



# ***SUMMERS***®

## **Operator's Manual**



### **IMPORTANT**

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



### **CAUTION**

READ & UNDERSTAND OPERATOR'S  
MANUAL BEFORE USING MACHINE.

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

**SUMMERS MANUFACTURING CO., INC.**

**WEB SITE: [www.summersmfg.com](http://www.summersmfg.com)**

DEVILS LAKE, NORTH DAKOTA 58301

(701) 662-5391

# Warranty

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

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

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

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

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

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

**SUMMERS MANUFACTURING CO., INC.**

**DEVILS LAKE, NORTH DAKOTA 58301**

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## GENERAL INFORMATION

This book is composed of four basic sections: Safety, Assembly, Operation and Maintenance, and Parts. The Assembly Section provides complete instructions for the proper assembly of your Summers VRT Renegade™. The Operation Section provides information for the proper operation and maintenance of your Summers VRT Renegade™. A complete parts breakdown is provided in the Parts Section.

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

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

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

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

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



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Section 2: **ASSEMBLY INSTRUCTIONS**

Section 3: **OPERATION, MAINTENANCE AND SPECIFICATIONS**

Section 4: **PARTS**

### **OWNER REGISTER**

|                 |                              |
|-----------------|------------------------------|
| Name_____       | Size_____                    |
| Address_____    | Serial Number_____           |
| City_____       | (located by the hitch piece) |
| Stat/Prov._____ | Date Purchased_____          |
| Mail Code_____  | Dealer_____                  |

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# TRANSPORT SAFETY

1. Road speed should not exceed 20 mph (32 km/hr).



2. Do not tow if the implement's towing vehicle ratio is greater than 1.5:1. See Specifications Section for implement weights.
3. If more than one implement is to be pulled by a towing vehicle, it is recommended that each implement is to be a maximum of 50% of the weight of the preceding implement. If it is not possible to reach this weight limit, transport the implements separately.
4. When approaching rough roads/ground (such as entering a road), slow down to a safe driving speed.
5. Check all lights and reflectors to ensure ALL regulations are met. Make sure the SMV emblem is attached to the implement and is clearly visible from the rear.



SMV emblems are only attached to vehicles traveling slower than 25 mph (40 km/hr). The most hazardous conditions to drive in are a daybreak and dusk. The use of a pilot car is recommended.

6. Always install ALL safety locks before transporting an implement.
7. Always park implements on a firm, level surface.

## **SECTION 1 - SAFETY**

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### **SAFETY-ALERT SYMBOL**



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

This symbol means:

**ATTENTION! BECOME ALERT!**

**YOUR SAFETY IS INVOLVED!**

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



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.



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



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

### **GENERAL SAFETY PRACTICES**

1. READ AND UNDERSTAND Operator's Manual before using machine. Review at least annually thereafter.
2. VERIFY all safety devices and shields are in place before using machine.
3. KEEP hands, feet, hair and clothing away from moving parts.
4. STOP engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting or maintaining.
5. USE CYLINDER LOCKS or lower hydraulically elevated implement components.
6. BE CAREFUL when working around high pressure hydraulic system.
7. DO NOT ALLOW RIDERS.
8. EXERCISE EXTREME CARE when working on or near disk blades. Samurai™ blades are extremely sharp, especially when new.

## SECTION 1 - SAFETY

### SAFETY DURING TRANSPORT

1. ONLY TOW at a safe speed. Use caution when making corners and meeting traffic. Maximum transport speed is 20 mph (32 kph). Towing vehicle must weigh a minimum of 1.5x the weight of the implement. (See table on page 3.23)
2. USE safety chain between tractor drawbar and implement hitch when transporting on public roads.
3. ALWAYS use transport locks when transporting on public roads.
4. COMPLY with local lighting, marking and oversize regulations when transporting on highways.
5. FREQUENTLY check for traffic from rear, especially during turns.

### SAFETY DECALS

1. Keep safety decals clean.
2. Replace missing or unreadable decals. New decals are available from your Summers dealer by ordering correct part number (PN) located on decal.
3. Locations shown in Parts section.

#### 1. TRANSPORT LOCK WARNING DECAL (PN 8Z0075)



#### 2. PINCH POINT DECAL (PN 8Z0087)



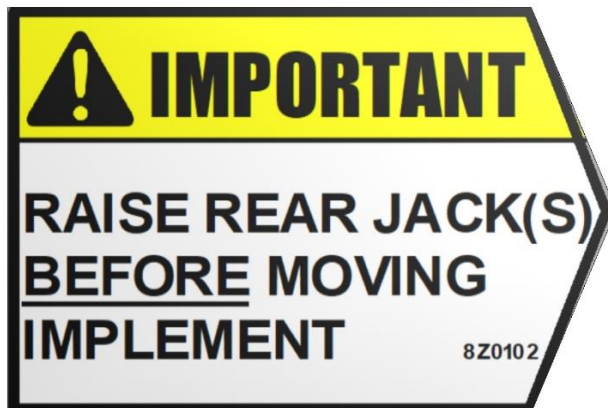


## SECTION 1 - SAFETY

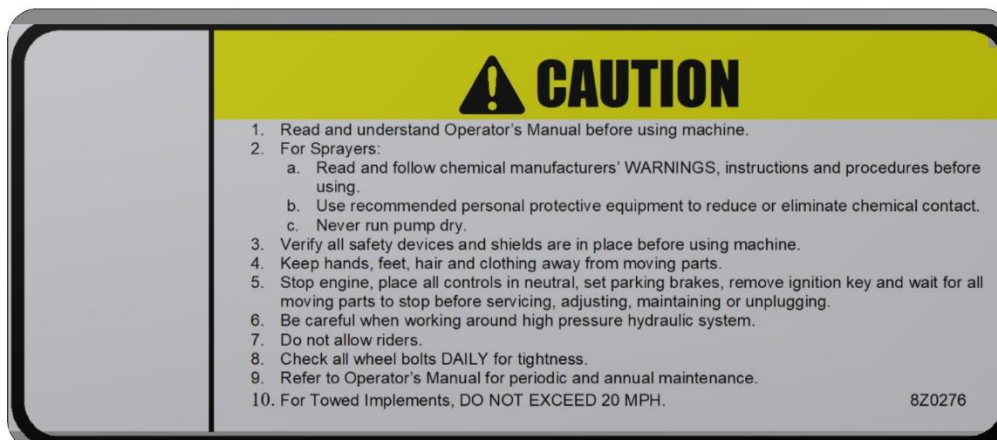
### 3. DISCONNECTING IMPLEMENT WARNING DECAL (PN 8Z0099)



### 4. REAR JACK DECAL (PN 8Z0102)



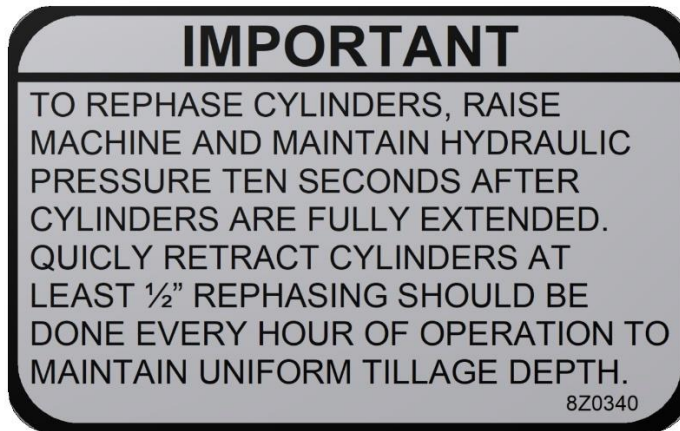
### 5. GENERAL CAUTION DECAL (PN 8Z0276)



## SECTION 1 - SAFETY

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### 6. REPHASING CYLINDERS DECAL (PN 8Z0340)



### 7. INSTALLING CYLINDER LOCKS DECAL (PN 8Z0342)



### 8. STAYING CLEAR OF WINGS DECAL (PN 8Z0344)



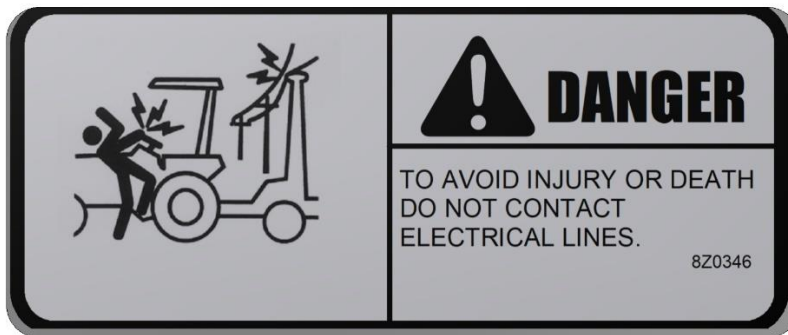
## SECTION 1 - SAFETY

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### 9. ROLLING ATTACHMENT DANGER DECAL (PN 8Z0345)



### 10. ELECTROCUTION DANGER DECAL (PN 8Z0346)



### 11. AMBER REFLECTOR (PN 8Z0800)



## **SECTION 1 - SAFETY**

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### **12. RED-ORANGE REFLECTOR (8Z0805)**



### **13. RED REFLECTOR (PN 8Z0810)**



### **SAFETY LIGHT OPERATION**

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



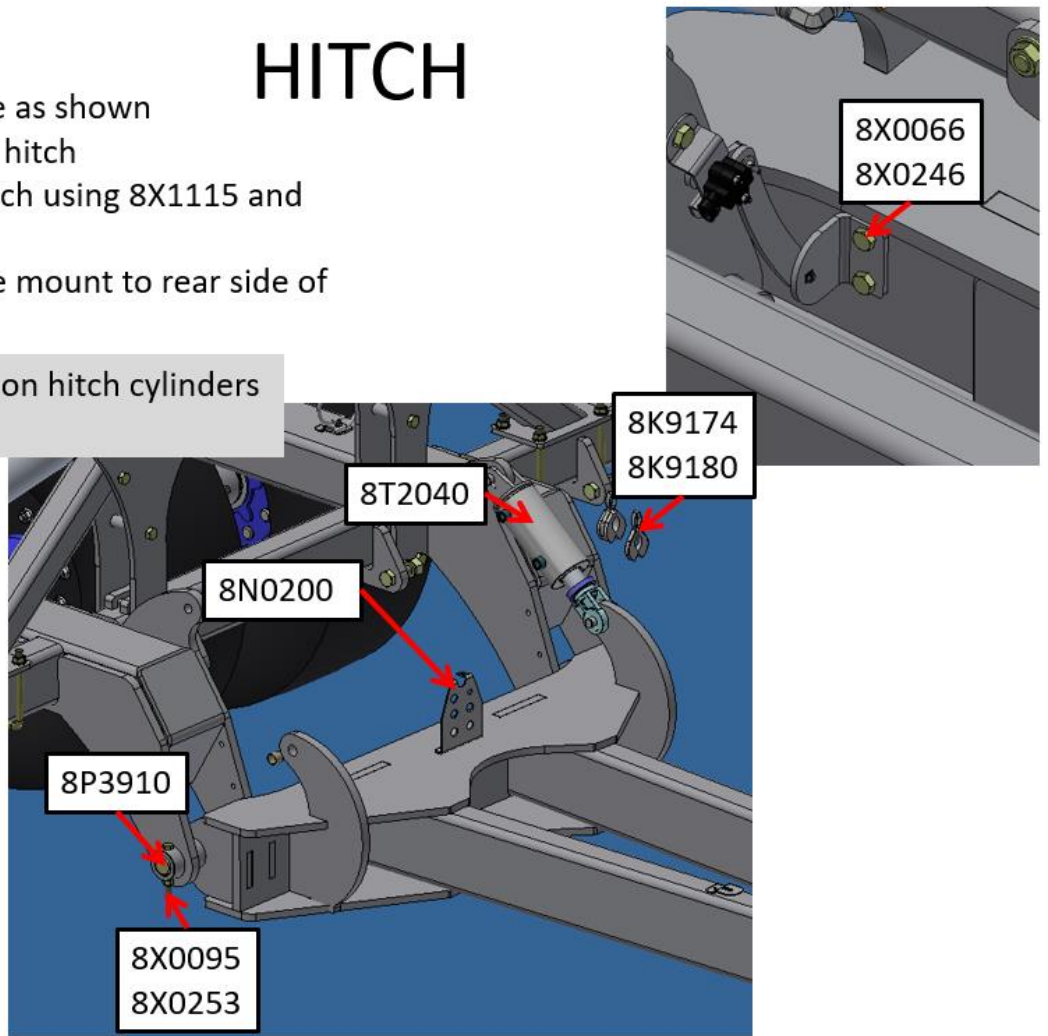
## SECTION 2 - ASSEMBLY

The Summers VRT Renegade™ is shipped in 2 ways: Completely assembled, and partially assembled. If your machine is completely assembled, this section does not apply. If your machine is partially assembled, this section will show how to finish assembly (attach hitch and mounted attachments).

# HITCH

- Attach hitch to frame as shown
- Connect cylinders to hitch
- Attach 8N0200 to hitch using 8X1115 and 8X0203
- Attach sensor linkage mount to rear side of hitch
- Insert cylinder stops on hitch cylinders for transport

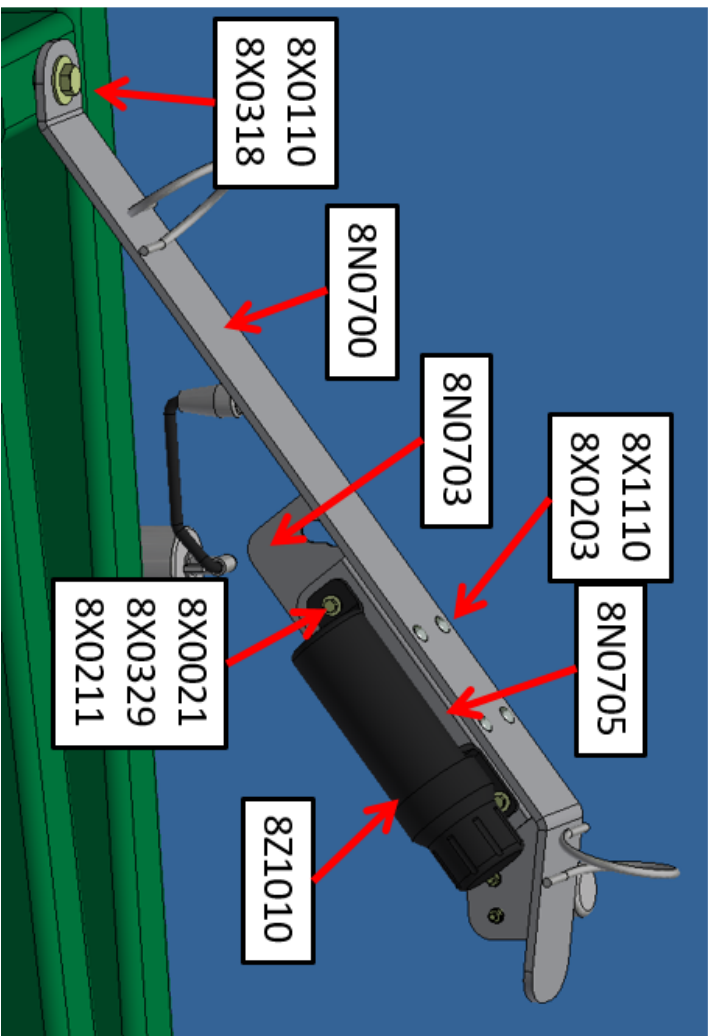
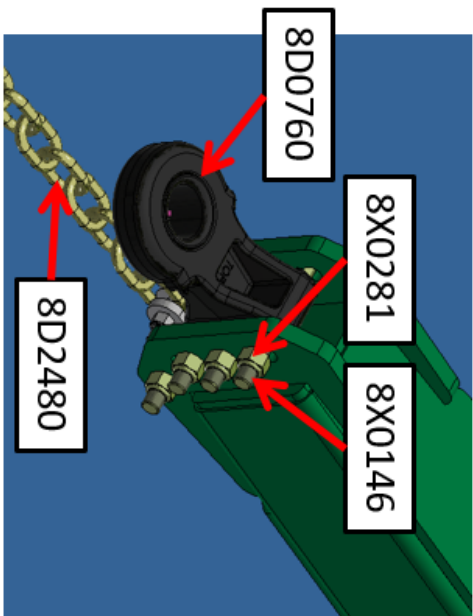
| Part Number | Qty |
|-------------|-----|
| 8D8523      | 1   |
| 8K9174      | 2   |
| 8K9180      | 2   |
| 8P3910      | 2   |
| 8T2040      | 2   |
| 8X0066      | 2   |
| 8X0095      | 2   |
| 8X0203      | 2   |
| 8X0246      | 2   |
| 8X0253      | 2   |



# HITCH ATTACHMENTS

- Bolt 8N0700 to the frame
- Then attach 8Z1010 and 8K8067
- **35-40:** 8D0770 **25-30:** 8D0760

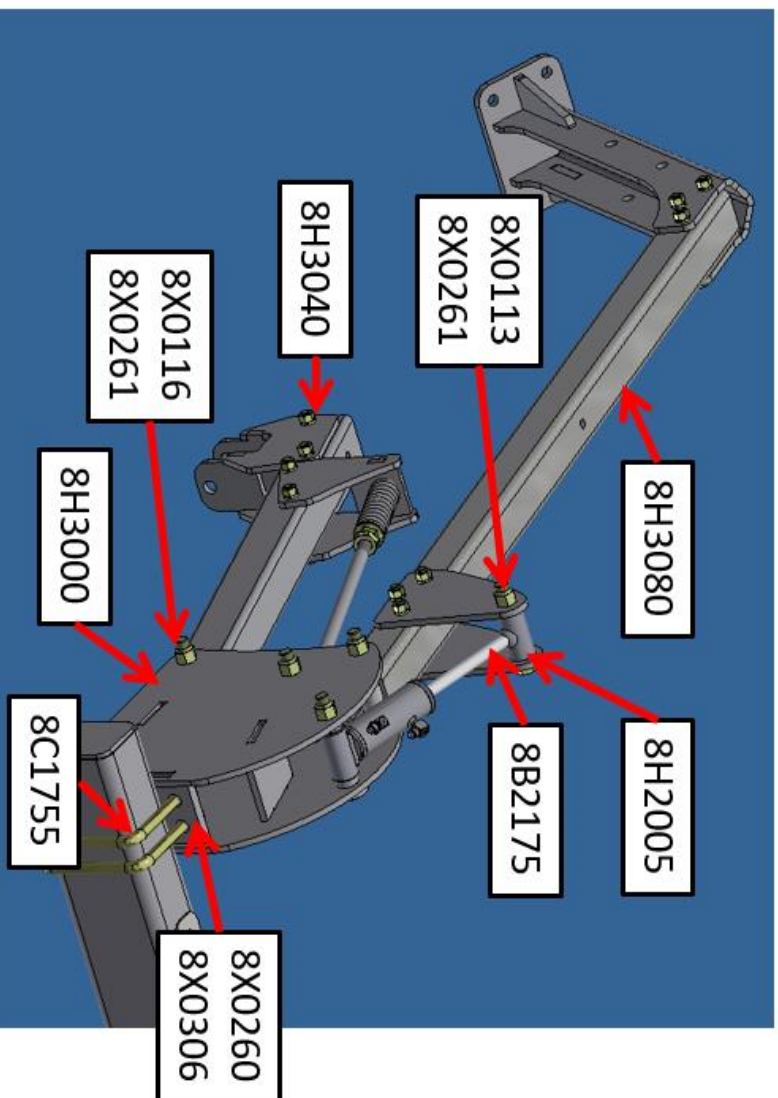
| Part Number | Qty |
|-------------|-----|
| 8D0760      | 1   |
| 8D2480      | 1   |
| 8N0700      | 1   |
| 8N0703      | 1   |
| 8N0705      | 1   |
| 8X0021      | 3   |
| 8X0110      | 1   |
| 8X0146      | 4   |
| 8X0203      | 4   |
| 8X0211      | 3   |
| 8X0281      | 4   |
| 8X0318      | 1   |
| 8X0329      | 3   |
| 8X1110      | 4   |
| 8Z1010      | 1   |



# ATTACHMENT BRACKET ASSEMBLY

- First attach 8H3000 to the frame
- Then attach 8H3020, 8H3020, 8H1290, and 8B1750 to 8H3000

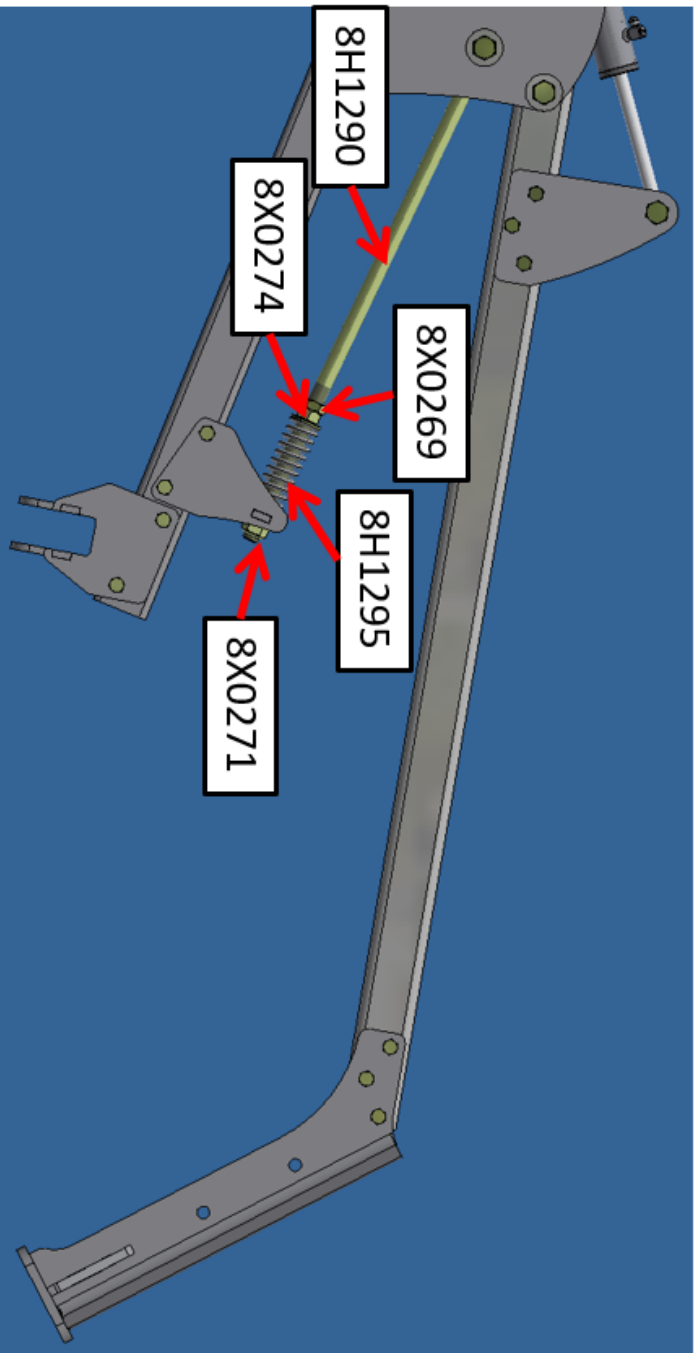
| Part Number | Qty per Bracket |
|-------------|-----------------|
| 8B2175      | 1               |
| 8C1755      | 2               |
| 8H1290      | 1               |
| 8H2005      | 2               |
| 8H3000      | 1               |
| 8H3010      | 1               |
| 8H3020      | 1               |
| 8X0116      | 4               |
| 8X0260      | 4               |
| 8X0261      | 4               |
| 8X0306      | 4               |



# ATTACHMENT BRACKET ASSEMBLY

| Part Number | Qty per Bracket |
|-------------|-----------------|
| 8H1290      | 1               |
| 8H1295      | 1               |
| 8X0271      | 1               |
| 8X0269      | 1               |
| 8X0274      | 1               |

- Tighten 8X0271 so there is  $\frac{3}{4}$ " between the nut and the end of the spring rod

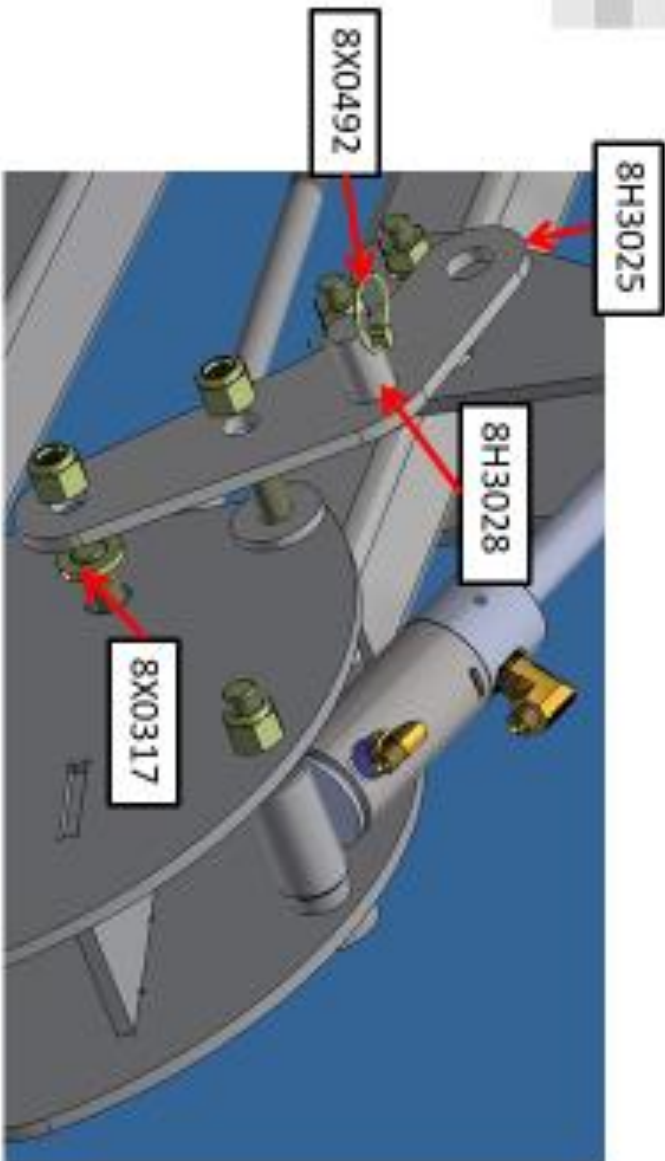




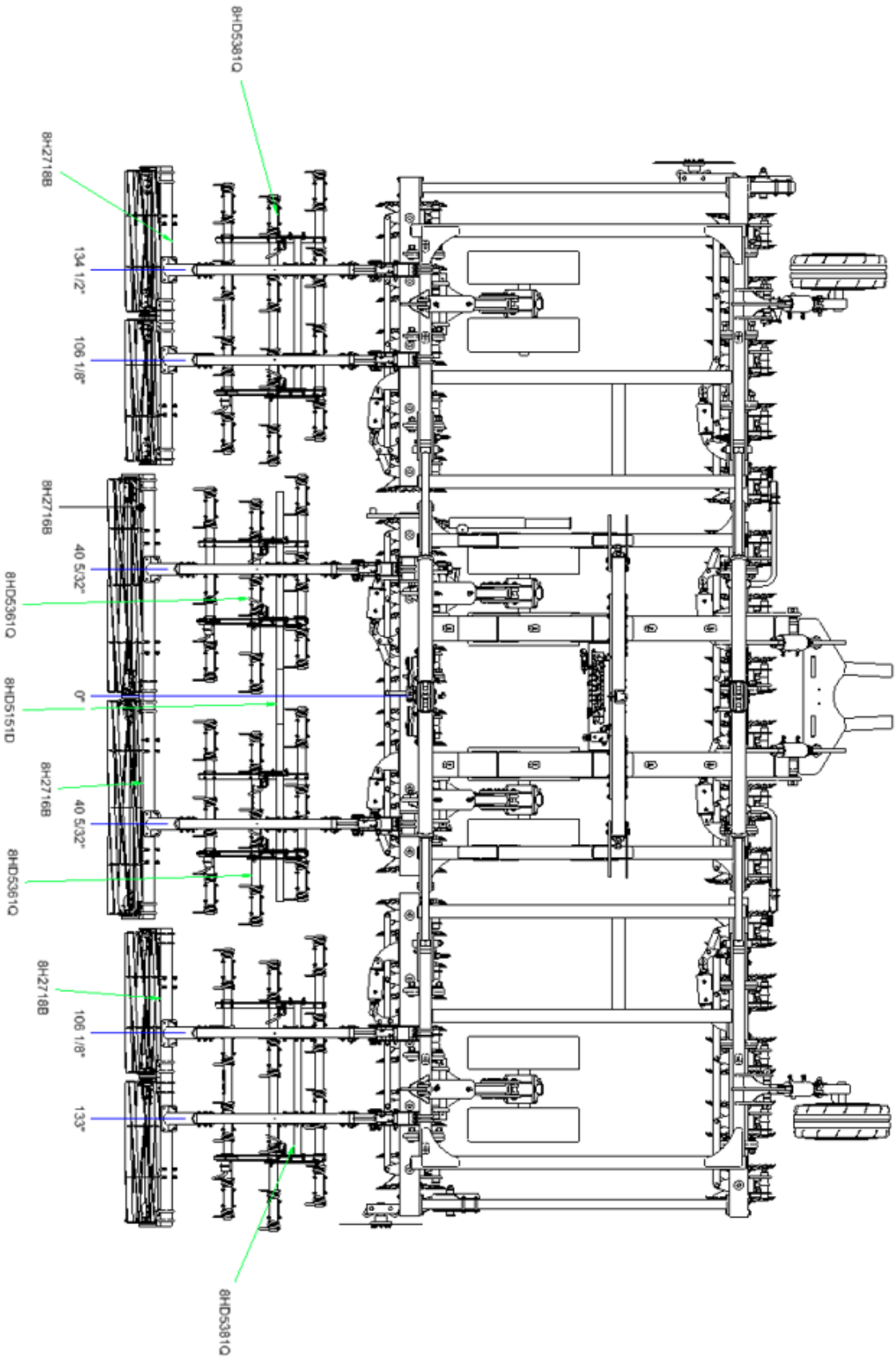
# BASKET LOCKUP

- Arms on Center Section ONLY

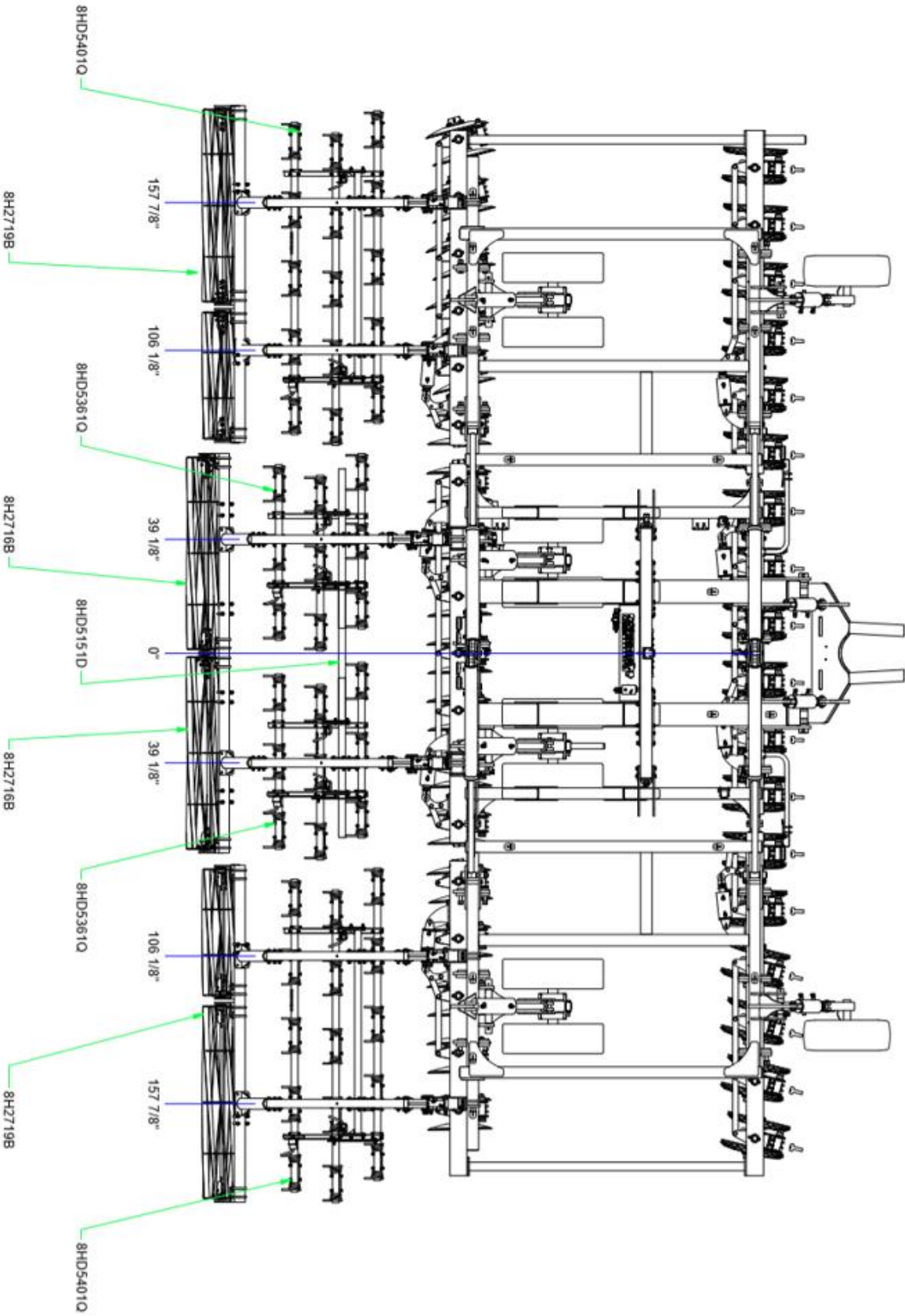
| Part Number | Qty per Bracket |
|-------------|-----------------|
| 8H3025      | 1               |
| 8H3028      | 1               |
| 8X0317      | 1               |
| 8X0492      | 1               |



