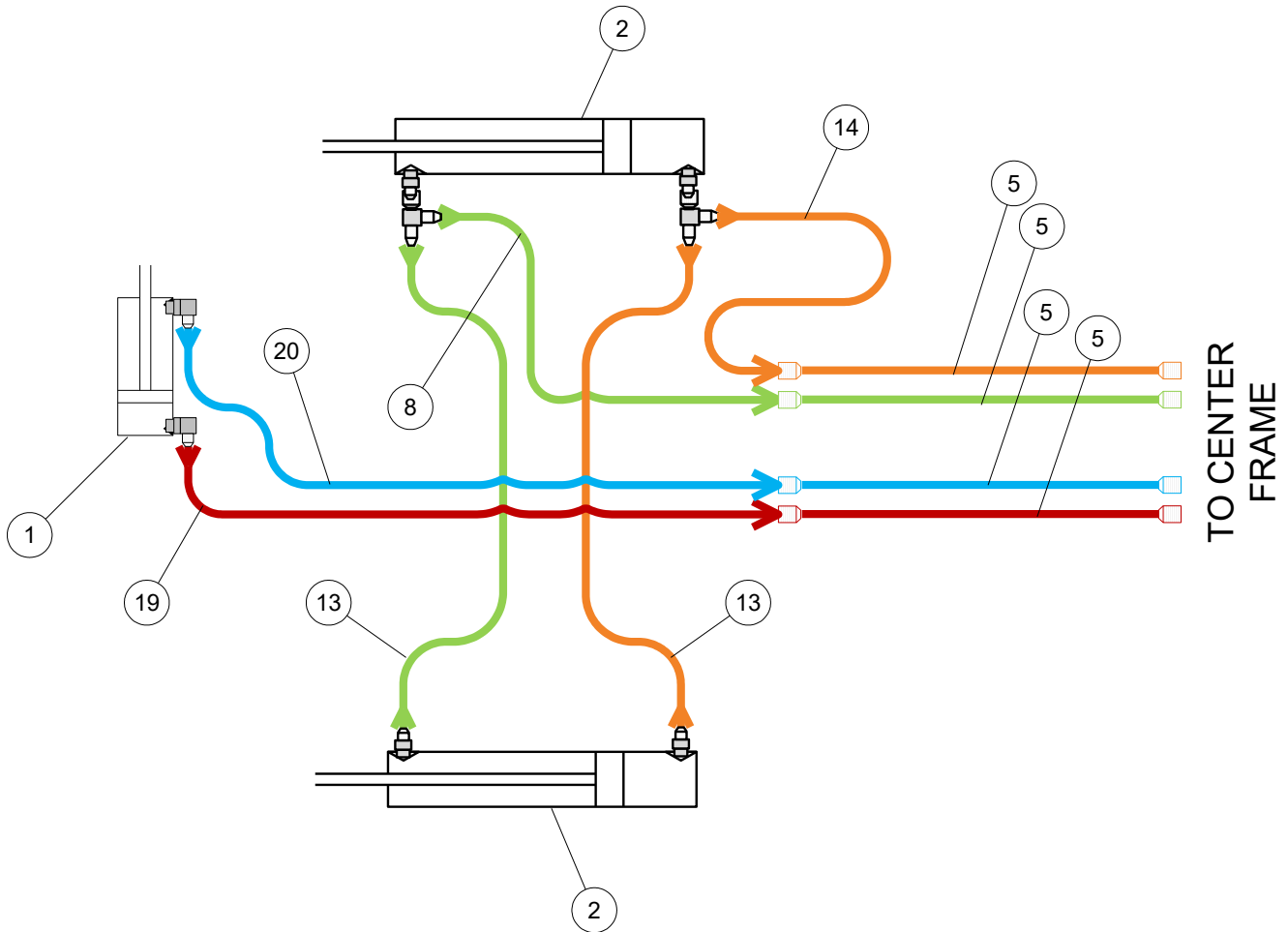




## PARTS DETAILS – HYDRAULICS, HITCH

<b>ITEM #</b>	<b>PART #</b>	<b>DESCRIPTION</b>
1	030-5993	Cylinder, Tie-Rod, 2-1/2" X 6"
4	030-5967	Cylinder, Tie - Rod, 4" X 12"
12	313-7937	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 37"
13	313-7950	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 50"
14	313-7852	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 52"
15	313-7863	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 63"
16	313-7971	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 71"
*	313-7962	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 62"
17	313-7872	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 72"
18	313-7977	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 77"
*	313-7968	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 68"
21	313-7806	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 138"
*	313-7809	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 129"
22	313-6701	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 1/2" MNPT - 272" w/ Pioneer
*	313-6702	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 1/2" MNPT - 310" w/ Pioneer Tip

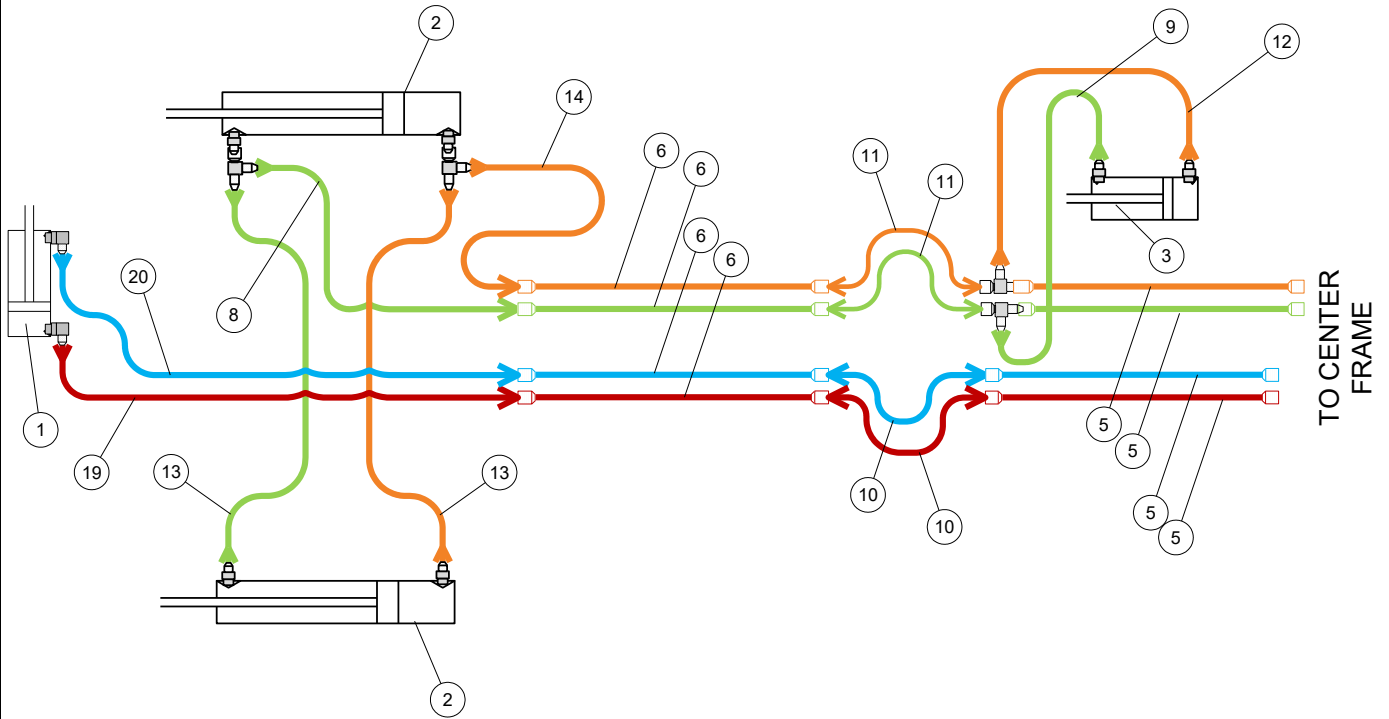
**PARTS DETAILS – HYDRAULICS, 3 PLEX WING**



Right wing pictured, left wing similar.