# HARROW/BASKET LAYOUT (25')

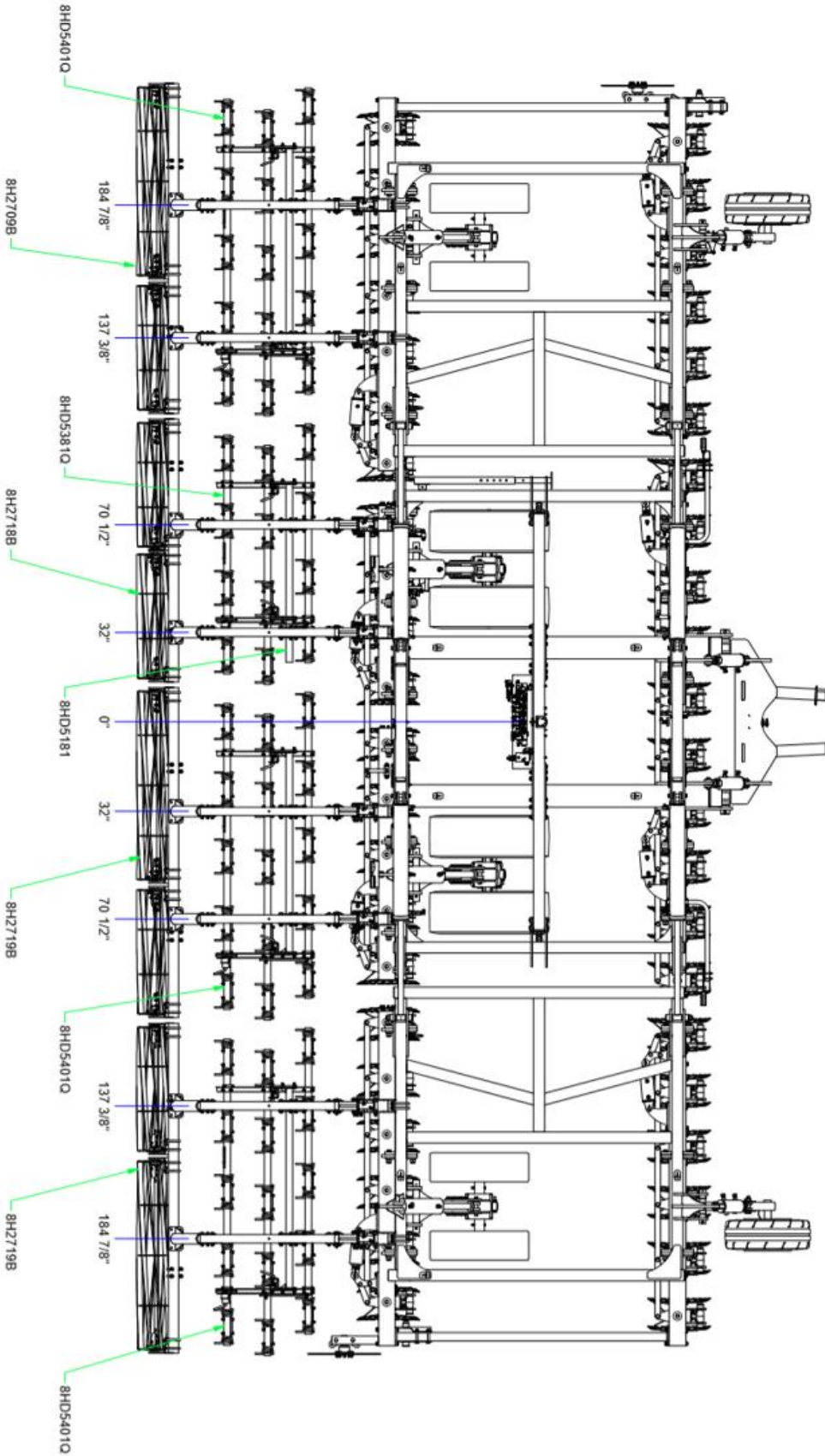


# HARROW/BASKET LAYOUT (30')



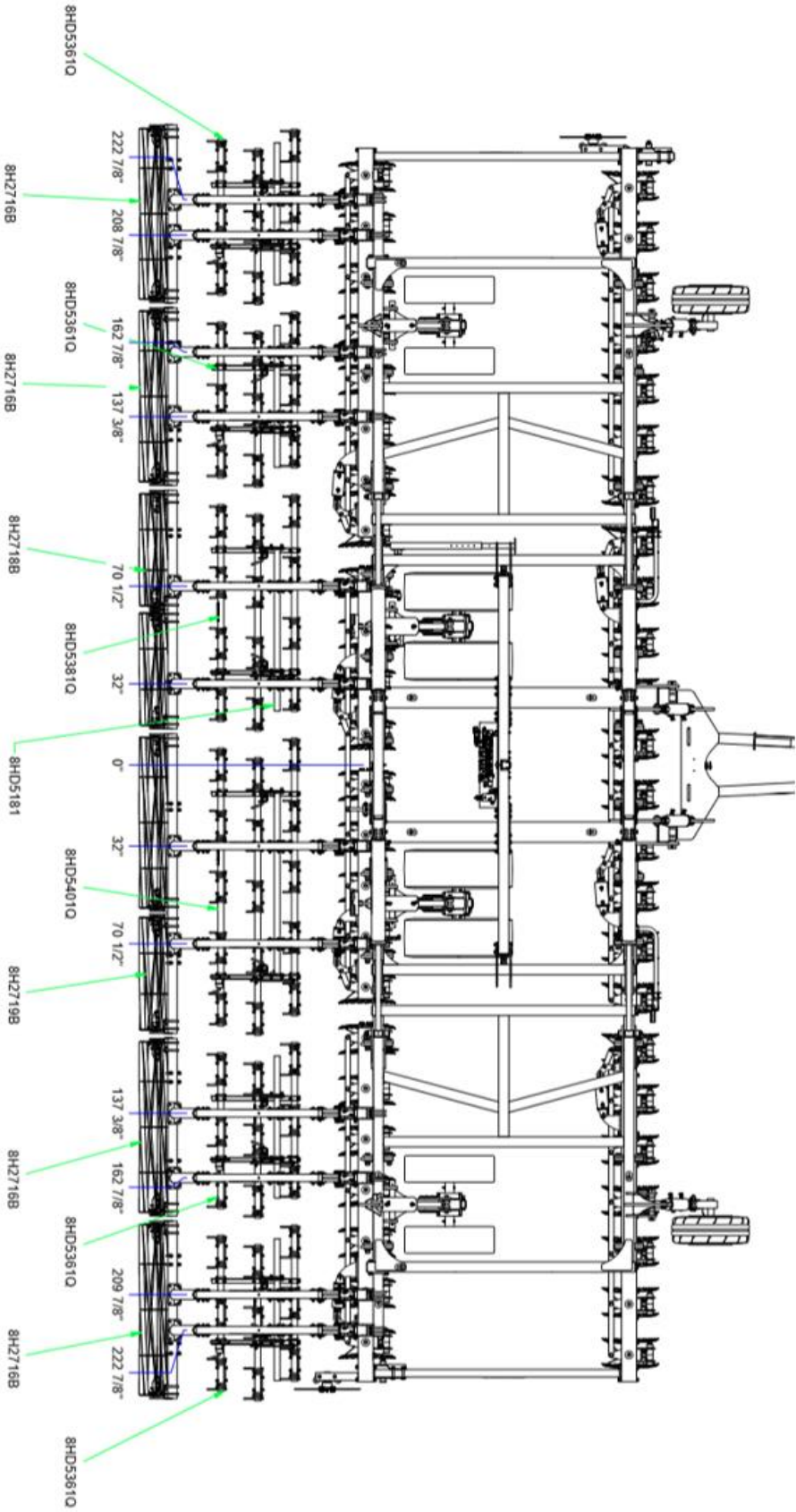
**SECTION 2 - ASSEMBLY**

# HARROW/BASKET LAYOUT (35')



**SECTION 2 - ASSEMBLY**

# HARROW/BASKET LAYOUT (40')



## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

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### CONNECTING TO THE TRACTOR

The Summers VRT Renegade™ is equipped with an Articulating Ball hitch. This hitch is designed to eliminate “slop” between the implement hitch and the tractor drawbar. 25’ and 30’ machines are supplied with a Category 4 hitch and must be used with a 2” diameter hitch pin. 35’ and 40’ machines are supplied with a Category 5 hitch and must be used with a 2-3/4” diameter hitch pin. A reducing bushing is also supplied to adapt to a Category 4 drawbar.

The VRT Renegade™ has 3 hydraulic circuits, Lift/Depth Control, Wing Fold/Down pressure, and Auxiliary. After connecting the hoses to the tractor, the flow controls should be set as follows:

**Green:** Main Lift/Depth Control. Extend – 100% flow, Retract – 30%-50% flow.

**Red:** Auxiliary. **MUST BE IN CONSTANT FLOW**, 40% flow.

**Gold:** Wing Fold/Down pressure. **MUST BE IN CONSTANT FLOW**, 40% flow. Alternatively, wing circuit can be run in Float.

\*The above flow settings are only a suggested baseline. Deviation from these settings may be necessary to achieve desired results.

### ELECTRICAL HOOKUP

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



Connect the IBBC connector (ISO Plug) to the tractor. The VRT Renegade™ does not interface with the tractor’s CAN network, but utilizes the connector for power and ground.



## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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### **BEFORE INITIAL OPERATION**

Remove the shipping locks from the center section Rolling Baskets, shown below.



Failure to remove shipping locks may result in damage to the machine.

### **REMOVE SAFETY LOCKS**

Remove wing and lift cylinder locks.



Wing Locks



Lift Cylinder Locks

Open Hydraulic Hitch Ball Valve and remove the cylinder stops from the hitch cylinders.



Cylinder Stops

Remove rear jack and place into storage location.



Rear Jack Down



Rear Jack Stored

## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### TABLET SETUP

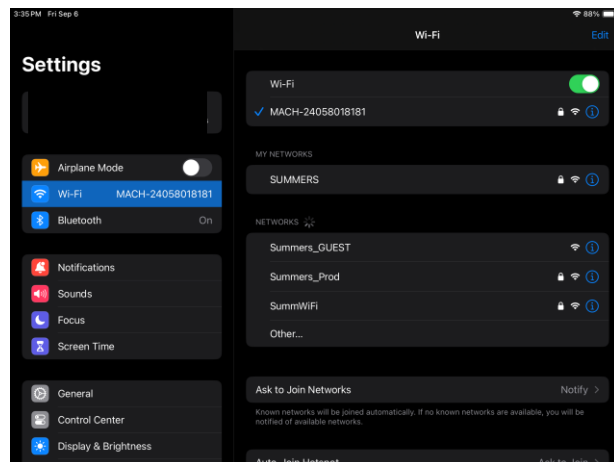
Note: The minimum system requirements is Apple iOS version 12. Or Android 5.0

The Soil Control App must be downloaded from Apple App Store Or Google Play Store Once in the App Store, search for “Summers Soil Control”.

Choose “get” once you find the App. NOTE: You will need to log in with a valid Apple ID or Google Play ID in order to “get” the App.

Note: The Soil Control App will show “Disconnected” unless it is connected to the VRT Renegade’s WIFI network.

With power supplied to the machine (tractor key in “On” or “Accessory” position) connect the tablet to the VRT Renegade’s WIFI network. The network name will be MACH-XXXXXXXXXX. A password may be required at initial startup. The password is none-1234 No spaces and is lowercase. This password is only required at initial connection with each tablet. Once connected to the VRT Renegade’s network, it will show up under the WIFI section.





## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### STARTING THE Soil Control APP

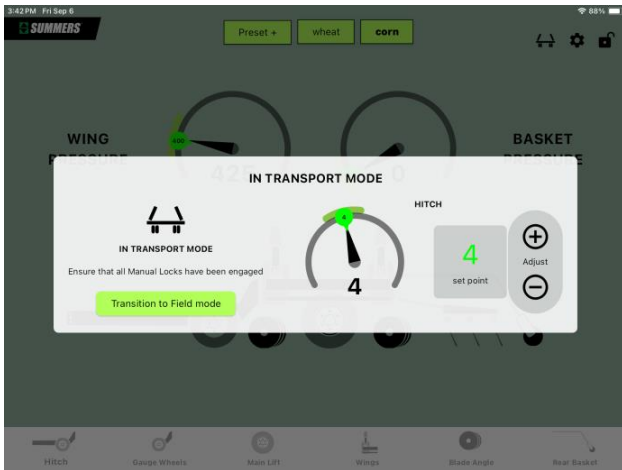
To start the app, tap the icon shown.



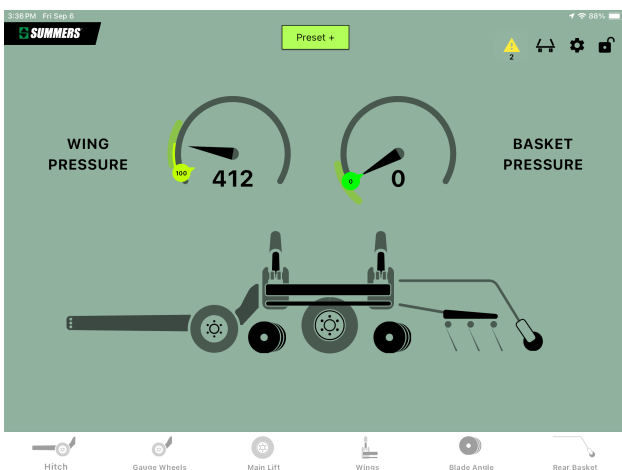
To unfold the wings, tap the “Transition to Field Mode” button, and follow the on-screen instructions.

Note: If the machine is folded up, but the Field Mode home screen is displayed, it may be necessary to temporarily increase the Wing down pressure in order to unfold the wings. See the “WING PRESSURE” section for more information.

The app should open to one of two screens. If the machine is in Transport Mode, the screen should appear as shown below.



If in Field Mode, the screen should appear as shown here.



# SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

The screenshot displays the SUMMERS machine control interface. At the top left, the status bar shows the time as 3:36 PM, the date as Fri Sep 6, and the SUMMERS logo. The main display area features several gauges and icons:

- WING PRESSURE:** A gauge showing a reading of 412 with a yellow arc at the bottom and a green needle.
- PRE-SETS:** A green button labeled "Preset +" with a red arrow pointing to it.
- MACHINE ALERTS:** A yellow warning triangle icon with a red arrow pointing to it.
- TRANSPORT/FIELD POSITION:** A gauge showing a reading of 0 with a green arc at the bottom and a green needle.
- SETTINGS:** A gear icon with a red arrow pointing to it.
- BASKET PRESSURE LOCKOUT:** A red padlock icon with a red arrow pointing to it.

At the bottom of the screen, a row of icons is labeled "MACHINE ADJUSTMENT ICONS":

- Hitch
- Gauge Wheels
- Main Lift
- Wings
- Blade Angle
- Rear Basket

# SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

## REPHASING SEQUENCE

It is recommended to run a Rephasing Sequence at the start of, and occasionally throughout the day. To conduct a machine rephase, tap the Settings button on the Home Screen. From the Settings page, tap “Rephase” and follow the on-screen instructions.

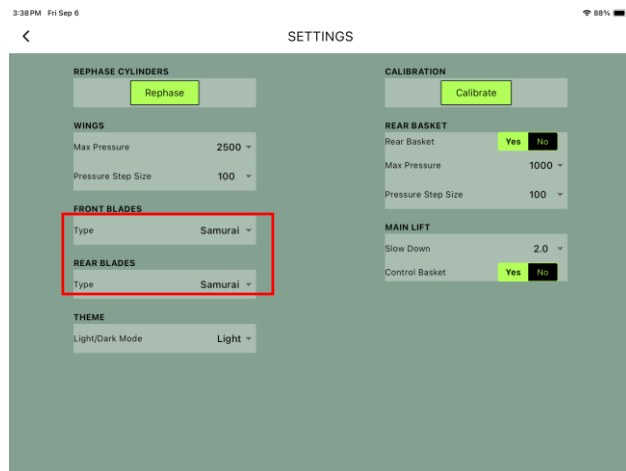
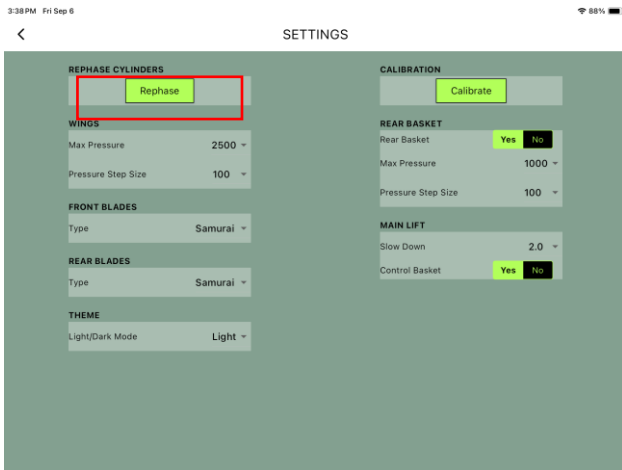
## CALIBRATING THE VRT RENEGADE

Any time a position sensor is replaced, a Calibration will need to be performed. To begin the Calibration process, go to the Settings page, and tap “Calibrate”. Follow the on-screen instructions. See page 3.10 – 3.15 for detailed Calibration sequence.

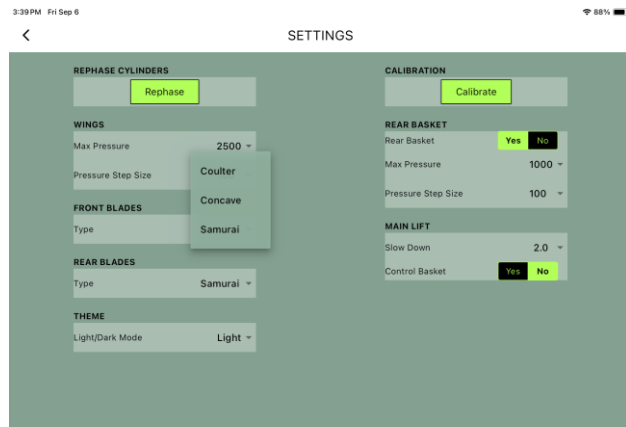
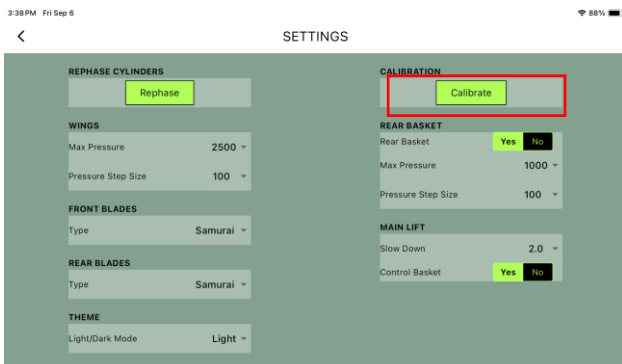
## SELECTING BLADE TYPE

The VRT Renegade is designed to be able to operate with different blade types. If the machine is outfitted with Coulter Blades, selecting this option will limit the blade angle to 0° to 6°. This is done to protect the blades from damage due to excessive side draft. Likewise, if the machine is outfitted with Disk Blades, selecting this option will limit blade angle to 6° to 19°. Running less than 6° on a disk blade can cause the back side of the blade to hold up the machine, as well as cause compaction. If the machine has Samurai™ Blades, it can be operated at any angle from 0° to 19°.

To select the blade type, go to the Settings page, and select the front and rear blade type, shown below.



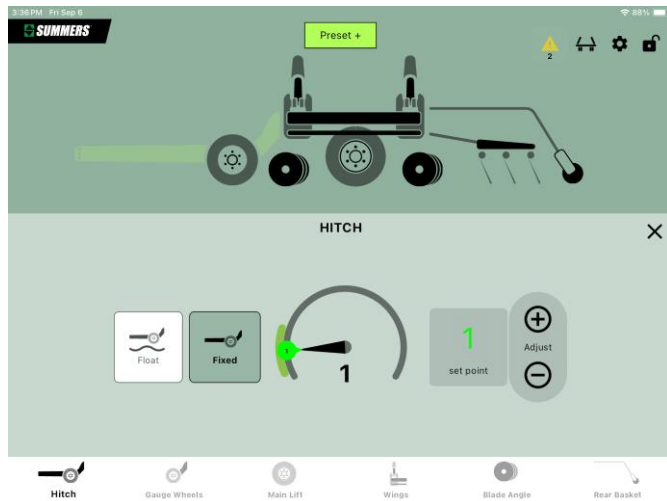
Note: It is recommended to complete a Rephasing Sequence prior to Calibrating.



## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### HITCH ADJUSTMENTS

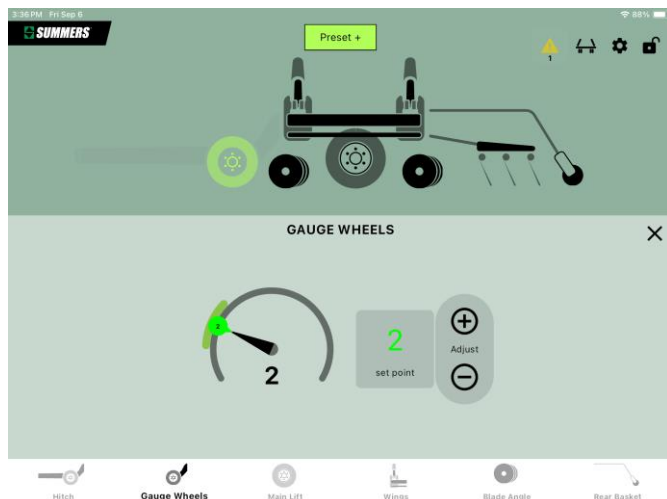
To make adjustments to the Hydraulic Hitch, tap the “Hitch” button at the bottom of the Home Screen.



From the Hitch screen, select either “Float” or “Fixed”. The “Float” setting will allow the hitch to float for better contouring ability. The “Fixed” setting allows for weight transfer fore and aft. Increasing the Set Point tilts the machine rearward, decreasing the Set Point tilts the machine forward. Adjustments to the Hitch position can only be made while the machine is in the lowered position.

NOTE: Hitch will lock in middle position when machine is raised and hitch is set to “Float”.

### GAUGE WHEEL ADJUSTMENTS



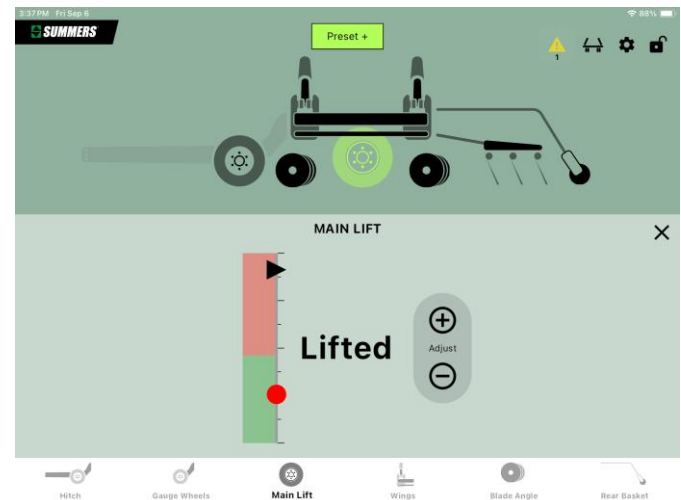
To make adjustments to the Gauge Wheels, tap the “Gauge Wheels” button at the bottom of the Home Screen.

The Gauge Wheels can be used to level out the machine from side-to-side, as well as prevent “gouging” when crossing a ditch. Increasing the Set Point lowers the Gauge Wheels, decreasing the Set Point Raises them.

### MAIN LIFT/DEPTH CONTROL

The Main Lift of the machine is controlled by the operator through the tractor hydraulic remote. The Soil Control App is only used to adjust the depth setting. The operator must manually raise and lower the machine.

To change the tillage depth settings, tap the “Main Lift” button at the bottom of the Home Screen.



The current position of the wheels will be shown, as well as the Set Point. The current position will show “Lifted” when machine is completely raised. The line between red and green represents the ground surface. The red dot in the green zone is the tillage depth. Pressing the “+” increases the tillage depth, pressing the “-” decreases the tillage depth.

## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### WING PRESSURE

The folding and unfolding of the wings on the VRT Renegade is controlled by the operator through the tractor hydraulic remote. The Soil Control App is only used to adjust the amount of down pressure applied to the wings.

To adjust the Wing Down pressure, tap the “Wings” button at the bottom of the Home Screen.



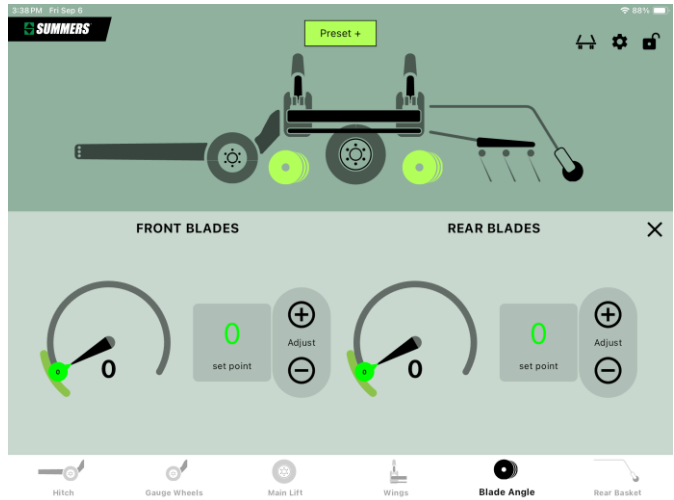
The current hydraulic pressure, as well as the Set Point are displayed. Increasing the Set Point will transfer more weight from the center frame of the machine to the wings.

If no Wing down pressure is desired, the operator may place the tractor hydraulic remote into “Float”.

**Important: The wing circuit must be run in either constant flow or float. Failure to do so may result in damage to the machine.**

### BLADE ANGLE

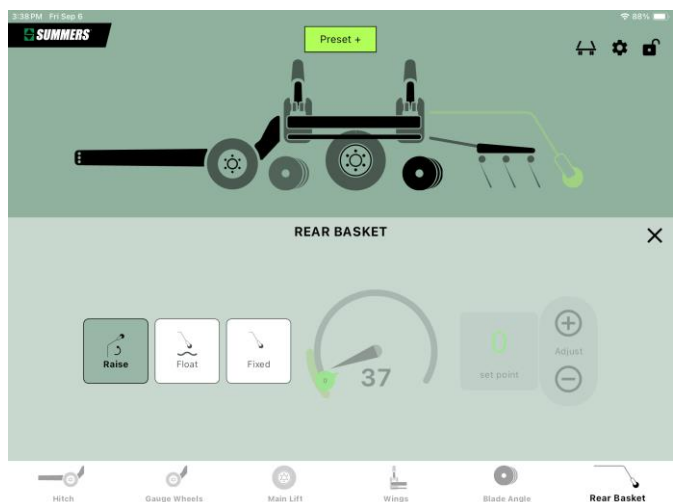
To make adjustments to the Blade Angle, tap the “Blade Angle” button at the bottom of the Home Screen.



The current angle and the target Set Point are displayed for both the front and rear blades. Front and Rear blades can be adjusted independently. The range of adjustment available to the operator will be dependent on the Blade Type selection made in the Settings page.

### ROLLING BASKETS

To make adjustments to the Rolling Baskets, tap the “Rear Baskets” button at the bottom of the Home Screen.



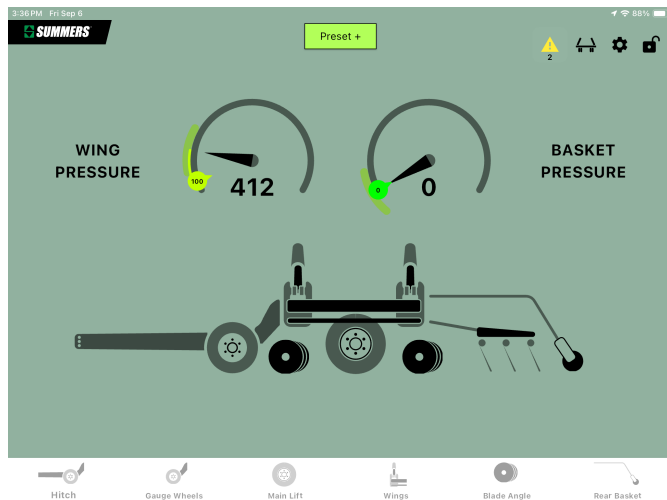
## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### BASKETS CONTINUED

From the Rear Baskets screen, select “Raise”, “Float”, or “Fixed”. The Raise setting will lift the Baskets off the ground in the instance that the operator wishes to utilize only the harrows. The Float setting will allow the Baskets to “float” with no additional down pressure. The Fixed setting applies hydraulic down pressure. Increasing this Set Point increased the pressure on the baskets. When the Fixed setting is selected, the current hydraulic down pressure will be displayed, as well as the target pressure.

### PRESETS

The Soil Control App allows the operator to create presets for machine. These presets provide the ability to quickly change machine settings for different conditions. Presets are displayed at the top of the Home Screen.

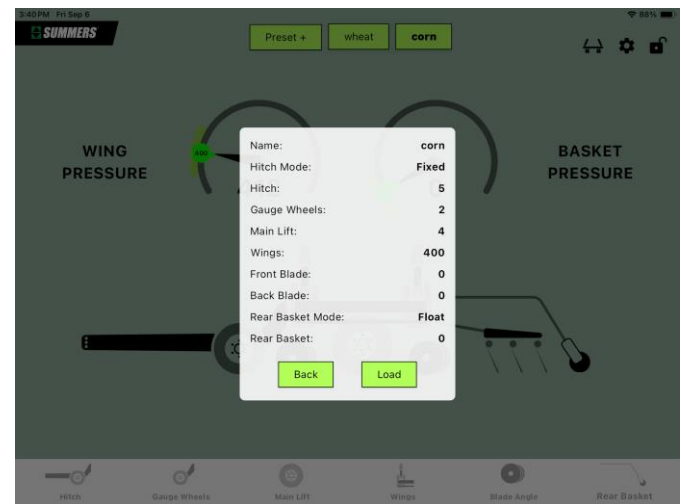


Once the machine has been configured to achieve satisfactory results, a preset can be created by tapping the “Preset +” button at the top of the Home Screen. A custom name can then be input for the preset. The current machine configuration will then be saved.

By pressing and holding on an existing Preset, the operator can rename or overwrite the preset.

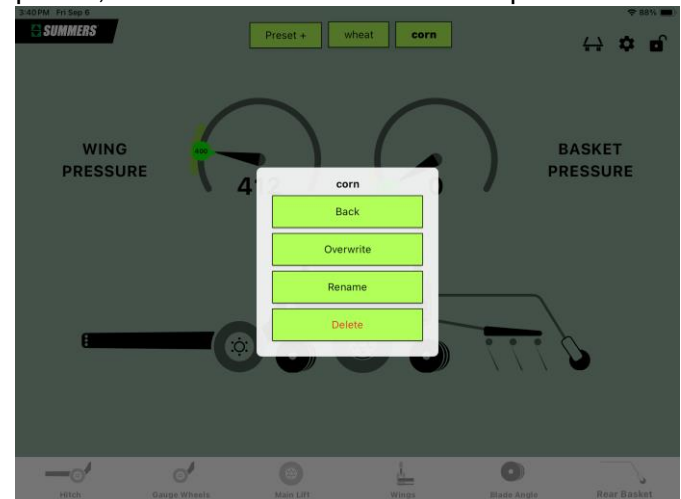
Note: If the operator wishes to “update” a current Preset after making minor adjustments, pressing and holding the Preset, and tapping “overwrite” will allow keeping the same name.

To activate a Preset, tap the desired Preset button at the top of the Home Screen.



The operator can then view all settings in the Preset, and then either tap “Back”, or “Load”. “Back” returns to the Home Screen, and “Load” will activate the Preset.

To change or delete an existing preset, press and hold the preset the user wants to change. A box appears with Back to return to home page, Overwrite to apply changes to selected preset, Rename will allow user to rename the selected preset, Delete will delete the selected preset.

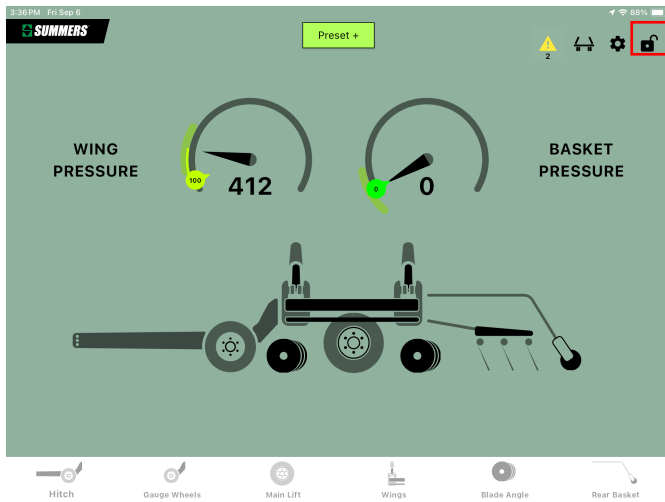


### LOCKOUT MODE

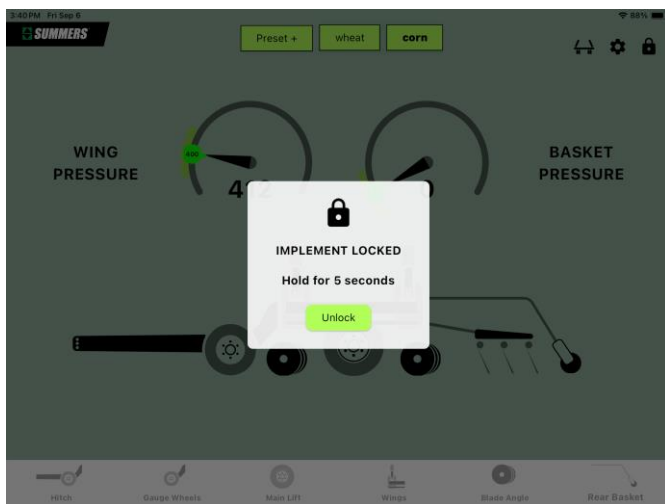
To prevent accidental changes to machine settings, as well as unexpected moving parts if someone is near the machine, the operator should use the “Lockout” feature any time the machine is “active” but sitting in one place; ex. Troubleshooting, non-operator passenger in cab, etc.

## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

To activate Lockout Mode, tap the Lockout button at the top right of the screen.

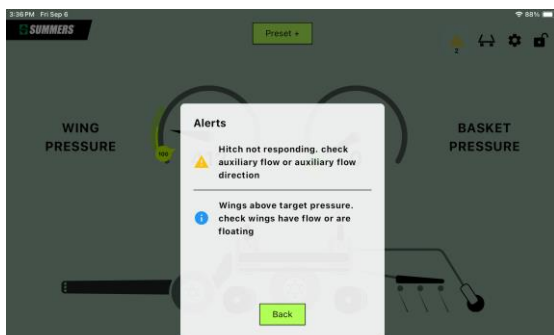


This will lock the app, and not allow inputs until unlocked.



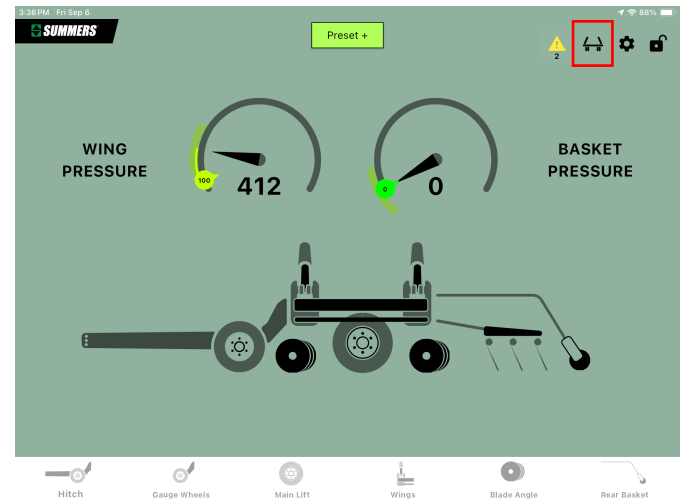
### Machine Alerts

Machine alerts are in the upper right corner. When selected, any issues will be displayed for user to address.

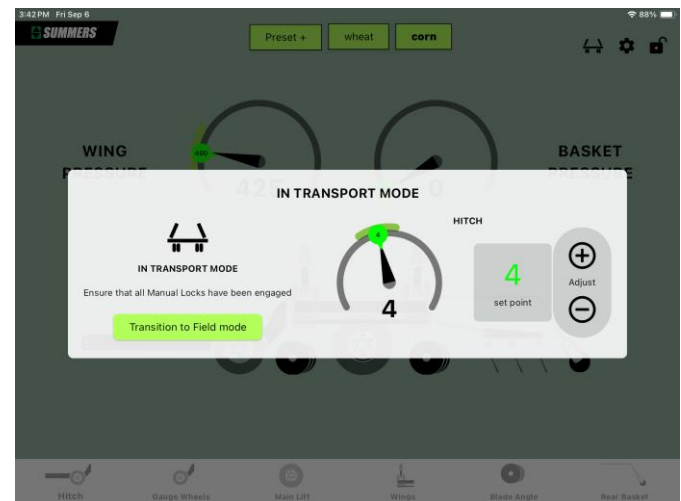


### TRANSPORT MODE

To transition to the Transport Mode, tap the "Transport" button at the top of the Home Screen and follow the on-screen instructions.



At this point, the operator will be able to make adjustments to the Hydraulic Hitch to allow for proper balance and ground clearance.



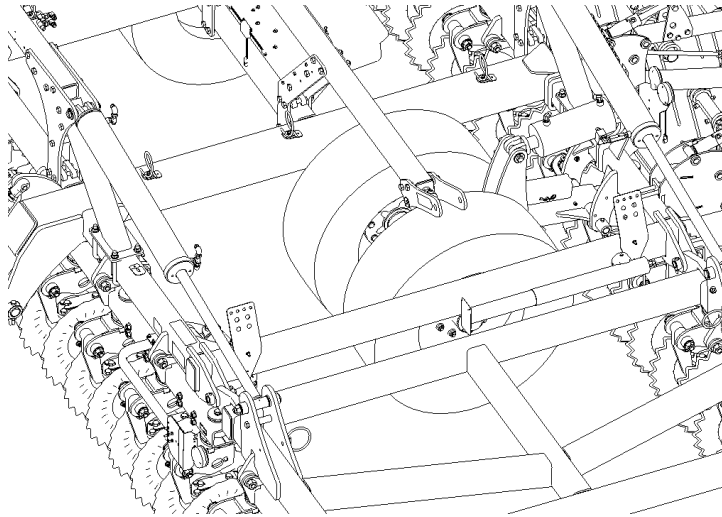
## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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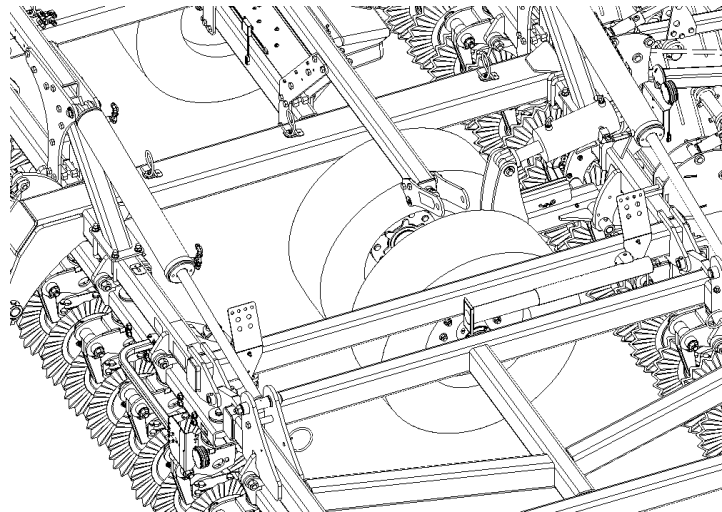
### **CALIBRATION SEQUENCE**

Upon entering Calibration, the user must perform certain actions, in a certain sequence, as instructed by the Soil Control App. This section will describe, in detail, the actions to be performed, as well as the automated movements the machine will make during the Calibration process. If not performed properly, the machine will not operate, and the Calibration process must be started over.

**\*\*USER INPUT\*\*** Fully retract depth control cylinders



**\*\*USER INPUT\*\*** Float depth control cylinders until transport wheels touch the ground



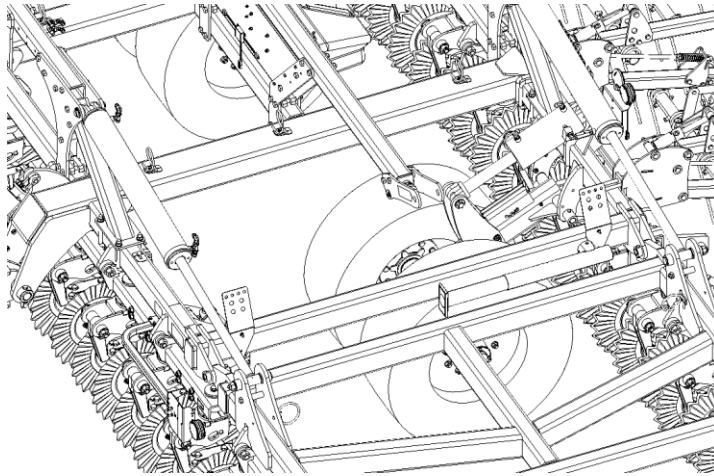


## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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### **CALIBRATION SEQUENCE**

**\*\*USER INPUT\*\*** Fully extend depth control cylinders



The remainder of the calibration sequence is controlled by the Soil Control system. Before beginning, ensure the AUXILIARY SCV is detented in the extend position. There is a check valve in the hydraulic circuit, allowing flow in only one direction. If the machine actions described below do not occur, it is likely the result of no hydraulic flow. Ensure hydraulic hoses are properly connected, and SCV is in constant flow.

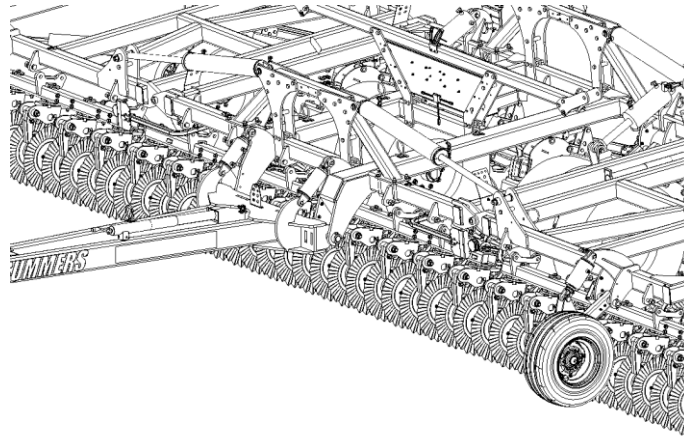
**\*\*USER INPUT\*\*** Detent Auxiliary circuit in the extend direction



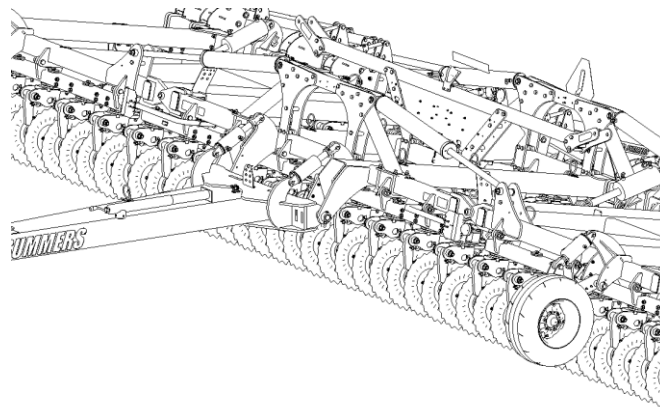
## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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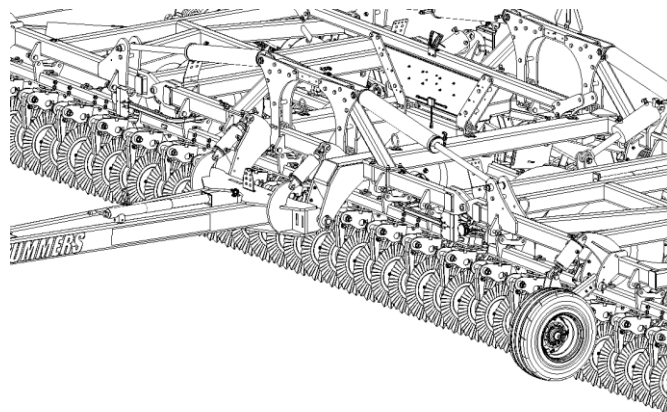
### **CALIBRATION SEQUENCE**



Hitch cylinders will fully retract, pitching machine forward.



Hitch cylinders will fully extend, pitching machine rearward.

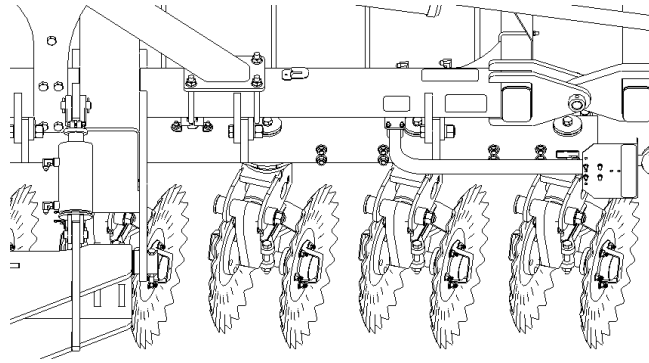


Hitch cylinders will go to a mid-stroke position, leveling machine.

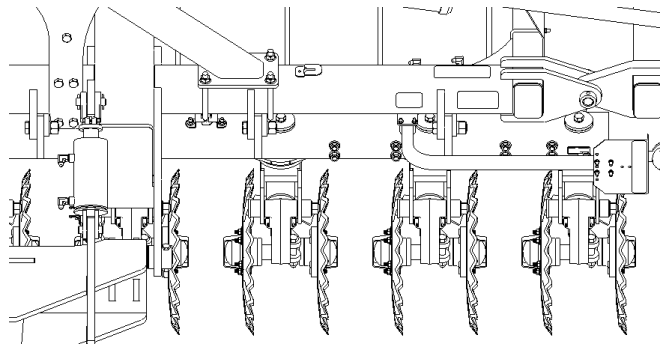
## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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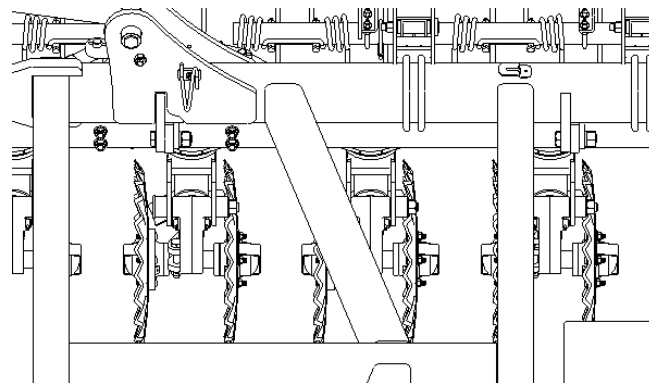
### **CALIBRATION SEQUENCE**



Front blade cylinders will fully extend, moving blades to maximum angle.



Front blade cylinders will fully retract, moving blades to straight.

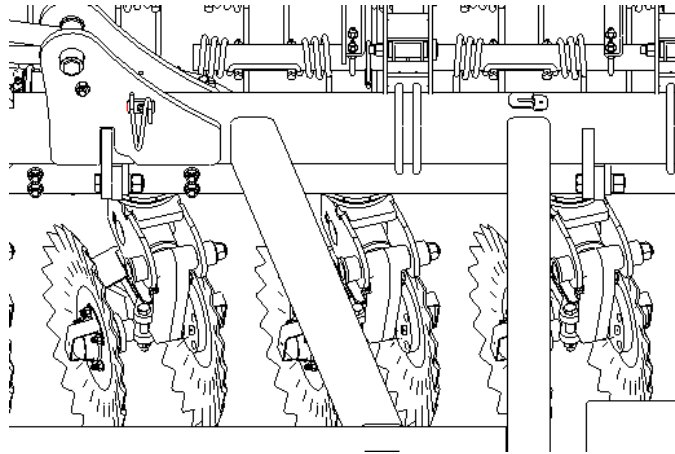


Rear blade cylinders will fully retract, moving blades to straight.

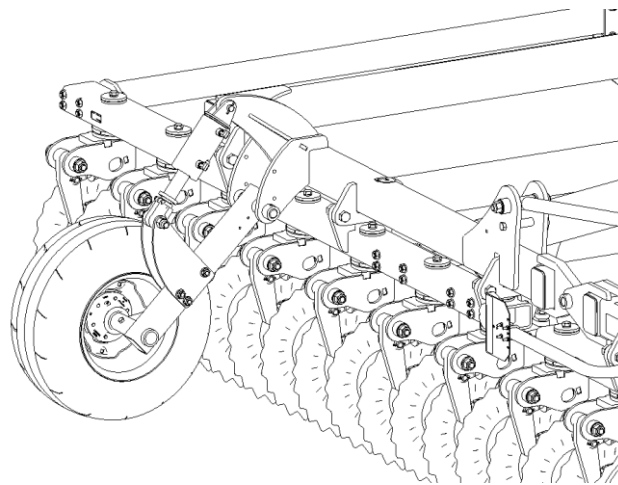
## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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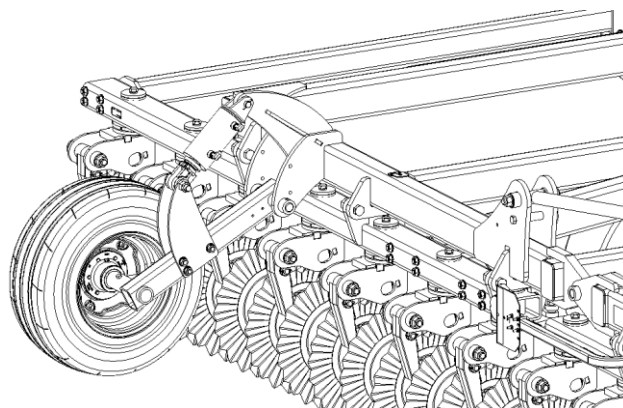
### **CALIBRATION SEQUENCE**



Rear blade cylinders will fully extend, moving blades to maximum angle.



Gauge wheel cylinders will fully extend, lowering wheels.



Gauge wheel cylinders will fully retract, raising wheels.

## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### SWITCH BOX OPERATION

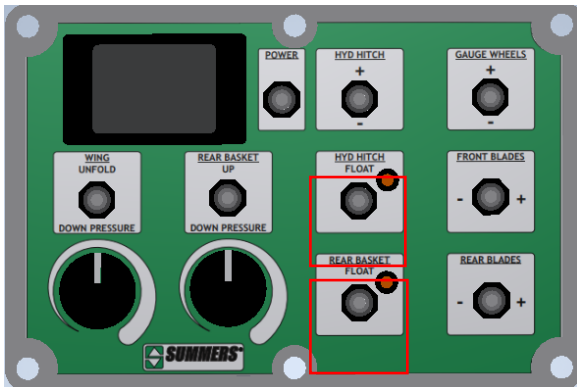
#### POWER SWITCH

Power Toggle Switch must be turned on for the Screen Display and Switchbox to operate.



#### HYDRAULIC HITCH

The Hydraulic Hitch setting allows for weight to transfer fore and aft. Increasing the Set Point tilts the machine rearward, decreasing the Set Point tilts the machine forward. Adjustments to the Hitch position can only be made while the machine is in the lowered position.



#### HYDRAULIC HITCH FLOAT

The "Float" setting will allow the hitch to float for better contouring ability. If the hitch is in "Float" the LED light will be on. This feature will only work if the machine is lowered.

Note: Float is the recommended setting when working in rocky or uneven conditions.

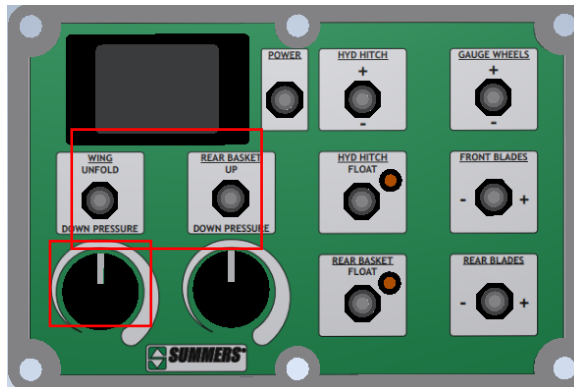
#### GAUGE WHEELS

The Gauge Wheels can be used to level out the machine from side-to-side, as well as prevent "gouging" when crossing a ditch. Increasing the Set Point lowers the Gauge Wheels, decreasing the Set Point Raises them.



#### WING UNFOLD/DOWN PRESSURE

When the toggle switch is held in the Unfold position, the down pressure setting is bypassed, allowing the wings to unfold into Field Mode. When the Wing Down pressure Toggle Switch is engaged, the pressure will be displayed on the Renegade Switchbox.



Wing Down pressure is adjusted with the rotary knob below the toggle switch.

## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### REAR BASKET UP/DOWN PRESSURE

After the machine is out of Transport mode and into Field mode use the Rear Basket Toggle Switch to lower and apply down pressure. Use the rotary knob below the toggle switch to increase or decrease down pressure. Pressure is shown in the display.

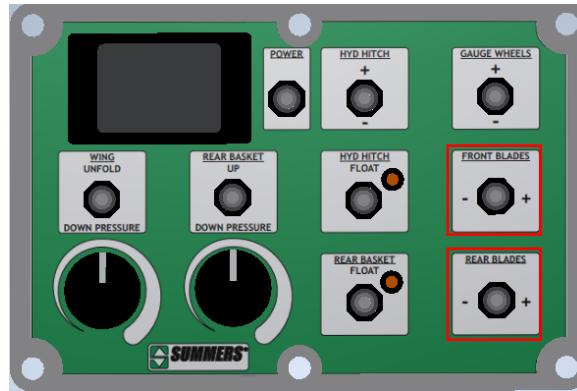


Alternatively, the Rear Baskets can be placed into Float mode by activating the Rear Basket Float switch. If the Rear Baskets are in float, this will be indicated by the LED light next to switch.

To raise the baskets for transport, or when their use in the field is not desired, hold the toggle switch in the UP position until all the Rear Basket sections are fully raised.

### BLADE ANGLE ADJUSTMENT

The front and rear blade angles are independently adjustable. To increase blade angle, hold the switch in the + position to increase angle (more aggressive), or the – position to decrease angle (less aggressive).



## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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### **FIELD OPERATION**

#### **IMPORTANT**

- Ensure Wing and Auxiliary circuit SCVs are in constant flow.
- \*NOTE: Optionally, Wing circuit SCV can be run in Float
- Never turn on headlands with machine in the ground.
- Operating the machine in hard or frozen soil conditions can have a negative impact on machine performance and may lead to damage to the trip mechanism.
- Run machine with hitch in FLOAT unless running blade angles of 6° or less.
- \*NOTE: When running hitch in float, the machine will automatically adjust the hitch position to “5” when lifted.
- Make passes at 7°-12° to the rows to prevent tire stubble damage.

#### **SUGGESTED OPERATING MODES**

- Set the rear blade angle 2° more aggressive than the front blade angle to ensure the machine tracks straight.
  - Begin with Wing Circuit SCV in the Float position. If wings are riding up, detent Wing Circuit SCV in the extend position, and set down pressure to 100. Increase down pressure gradually until the wings and center are running level.
  - Lower Gauge Wheels until they are just making contact with the ground.
  - Set Rear Baskets to 200.
- \*The above settings are only a suggested baseline. Deviation from these settings may be necessary to achieve desired results.

## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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### **TRANSPORTING**

Before transporting, close ball valve on center of main frame, and install all transport locks.

Use a safety chain between tractor drawbar and VRT Renegade™ hitch when transporting on public roads.

Check wheel bolts/nuts after first 20 miles of road transport and every 60 miles thereafter.

Road the implement at a reasonable speed, not to exceed 20 MPH.

**NOTE:** Towing vehicle must weigh a minimum of 1.5x the implement weight. (See table on page 3.21)

Always use an ASABE “Slow Moving Vehicle” emblem and safety lights when transporting on a road or highway. Comply with your state and local laws governing lighting and maximum width regulations. Transport during daylight hours only.

### **UNHOOKING FROM VRT RENEGADE**

Choose a very firm level surface to park.

Either lower wings and blades to the ground OR install Wing and Lift Cylinder transport locks.

Check that hitch pin is not bound with sideways or front to back pressure. If hitch pin is not free, carefully reposition tractor.

Block tires to prevent movement after hitch pin is removed.

Lower front AND rear jacks.

Disconnect wire harnesses, hydraulic hoses, and safety chain.

Recheck that hitch pin is free, if so, stand to the side of the hitch and remove hitch pin.

Carefully drive ahead.

### **STORAGE**

Clean dirt and debris from all electronics and sensors.

Inspect machine for damaged or worn parts, cracked or broken blades, and loose bolts.

Wheel bearings should be inspected seasonally.

It is recommended to store machine unfolded, with both the blades and tires on the ground. If this is not feasible, ensure:

- Machine is in “Transport Mode”
- Lift Cylinder Locks are in place
- Wing Lock pins are in place
- Hitch Cylinder Stops are in place
- Hitch Ball Valve is closed
- Rolling Basket Shipping Locks are installed
- Front AND rear jacks are lowered
- Wheels are chocked



## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### MAINTENANCE

- Every 40 hours:** Grease articulating ball hitch.
- Seasonally:** Grease Fold Cylinder Pivot.
- Inspect and re-pack Wheel Bearings.
- Check Wheel Bolt/Nut torque.

**Tire Inflation:** Recommended inflation pressures in chart below.

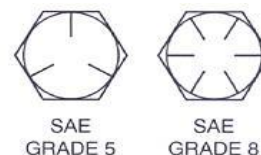
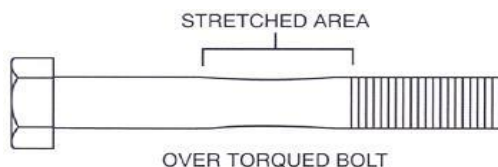
| Hub            | PN     | Wheel Bolt/Nut Torque | Size          | Load Index | Pressure |
|----------------|--------|-----------------------|---------------|------------|----------|
| 614 - 6 BOLT   | 8K1100 | 170 ft-lb             |               |            |          |
| 812 - 8 BOLT   | 8K1105 | 240 ft-lb             | VF385/65R22.5 | 163        | 70 psi   |
| 817 - 8 BOLT   | 8K1106 | 240 ft-lb             | VF285/70R19.5 | 150        | 75 psi   |
| 1010 - 10 BOLT | 8K1109 | 275 ft-lb             | IF280/70R15   | 134        | 64 psi   |

### PROPER BOLT USE

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

| BOLT SIZE         | WRENCH SIZE         | GRADE 5  |         | GRADE 8 |      |
|-------------------|---------------------|----------|---------|---------|------|
|                   |                     | ft-lbs   | N-m     | ft-lbs  | N-m  |
| 1/4"              | 7/16" or 3/8"       | 7        | 9.5     | 12      | 17   |
| 5/16"             | 1/2"                | 15       | 20      | 25      | 34   |
| 3/8"              | 9/16"               | 30       | 41      | 45      | 61   |
| 7/16"             | 5/8" or 11/16"      | 45       | 61      | 70      | 95   |
| 1/2"              | 3/4"                | 70       | 95      | 105     | 142  |
| 9/16" Wheel Bolts | 7/8"                | 170      | 231     |         |      |
| 5/8"              | 15/16"              | 170      | 231     | 210     | 285  |
| 5/8" Wheel Nuts   | 1-1/16"             | 240      | 325     |         |      |
| 3/4"              | 1-1/16"* or 1-1/8"  | 250      | 339     | 375     | 509  |
| 3/4" Wheel Nuts   | 1-1/8"              | 275      | 373     |         |      |
| 7/8"              | 1-5/16"             | 350      | 475     | 600     | 814  |
| 1"                | 1-1/2"              | 450      | 610     | 880     | 1193 |
| 1-1/4"            | 1-7/8"              | 500      | 678     |         |      |
| 1-1/2"            | 2-1/4"              | 570      | 773     |         |      |
| 2"                | 3-1/8"              | 1200     | 1627    |         |      |
| METRIC            |                     |          |         |         |      |
| M5                | 3 mm socket or 8 mm | 22 in-lb | 2.5 N-m |         |      |
| M6                | 4 mm socket         | 70 in-lb | 8 N-m   |         |      |

\*Nylon Lock Nut



## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

### **TROUBLESHOOTING**

For issues not addressed/remedied by this guide, please contact Summers Service Dept.

| <b>NO.</b> | <b>PROBLEM</b>   | <b>PROBABLE CAUSE</b>                               | <b>CORRECTION</b>   |
|------------|--|---|---|
| 1          | Tablet will not connect to Wi-Fi                                     | A. ISOBUS connection not seated properly            | Check connection  |
|            |  | B. No power to ISOBUS                               | Check fuse or power source (tractor side)<br>May need to disconnect power and restart procedure |
| 2          | Cannot find the App Icon to run the machine                          | A. App was not installed                            | See section for downloading the Summers Soil Control VRT Renegade app.                          |
| 3          | Tablet settings are not consistent between “current” and “set point” | A. Aux hydraulic turned around                      | (+) Positive colored grip should be on extend<br>(-) Negative colored grip should be on retract |
|            |  | B. Re-calibration required                          | Calibration is found under the “settings” tab on the top right of the I-pad                     |
|            |  | C. Re-phasing required                              | Re-phase is found under the “settings” tab on the top right of the I-pad                        |
|            |  | D. Sensor damage                                    | Check sensor for movement or damage   |
| 4          | Wings will not unfold  | A. Hydraulic flow set too low                       | Increase hydraulic flow on the tractor  |
|            |  | B. Max pressure setting low                         | Increase “max pressure” under the “settings” tab on the I-pad                                   |
|            |  | C. Renegade is not in transport mode                | Will need to complete the transport mode. The I-pad will then show “entering field position”    |
|            |  | D. Safety pins in place                             | Remove pins   |
| 5          | Functions will not respond with the Tablet                           | A. Auxiliary hydraulic is not engaged               | Engage auxiliary remote to continuous flow  |
|            |  | B. Auxiliary hydraulics are not hooked up correctly | Check to see if hydraulic lines are hooked up correctly   |
| 6          | Wings are not penetrating  | A. Not enough wing pressure                         | Increase wing pressure  |
|            |  | B. Gauge wheels holding up the wings                | Retract gauge wheels  |
|            |  | C. Basket pressure to high                          | Reduce basket pressure  |

## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

|    |  |  |  |
|----|--|--|--|
| 7  | VRT Renegade is not running straight or is “dog tracking”  | A. Blade angle   | To move the machine to the right, increase front angle or decrease rear.<br>To move machine to the left, decrease front angle or increase rear.        |
|    |  | B. Hitch Pitch   | Float the hitch or pitch forward to move right or pitch back to move left.   |
| 8  | Wings are going in too deep.   | A. Wing pressure too high                                  | Reduce wing pressure   |
|    |  | B. Gauge wheels not contacting the ground                  | Increase gauge wheel set point   |
|    |  |  | Increase basket pressure   |
| 9  | VRT Renegade is not running level front to back  | A. Hitch not in correct position                           | Adjust hitch angle   |
|    |  |  | Run hitch in float   |
| 10 | Depth of the machine is not consistent to the I-pad settings of the machine  | A. Communication error                                     | Shut down tractor to break connection and restart  |
|    |  | B. Sensor  | Check for sensor damage  |
|    |  | C. Calibration needed                                      | Calibrate the machine found under “settings”   |
| 11 | Blades will not position to desired angle  | A. Blade type setting is incorrect                         | Go to “settings” and change the front and/or rear blade type setting to desired type. Concave setting is from 6-19 degrees and coulter is 0-6 degrees. |
| 12 | Blade angle will not change  | A. Auxiliary circuit not engaged                           | Engage Auxiliary circuit   |
|    |  | B. Sensor  | Check position sensor for damage   |
| 13 | Transport mode will not run complete and is stuck on “activate cylinder extend on main lift to raise machine”                              | A. App not responding                                      | Close the app and restart it – go through re-phase and recalibration mode  |
|    |  |  | Disconnect the power (tractor) and restart   |
| 15 | I-pad isn’t responding or is locked up   | A. Communication error                                     | Turn the tractor off   |
|    |  |  | Unplug the ISOBUS connection   |
|    |  |  | Close app  |
|    |  |  | Double click on I-PAD home button and “swipe” off each app   |
|    |  |  | Re-open app  |
| 17 | Main lift shows at outer limits only and will not adjust. In addition, the transport option will not go past extend main lift all the way. | A. Calibration process was done in reverse                 | Refer to calibration section   |
| 18 | Blade angle shows extremely high or negative number and not responding   | A. Sensor may be bad.                                      | Replace sensor   |
|    |  | B. App caught between readings due to recent recalibration | Use + and – buttons to move the setting to the displayed current value, or 0, then proceed as normal   |

## **SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS**

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### **SPECIFICATIONS**

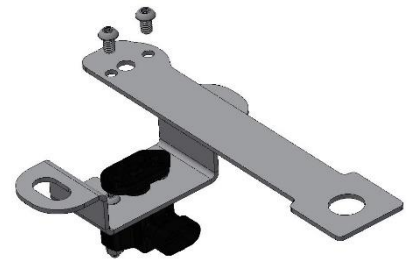
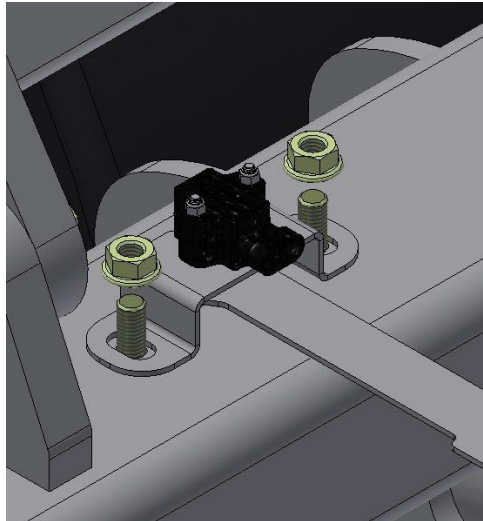
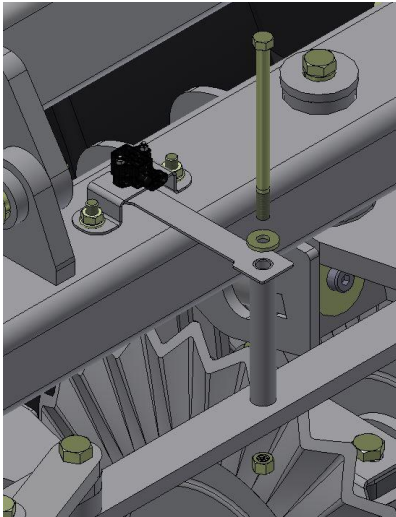
| <b>SIZE</b> | <b>BLADE QTY</b> | <b>TRANSPORT WIDTH</b> | <b>TRANSPORT HEIGHT</b> | <b>MACHINE WEIGHT</b> | <b>OVERALL LENGTH</b> |
|-------------|------------------|------------------------|-------------------------|-----------------------|-----------------------|
| 25'         | 64               | 15'-6"                 | 13'-9"                  | 25,700                | 29'-10"               |
| 30'         | 72               | 15'-6"                 | 15'-4"                  | 27,000                | 29'-10"               |
| 35'         | 88               | 20'-7"                 | 16'3"                   | 29,380                | 32'-3"                |
| 40'         | 96               | 20'-7"                 | 17'10"                  | 32,100                | 32'-3"                |