ITEM #	PART #	DESCRIPTION
1	030-5993	Cylinder, Tie-Rod, 2-1/2" X 6"
2	030-5982	Cylinder, Tie - Rod, 3-1/2" X 24"
5	311-2066	Pipe, Hydraulic, 66 Inch, 3/8" FJIC Swivel End Fittings
*	311-2083	Pipe, Hydraulic, 83 Inch, 3/8" FJIC Swivel End Fittings
*	311-2104	Pipe, Hydraulic, 104 Inch, 3/8" FJIC Swivel End Fittings
*	311-2132	Pipe, Hydraulic, 132 Inch, 3/8" FJIC Swivel End Fittings
8	313-7823	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 23"
13	313-7950	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 50"
14	313-7852	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 52"
19	313-7892	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 92"
20	313-7808	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 98"

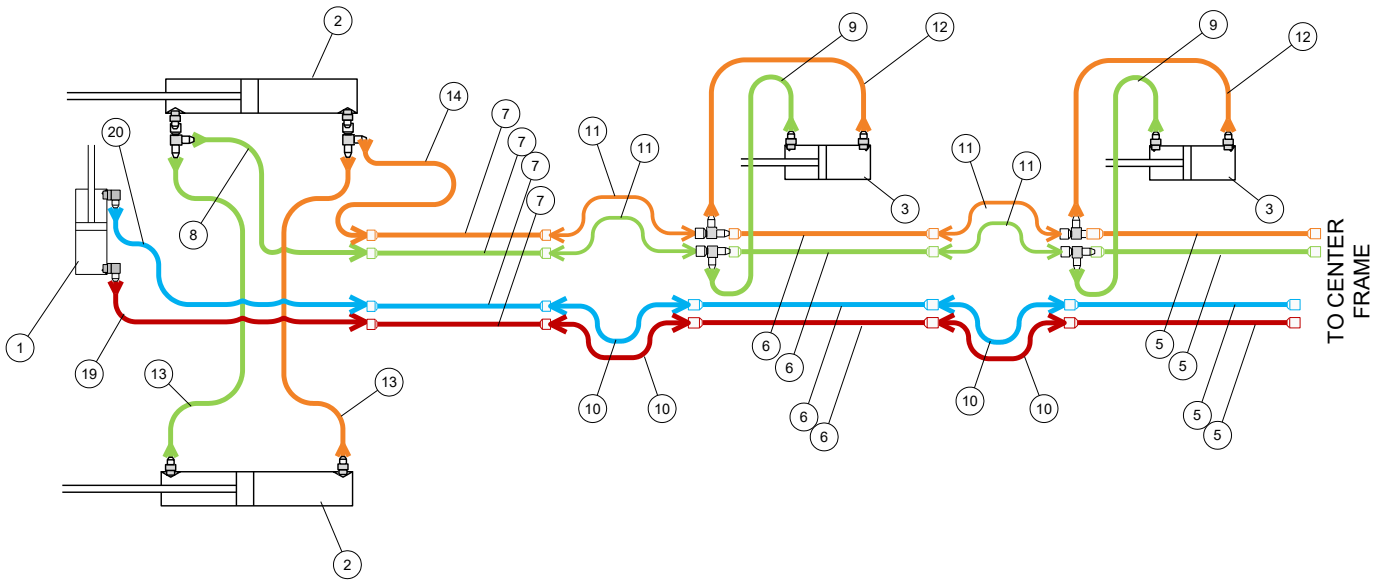
**PARTS DETAILS – HYDRAULICS, 5 PLEX WING**



Right wing pictured, left wing similar.

ITEM #	PART #	DESCRIPTION
1	030-5993	Cylinder, Tie-Rod, 2-1/2" X 6"
2	030-5982	Cylinder, Tie - Rod, 3-1/2" X 24"
3	030-5935	Cylinder, Tie - Rod, 3-1/2" X 8"
5,6	311-2038	Pipe, Hydraulic, 38 Inch, 3/8" FJIC Swivel End Fittings
*	311-2058	Pipe, Hydraulic, 58 Inch, 3/8" FJIC Swivel End Fittings
*	311-2066	Pipe, Hydraulic, 66 Inch, 3/8" FJIC Swivel End Fittings
*	311-2083	Pipe, Hydraulic, 83 Inch, 3/8" FJIC Swivel End Fittings
*	311-2104	Pipe, Hydraulic, 104 Inch, 3/8" FJIC Swivel End Fittings
*	311-2132	Pipe, Hydraulic, 132 Inch, 3/8" FJIC Swivel End Fittings
8	313-7823	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 23"
9	313-7930	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 30"
10	313-3031	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" MJIC - 31"
11	313-3035	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" MJIC - 35"
12	313-7937	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 37"
13	313-7950	Hose, Hydraulic, 3/8" Hose, 3/8" FJIC X 3/8" FJIC - 50"
14	313-7852	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 52"
19	313-7892	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 92"
20	313-7808	Hose, Hydraulic, 3/8" Hose, 3/8" MJIC X 3/8" FJIC - 98"