\*Dimensions and Weights are approximate

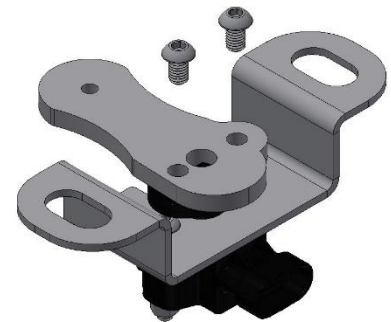
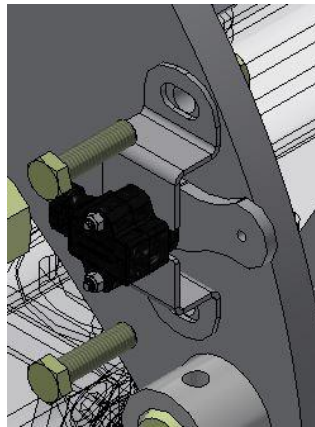
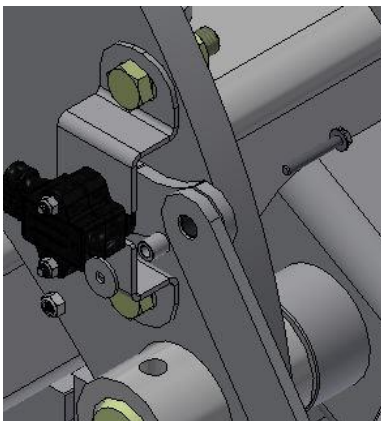
## SECTION 3 – OPERATION, MAINTENANCE & SPECIFICATIONS

### SENSOR REPLACEMENT

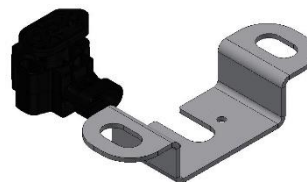
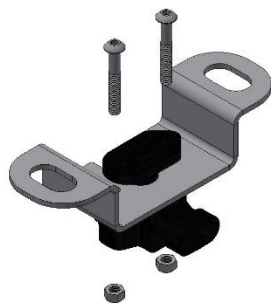
#### BLADE ANGLE SENSOR



#### MAIN LIFT, GAUGE WHEEL, HITCH SENSOR

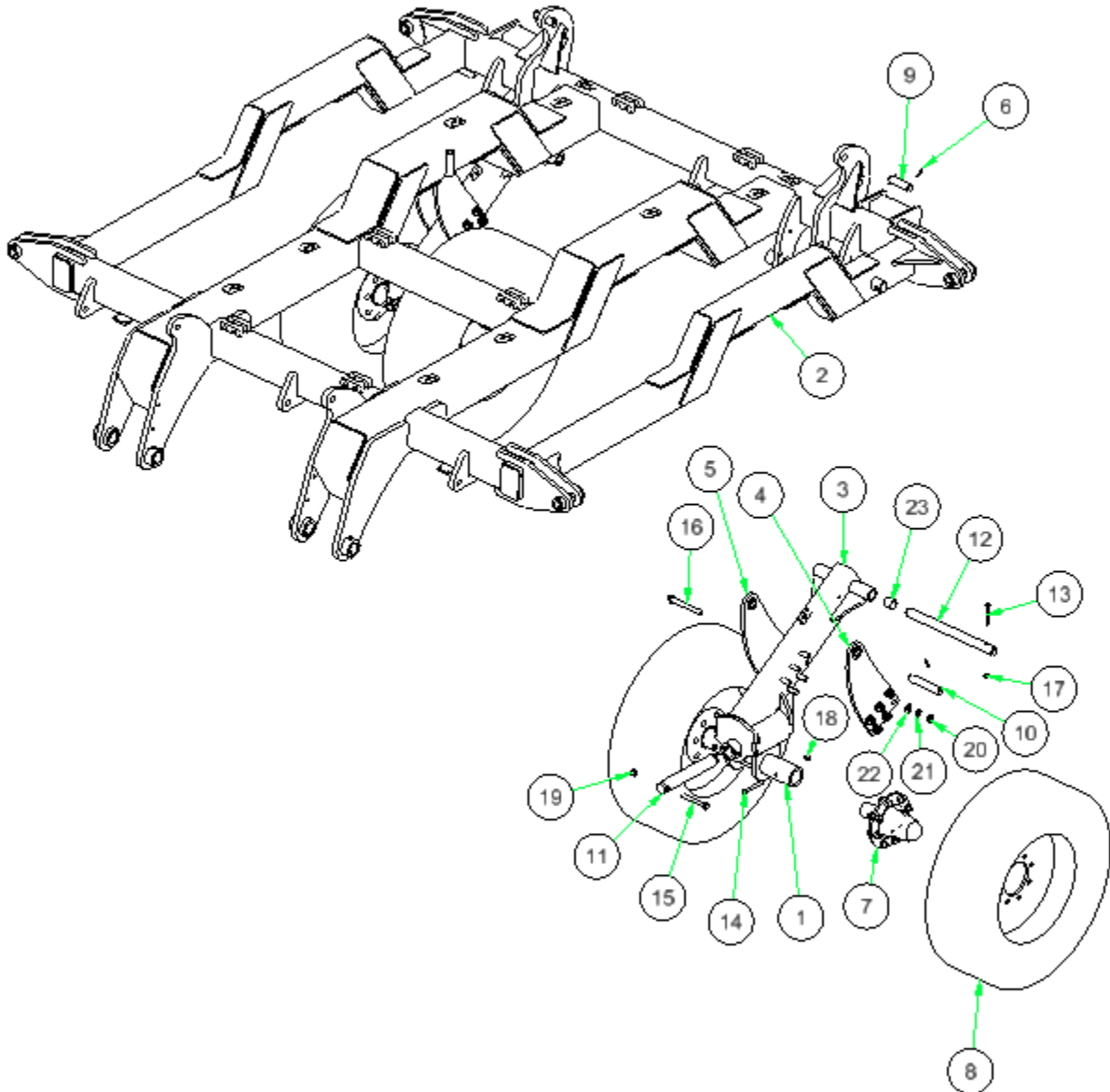


NOTE ORIENTATION OF SENSOR CONNECTOR AND LEVER DIRECTION



**SECTION 4 - PARTS**

**25-30'  
RENEGADE**



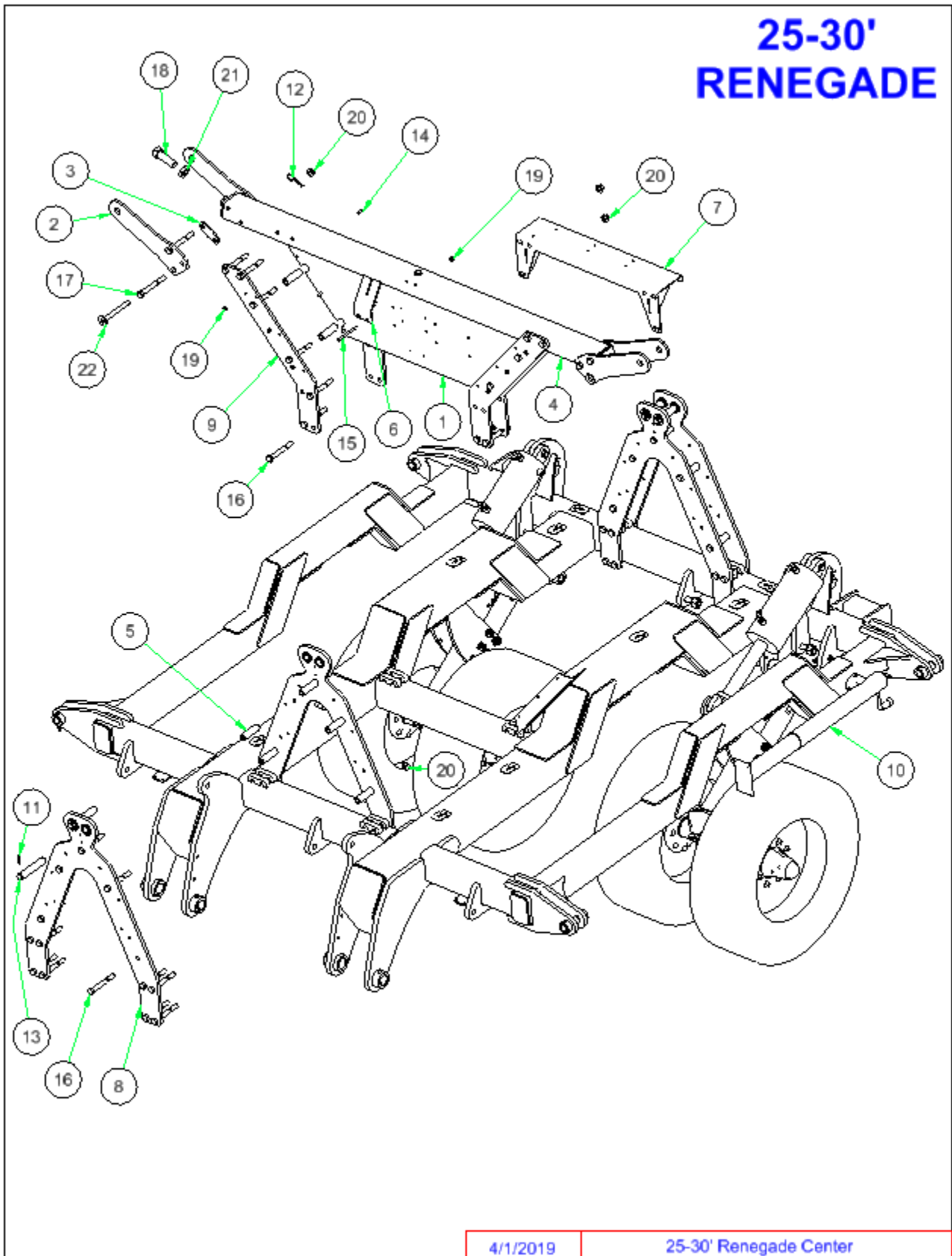
|           |                       |
|-----------|-----------------------|
| 3/26/2021 | FRAME PKG 26'-30' VRT |
|-----------|-----------------------|

## SECTION 4 - PARTS

| ITEM | PN      | DESCRIPTION  |
|------|---------|--|
| 1    | 8B1270B | OSC AXLE SPNDLE HLDR 2.5"                              |
| 1    | 8B1270C | OSC AXLE SPNDLE HLDR 2.5" AFTER SERIAL NUMBER 240000   |
| 2    | 8B2515P | FRAME WING RNGD 25'-30' R-PTD                          |
| 3    | 8B2540  | LIFTARM OSC AXL-RNGD                                   |
| 3    | 8B2540B | LIFT ARM OSC AXL RNGD AFTER SERIAL NUMBER 240000       |
| 4    | 8B2542L | CYL ATTCH 285/70R19.5 W/BUSH-L                         |
| 5    | 8B2542R | CYL ATTCH 285/70R19.5 W/BUSH-R                         |
| 6    | 8D9108  | ROLL PIN 1/4 X 2" YLW ZNC                              |
| 7    | 8K1105  | HUB&AXLE ASSY HD812(2.5"RCVR)                          |
| 8    | 8K7410  | 285/70R 19.5 ON 19.5X8.25X8WHL                         |
| 9    | 8K9106  | PIN 1-1/4 X 4-3/8" HARDENED                            |
| 10   | 8K9110  | PIN 1-1/4 X 6-13/16" HRDND                             |
| 11   | 8P3910  | PIN 2 X 13-1/2" HARDENED                               |
| 12   | 8T3640  | PIN 1-1/2 X 19" HARDENED 98-                           |
| 13   | 8X0044  | BOLT 7/16-14NC X 3-1/2"GR5 ZDI                         |
| 14   | 8X0074  | BOLT 1/2-13NC X 4-1/2" GR5 ZDI                         |
| 15   | 8X0095  | BOLT 5/8-11NC X 5" GR5 ZDI                             |
| 16   | 8X0121A | BOLT 3/4-10NCX6-1/2" -1.38"THD                         |
| 17   | 8X0234  | NUT 7/16"-14NC NY-LOCK GR2 ZDI                         |
| 18   | 8X0242  | NUT 1/2"-13NC NY-LOCK GR2 YZ                           |
| 19   | 8X0253  | NUT 5/8"-11NC NY-LOCK GR2 YZ                           |
| 20   | 8X0265  | NUT 3/4"-10NC CNTRLOCK GR2 YZ                          |
| 21   | 8X0306  | LOCKWASHER 3/4" YLW ZNC                                |
| 22   | 8X0317  | WASHER 3/4" SAE FLAT YZ                                |
| 23   | 8X3130  | SLEEVEBRNG 1.656X1.5" ID- 1.5"                         |
| 23   | 8X3132  | SLEEVEBRNG 2.00X1.5" ID-2.0" AFTER SERIAL NUMBER 24000 |

**SECTION 4 - PARTS**

**25-30'  
RENEGADE**



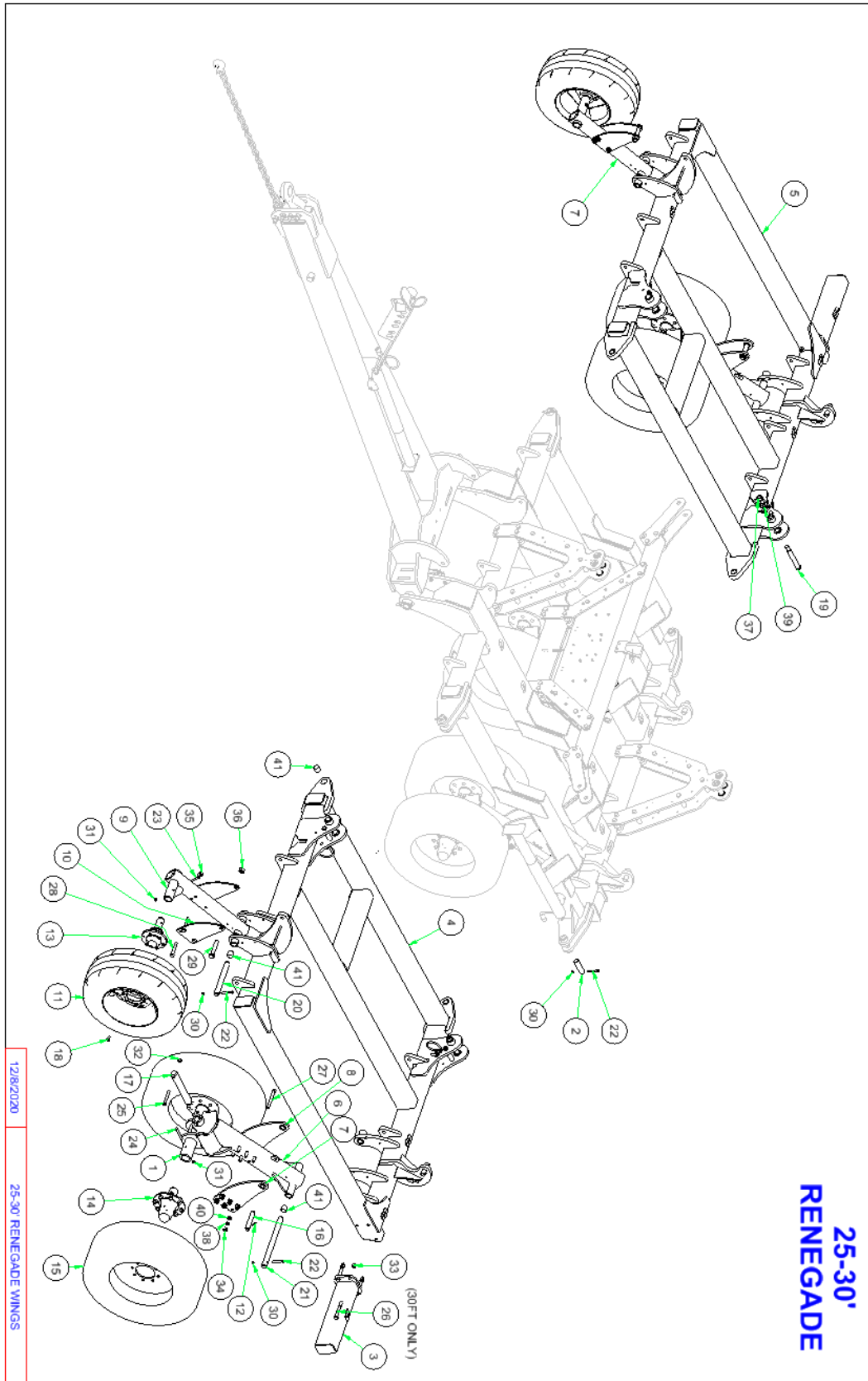


## SECTION 4 - PARTS

| ITEM | PN     | DESCRIPTION                    |
|------|--------|--------------------------------|
| 1    | 8B0030 | CONTROLLER MNT PANEL           |
| 2    | 8B1215 | WING LOCK TAB VRT              |
| 3    | 8B1217 | WING LOCK TAB SPCR             |
| 4    | 8B2532 | WING REST TUBE 25'-30'         |
| 5    | 8B2536 | SPACER .76"ID X 4"             |
| 6    | 8B2537 | ANTENNA MNT                    |
| 7    | 8B2538 | HYD VLV BLOCK MOUNT            |
| 8    | 8B2558 | CYL ATTCH WINFOLD 25'-30'      |
| 9    | 8B2560 | TRANSREST MNT PLATE            |
| 10   | 8D8523 | JACK 8000# DROPLEG 5/8X4.25PIN |
| 11   | 8D9108 | ROLL PIN 1/4 X 2" YLW ZNC      |
| 12   | 8D9110 | HAIR PIN CLIP LARGE(1"CYL PIN) |
| 13   | 8K9110 | PIN 1-1/4 X 6-13/16" HRDND     |
| 14   | 8X0002 | BOLT 3/8-16NC X 1" GR5 ZDI     |
| 15   | 8X0017 | BOLT 3/8-16NC X 5" GR5 ZDI     |
| 16   | 8X0116 | BOLT 3/4-10NC X 6" GR5 YZ      |
| 17   | 8X0121 | BOLT 3/4-10NC X 6-1/2" GR5 YZ  |
| 18   | 8X0152 | BOLT 1-1/4-7NC X 3.75 FULLTHD  |
| 19   | 8X0203 | NUT 3/8"-16NC SERFLANG GR2 YZ  |
| 20   | 8X0266 | NUT 3/4"-10NC SER FLANG GR2 YZ |
| 21   | 8X0283 | NUT JAM 1.25"-7NC GR2 ZDI      |
| 22   | 8X0325 | WASHER 3/4"(13/16"ID)FLAT PLN  |
| 23   | 8B0005 | GROMMET 1.75"ODX1.375"ID       |

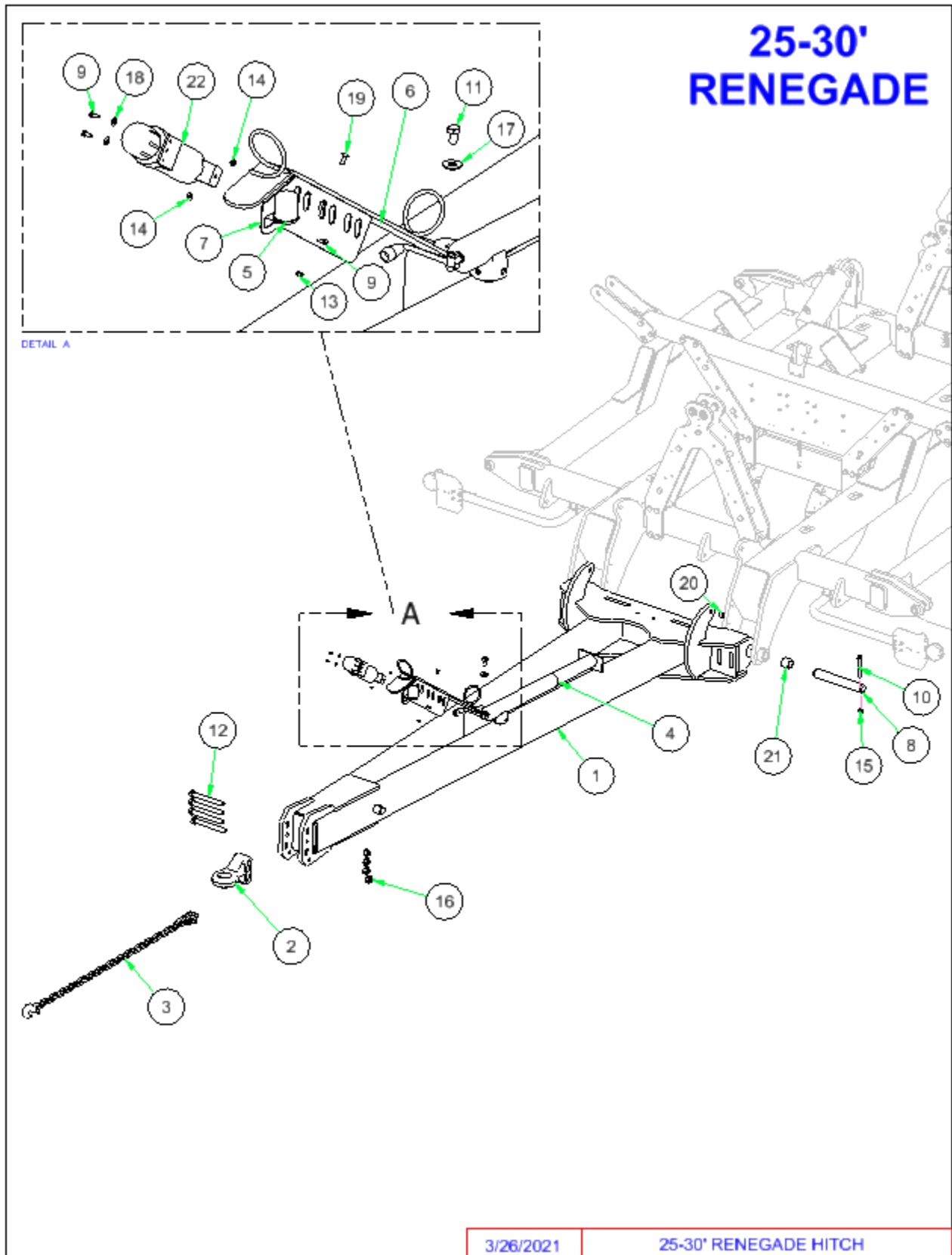
\* SN AD0013 AND  
PREVIOUS ONLY

# SECTION 4 - PARTS



| ITEM | PN      | DESCRIPTION                                     | ITEM | PN      | DESCRIPTION  |
|------|---------|---|------|---------|--|
| 1    | 8B1270B | OSC AXLE SPNDLE HLDR 2.5"                       | 21   | 8T3640  | PIN 1-1/2 X 19" HARDENED 98-                                       |
| 2    | 8B2025  | PIN 1-1/2" X 5.375" YZ                          | 22   | 8X0044  | BOLT 7/16-14NC X 3-1/2" GR5 ZDI                                    |
| 3    | 8B2495P | ATTCHMNT ARM MNT EXT-PTD                        | 23   | 8X0070  | BOLT 1/2-13NC X 3-1/4" GR5 YZ                                      |
| 4    | 8B2525P | FRAME WING RNGD 25'-30' L-PTD                   | 24   | 8X0074  | BOLT 1/2-13NC X 4-1/2" GR5 ZDI                                     |
| 5    | 8B2527P | FRAME WING RNGD 25'-30' R-PTD                   | 25   | 8X0095  | BOLT 5/8-11NC X 5" GR5 ZDI   |
| 6    | 8B2540  | LIFTARM OSC AXL-RNGD                            | 26   | 8X0116  | BOLT 3/4-10NC X 6" GR5 YZ  |
| 6    | 8B2540B | LIFT ARM OSC AXL RNGD AFTER SERIAL NUMBER 24000 | 27   | 8X0121A | BOLT 3/4-10NCX6-1/2" -1.38"THD                                     |
| 7    | 8B2542L | CYL ATTCH 285/70R19.5 W/BUSH-L                  | 28   | 8X0122  | BOLT 3/4-10NC X 4-1/2" GR5 YZ                                      |
| 8    | 8B2542R | CYL ATTCH 285/70R19.5 W/BUSH-R                  | 29   | 8X0138  | BOLT 1-8NC X 5-1/2" GR5 ZDI  |
| 9    | 8B2550  | LIFTARM GAGEWHL                                 | 30   | 8X0234  | NUT 7/16"-14NC NY-LOCK GR2 ZDI                                     |
| 10   | 8B2551  | CYL ATTCH 280/70R15                             | 31   | 8X0242  | NUT 1/2"-13NC NY-LOCK GR2 YZ                                       |
| 11   | 8D3046  | IF280/70R15 134D ON 15X10X6WHL                  | 32   | 8X0253  | NUT 5/8"-11NC NY-LOCK GR2 YZ                                       |
| 12   | 8D9108  | ROLL PIN 1/4 X 2" YLW ZNC                       | 33   | 8X0261  | NUT 3/4"-10NC NY-LOCK GR2 YZ                                       |
| 13   | 8K1100  | HUB&AXLE ASSY 614(GBGI-2"RCVR)                  | 34   | 8X0265  | NUT 3/4"-10NC CNTRLOCK GR2 YZ                                      |
| 14   | 8K1105  | HUB&AXLE ASSY HD812(2.5"RCVR)                   | 35   | 8X0266  | NUT 3/4"-10NC SER FLANG GR2 YZ                                     |
| 15   | 8K7410  | 285/70R 19.5 ON 19.5X8.25X8WHL                  | 36   | 8X0281  | NUT 1"-8NC NY-LOCK GR2 YZ  |
| 16   | 8K9110  | PIN 1-1/4 X 6-13/16" HRDND                      | 37   | 8X0282  | NUT 1"-14TPI TOPLOCK GR B Z  |
| 17   | 8P3910  | PIN 2 X 13-1/2" HARDENED                        | 38   | 8X0306  | LOCKWASHER 3/4" YLW ZNC  |
| 18   | 8R6914  | BOLT WHEEL 9/16"-18 UNF- 1.25"                  | 39   | 8X0316  | WASHER 1" SAE FLAT YZ  |
| 19   | 8T3300  | PIVOT BOLT CHSLTRP&WNGLFT YZ                    | 40   | 8X0317  | WASHER 3/4" SAE FLAT YZ  |
| 20   | 8T3620  | PIN 1-1/2 X 12-1/2" HRDND&ZINC                  | 41   | 8X3130  | SLEEVEBRNG 1.656X1.5" ID- 1.5"                                     |
|      |         |   | 41   | 8X3132  | SLEEVEBRNG 2.00X1.5" ID-2.0" AFTER SERIAL NUMBER 240000            |
|      |         |   | 41   | 8T5345  | *WING ONLY*SPLITSTEELBUSH 2X1.5"ID-1.5" AFTER SERIAL NUMBER 240000 |

**SECTION 4 - PARTS**



## **SECTION 4 - PARTS**

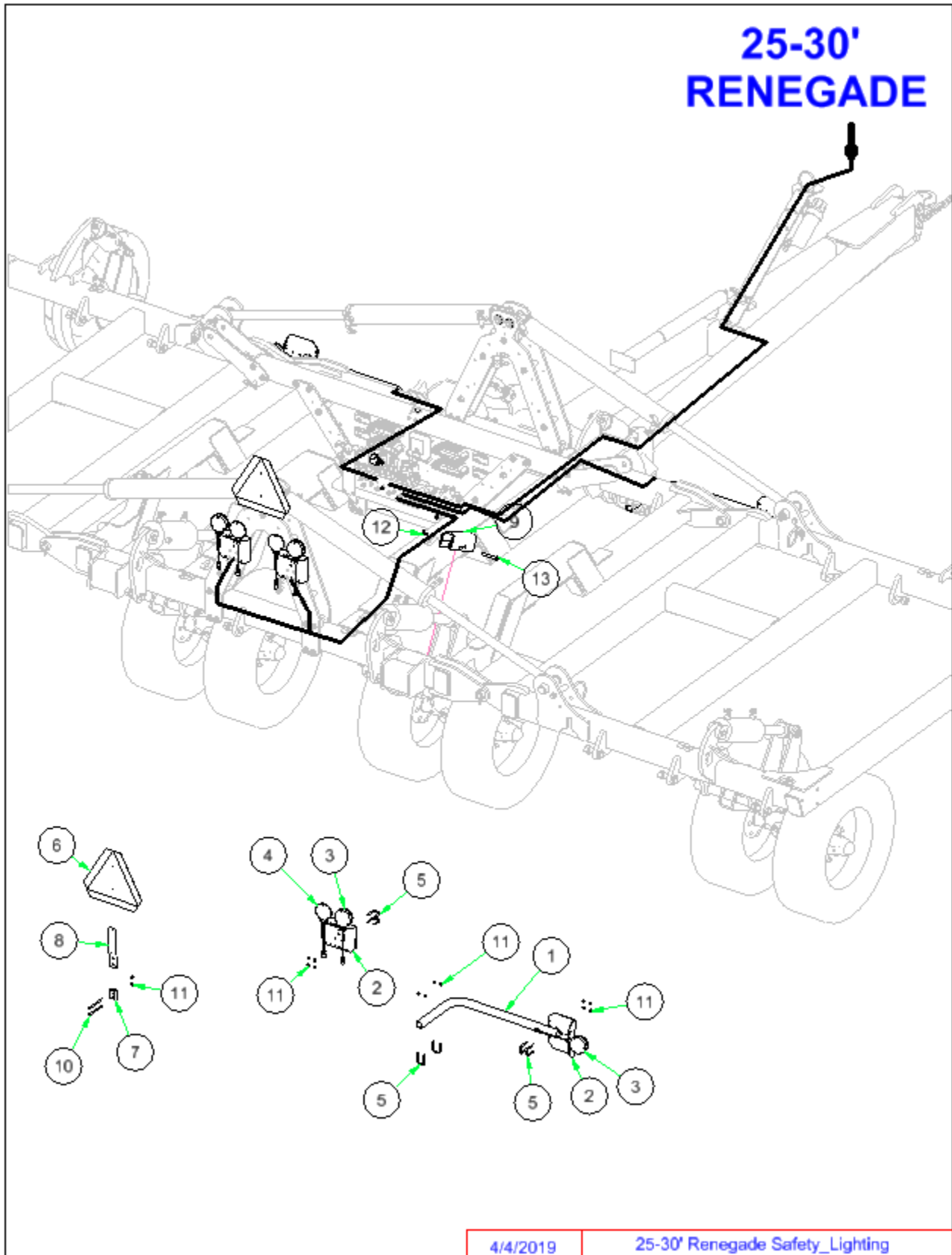
| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>                                      |
|-------------|-----------|---|
| 1           | 8B2505P   | HITCH VRT RNGD 25'-30'-PTD                              |
| 2           | 8D0760    | HITCH ARTIC. BALL CAT 4                                 |
| 3           | 8D2470    | SAFETY CHAIN 7/16" X 5'                                 |
| 4           | 8D8523    | JACK 8000# DROPLEG 5/8X4.25PIN                          |
| 5           | 8K8067    | DUST CAP FOR 7PIN CONNECT00-                            |
| 6           | 8N0700    | HYD HOSE ARM  |
| 7           | 8N0703    | HYD HOSE TIP HOLDER-3 PAIR                              |
| 8           | 8P3910    | PIN 2 X 13-1/2" HARDENED                                |
| 9           | 8X0021    | BOLT 5/16-18NC X 3/4" GR5 ZDI                           |
| 10          | 8X0095    | BOLT 5/8-11NC X 5" GR5 ZDI                              |
| 11          | 8X0110    | BOLT 3/4-10NC X 1-1/4" GR5 YZ                           |
| 12          | 8X0146    | BOLT 1-8NCX8.5" W/1.5"THD GR5ZDI                        |
| 13          | 8X0203    | NUT 3/8"-16NC SERFLANG GR2 YZ                           |
| 14          | 8X0211    | NUT 5/16"-18NC SERFLANG GR2 YZ                          |
| 15          | 8X0253    | NUT 5/8"-11NC NY-LOCK GR2 YZ                            |
| 16          | 8X0281    | NUT 1"-8NC NY-LOCK GR2 YZ                               |
| 17          | 8X0318    | WASHER 3/4"(13/16"ID)FLAT YZ                            |
| 18          | 8X0329    | WASHER 5/16"(3/8" ID)FLAT YZ                            |
| 19          | 8X1110    | CRG 3/8-16NC X 1" GR2 ZN                                |
| 20          | 8X3110    | SLEEVEBRNG 1.125X1" ID- 1"                              |
| 21          | 8X3140    | SLEEVEBRNG 2.188X2" ID- 2"                              |
| 21          | 8X3142    | SLEEVEBRNG 2.50X2.0"ID- 2.0" AFTER SERIAL NUMBER 240000 |
| 22          | 8Z1010    | MANUAL HOLDER TUBE                                      |



## **SECTION 4 - PARTS**

| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>              |
|-------------|-----------|---------------------------------|
| 1           | 8B0037    | ROTARY SENSOR                   |
| 5           | 8B2835    | SENSOR LINK-GAGEWHL             |
| 6           | 8B2836    | SENSOR LINK MNT-GAGEWHL         |
| 7           | 8B2840    | SENEOR LINK-HITCH ANGLE         |
| 8           | 8B2841    | SENSOR LINK MNT-HITCH ANGLE     |
| 9           | 8B2847    | SENSOR LINK-DEPTH CNTRL 25-30'  |
| 10          | 8B2850    | SENSOR LINK-UNIVERSAL           |
| 11          | 8B2855    | ROTARY SENSOR MNT               |
| 12          | 8B2860    | SLEEVE #10 IDX3/8"ODX.40"       |
| 13          | 8K8030A   | MODULE AG ENHNCDW/BRAKE6PIN08-  |
| 14          | 8X0010B   | SCREW, ALLEN 1/4-20 X 1-1/4" ZP |
| 15          | 8X0015    | BOLT 3/8-16NC X 3-3/4" GR5 ZDI  |
| 16          | 8X0017    | BOLT 3/8-16NC X 5" GR5 ZDI      |
| 17          | 8X0066    | BOLT 1/2-13NC X 1-3/4" GR5 ZDI  |
| 18          | 8X0073    | BOLT 1/2-13NC X 5" GR5 YZ       |
| 19          | 8X0163    | SCREW #10 X 1-1/4" HEX/WSHR HD  |
| 20          | 8X0170    | SCREW 8 X .75" FLANGE HD        |
| 21          | 8X0202    | NUT 3/8"-16NC NY-LOCK GR2 YZ    |
| 22          | 8X0203    | NUT 3/8"-16NC SERFLANG GR2 YZ   |
| 23          | 8X0206    | NUT 10-24 HEX YZ NYLOCK         |
| 24          | 8X0208    | NUT 8-32 HEX YZ SER FLNG        |
| 25          | 8X0222    | NUT 1/4"-20NC NY-LOCK GR2 YZ    |
| 26          | 8X0246    | NUT 1/2"-13NC SERFLANG GR2 YZ   |
| 27          | 8X0335    | WASHER FENDER #10               |
| 28          | 8X1140    | CRG 3/8-16NC X 4" GR2 ZN        |
| 29          | 8X3080    | FLANGE BRNG .469X.375"ID-.25"   |
| 30          | 8XM0001   | SCREW,SS - BTTN HEAD M5 X 35MM  |
| 31          | 8XM0110   | SCREW,SS - BTTN HEAD M6 X 10MM  |
| 32          | 8XM0200   | NUT,SS - NY-LOCK M5             |