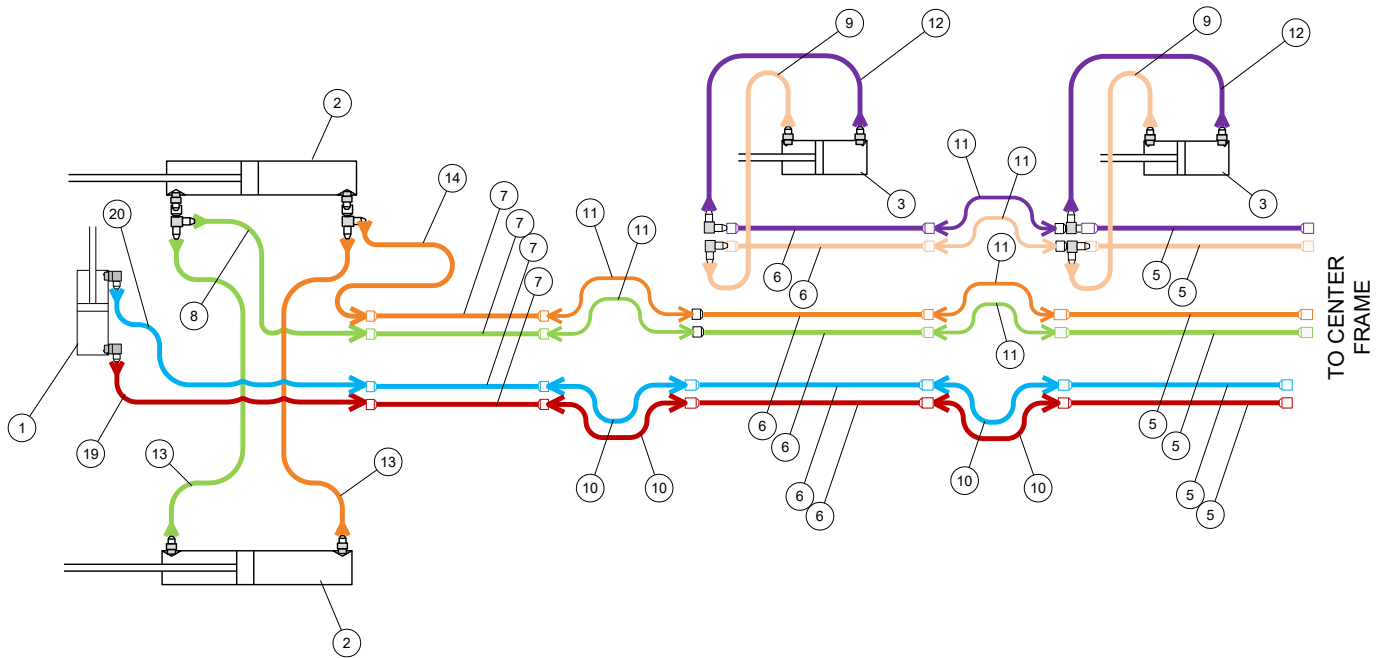
**PARTS DETAILS – HYDRAULICS, 7 PLEX WING (<81)**



Right wing pictured, left wing similar.

ITEM #	PART #	DESCRIPTION
1	030-5993	Cylinder, Tie-Rod, 2-1/2" X 6"
2	030-5982	Cylinder, Tie - Rod, 3-1/2" X 24"
3	030-5935	Cylinder, Tie - Rod, 3-1/2" X 8"
5,6,7	311-2038	Pipe, Hydraulic, 38 Inch, 3/8" FJIC Swivel End Fittings
*	311-2058	Pipe, Hydraulic, 58 Inch, 3/8" FJIC Swivel End Fittings
*	311-2066	Pipe, Hydraulic, 66 Inch, 3/8" FJIC Swivel End Fittings
*	311-2083	Pipe, Hydraulic, 83 Inch, 3/8" FJIC Swivel End Fittings
*	311-2104	Pipe, Hydraulic, 104 Inch, 3/8" FJIC Swivel End Fittings
*	311-2132	Pipe, Hydraulic, 132 Inch, 3/8" FJIC Swivel End Fittings
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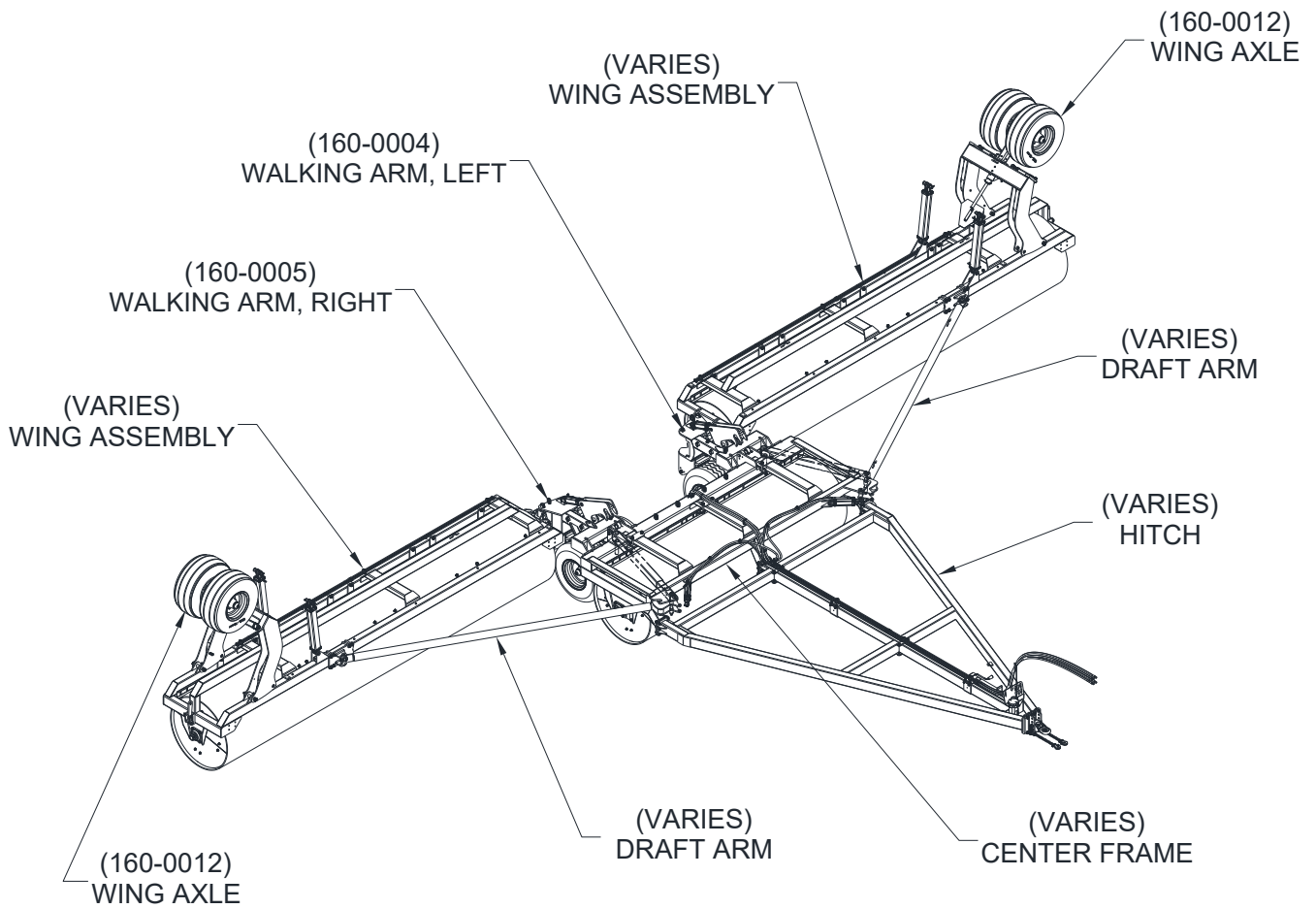
**PARTS DETAILS – HYDRAULICS, 7 PLEX WING (>81)**