**SECTION 4 - PARTS**





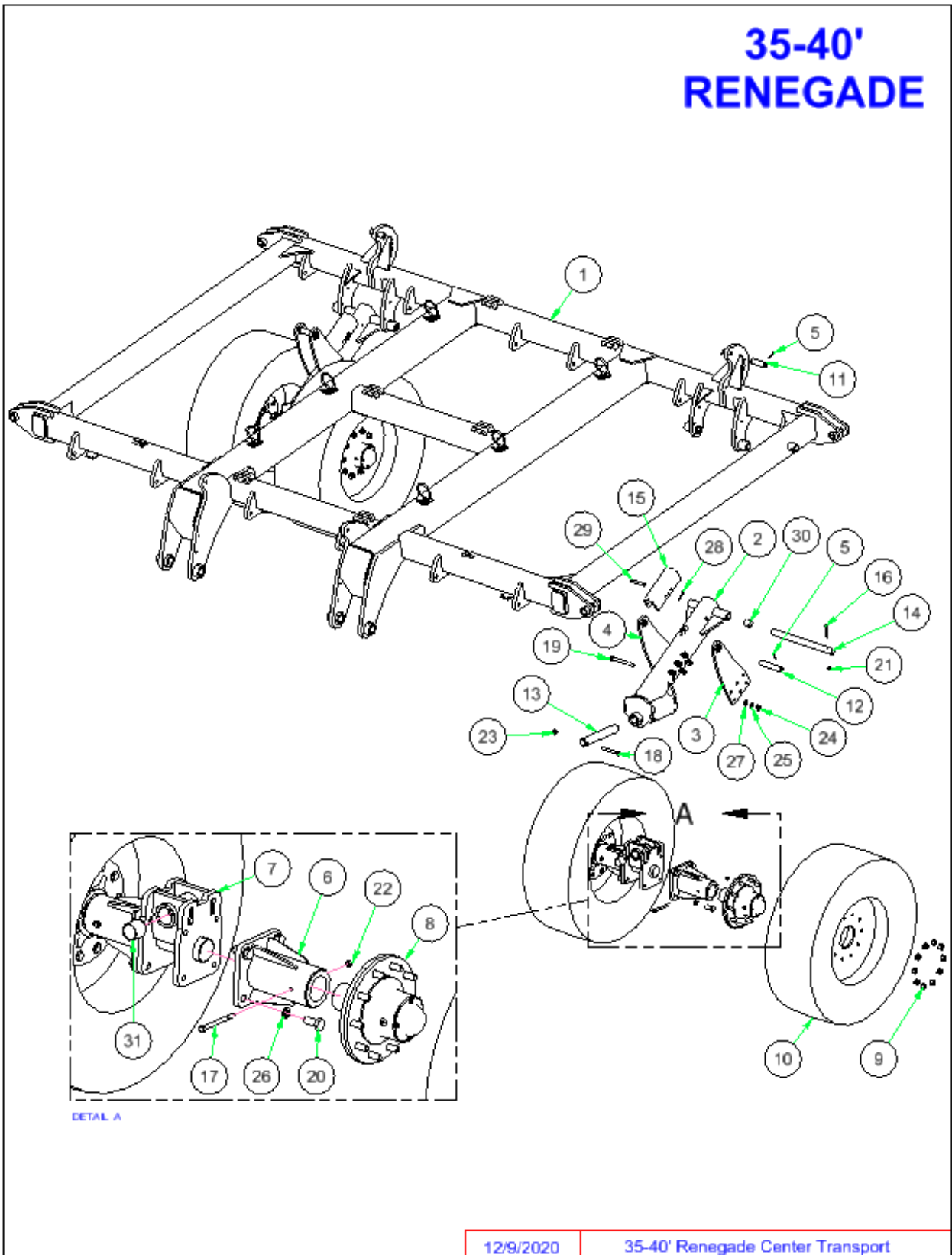
## **SECTION 4 - PARTS**

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| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>             |
|-------------|-----------|--------------------------------|
| 1           | 8K8005    | TUBE LGHT BRKT SHRT 1.5SQ PNTD |
| 2           | 8K8020    | MOUNTNG BRCKT LIGHT 00-        |
| 3           | 8K8090B   | LIGHT LED AMBER 2WR DTSCH 12-  |
| 4           | 8K8095B   | LIGHT LED RED 3WIRE DTSCH 12-  |
| 5           | 8L0258    | U-BOLT 5/16 X 1-1/2 X 2-1/2"SQ |
| 6           | 8S1120    | SIGN SLOW MOVING VEHICLE(SMV)  |
| 7           | 8S1124    | MOUNTING SOCKET SMV SIGN ZDI   |
| 8           | 8S1126    | MNT SPADE W/HRDWR SMV SIGN     |
| 9           | 8T4350    | TRNS LCK W/UHMW10.5"(2.4RD)    |
| 10          | 8X0030    | BOLT 5/16-18NC X 5" GR5 ZDI    |
| 11          | 8X0211    | NUT 5/16"-18NC SERFLANG GR2 YZ |
| 12          | 8X0402    | HAIR PIN CLIP 1/8 X 2-9/16"    |
| 13          | 8X0440    | CLEVIS PIN 5/8 X 3-7/8" ZDI    |

**SECTION 4 - PARTS**

**35-40'  
RENEGADE**



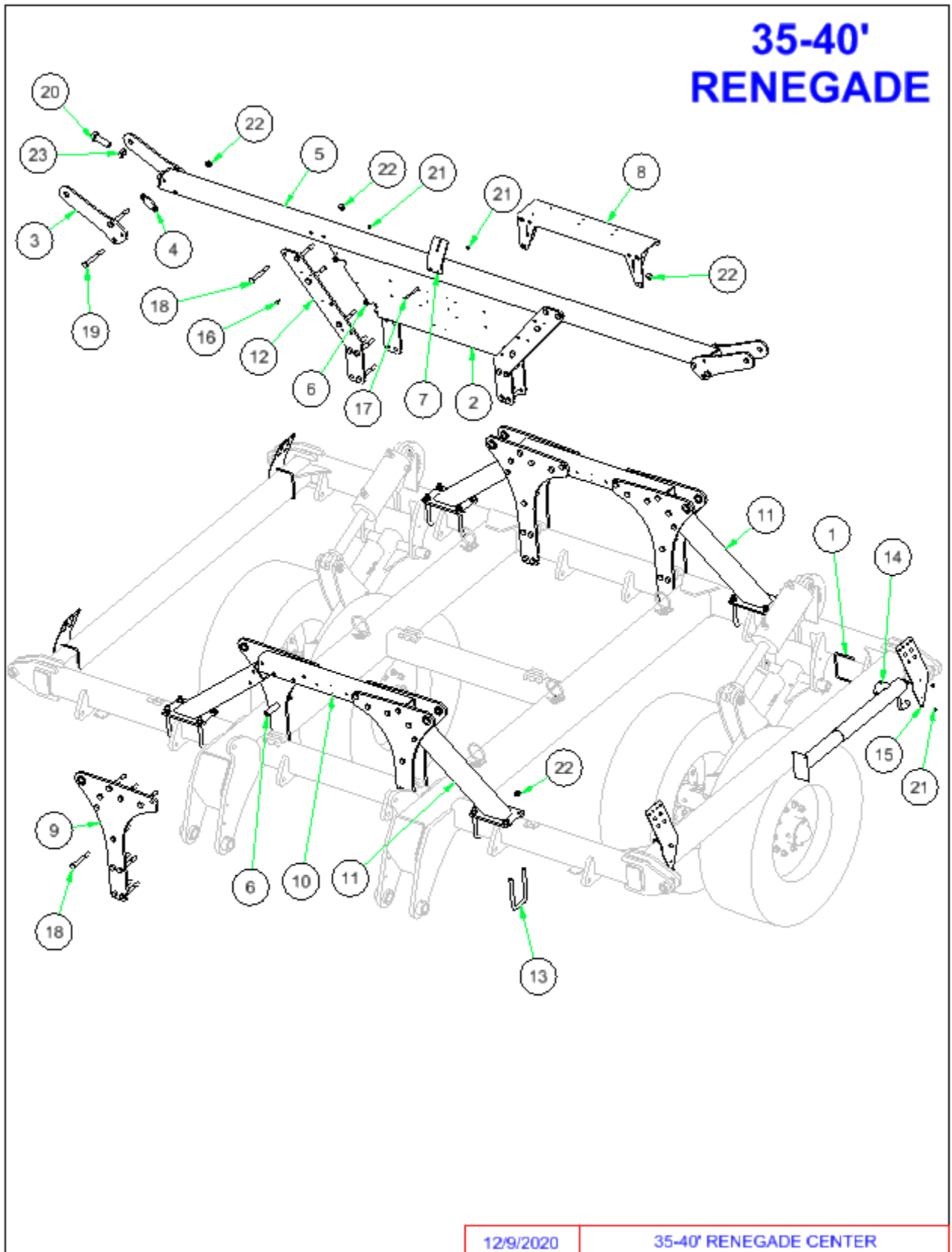
12/9/2020

35-40' Renegade Center Transport

## SECTION 4 - PARTS

| ITEM | PN      | DESCRIPTION  |
|------|---------|--|
| 1    | 8B2510P | FRAME CENTER RNGD 35'-40'-PTD                        |
| 2    | 8B2540  | LIFTARM OSC AXL-RNGD                                 |
| 2    | 8B2540B | LIFT ARM OSC AXL RNGD AFTER SERIAL NUMBER 240000     |
| 3    | 8B2541L | CYL ATTCH-385/65R22.5-L                              |
| 4    | 8B2541R | CYL ATTCH-385/65R22.5-R                              |
| 5    | 8D9108  | ROLL PIN 1/4 X 2" YLW ZNC                            |
| 6    | 8J4167  | OSC AXLE SPNDLE HLDR 3.375"                          |
| 6    | 8J4167B | OSC AXLE SPNDL HLDR 3.375"NRRW CHANGED 6/8/2021      |
| 7    | 8J4168B | OSC AXLE SPNDLE HLDR MNT                             |
| 7    | 8J1468C | OSC AXLE SPNDLE HLDR MNT AFTER SERIAL NUMBER 240000  |
| 8    | 8K1109  | SPINDLE W/H1010 15K                                  |
| 9    | 8K7216  | NUT 3/4"-16UNF FLANGE                                |
| 10   | 8K7540  | VF385/65R22.5-22.5X11.75X10WHL                       |
| 11   | 8K9106  | PIN 1-1/4 X 4-3/8" HARDENED                          |
| 12   | 8K9110  | PIN 1-1/4 X 6-13/16" HRDND                           |
| 13   | 8P3910  | PIN 2 X 13-1/2" HARDENED                             |
| 14   | 8T3640  | PIN 1-1/2 X 19" HARDENED 98-                         |
| 15   | 8T4350  | TRNS LCK W/UHMW10.5"(2.4RD)                          |
| 16   | 8X0044  | BOLT 7/16-14NC X 3-1/2"GR5 ZDI                       |
| 17   | 8X0075  | BOLT 1/2-13NC X 6" GR5 ZDI                           |
| 18   | 8X0095  | BOLT 5/8-11NC X 5" GR5 ZDI                           |
| 19   | 8X0121A | BOLT 3/4-10NCX6-1/2" -1.38"THD                       |
| 20   | 8X0130  | BOLT 7/8-9NC X 2" GR5 ZDI                            |
| 21   | 8X0234  | NUT 7/16"-14NC NY-LOCK GR2 ZDI                       |
| 22   | 8X0242  | NUT 1/2"-13NC NY-LOCK GR2 YZ                         |
| 23   | 8X0253  | NUT 5/8"-11NC NY-LOCK GR2 YZ                         |
| 24   | 8X0265  | NUT 3/4"-10NC CNTRLOCK GR2 YZ                        |
| 25   | 8X0306  | LOCKWASHER 3/4" YLW ZNC                              |
| 26   | 8X0307  | LOCKWASHER 7/8" YLW ZNC                              |
| 27   | 8X0317  | WASHER 3/4" SAE FLAT YZ                              |
| 28   | 8X0402  | HAIR PIN CLIP 1/8 X 2-9/16"                          |
| 29   | 8X0440  | CLEVIS PIN 5/8 X 3-7/8" ZDI                          |
| 30   | 8X3130  | SLEEVEBRNG 1.656X1.5" ID- 1.5"                       |
| 31   | 8X3140  | SLEEVEBRNG 2.188X2" ID- 2"                           |
| 31   | 8X3142  | SLEEVEBRNG 2.50X2.0"ID-2" AFTER SERIAL NUMBER 240000 |

**SECTION 4 - PARTS**



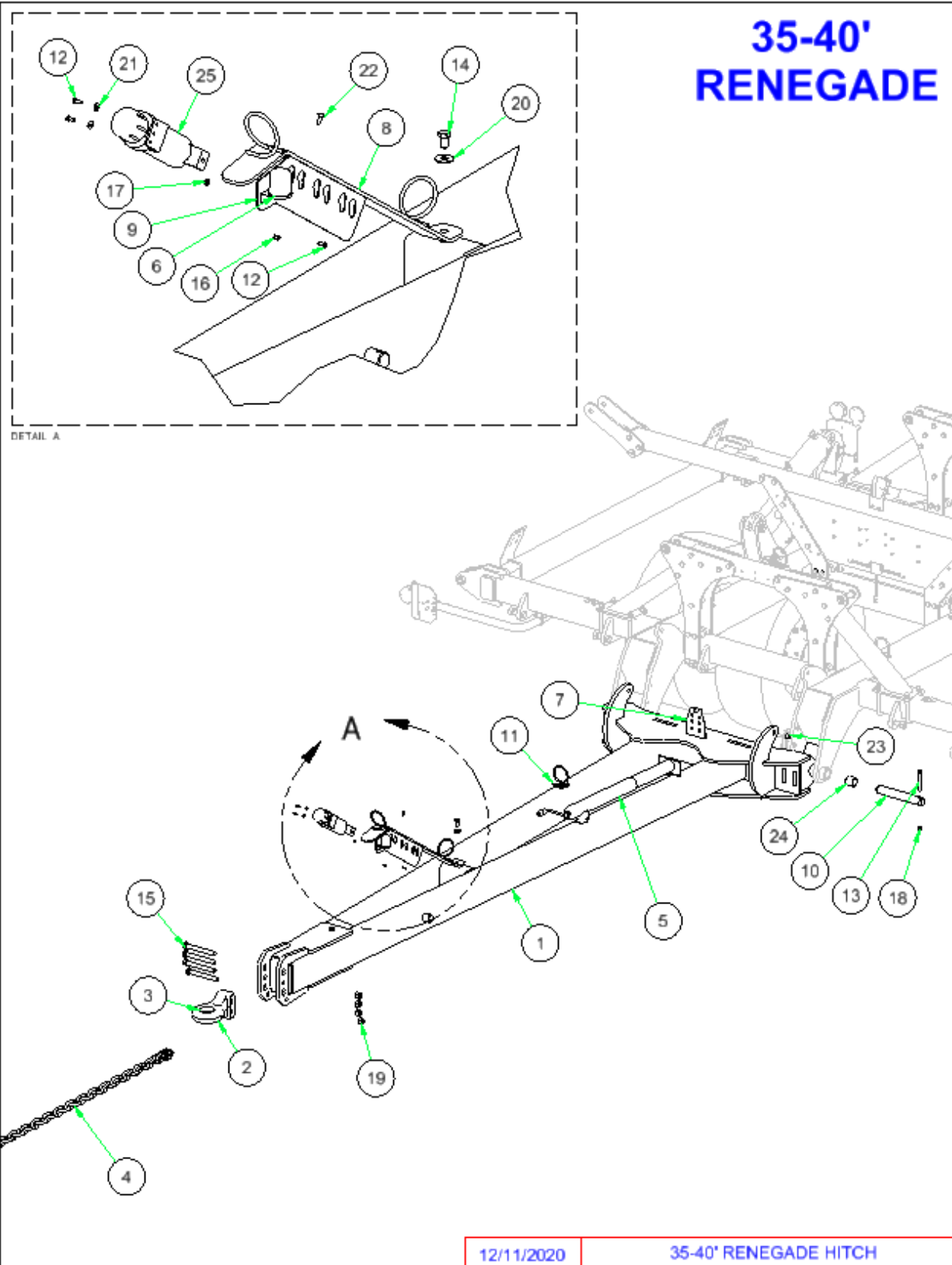
## **SECTION 4 - PARTS**

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| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>              |
|-------------|-----------|---------------------------------|
| 1           | 8A1155    | U-BOLT 3/8 X 6-1/16 X 5" SQ     |
| 2           | 8B0031    | CONTROLLER MNT PANEL            |
| 3           | 8B1215    | WING LOCK TAB VRT               |
| 4           | 8B1217    | WING LOCK TAB SPCR              |
| 5           | 8B2530    | WING REST TUBE 35'-40'          |
| 6           | 8B2536    | SPACER .76"ID X 4"              |
| 7           | 8B2537B   | ANTENNA MNT                     |
| 8           | 8B2538    | HYD VLV BLOCK MOUNT             |
| 9           | 8B2555B   | CYL ATTCH WINGFOLD 35'-40'      |
| 10          | 8B2556    | WINGFOLD CONNECTOR TUBE         |
| 11          | 8B2557    | WINGFOLD BRACE                  |
| 12          | 8B2560    | TRANSREST MNT PLATE             |
| 13          | 8D0340    | U-BOLT 3/4 X 4-1/16 X 7-3/4" SQ |
| 14          | 8D8523    | JACK 8000# DROPLEG 5/8X4.25PIN  |
| 15          | 8N0201    | BULKHEAD PLATE - WING           |
| 16          | 8X0004    | BOLT 3/8-16NC X 1-1/4" GR5 YZ   |
| 17          | 8X0017    | BOLT 3/8-16NC X 5" GR5 ZDI      |
| 18          | 8X0116    | BOLT 3/4-10NC X 6" GR5 YZ       |
| 19          | 8X0121    | BOLT 3/4-10NC X 6-1/2" GR5 YZ   |
| 20          | 8X0152    | BOLT 1-1/4-7NC X 3.75 FULLTHD   |
| 21          | 8X0203    | NUT 3/8"-16NC SERFLANG GR2 YZ   |
| 22          | 8X0266    | NUT 3/4"-10NC SER FLANG GR2 YZ  |
| 23          | 8X0283    | NUT JAM 1.25"-7NC GR2 ZDI       |

**SECTION 4 - PARTS**

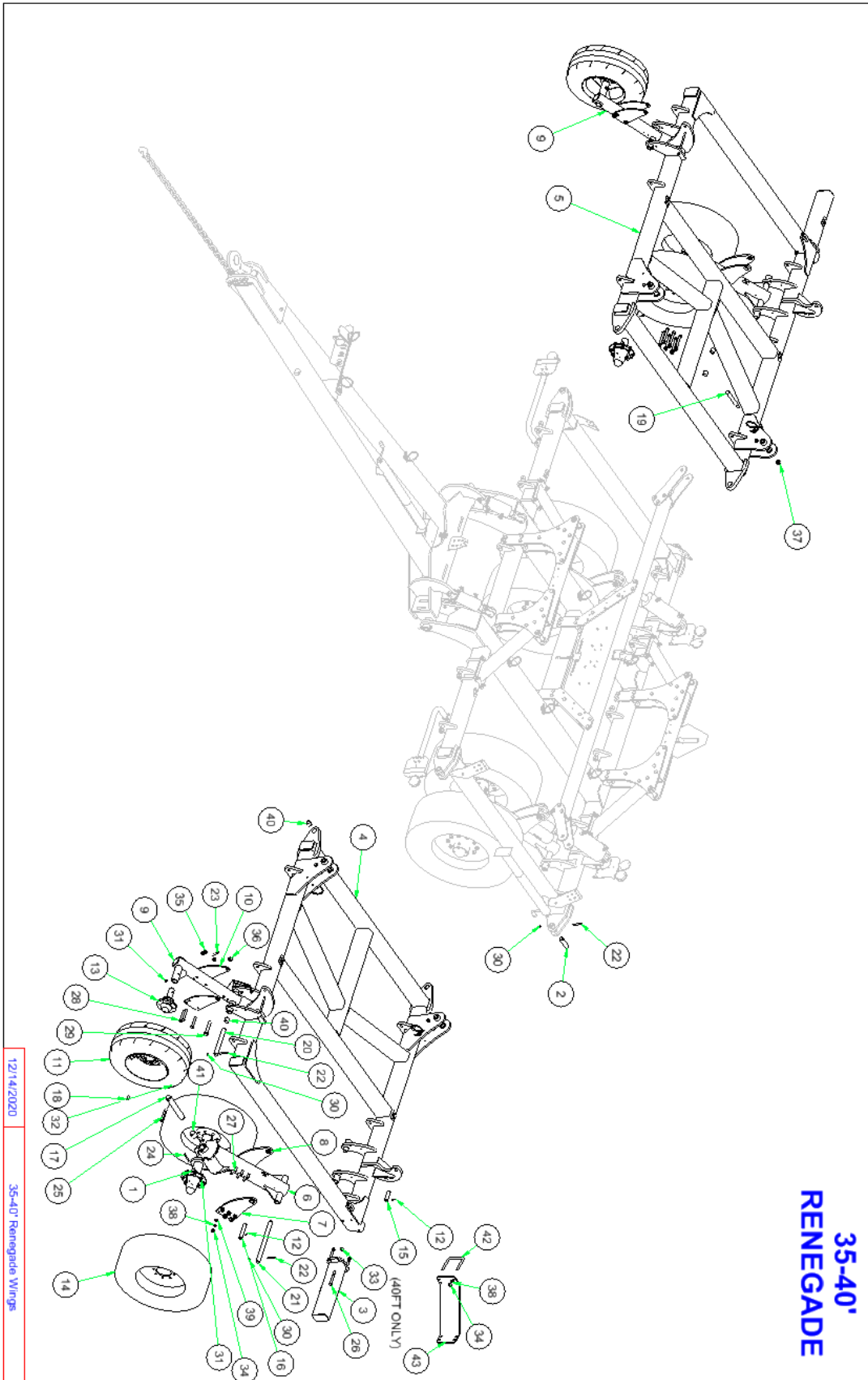
**35-40'  
RENEGADE**



## **SECTION 4 - PARTS**

| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>                                      |
|-------------|-----------|---|
| 1           | 8B2500P   | HITCH VRT RNGD 35'-40'-PNTD                             |
| 2           | 8D0770    | HITCH ARTIC. BALL CAT 5                                 |
| 3           | 8D0771    | BUSHING 2"ID FOR 8D0770                                 |
| 4           | 8D2480    | SAFETY CHAIN 61000# 5/8" X 66"                          |
| 5           | 8D8523    | JACK 8000# DROPLEG 5/8X4.25PIN                          |
| 6           | 8K8067    | DUST CAP FOR 7PIN CONNECT00-                            |
| 7           | 8N0200    | BULKHEAD PLATE - HITCH                                  |
| 8           | 8N0700    | HYD HOSE ARM  |
| 9           | 8N0703    | HYD HOSE TIP HOLDER-3 PAIR                              |
| 10          | 8P3910    | PIN 2 X 13-1/2" HARDENED                                |
| 11          | 8S0700    | SPRING, HOSE PROTECTOR LOOP                             |
| 12          | 8X0021    | BOLT 5/16-18NC X 3/4" GR5 ZDI                           |
| 13          | 8X0095    | BOLT 5/8-11NC X 5" GR5 ZDI                              |
| 14          | 8X0110    | BOLT 3/4-10NC X 1-1/4" GR5 YZ                           |
| 15          | 8X0146    | BOLT 1-8NCX8.5" W/1.5"THD GR5ZDI                        |
| 16          | 8X0203    | NUT 3/8"-16NC SERFLANG GR2 YZ                           |
| 17          | 8X0211    | NUT 5/16"-18NC SERFLANG GR2 YZ                          |
| 18          | 8X0253    | NUT 5/8"-11NC NY-LOCK GR2 YZ                            |
| 19          | 8X0281    | NUT 1"-8NC NY-LOCK GR2 YZ                               |
| 20          | 8X0318    | WASHER 3/4"(13/16"ID)FLAT YZ                            |
| 21          | 8X0329    | WASHER 5/16"(3/8" ID)FLAT YZ                            |
| 22          | 8X1110    | CRG 3/8-16NC X 1" GR2 ZN                                |
| 23          | 8X3110    | SLEEVEBRNG 1.125X1" ID- 1"                              |
| 24          | 8X3140    | SLEEVEBRNG 2.188X2" ID- 2"                              |
| 24          | 8X3142    | SLEEVEBRNG 2.50X2.0"ID- 2.0" AFTER SERIAL NUMBER 240000 |
| 25          | 8Z1010    | MANUAL HOLDER TUBE                                      |

# SECTION 4 - PARTS



12/14/2020

35-40' Renegade Wings

**35-40'**  
**RENEGADE**

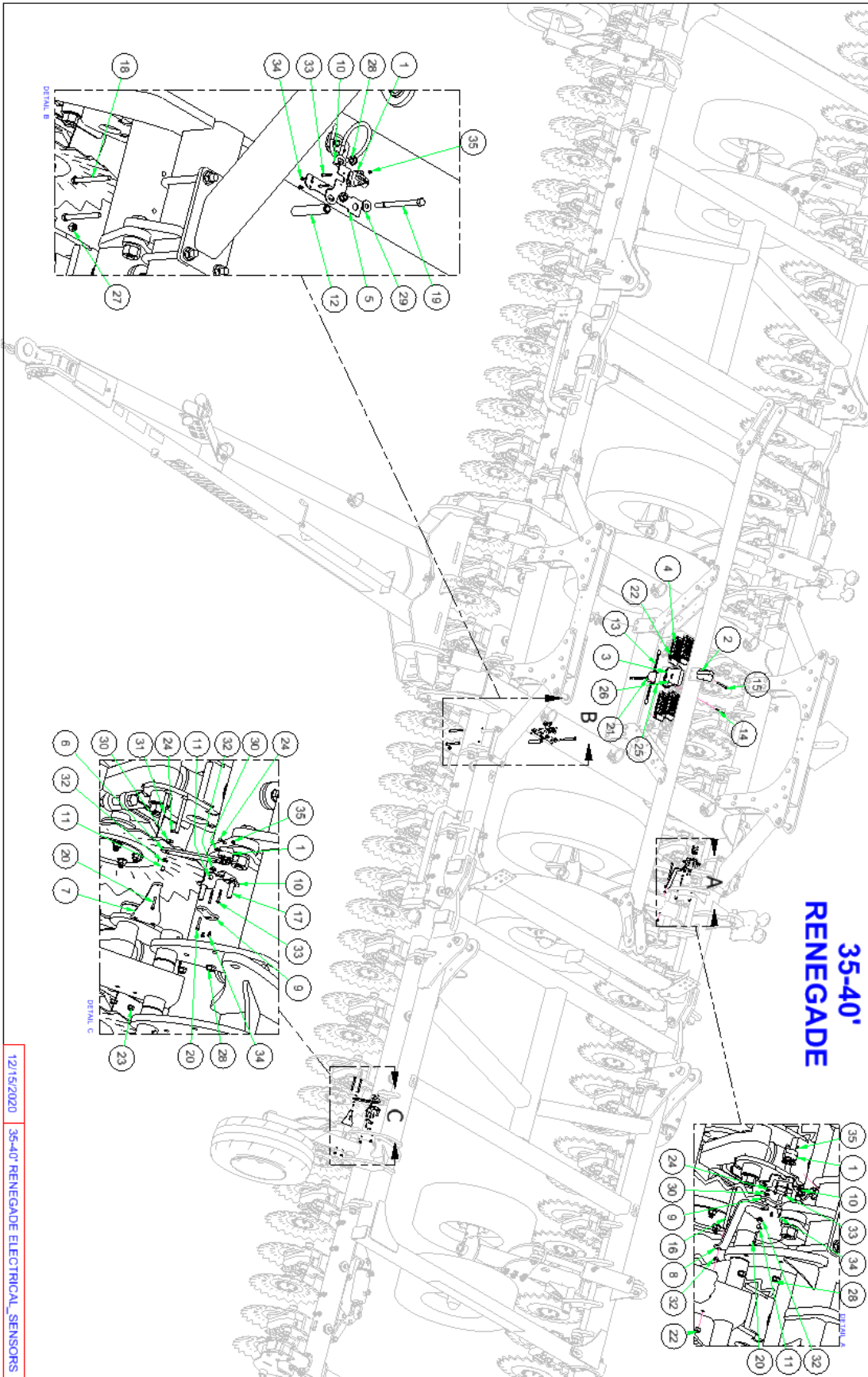


## SECTION 4 - PARTS

| ITEM | PN      | DESCRIPTION                    |
|------|---------|--------------------------------|
| 1    | 8B1270B | OSC AXLE SPNDLE HLDR 2.5"      |
| 2    | 8B2025  | PIN 1-1/2" X 5.375" YZ         |
| 3    | 8B2495P | ATTCHMNT ARM MNT EXT-PTD       |
| 4    | 8B2520P | FRAME WING RNGD 35'-40' L-PTD  |
| 5    | 8B2522P | FRAME WING RNGD 35'-40' R-PTD  |
| 6    | 8B2540  | LIFTARM OSC AXL-RNGD           |
| 7    | 8B2542L | CYL ATTCH 285/70R19.5 W/BUSH-L |
| 8    | 8B2542R | CYL ATTCH 285/70R19.5 W/BUSH-R |
| 9    | 8B2550B | LIFTARM GAGEWHL                |
| 10   | 8B2551  | CYL ATTCH 280/70R15            |
| 11   | 8D3046  | IF280/70R15 134D ON 15X10X6WHL |
| 12   | 8D9108  | ROLL PIN 1/4 X 2" YLW ZNC      |
| 13   | 8K1100  | HUB&AXLE ASSY 614(GBGI-2"RCVR) |
| 14   | 8K7410  | 285/70R 19.5 ON 19.5X8.25X8WHL |
| 15   | 8K9106  | PIN 1-1/4 X 4-3/8" HARDENED    |
| 16   | 8K9110  | PIN 1-1/4 X 6-13/16" HRDND     |
| 17   | 8P3910  | PIN 2 X 13-1/2" HARDENED       |
| 18   | 8R6914  | BOLT WHEEL 9/16"-18 UNF- 1.25" |
| 19   | 8T3300  | PIVOT BOLT CHSLTRP&WNLFT YZ    |
| 20   | 8T3620  | PIN 1-1/2 X 12-1/2" HRDND&ZINC |
| 21   | 8T3640  | PIN 1-1/2 X 19" HARDENED 98-   |
| 22   | 8X0044  | BOLT 7/16-14NC X 3-1/2"GR5 ZDI |
| 23   | 8X0070  | BOLT 1/2-13NC X 3-1/4" GR5 YZ  |
| 24   | 8X0074  | BOLT 1/2-13NC X 4-1/2" GR5 ZDI |
| 25   | 8X0095  | BOLT 5/8-11NC X 5" GR5 ZDI     |
| 26   | 8X0116  | BOLT 3/4-10NC X 6" GR5 YZ      |
| 27   | 8X0121A | BOLT 3/4-10NCX6-1/2" -1.38"THD |
| 28   | 8X0122  | BOLT 3/4-10NC X 4-1/2" GR5 YZ  |
| 29   | 8X0138  | BOLT 1-8NC X 5-1/2" GR5 ZDI    |
| 30   | 8X0234  | NUT 7/16"-14NC NY-LOCK GR2 ZDI |

| ITEM | PN     | DESCRIPTION  |
|------|--------|--|
| 31   | 8X0242 | NUT 1/2"-13NC NY-LOCK GR2 YZ                             |
| 32   | 8X0253 | NUT 5/8"-11NC NY-LOCK GR2 YZ                             |
| 33   | 8X0261 | NUT 3/4"-10NC NY-LOCK GR2 YZ                             |
| 34   | 8X0265 | NUT 3/4"-10NC CNTRLOCK GR2 YZ                            |
| 35   | 8X0266 | NUT 3/4"-10NC SER FLANG GR2 YZ                           |
| 36   | 8X0281 | NUT 1"-8NC NY-LOCK GR2 YZ                                |
| 37   | 8X0282 | NUT 1"-14TPI TOPLOCK GR B Z                              |
| 38   | 8X0306 | LOCKWASHER 3/4" YLW ZNC                                  |
| 39   | 8X0317 | WASHER 3/4" SAE FLAT YZ                                  |
| 40   | 8X3130 | SLEEVEBRNG 1.656X1.5" ID- 1.5"                           |
| 40   | 8T5345 | SPLITSTEELBUSH 2X1.5 ID- 1.5" AFTER SERIAL NUMBER 240000 |
| 41   | 8X3140 | SLEEVEBRNG 2.188X2" ID- 2"                               |
| 42   | 8C1755 | U-BOLT 3/4 X 6-1/16 X 6" SQ                              |
| 43   | 8B2492 | BRACE ARM MNT EXT  |