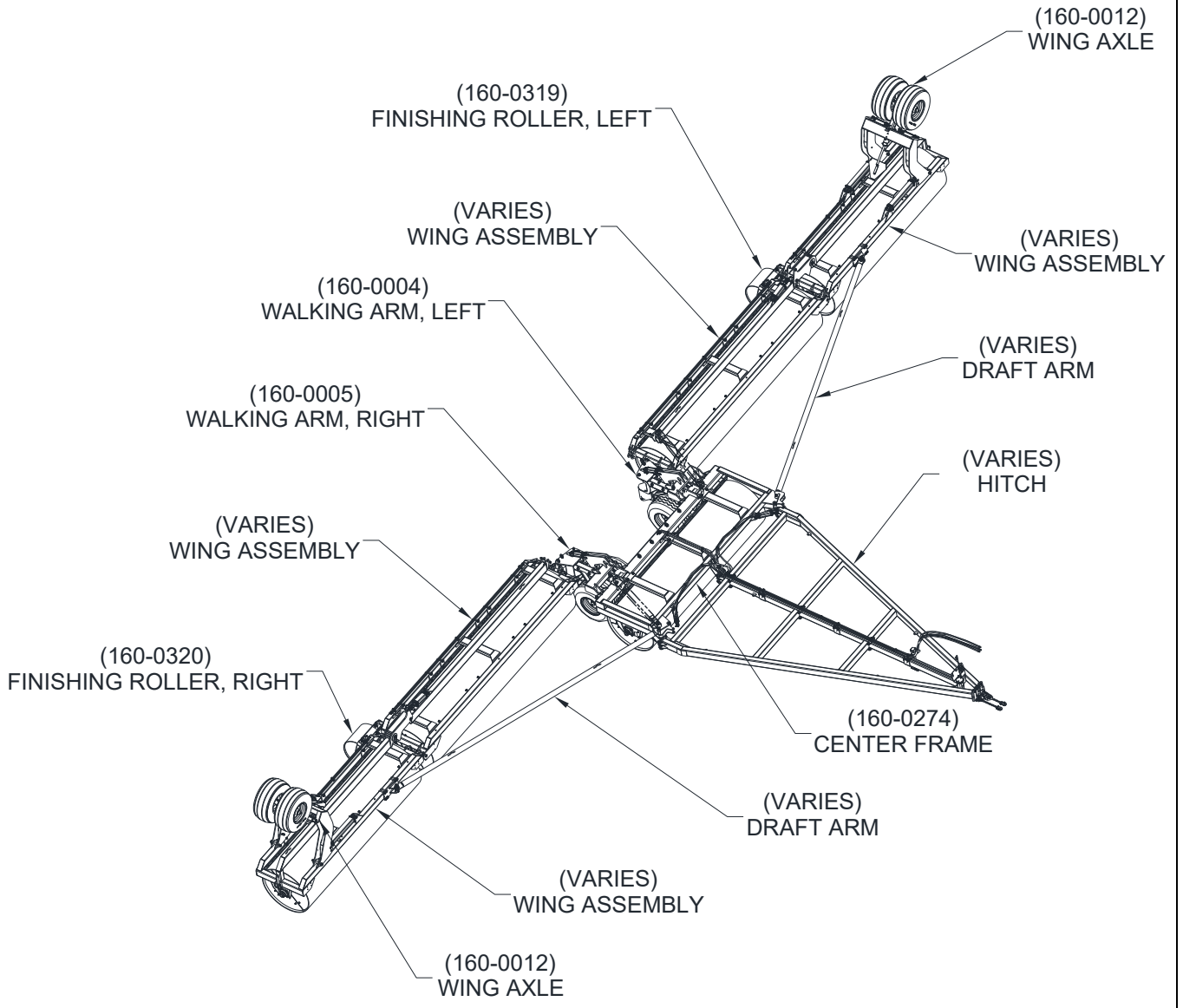
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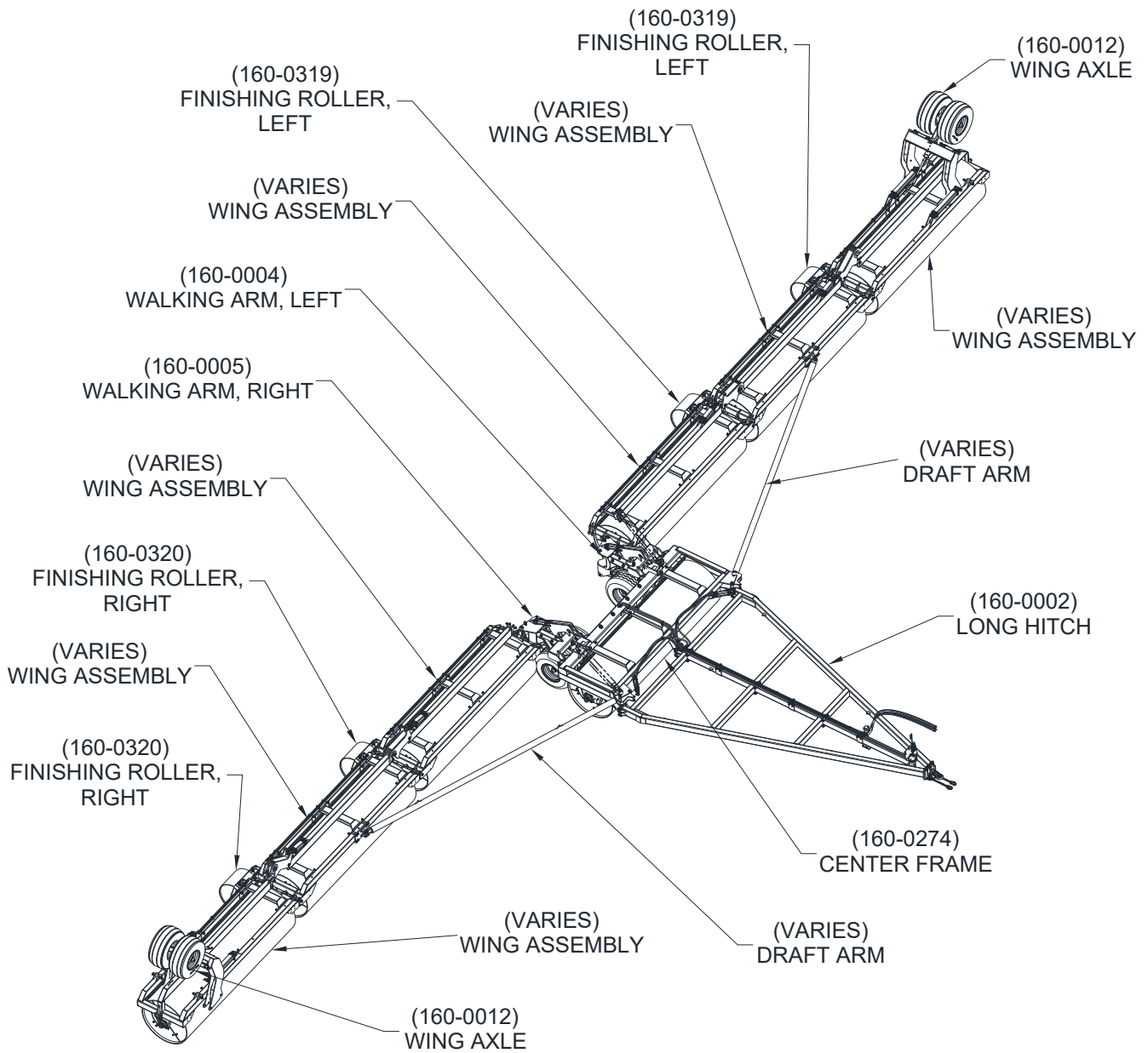
**PARTS DETAILS – LAYOUT, 3 PLEX**