# SECTION 4 - PARTS

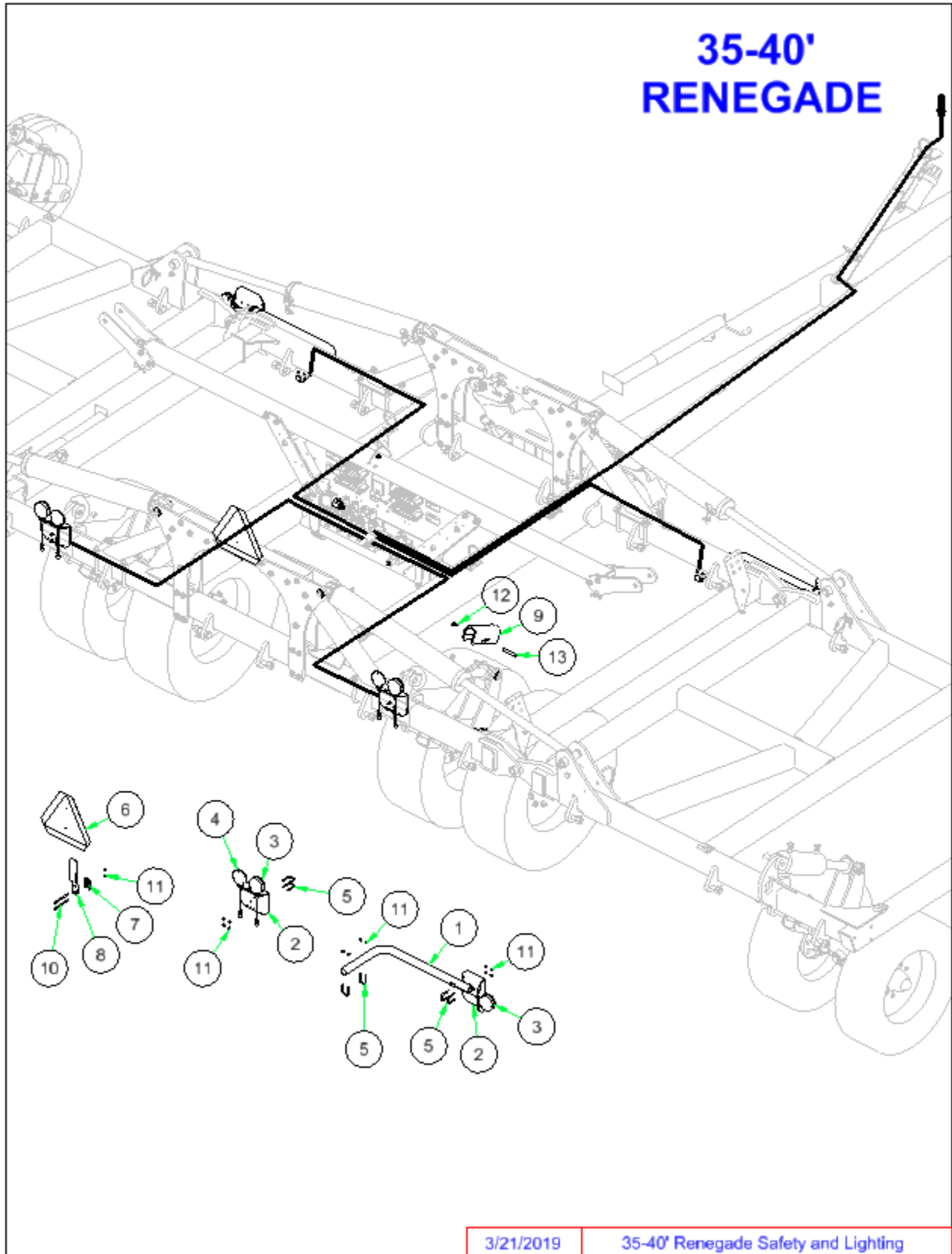


12/15/2020 35-40' RENEGADE ELECTRICAL\_SENSORS

## **SECTION 4 - PARTS**

| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>              |
|-------------|-----------|---------------------------------|
| 1           | 8B0037    | ROTARY SENSOR                   |
| 5           | 8B2831    | SENSOR LINK-BLADE ANGLE-FLAT    |
| 6           | 8B2835    | SENSOR LINK-GAGEWHL             |
| 7           | 8B2836    | SENSOR LINK MNT-GAGEWHL         |
| 8           | 8B2845    | SENSOR LINK-DEPTH CNTRL         |
| 9           | 8B2850    | SENSOR LINK-UNIVERSAL           |
| 10          | 8B2855    | ROTARY SENSOR MNT               |
| 11          | 8B2860    | SLEEVE #10 IDX3/8"ODX.40"       |
| 12          | 8B2865    | STANDOFF .56"IDX1"ODX4.85"      |
| 13          | 8K8030A   | MODULE AG ENHNCDW/BRAKE6PIN08-  |
| 14          | 8X0010B   | SCREW, ALLEN 1/4-20 X 1-1/4" ZP |
| 15          | 8X0015    | BOLT 3/8-16NC X 3-3/4" GR5 ZDI  |
| 16          | 8X0017    | BOLT 3/8-16NC X 5" GR5 ZDI      |
| 17          | 8X0066    | BOLT 1/2-13NC X 1-3/4" GR5 ZDI  |
| 18          | 8X0073    | BOLT 1/2-13NC X 5" GR5 YZ       |
| 19          | 8X0082    | BOLT 1/2-13NC X 6-1/2" GR5 YZ   |
| 20          | 8X0163    | SCREW #10 X 1-1/4" HEX/WSHR HD  |
| 21          | 8X0170    | SCREW 8 X .75" FLANGE HD        |
| 22          | 8X0202    | NUT 3/8"-16NC NY-LOCK GR2 YZ    |
| 23          | 8X0203    | NUT 3/8"-16NC SERFLANG GR2 YZ   |
| 24          | 8X0206    | NUT 10-24 HEX YZ NYLOCK         |
| 25          | 8X0208    | NUT 8-32 HEX YZ SER FLNG        |
| 26          | 8X0222    | NUT 1/4"-20NC NY-LOCK GR2 YZ    |
| 27          | 8X0242    | NUT 1/2"-13NC NY-LOCK GR2 YZ    |
| 28          | 8X0246    | NUT 1/2"-13NC SERFLANG GR2 YZ   |
| 29          | 8X0330    | WASHER 17/32"ID X 1.25"OD YZ    |
| 30          | 8X0335    | WASHER FENDER #10               |
| 31          | 8X1140    | CRG 3/8-16NC X 4" GR2 ZN        |
| 32          | 8X3080    | FLANGE BRNG .469X.375"ID- .25"  |
| 33          | 8XM0001   | SCREW,SS - BTTN HEAD M5 X 35MM  |
| 34          | 8XM0110   | SCREW,SS - BTTN HEAD M6 X 10MM  |
| 35          | 8XM0200   | NUT,SS - NY-LOCK M5             |

**SECTION 4 - PARTS**



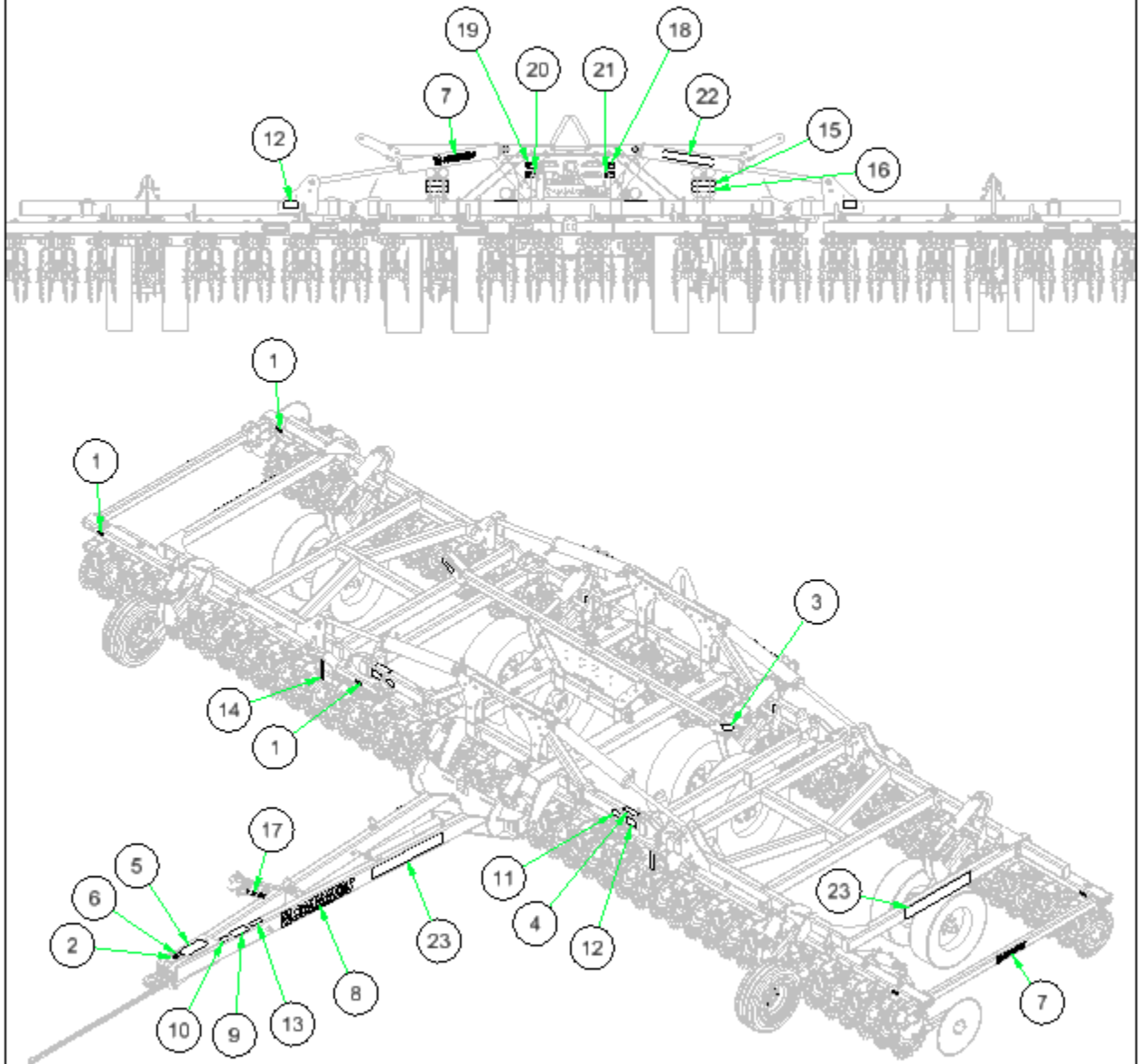
## **SECTION 4 - PARTS**

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| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>             |
|-------------|-----------|--------------------------------|
| 1           | 8K8005    | TUBE LGHT BRKT SHRT 1.5SQ PNTD |
| 2           | 8K8020    | MOUNTNG BRCKT LIGHT 00-        |
| 3           | 8K8090B   | LIGHT LED AMBER 2WR DTSCH 12-  |
| 4           | 8K8095B   | LIGHT LED RED 3WIRE DTSCH 12-  |
| 5           | 8L0258    | U-BOLT 5/16 X 1-1/2 X 2-1/2"SQ |
| 6           | 8S1120    | SIGN SLOW MOVING VEHICLE(SMV)  |
| 7           | 8S1124    | MOUNTING SOCKET SMV SIGN ZDI   |
| 8           | 8S1126    | MNT SPADE W/HRDWR SMV SIGN     |
| 9           | 8T4350    | TRNS LCK W/UHMW10.5"(2.4RD)    |
| 10          | 8X0030    | BOLT 5/16-18NC X 5" GR5 ZDI    |
| 11          | 8X0211    | NUT 5/16"-18NC SERFLANG GR2 YZ |
| 12          | 8X0402    | HAIR PIN CLIP 1/8 X 2-9/16"    |
| 13          | 8X0440    | CLEVIS PIN 5/8 X 3-7/8" ZDI    |

**SECTION 4 - PARTS**

**25-40'  
RENEGADE**



4/24/2019

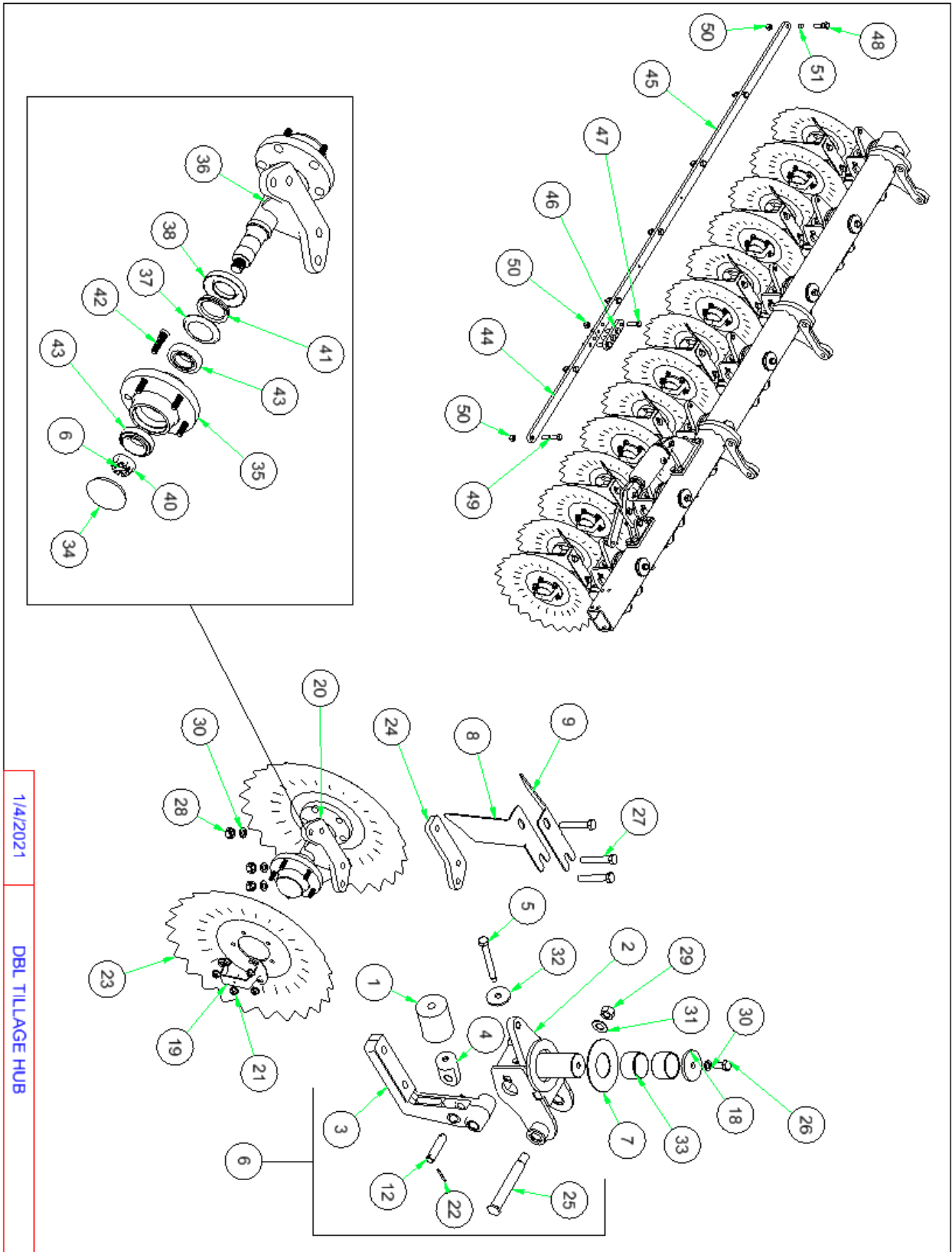
25-40' RENEGADE DECALS

## **SECTION 4 - PARTS**

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| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>                 |
|-------------|-----------|------------------------------------|
| 1           | 8Z0046    | PATENT PENDING DECAL               |
| 2           | 8Z0052    | PATENT DECAL                       |
| 3           | 8Z0075    | TRANSPORT LOCK DECAL               |
| 4           | 8Z0087    | DECAL"WARNING"PINCH POINT03-       |
| 5           | 8Z0099    | WARNING JACK DECAL                 |
| 6           | 8Z0100    | MADE IN THE USA DECAL              |
| 7           | 8Z0202    | 3.5" SUMMERS DECAL                 |
| 8           | 8Z0206    | 7.5" SUMMERS DECAL                 |
| 9           | 8Z0276    | GENERAL MACHINE CAUTION DECAL      |
| 10          | 8Z0340    | REPHASING CYLINDERS DECAL          |
| 11          | 8Z0342    | INSTALL CYL LOCKS DECAL            |
| 12          | 8Z0344    | DECAL WING DANGER                  |
| 13          | 8Z0346    | ELECTROCUTION-TILLAGE EQUIP. DECAL |
| 14          | 8Z0800    | REFLECTOR AMBER ADHSVBCK98-        |
| 15          | 8Z0805    | REFLCTR REDORANGE ADHSVBK99-       |
| 16          | 8Z0810    | REFLECTOR RED ADHSV-BACK 98-       |
| 17          | 8Z2533    | DECAL LIFT-AUX-WING                |
| 22          | 8Z2550    | 3" X 20.75" VRT-RNGD DECAL         |
| 23          | 8Z2555    | 5.5" X 20.75" VRT-RNGD DECAL       |

# SECTION 4 - PARTS



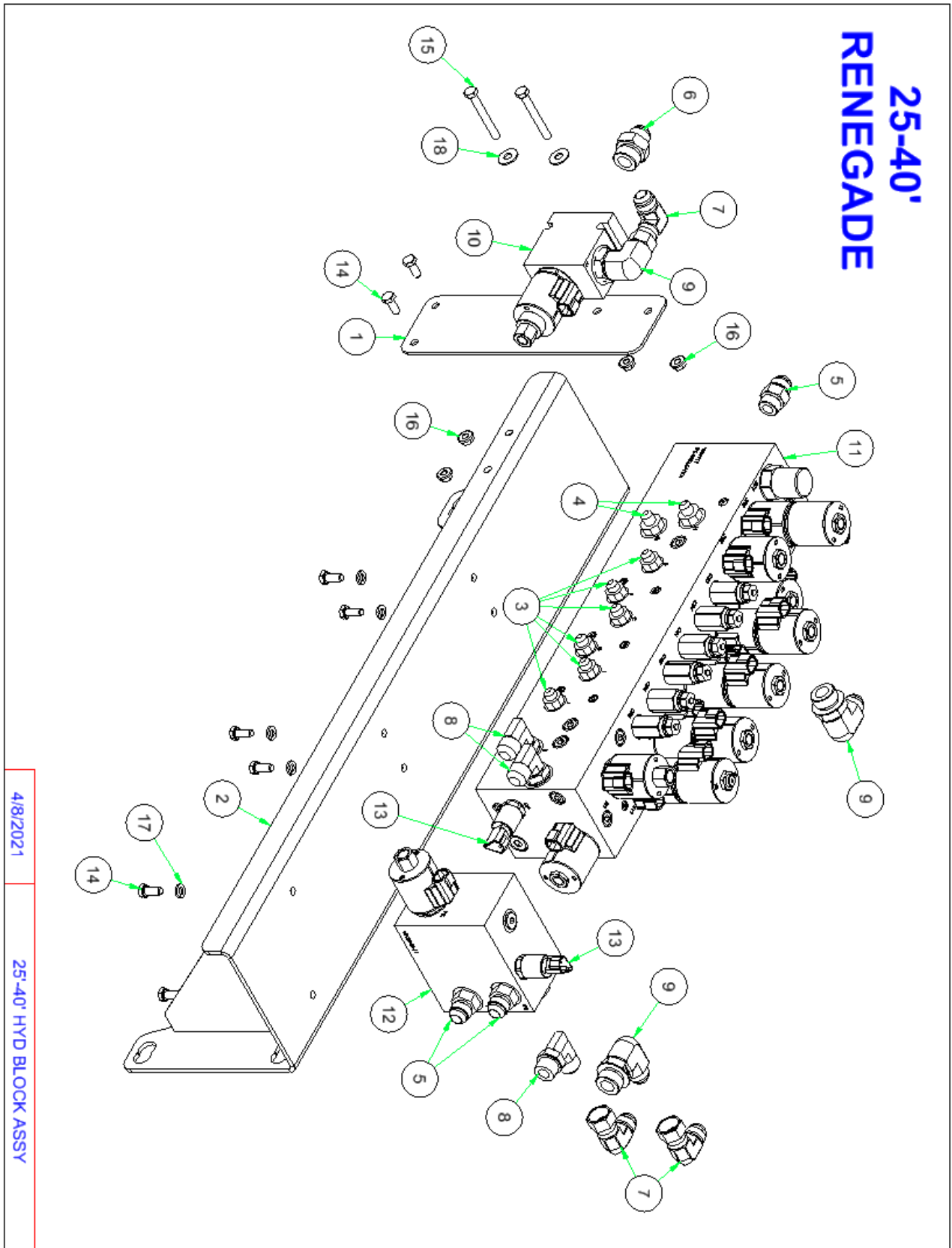


## SECTION 4 - PARTS

| ITEM | PN       | DESCRIPTION                       |
|------|----------|-----------------------------------|
| 1    | 8B0015   | TRIP BUMP STOP                    |
| 2    | 8B0063B  | HOUSING 3"SHAFT-DISK TRIP-PTD     |
| 3    | 8B0065   | ARM - DISK TRIP                   |
| 4    | 8B0069   | PRELOAD PIVOT W/BUSH              |
| 5    | 8B0070B  | PRELOAD BOLT FLANGE TRIP          |
| 6    | 8B0080B  | DISK TRIP-PIVOTING                |
| 7    | 8B0156B  | 3.06"X6.5"X .157" THRUST WASHER   |
| 8    | 8B2000P  | VRT SCRAPER OUTER-L PNTD          |
| 9    | 8B2002P  | VRT SCRAPER INNER-L PNTD          |
| 10   | 8B2005P  | VRT SCRAPER OUTER-R PNTD          |
| 11   | 8B2007P  | VRT SCRAPER INNER-R PNTD          |
| 12   | 8B2028   | PIN 1" X 4.25 YZ                  |
| 13   | 8B2800   | BLADE ANGLE CYL ATTCH             |
| 14   | 8B2805   | BLADE ANGLE LEVER MNT             |
| 15   | 8B2810   | LINK-MASTER BLADE ANGLE           |
| 16   | 8B2815   | LINK-BLADE ANGLE                  |
| 17   | 8B2822   | LINK-BLADE ANGLE LEVER            |
| 18   | 8B2825B  | RETAINING CAP-PIVOT TRIP          |
| 19   | 8B3990B  | DUST CAP GUARD<br>8B4000B/8B4001B |
| 20   | 8B4000B  | DBL TILLAGE HUB                   |
| 21   | 8B4019   | NUT NYLOCK FLNG 1/2"-20           |
| 22   | 8D9108   | ROLL PIN 1/4 X 2" YLW ZNC         |
| 23   | 8K4922SM | 22 X 6.5MM SAMURAI                |
| 24   | 8K4946   | CLAMP FLAT DSK CHSL HUB           |
| 25   | 8T3300   | PIVOT BOLT CHSLTRP&WNGLFT YZ      |
| 26   | 8X0105A  | BOLT 3/4-10NC X 1.5" GR5 YZ       |

| ITEM | PN      | DESCRIPTION                        |
|------|---------|------------------------------------|
| 27   | 8X0122  | BOLT 3/4-10NC X 4-1/2" GR5 YZ      |
| 28   | 8X0265  | NUT 3/4"-10NC CNTRLOCK GR2 YZ      |
| 29   | 8X0282  | NUT 1"-14TPI TOPLOCK GR B Z        |
| 30   | 8X0306  | LOCKWASHER 3/4" YLW ZNC            |
| 31   | 8X0316  | WASHER 1" SAE FLAT YZ              |
| 32   | 8X0337  | WASHER 3/4"ID X 3"OD- ZP           |
| 33   | 8X3150  | SLEEVEBRNG 3.25X3" ID- 3"          |
| 34   | 8B4015B | DUST CAP                           |
| 35   | 8B4017B | HUB HOUSING                        |
| 36   | 8CC1592 | DBL SPNDLE WLDMNT TILL HUB         |
| 37   | 8D5240  | SEAL COUNTERFACE GBGI<br>TILLAGE   |
| 38   | 8D5242  | SEAL RETAINER GBGI TILLAGE<br>5BLT |
| 39   | 8D5243  | ROLL PIN 1/4 X 1-1/2"              |
| 40   | 8D5244  | NUT FLANGE SLOTTED 1"-14           |
| 41   | 8D5246  | V-SEAL GBGI TILL HUB               |
| 42   | 8D5247  | STUD 1/2"-NF GBGI TILL HUB         |
| 43   | 8K7343  | BEARING OUTER HD817<br>LM501349    |
| 44   | 8B2808  | LINK BLADE 2H                      |
| 45   | 8B2812  | LINK BLADE 5H                      |
| 46   | 8B2816  | LINK BLADE BP                      |
| 47   | 8X0111A | BOLT 3/4-10NC X 2-3/4" GR5<br>ZDI  |
| 48   | 8X0114  | BOLT 3/4-10NC X 3" GR5 YZ          |
| 49   | 8X0118A | BOLT 3/4-10NC X 4-1/4" GR5 YZ      |
| 50   | 8X0261  | NUT 3/4"-10NC NY-LOCK GR2<br>YZ    |
| 51   | 8X3102  | SLEEVEBRNG .875X.75" ID- .75"      |

**SECTION 4 - PARTS**



4/8/2021

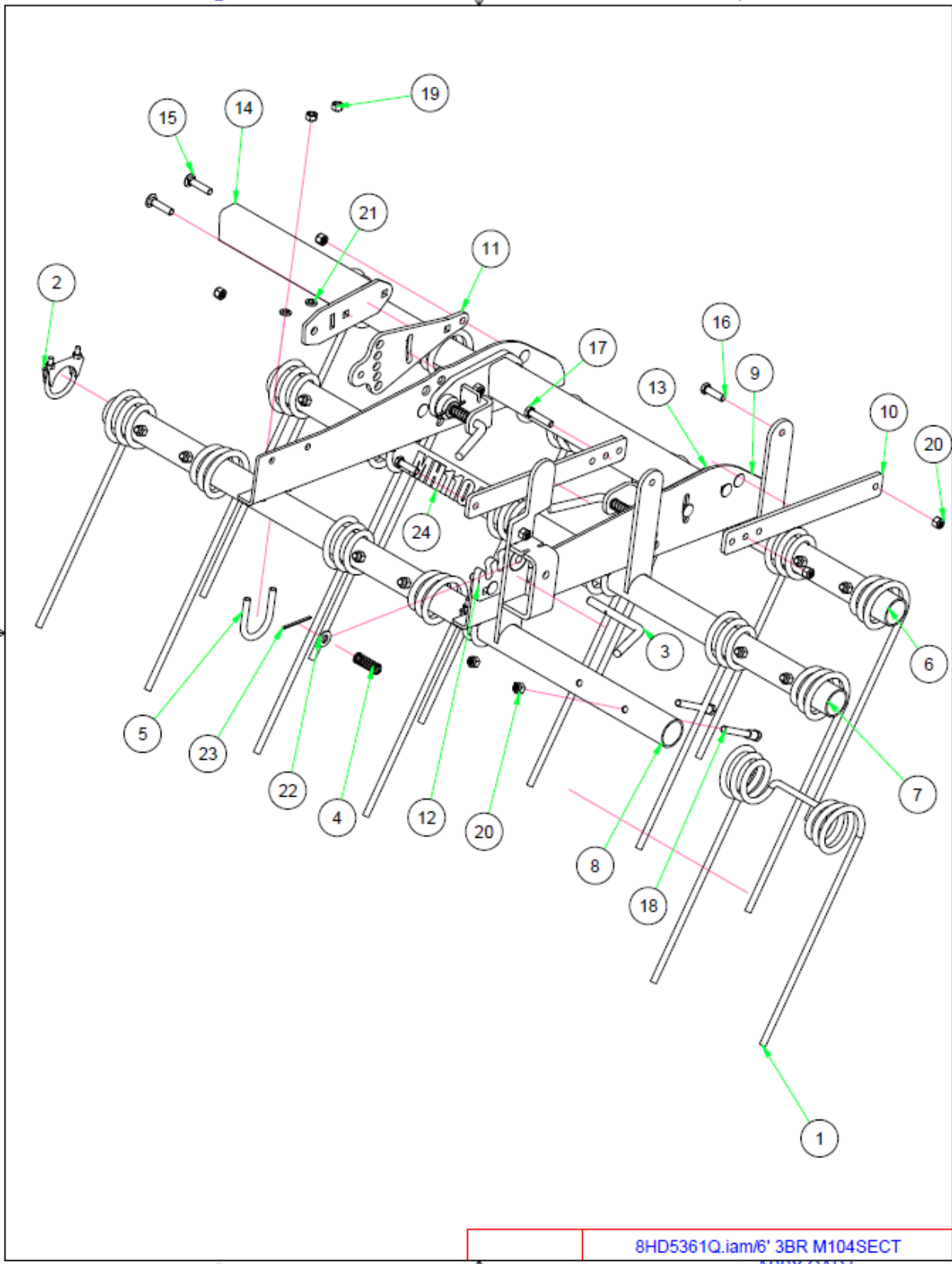
25-40' HYD BLOCK ASSY

## **SECTION 4 - PARTS**

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| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>                 |
|-------------|-----------|------------------------------------|
| 1           | 8B2535    | DEPTH CNTRL VLV MNT                |
| 2           | 8B2538    | HYD VLV BLOCK MOUNT                |
| 3           | 8B9110    | SUB-ASSY HYD BLOCKS                |
| 3           | 8J5500    | 9/16"-18 ORB X #6 JIC(M) STR       |
| 4           | 8J5510    | 3/4"-16 ORB X #6 JIC(M) STR        |
| 5           | 8J5540    | 7/8"-14 ORB X #10 JIC(M) STR       |
| 6           | 8J5550    | 1-1/16" - 12ORB X #10 JIC(M) STR   |
| 7           | 8J5710    | #10 JIC(F-SW) X #10 JIC(M) 90*ADP  |
| 8           | 8J6030    | 7/8"-14 ORB X #10 JIC(M) 90*ADP    |
| 9           | 8J6050    | 1-1/16" - 12ORB X #10 JIC(M) 90*AD |
| 10          | 8N7020    | POPPET VALVE 2WAY PROPORTIONAL     |
| 11          | 8N7025    | AUX VALVE 5 FUNCTION               |
| 12          | 8N7030    | ADJ DN PRSSR MNFLD PROPRTIONAL     |
| 13          | 8N7100    | TRANSDUCER 0-5000PSI               |
| 14          | 8X0021    | BOLT 5/16-18NC X 3/4" GR5 ZDI      |
| 15          | 8X0024    | BOLT 5/16-18NC X 2-1/2" GR5 YZ     |
| 16          | 8X0211    | NUT 5/16"-18NC SERFLANG GR2 YZ     |
| 17          | 8X0300    | LOCKWASHER 5/16" YLW ZNC           |
| 18          | 8X0329    | WASHER 5/16"(3/8" ID)FLAT YZ       |

# SECTION 4 - PARTS

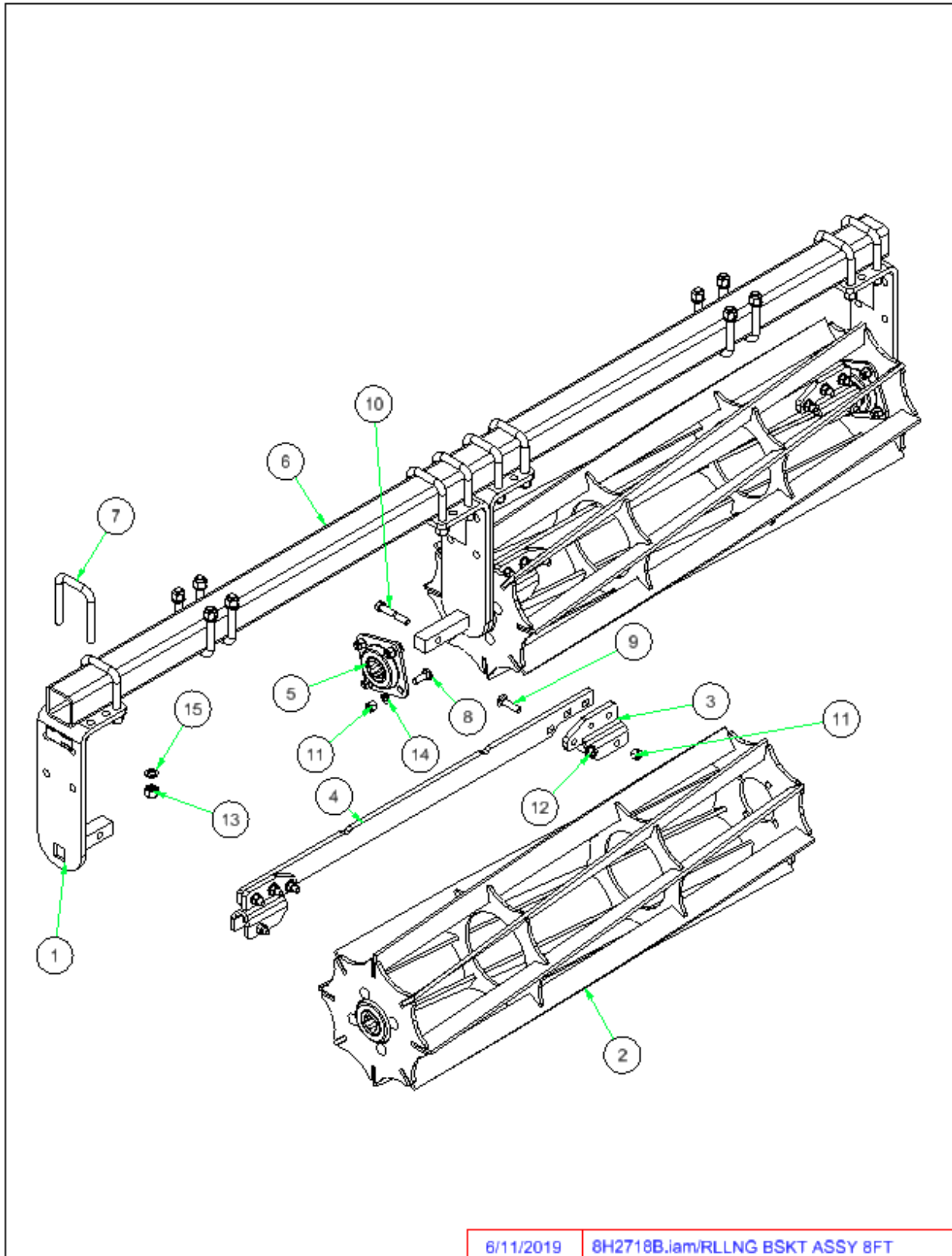


8HD5361Q.iam/6' 3BR M104SECT  
1 ASSY QADJ

## **SECTION 4 - PARTS**

| ITEM | PN       | DESCRIPTION                      |
|------|----------|----------------------------------|
| 1    | 8H1180S  | HARROW TOOTH 1/2 X 20" M104/SH   |
| 2    | 8HD0080  | PIPE CLAMP 2-1/2"ID PLATED ZDI   |
| 3    | 8HD0150  | PIN                              |
| 4    | 8HD0160  | COMPRESSION SPRING               |
| 5    | 8HD0200  | U-BOLT 1/2 X 2-3/8 X 3-9/16" RND |
| 6    | 8HD5052  | 1ST PIPE W/LVR 6' 3OR4BR         |
|      | 8HD5072  | 1ST PIPE W/LVR 8' 104/6 3OR4BR   |
|      | 8HD5082  | 1ST PIPE W/LVR10' 104/6 3OR4BR   |
| 7    | 8HD5054  | 2ND PIPE W/LVR 6' 3OR4BR         |
|      | 8HD5074  | 2ND PIPE W/LVR 8' 104/6 3OR4BR   |
|      | 8HD5084  | 2ND PIPE W/LVR10' 104/6 3OR4BR   |
| 8    | 8HD5056Q | 3RD PIPE/LVR6' 3BR104/6QADJ      |
|      | 8HD5076Q | 3RD PIP/LVR8' 3BR104/6 QADJ00-   |
|      | 8HD5086Q | 3RDPIP/LVR10' 3BR104/6 QADJ00-   |
| 9    | 8HD5111B | SIDE PLT 1/4"3BR QADJ LEFT       |
| 10   | 8HD5115  | ADJUSTABLE CONNECTING BAR        |
| 11   | 8HD5132  | PITCH ADJ REINF PLATE 23-        |
| 12   | 8HD5135  | TINE ANGL ADJ PLATE 22-          |
| 13   | 8HD5141  | CROSS TUBE W/FLATS 6' QADJ       |
|      | 8HD5151  | CROSS TUBE W/FLATS 8' QADJ13-    |
|      | 8HD5161  | CROSS TUBE W/FLATS 10' QADJ13-   |
| 14   | 8HD5181  | EXT BRKT QADJ 2ND ARM 15"        |
| 15   | 8X0065A  | CRG 1/2-13NC X 2" GR5 ZDI        |
| 16   | 8X0066   | BOLT 1/2-13NC X 1-3/4" GR5 ZDI   |
| 17   | 8X0067   | BOLT 1/2-13NC X 2-1/4" GR5 ZDI   |
| 18   | 8X0079   | BOLT 1/2-13X4-1/8"SHOULDR GR2ZDI |
| 19   | 8X0240   | NUT 1/2"-13NC HEX GR2 YZ         |
| 20   | 8X0242   | NUT 1/2"-13NC NY-LOCK GR2 YZ     |
| 21   | 8X0303   | LOCKWASHER 1/2" YLW ZNC          |
| 22   | 8X0323   | WASHER 5/8" SAE FLAT YZ          |
| 23   | 8X0519   | ROLL PIN 3/16 X 3" ZINC CLEAR    |
| 24   | 8Z0114   | MH1104 DECAL                     |

## SECTION 4 - PARTS

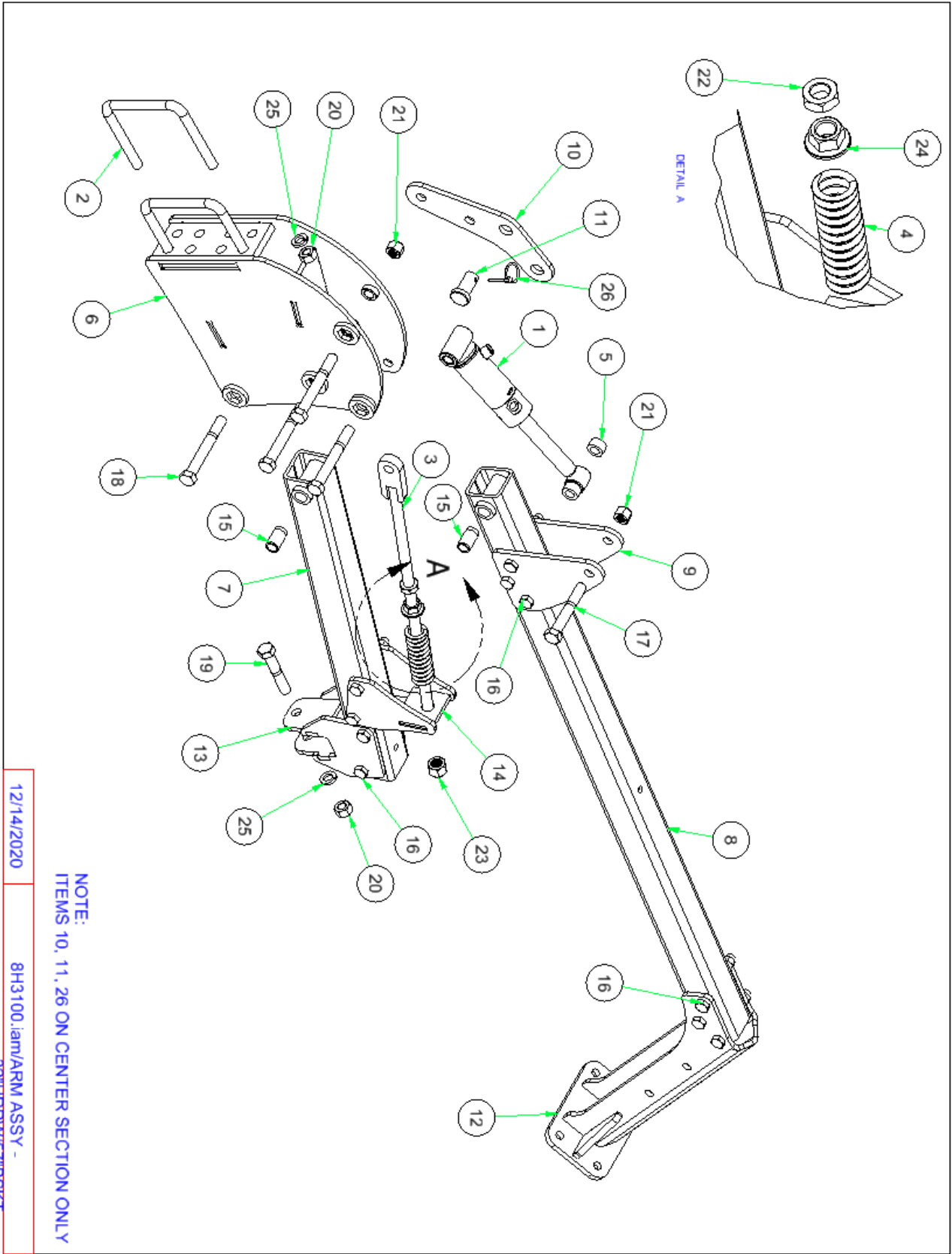


## **SECTION 4 - PARTS**

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| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>               |
|-------------|-----------|----------------------------------|
| 1           | 8H2601B   | RLLNG BSKT ENDPLATE 4SCRPR       |
| 2           | 8H2634    | RLLNG BSKT 4' REEL ONLY          |
|             | 8H2636    | RLLNG BSKT 6' REEL ONLY          |
| 3           | 8H2660B   | RLLING BSKT SCRAPER MNT          |
| 4           | 8H2664    | 4' BSKT SCRAPER (40.5")          |
|             | 8H2666    | 6' BSKT SCRAPER (63.5")          |
| 5           | 8H2703    | BEARING 1-1/4" SQ FLNG4BLT       |
| 6           | 8H2706    | TUBE SQ 3 X 4T- 70" BSKT MNT     |
|             | 8H2708    | TUBE SQ 3 X 4T- 94" BSKT MNT     |
|             | 8H2710    | TUBE SQ 3 X 4T- 118" BSKT MNT    |
| 7           | 8S0358    | U-BOLT 5/8 X 3-1/16 X 4-1/2" SQ. |
| 8           | 8X0064    | CRG 1/2-13NC X 1-1/2" GR5 YZ     |
| 9           | 8X0065    | CRG 1/2-13NC X 2" GR5 ZDI        |
| 10          | 8X0069    | BOLT 1/2-13NC X 3" GR5 ZDI       |
| 11          | 8X0242    | NUT 1/2"-13NC NY-LOCK GR2 YZ     |
| 12          | 8X0244    | NUT 1/2"-13NC FLANG TOP LOCK Z   |
| 13          | 8X0253    | NUT 5/8"-11NC NY-LOCK GR2 YZ     |
| 14          | 8X0303    | LOCKWASHER 1/2" YLW ZNC          |
| 15          | 8X0304    | LOCKWASHER 5/8" YLW ZNC          |
| 16          | 8Z0046    | PATENT PENDING DECAL             |

## SECTION 4 - PARTS



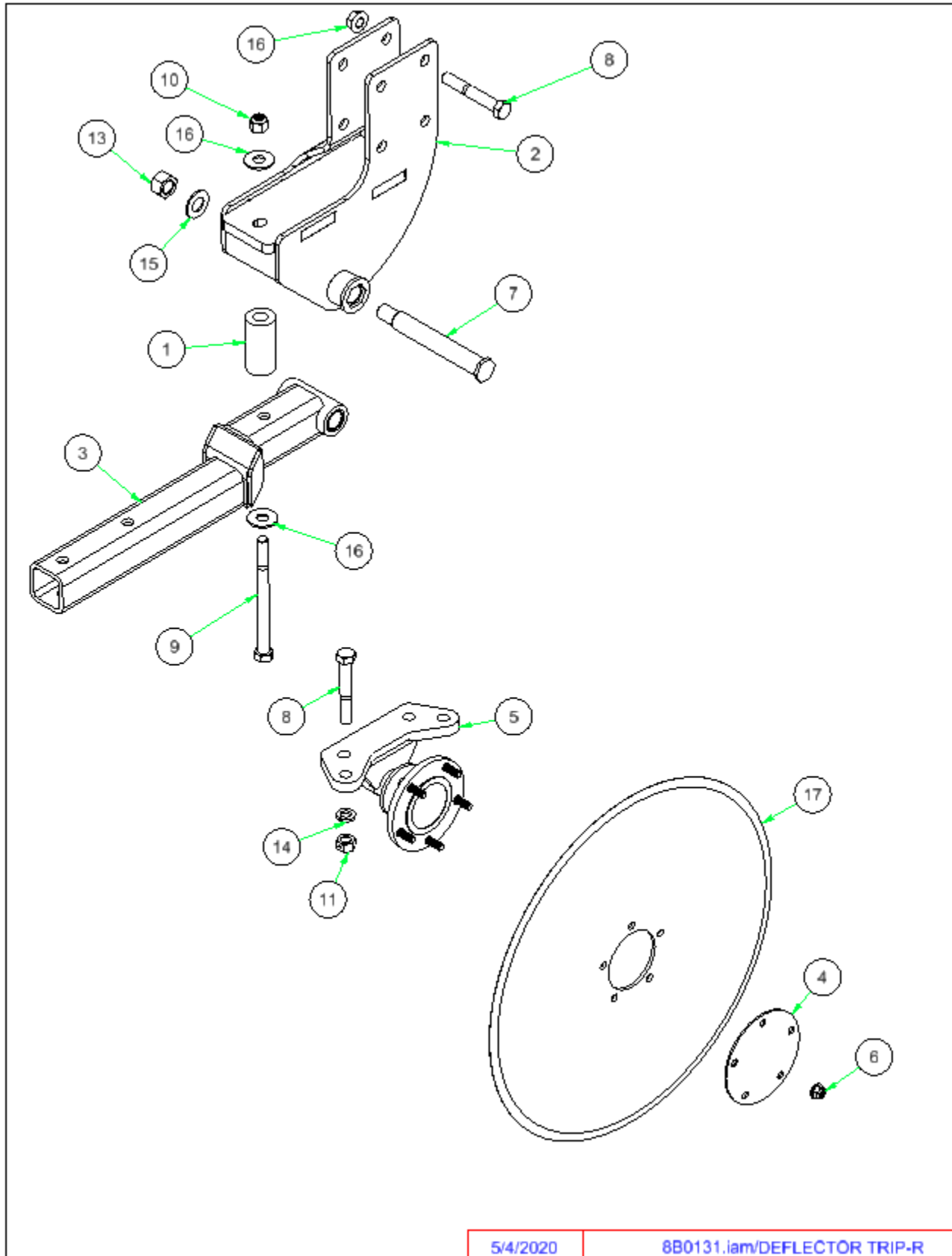
NOTE:  
ITEMS 10, 11, 26 ON CENTER SECTION ONLY

12/14/2020 8H3100.iarm/ARM ASSY - 32"HRRW/57"BSKT



| ITEM | PN     | DESCRIPTION                    |
|------|--------|--------------------------------|
| 1    | 8B2175 | HYD CYL 2.0 X 1.75" HYD BSKT   |
| 2    | 8C1755 | U-BOLT 3/4 X 6-1/16 X 6" SQ    |
| 3    | 8H1290 | BOLT-SPRINGROD 7/8" X 29"      |
| 4    | 8H1295 | SPRING-COMP - 1.71"ODX7"X.262" |
| 5    | 8H2005 | CYLINDER SPACER                |
| 6    | 8H3000 | MNT HEAD HRRW/HYD BSKT         |
| 7    | 8H3010 | ARM, HRRW- 32"                 |
| 8    | 8H3020 | ARM, BSKT- 57"                 |
| 9    | 8H3021 | CYL ATTCH-HYD BSKT ARM         |
| 10   | 8H3025 | STL 3/8 X 9 5/8 - 9 7/8"       |
| 11   | 8H3028 | PIN 1" X 2.375"                |
| 12   | 8H3030 | ROLLING BSKT ATTCH ARM         |
| 13   | 8H3032 | HRRW ATTCH CLAMP               |
| 14   | 8H3033 | HRRW SPRINGROD ATTCH           |
| 15   | 8H3040 | SUB-ASSY HRRW ARM-32"          |
| 15   | 8H3080 | SUB-ASSY HYD BSKT ARM-57"      |
| 15   | 8W1897 | NYLATRON 1"ODX .76"ID- 1-3/4"  |
| 16   | 8X0095 | BOLT 5/8-11NC X 5" GR5 YZ      |
| 17   | 8X0113 | BOLT 3/4-10NC X 5" GR5 YZ      |
| 18   | 8X0116 | BOLT 3/4-10NC X 6" GR5 YZ      |
| 19   | 8X0118 | BOLT 3/4-10NC X 4" GR5 ZDI     |
| 20   | 8X0260 | NUT 3/4"-10NC HEX GR2 YZ       |
| 21   | 8X0261 | NUT 3/4"-10NC NY-LOCK GR2 YZ   |
| 22   | 8X0269 | NUT 7/8"-9NC JAM GR2 ZDI       |
| 23   | 8X0271 | NUT 7/8"-9NC NY-LOCK GR2 YZ    |
| 24   | 8X0274 | NUT 7/8"-9NC SERFLANG GR2 YZ   |
| 25   | 8X0306 | LOCKWASHER 3/4" YLW ZNC        |
| 26   | 8X0492 | LYNCH PIN 3/16 X 1-1/4" YZ     |

## SECTION 4 - PARTS



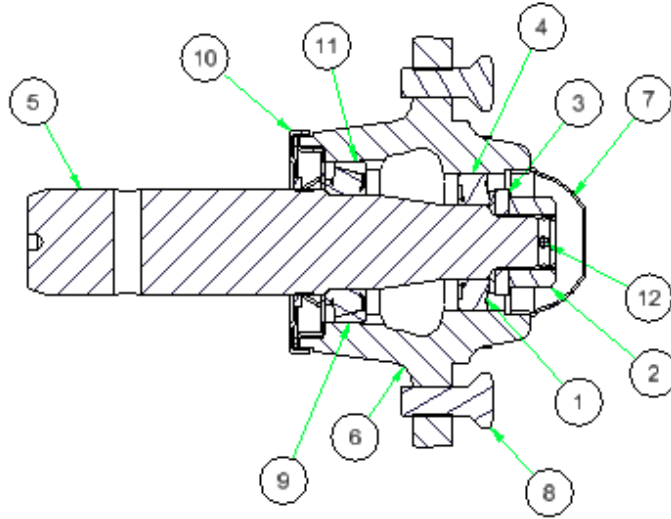
## **SECTION 4 - PARTS**

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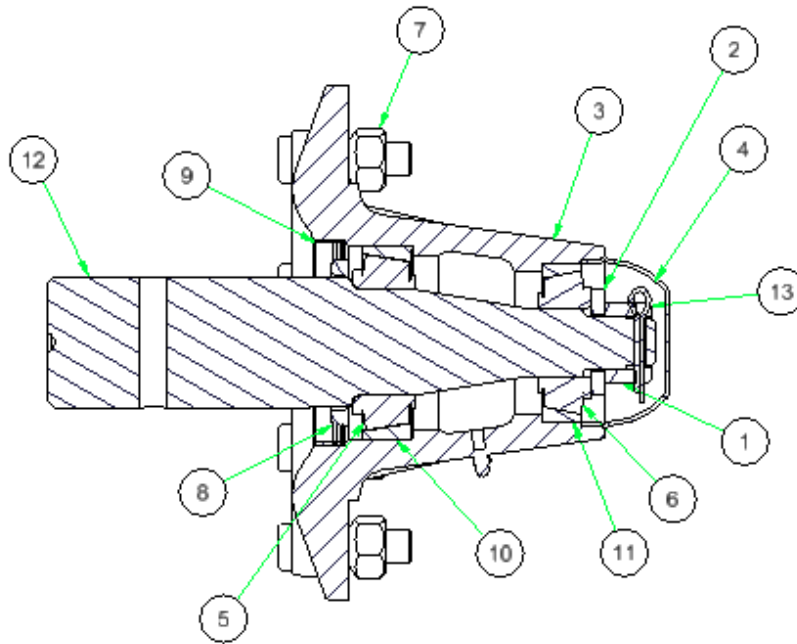
| <b>ITEM</b> | <b>PN</b> | <b>DESCRIPTION</b>             |
|-------------|-----------|--------------------------------|
| 1           | 8B0050    | SPRING URETHANE 2"ODX4"        |
| 2           | 8B0120    | DEFLECTOR TRIP HOUSING         |
| 3           | 8B0125    | ARM - DEFLECTOR TRIP           |
| 4           | 8B3990    | DUST CAP GUARD 8B4000/8B4001   |
| 4           | 8B3990B   | DUST CAP GUARD 8B4000B/8B4001B |
| 5           | 8B4001    | SNGL TILLAGE HUB MAINTFREE     |
| 5           | 8B4001B   | SNGL TILLAGE HUB               |
| 6           | 8B4019    | NUT NYLOCK FLNG 1/2"-20        |
| 7           | 8T3300    | PIVOT BOLT CHSLTRP&WNGLFT YZ   |
| 8           | 8X0113    | BOLT 3/4-10NC X 5" GR5 YZ      |
| 9           | 8X0120A   | BOLT 3/4-10NC X 9" GR8 YZ      |
| 10          | 8X0261    | NUT 3/4"-10NC NY-LOCK GR2 YZ   |
| 11          | 8X0265    | NUT 3/4"-10NC CNTRLOCK GR2 YZ  |
| 12          | 8X0266    | NUT 3/4"-10NC SERFLANG GR2 YZ  |
| 13          | 8X0282    | NUT 1"-14TPI TOPLOCK GR B Z    |
| 14          | 8X0306    | LOCKWASHER 3/4" YLW ZNC        |
| 15          | 8X0316    | WASHER 1" SAE FLAT YZ          |
| 16          | 8X0318    | WASHER 3/4"(13/16"ID)FLAT YZ   |
| 17          | 8J1026    | CLTR BLADE FLAT .256X26" 5BLT  |

**SECTION 4 - PARTS**

8K1100



8K1105  
8K1105S



2/12/2021

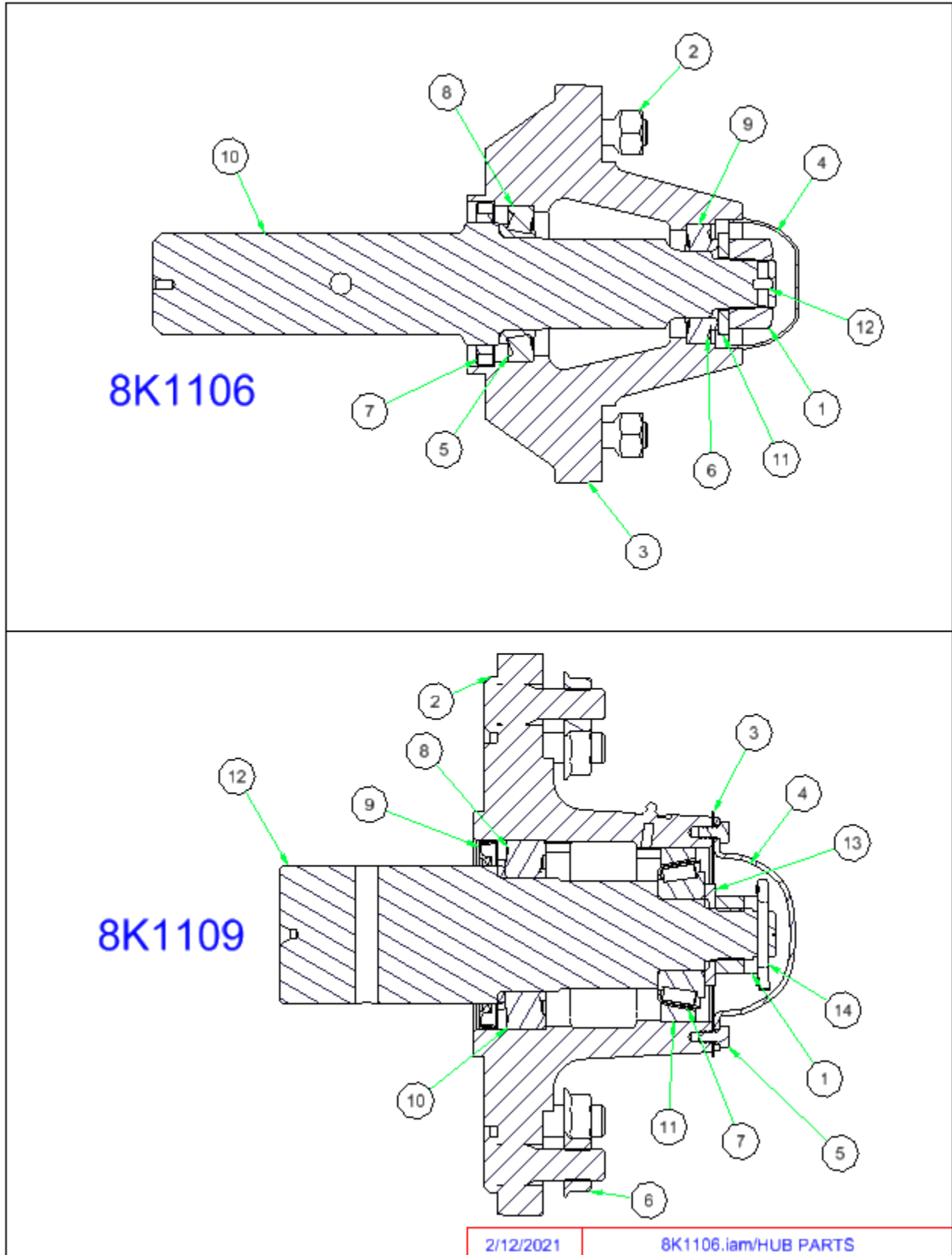
8K1105.iam/HUB PARTS

## **SECTION 4 - PARTS**

| <b>8K1100</b> |           |                                |
|---------------|-----------|--------------------------------|
| <b>ITEM</b>   | <b>PN</b> | <b>DESCRIPTION</b>             |
| 1             | 8D5217    | BEARING IN 517 OUT 614 & 618   |
| 2             | 8D5312    | NUT 1"-14NF HEX SLOT GR2 PLN   |
| 3             | 8D5319    | WASHER 1" AXLE                 |
| 4             | 8D5332    | RACE H517 & H614               |
| 5             | 8R6901    | AXLE H614 STR 2"CR X 10"       |
| 6             | 8R6911    | HUB H614 W/CUPS&ZRK 6 BLT GBGI |
| 7             | 8R6913    | HUB CAP H614 & H618            |
| 8             | 8R6914    | BOLT WHEEL 9/16"-18 UNF- 1.25" |
| 9             | 8R6917    | BEARING INNER 614              |
| 10            | 8R6922    | SEAL ASSY GBGI H614 HUB 00-    |
| 11            | 8R6925    | RACE INNER H614                |
| 12            | 8X0415    | COTTER PIN 3/16 X 1-1/2"       |

| <b>8K1105/8K1105S</b> |           |                                  |
|-----------------------|-----------|----------------------------------|
| <b>ITEM</b>           | <b>PN</b> | <b>DESCRIPTION</b>               |
| 1                     | 8D5312    | NUT 1"-14NF HEX SLOT GR2 PLN     |
| 2                     | 8D5319    | WASHER 1" AXLE                   |
| 3                     | 8K7111    | 812 HUB ASSEMBLY                 |
| 4                     | 8K7113    | HUB CAP HD812                    |
| 5                     | 8K7117    | BEARING INNER HD812              |
| 6                     | 8K7118    | BEARING OUTER HD812              |
| 7                     | 8K7123    | NUT WHEEL BOLT 5/8-18UNF 97-     |
| 8                     | 8K7127    | SEAL TRPL LIP EXTRNL HD812 06-   |
| 9                     | 8K7128    | SEAL SLEEVE HD812 06-            |
| 10                    | 8K7130    | RACE INNER FOR HD812             |
| 11                    | 8K7132    | RACE OUTER FOR HD812             |
| 12                    | 8K7150    | SPINDLE HD812 X 11.5" (2.5"DIA.) |
|                       | 8K7150S   | SPINDLE HD812 X 11.5 (2 DIA.)    |
| 13                    | 8X0415    | COTTER PIN 3/16 X 1-1/2"         |

**SECTION 4 - PARTS**



## **SECTION 4 - PARTS**

| <b>8K1106</b> |           |                                   |
|---------------|-----------|-----------------------------------|
| <b>ITEM</b>   | <b>PN</b> | <b>DESCRIPTION</b>                |
| 1             | 8D5314    | NUT 1-1/4"-12 HEX SLOT GR2 PLN    |
| 2             | 8K7123    | NUT WHEEL BOLT 5/8-18UNF 97-      |
| 3             | 8K7340    | HUB HD817 W/CUPS&SRK 8BLT3LIP     |
| 4             | 8K7341    | HUB CAP HD817                     |
| 5             | 8K7342    | BEARING INNER HD817               |
| 6             | 8K7343    | BEARING OUTER HD817               |
| 7             | 8K7344    | SEAL 3"ID HD817 SE42              |
| 8             | 8K7346    | RACE INNER HD817                  |
| 9             | 8K7347    | RACE GBGI & OUTR 817              |
| 10            | 8K7349    | AXLE HD817X 15.25" (2.5"DIA.RCVR) |
| 11            | 8X0328    | WASHER 1.312"IDX2.5 OD-1/4" BL    |
| 12            | 8X0414    | COTTER PIN 1/4 X 2" YZ            |

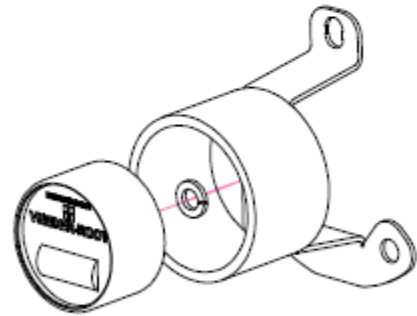
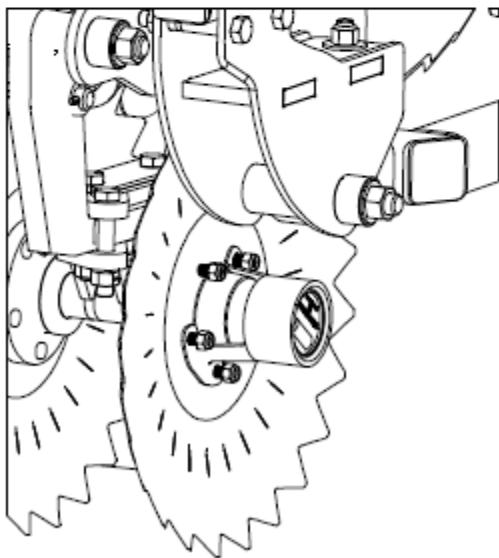
| <b>8K1109</b> |           |                                |
|---------------|-----------|--------------------------------|
| <b>ITEM</b>   | <b>PN</b> | <b>DESCRIPTION</b>             |
| 1             | 8D5314    | NUT 1-1/4"-12 HEX SLOT GR2 PLN |
| 2             | 8K7211    | HUB H1010 W/CUPS&ZRK 10BLT 12K |
| 3             | 8K7212    | GASKET HUB CAP H1010           |
| 4             | 8K7213    | HUB CAP H1010                  |
| 5             | 8K7214    | BOLT HUB CAP H1010             |
| 6             | 8K7216    | NUT 3/4"-16UNF FLANGE          |
| 7             | 8K7218    | BEARING INNER 15K H1010        |
| 8             | 8K7219    | BEARING INNER 15K H1010        |
| 9             | 8K7220    | SEAL 3" ID 12K H1010           |
| 10            | 8K7231    | RACE INNER 15K H1010           |
| 11            | 8K7232    | RACE OUTER 12K&15K H1010       |
| 12            | 8K7251    | 3.375' SPINDLE FOR 15K HUB     |
| 13            | 8X0328    | WASHER 1.312"IDX2.5 OD-1/4" BL |
| 14            | 8X0414    | COTTER PIN 1/4 X 2" YZ         |

## SECTION 4 - PARTS

# INSTALLATION AND OPERATION INSTRUCTIONS FOR 8B9520 ACRE METER KIT

Attach Hub Odometer to mount as shown, using 1/2" Lock Washer.  
Replace Dust Cap Protector with Acre Meter Mount. Recommended location for Acre Meter is the LEFT FRONT blade hub. DO NOT locate Acre Meter beneath wing hinge, or at widest point of machine. Acre Meter will be damaged if installed in these locations.  
The Hub Odometer is calibrated at 359 revolutions per acre.  
Refer to the chart below for conversion on your implement.

| CONVERSION FACTORS |  |
|--------------------|--|
| IMPLEMENT WIDTH    | ACRES COVER EQUALS METER READING MULTIPLIED BY |
| 25'                | 1.14   |
| 30'                | 1.37   |
| 35'                | 1.60   |
| 40'                | 1.90   |