**PARTS DETAILS – LAYOUT, 5 PLEX**



**PARTS DETAILS – LAYOUT, 7 PLEX**





## PARTS DETAILS – WING WELDMENTS

Part #	Description
105-0790	<i>Inner Wing, Five &amp; Seven Plex, 8 Foot, Weldment</i>
105-0791	<i>Inner Wing, Five &amp; Seven Plex, 10 Foot, Weldment</i>
105-0792	<i>Inner Wing, Five &amp; Seven Plex, 12 Foot, Weldment</i>
105-0793	<i>Inner Wing, Five &amp; Seven Plex, 15 Foot, Weldment</i>
105-0492	<i>Mid Wing, Five &amp; Seven Plex, 10 Foot, Weldment</i>
105-0495	<i>Mid Wing, Five &amp; Seven Plex, 12 Foot, Weldment</i>
105-0499	<i>Mid Wing, Five &amp; Seven Plex, 8 Foot, Weldment</i>
105-0500	<i>Outer Wing, Five &amp; Seven Plex, 8 Foot, Weldment</i>
105-0503	<i>Outer Wing, Five &amp; Seven Plex, 10 Foot, Weldment</i>
105-0504	<i>Outer Wing, Five &amp; Seven Plex, 12 Foot, Weldment</i>
105-0640	<i>Outer Wing, Five &amp; Seven Plex, 15 Foot, Weldment</i>
105-0641	<i>Outer Wing, Five &amp; Seven Plex, 17 Foot, Weldment</i>
105-0642	<i>Outer Wing, Five &amp; Seven Plex, 20 Foot, Weldment</i>
105-0674	<i>Outer Wing, Three Plex, 8 Foot, Weldment</i>
105-0675	<i>Outer Wing, Three Plex, 10 Foot, Weldment</i>
105-0676	<i>Outer Wing, Three Plex, 12 Foot, Weldment</i>
105-0507	<i>Outer Wing, Three Plex, 14 Foot, Weldment</i>
105-0514	<i>Outer Wing, Three Plex, 15 Foot, Weldment</i>
105-0508	<i>Outer Wing, Three Plex, 17 Foot, Weldment</i>
105-0509	<i>Outer Wing, Three Plex, 18 Foot, Weldment</i>
105-0505	<i>Outer Wing, Three Plex, 20 Foot, Weldment</i>

## PARTS DETAILS – DRUMS

Part #	Description
160-0045	Drum Assembly, Ø42" x .500w Std Pipe - 20'
160-0046	Drum Assembly, Ø42" x .500w Std Pipe - 18'
160-0044	Drum Assembly, Ø42" x .500w Std Pipe - 17'
160-0043	Drum Assembly, Ø42" x .500w Std Pipe - 15'-2"
160-0042	Drum Assembly, Ø42" x .500w Std Pipe - 12'
160-0041	Drum Assembly, Ø42" x .500w Std Pipe - 10'
160-0040	Drum Assembly, Ø42" x .500w Std Pipe - 8'
160-0664	Drum Assembly, Ø42" x .654w Heavy Pipe - 20'
160-0663	Drum Assembly, Ø42" x .654w Heavy Pipe - 18'
160-0662	Drum Assembly, Ø42" x .654w Heavy Pipe - 17'
160-0660	Drum Assembly, Ø42" x .654w Heavy Pipe - 15'-2"
160-0658	Drum Assembly, Ø42" x .654w Heavy Pipe - 12'
160-0657	Drum Assembly, Ø42" x .654w Heavy Pipe - 10'
160-0656	Drum Assembly, Ø42" x .654w Heavy Pipe - 8'
160-0681	Drum Assembly, Ø36" x .500w Std Pipe - Crush Rite - 20'
160-0680	Drum Assembly, Ø36" x .500w Std Pipe - Crush Rite - 18'
160-0679	Drum Assembly, Ø36" x .500w Std Pipe - Crush Rite - 17'
160-0677	Drum Assembly, Ø36" x .500w Std Pipe - Crush Rite - 15'-2"
160-0675	Drum Assembly, Ø36" x .500w Std Pipe - Crush Rite - 12'
160-0674	Drum Assembly, Ø36" x .500w Std Pipe - Crush Rite - 10'
160-0673	Drum Assembly, Ø36" x .500w Std Pipe - Crush Rite - 8'

**NOTES**

Large empty rectangular box for notes.