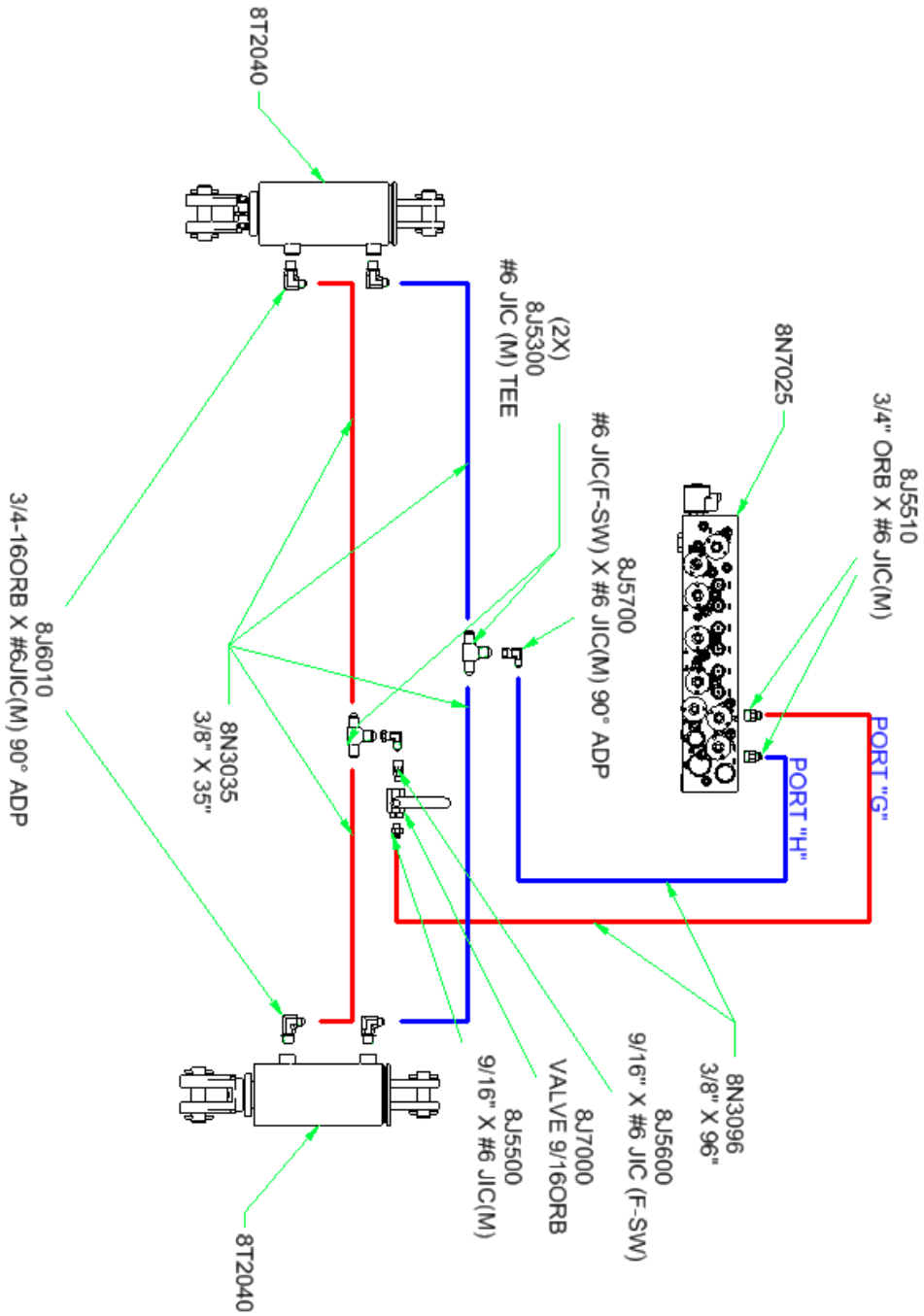






**SECTION 4 - PARTS**

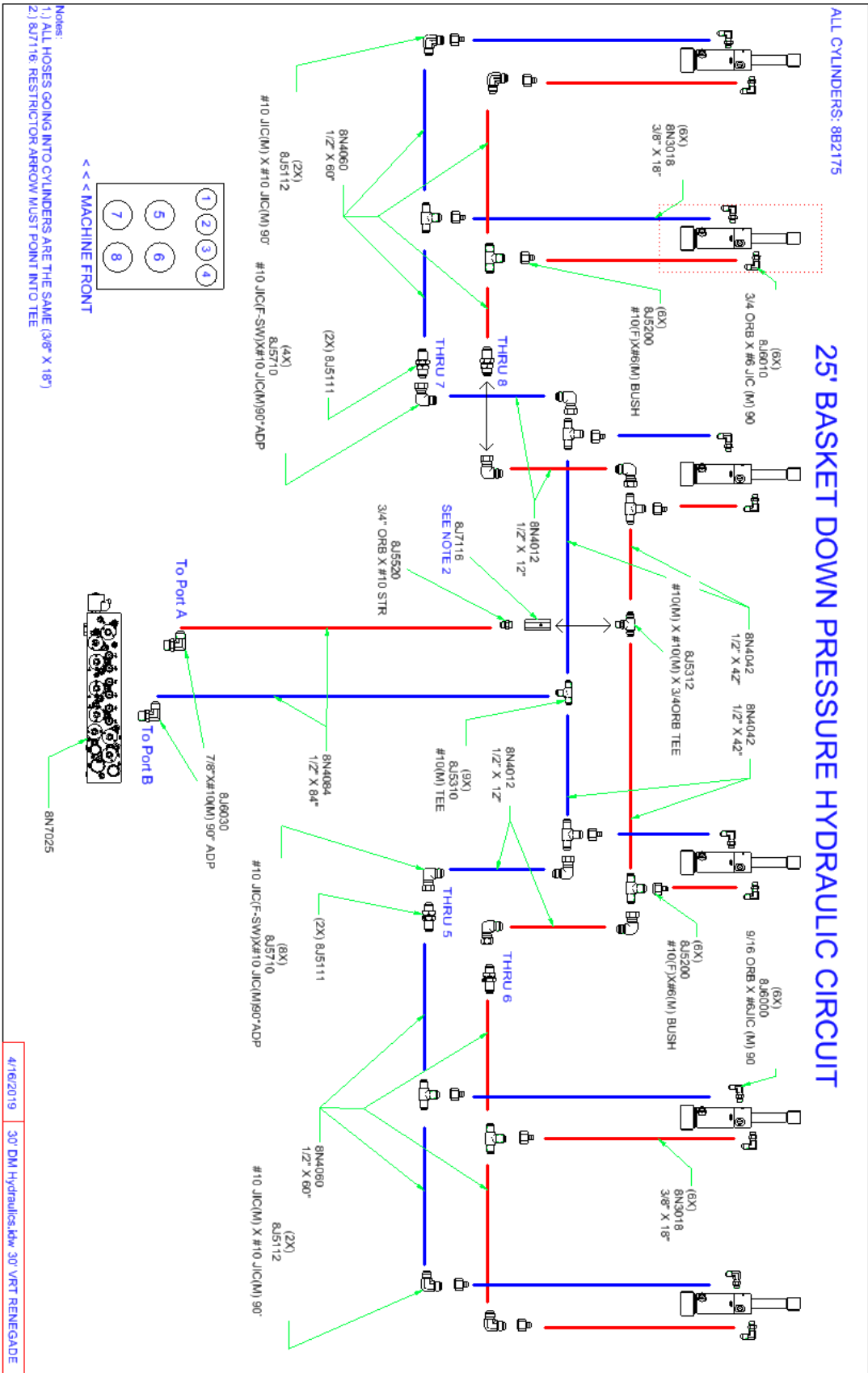
**25'-30' HITCH HYDRAULIC CIRCUIT**



4/16/2019

30' DM Hydraulics.idw 30' VRT RENEGADE

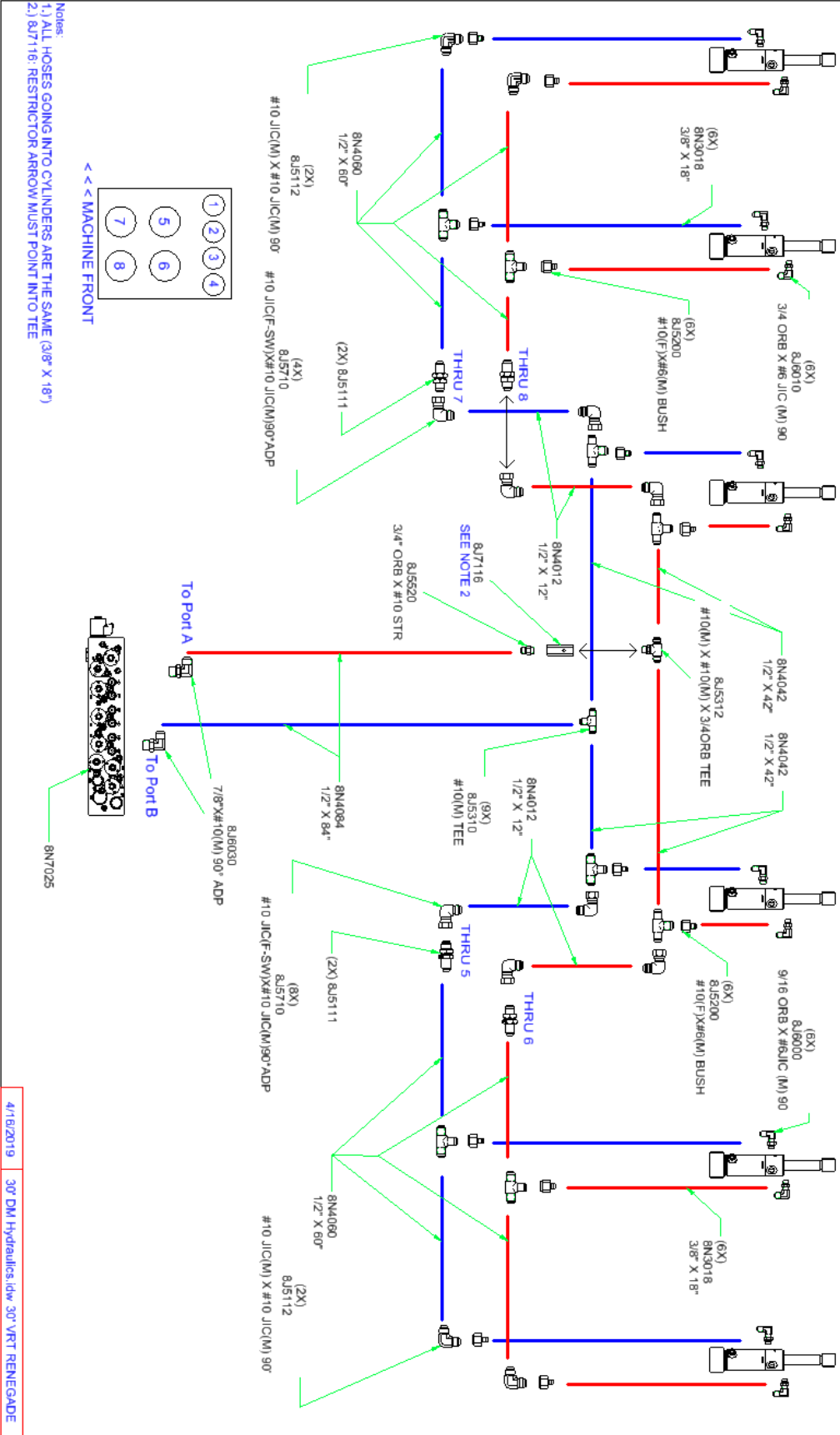
# SECTION 4 - PARTS



# SECTION 4 - PARTS

ALL CYLINDERS: 8B2175

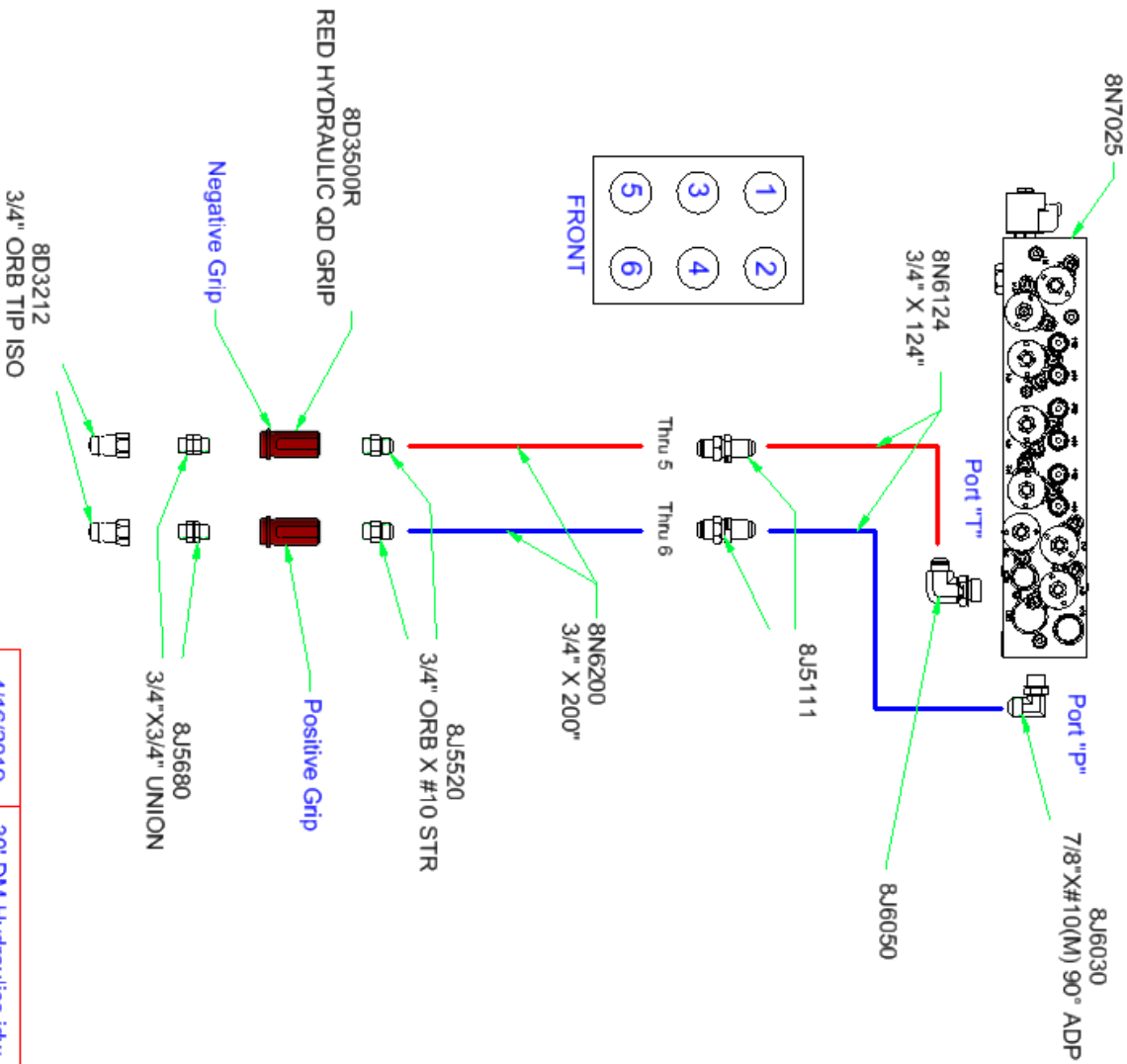
## 30' BASKET DOWN PRESSURE HYDRAULIC CIRCUIT



4/18/2019 30' DM Hydraulics.dwg 30' VRT RENEGADE

**SECTION 4 - PARTS**

**25'-30' HYDRAULIC BLOCK POWER CIRCUIT**

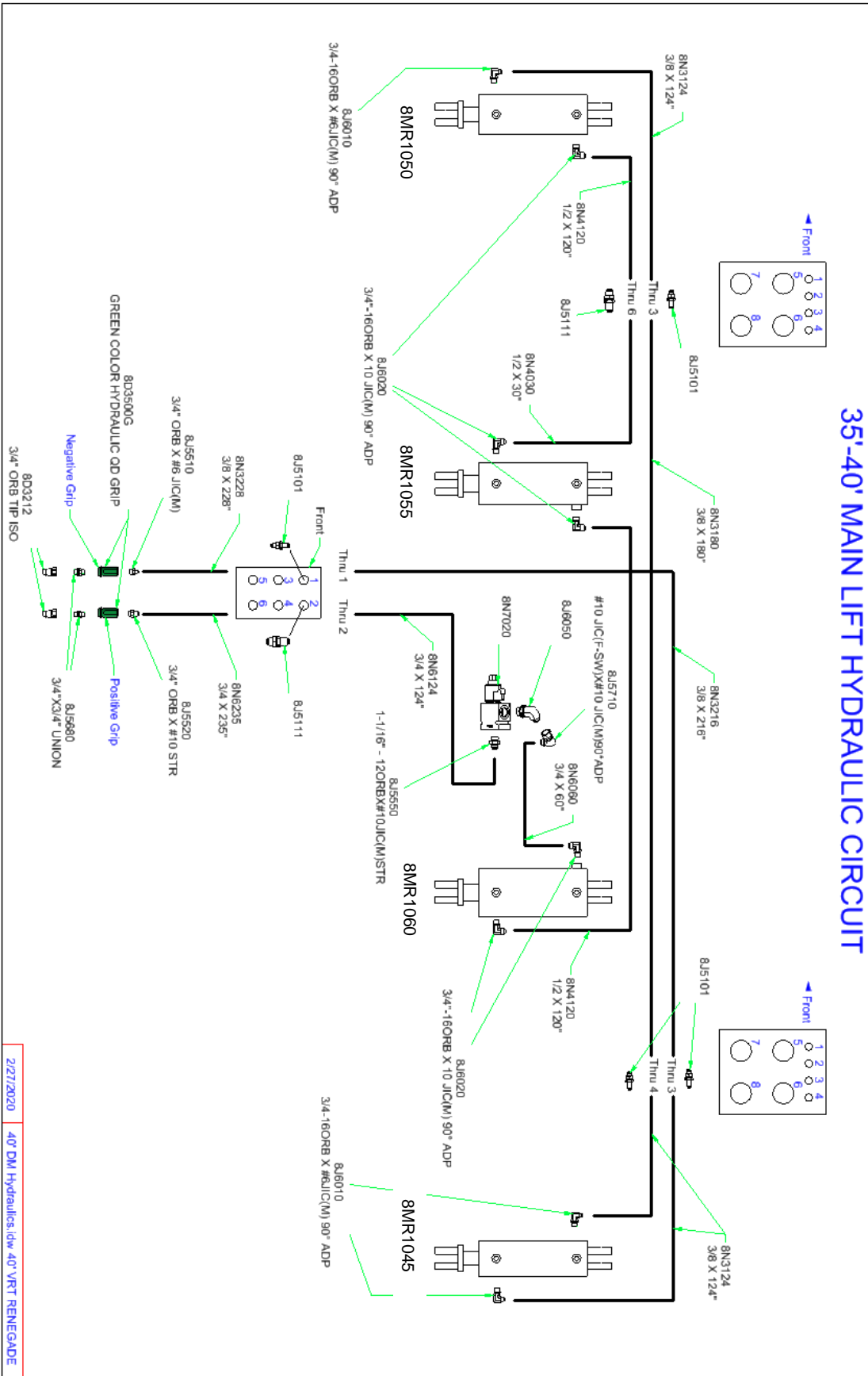


4/16/2019

30' DM Hydraulics.idw 30' VRT RENEGADE



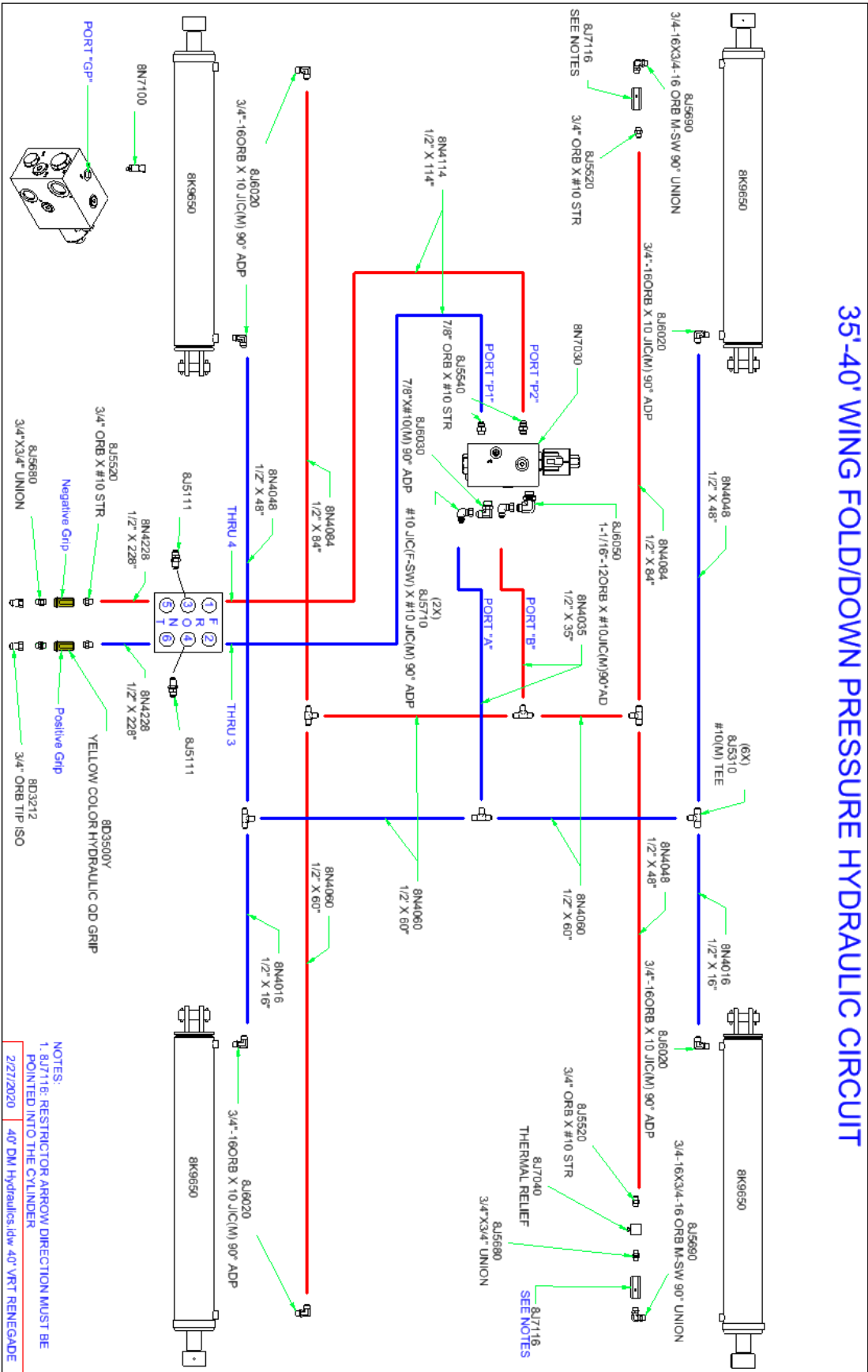
**SECTION 4 - PARTS**



2/27/2020 40' DM Hydraulics, Idw 40' VRT RENEGADE

# SECTION 4 - PARTS

## 35'-40' WING FOLD/DOWN PRESSURE HYDRAULIC CIRCUIT

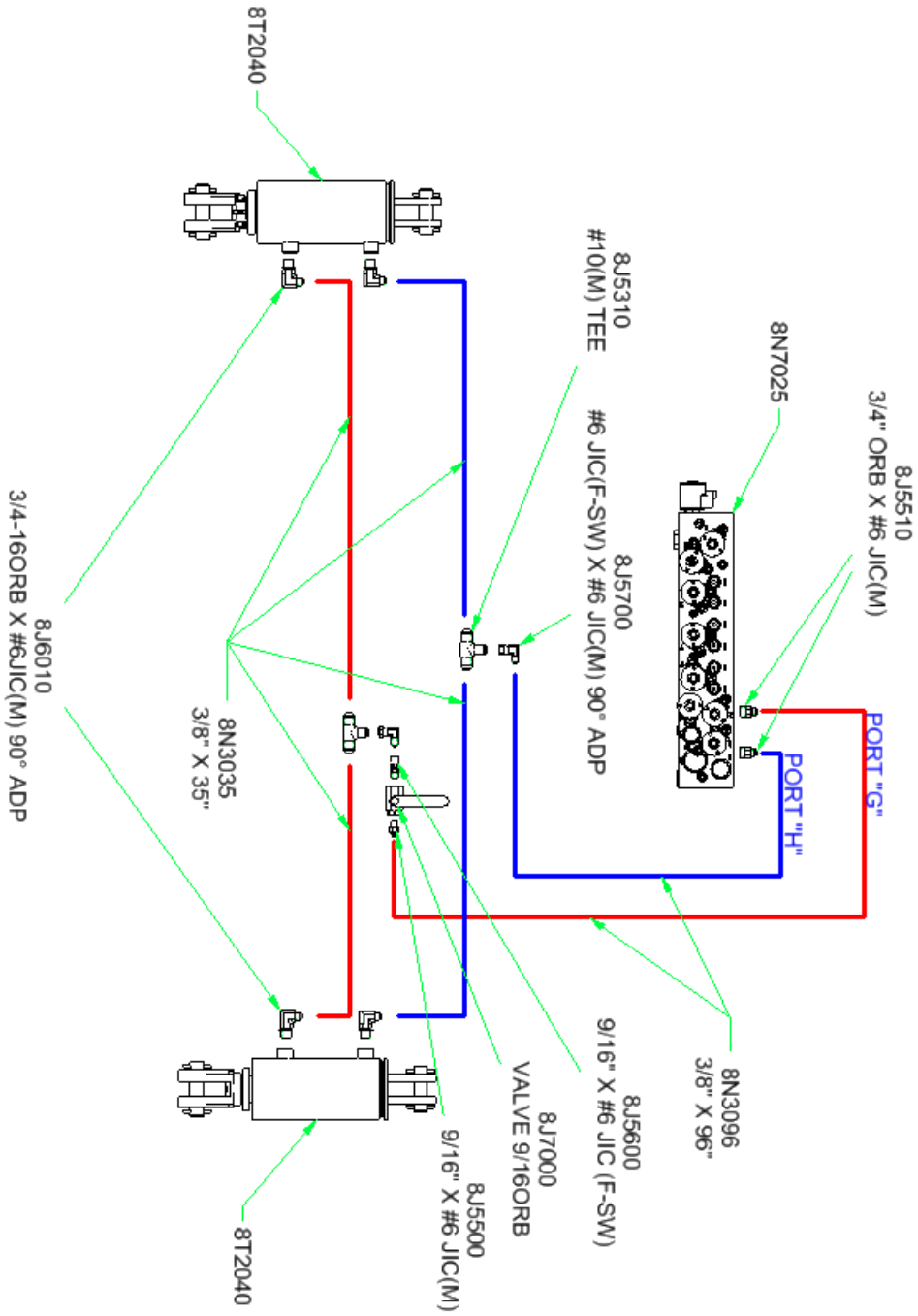






**SECTION 4 - PARTS**

**35'-40' HITCH HYDRAULIC CIRCUIT**



2/27/2020

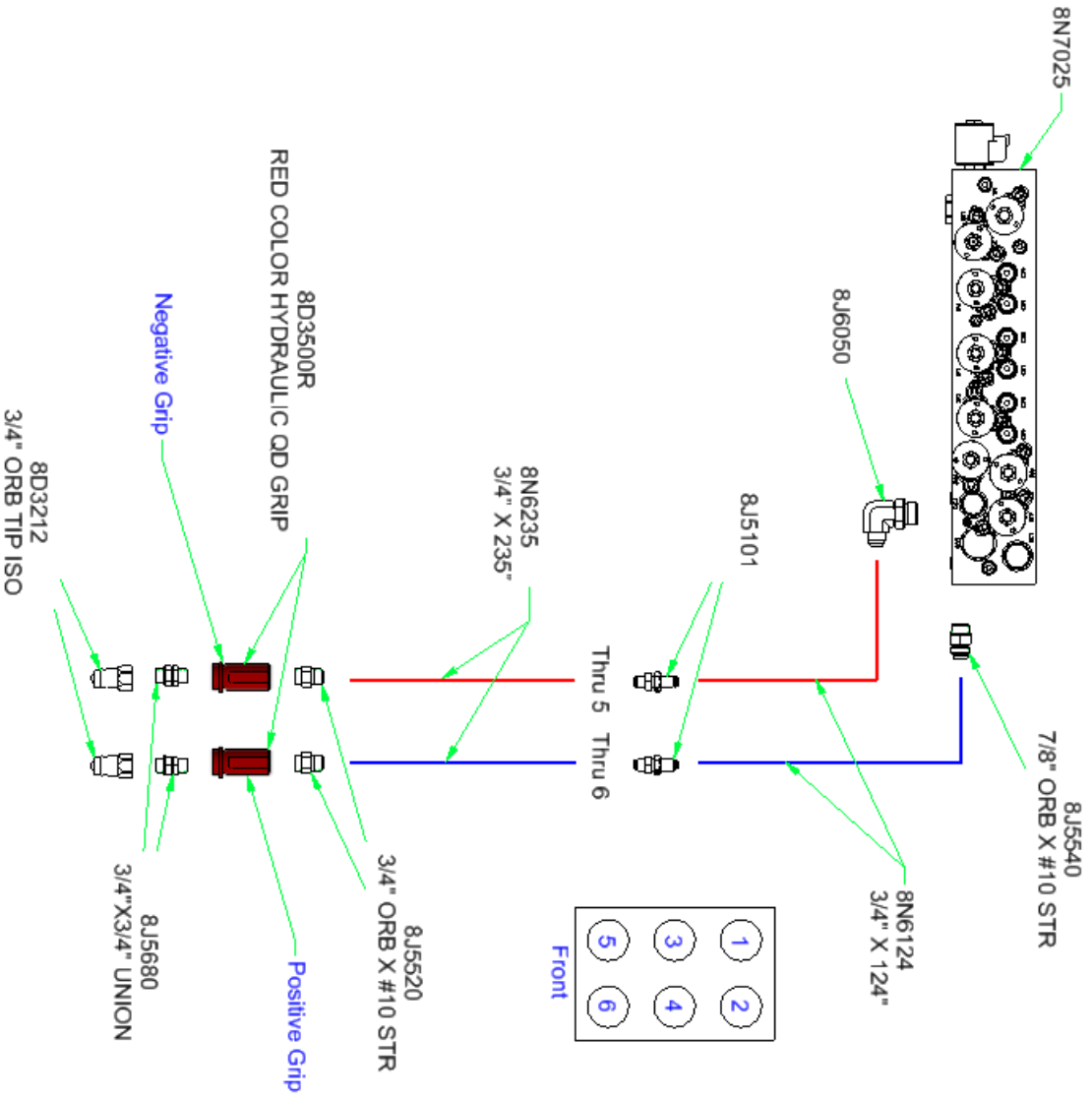
40' DM Hydraulics.idw 40' VRT RENEGADE





**SECTION 4 - PARTS**

**35'-40' AUX BLOCK CIRCUIT**



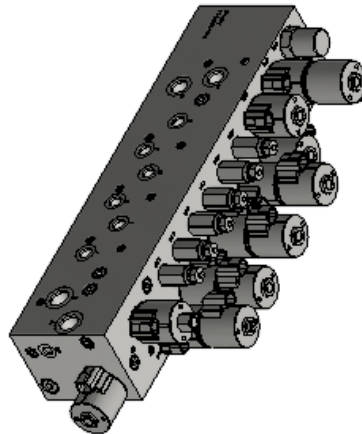
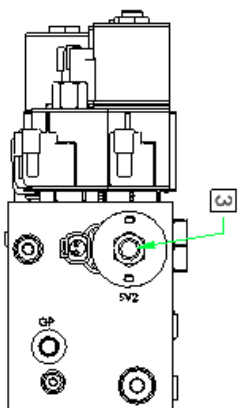
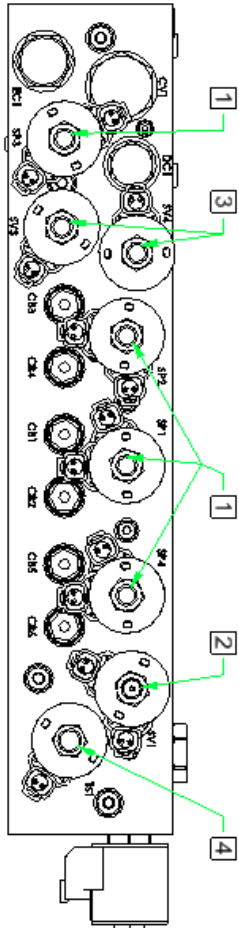
2/27/2020

40' DM Hydraulics.idw 40' VRT RENEGADE



## SECTION 4 - PARTS

| ITEM | COIL   | CARTRIDGE | TOP SEAL | TOP SEAL SIZE | CARTRIDGE TORQUE (FT.-LBS) | COIL NUT TORQUE (FT.-LBS) |
|------|--------|-----------|----------|---------------|----------------------------|---------------------------|
| 1    | 8L1471 | 8N8015    | 8N8096   | -912          | 45                         | 8                         |
| 2    | 8L1471 | 8N8020    | 8N8096   | -912          | 37                         | 8                         |
| 3    | 8L1471 | 8N8025    | 8N8095   | -910          | 40                         | 8                         |
| 4    | 8L1471 | 8N8040    | 8N8096   | -912          | 37                         | 8                         |
| 5    | 8L1471 | 8N8090    | 8N8097   | -916          | 125                        | 8                         |



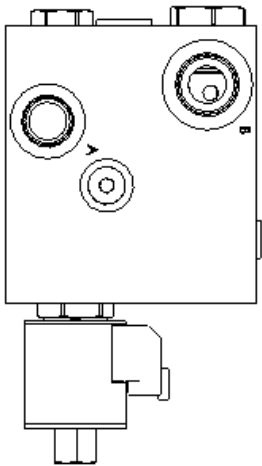
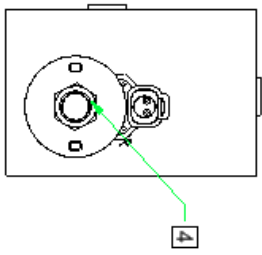
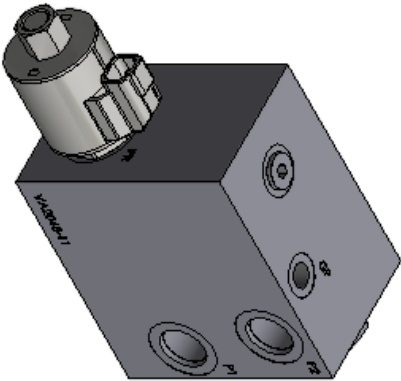
4/9/2021

8N7025.iam/

## SECTION 4 - PARTS

| ITEM | COIL   | CARTRIDGE | TOP SEAL | TOP SEAL SIZE | CARTRIDGE TORQUE (FT-LBS) | COIL NUT TORQUE (FT-LBS) |
|------|--------|-----------|----------|---------------|---------------------------|--------------------------|
| 1    | 8L1471 | 8N8015    | 8N8096   | -912          | 45                        | 8                        |
| 2    | 8L1471 | 8N8020    | 8N8096   | -912          | 37                        | 8                        |
| 3    | 8L1471 | 8N8025    | 8N8095   | -910          | 40                        | 8                        |
| 4    | 8L1471 | 8N8040    | 8N8096   | -912          | 37                        | 8                        |
| 5    | 8L1471 | 8N8090    | 8N8097   | -916          | 125                       | 8                        |

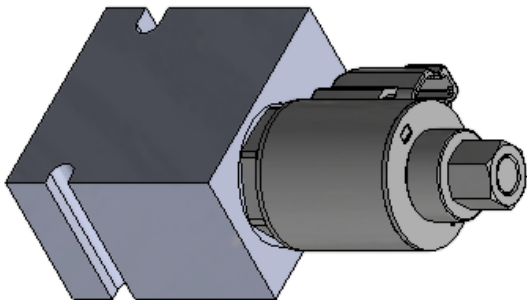
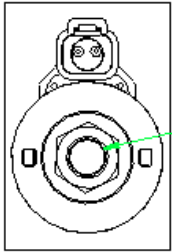
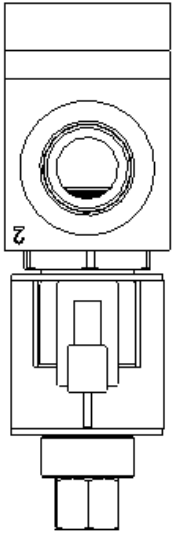
  

4/9/2021

8N7030.iam/

| ITEM | COIL   | CARTRIDGE | TOP SEAL | TOP SEAL SIZE | CARTRIDGE TORQUE (FT-LBS) | COIL NUT TORQUE (FT-LBS) |
|------|--------|-----------|----------|---------------|---------------------------|--------------------------|
| 1    | 8L1471 | 8N8015    | 8N8096   | -912          | 45                        | 8                        |
| 2    | 8L1471 | 8N8020    | 8N8096   | -912          | 37                        | 8                        |
| 3    | 8L1471 | 8N8025    | 8N8095   | -910          | 40                        | 8                        |
| 4    | 8L1471 | 8N8040    | 8N8096   | -912          | 37                        | 8                        |
| 5    | 8L1471 | 8N8090    | 8N8097   | -916          | 125                       | 8                        |



4/9/2021

8N7020:ipv