R1 Merger Attachment

For John Deere W200-Series Self-Propelled Windrowers

Operator Manual

Includes installation, operating, adjustment, maintenance, technical, repair parts and safety information for the R1 Merger Attachment.

Please retain this document for future reference.

A Color PDF copy of this document is Available for download at bit.ly/R1merger

RCI Engineering LLC
www.RCI.ag

RC201132 Rev F (13May22)

1 WARRANTY STATEMENT

RCI Engineering LLC, hereinafter referred to as RCI, warrants new RCI attachments and implements, to the Original Retail Purchaser to be free from defects in material and workmanship for a period of one (1) year from the date of sale.

RCI warranty includes:
Genuine RCI parts costs and labor required to repair or replace equipment at the selling dealer's business location.

RCI MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED (INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE), EXCEPT AS EXPRESSLY STATED IN THIS WARRANTY STATEMENT.

RCI WARRANTY DOES NOT INCLUDE:

1. Transportation to the selling dealer's business location or, at the option of the Original Retail Purchaser, the cost of a service call.
2. Freight costs above standard shipping costs for the replacement parts.
3. Used equipment.
4. Components covered by their own non-RCI warranties, such as tires and trade accessories.
5. Normal maintenance service and expendable, high-wear items.
6. Sacrificial components designed to fail to prevent damage to other components when obstructions are encountered (i.e. shear bolts, pickup teeth)
7. Repairs or adjustments caused by: improper use; non-intended use; failure to follow recommended maintenance procedures; use of unauthorized attachments; accident or other casualty.
8. Liability for incidental or consequential damages of any type, including, but not limited to lost profits or expenses of acquiring replacement equipment or damage to machines to which the attachment is installed.

No agent, employee, or representative of RCI has any authority to bind RCI to any warranty except as specifically set forth herein. Any of these limitations excluded by local law shall be deemed deleted from this warranty; all other terms will continue to apply.

Note regarding the belts used in the R1 merger attachment:

The belts used in this product are warranted against defects in material and workmanship for the period stated above. This warranty does not include damaged caused to the belt by debris, foreign material, misalignment, or other tracking issues, or from contact with other components that are misadjusted by the operator. Belts are considered to be a wear-item.

2 R1 MERGER ATTACHMENT MARKETING BULLETIN

The R1 Merger Attachment is available for the John Deere W200-Series (W235/W260/W200M/W235M/W235R/W260R) Self Propelled Windrowers (SPW) with 500R/R500 Rotary Platforms. The R1 allows merging of windrows with SPW in front of a self-propelled forage harvester, or in conditions that do not require wide swaths for dry-down. The R1 can eliminate the need for raking or merging passes through the field.

<u>Product Highlights</u>

- Merge two or three windrows into one.
    - Two windrows to be picked up by a 3.0m pickup or larger
    - Three windrows to be picked up by a 4.0m pickup or larger
- Single windrows can be created as selected by the operator.
- Control all merger functions using the keypads on the multi-function lever.
- Attachment can be disabled on-the-go for normal center-dumping of the windrow.
- Attachment raises to transport position with leading edge of the belt frame angled upward to clear incoming crop flow for center-dumping.
- Belt speed is controlled from the multi-function lever and is adjustable to vary windrow placement and formation.
- Attachment features a front conveyor behind the conditioner. This device gathers material dropping out of the crop stream and delivers it to the cross belt for reliable function in varying crop conditions.
- The hydraulic drive system enables the belt to maintain speed as the engine load is increased and engine speed decreases.
- Each belt features a v-groove for ease of belt tracking.
- Windrowers arrive from the factory Merger-Ready. No welding is required.

Other Notes

- This attachment only discharges to the right side of the machine when merging.
- AutoTrac is recommended for efficient harvesting when combining three windrows into one.
- The R1 Merger Attachment is not compatible with impeller conditioners. The attachment is compatible with all roll-type conditioners.
- If automatic forming shield control is installed, remove the actuator from the left side (ladder side) and install the following parts from John Deere:
    - Z24696 Handle (1)
    - N105572 Snap Ring (1)
    - A49465 Bushing (1)
    - 24H1724 Washer (1)
    - 03M7209 Bolt (1)
- Automatic forming shield control does not currently allow for independent forming shield control and therefore does not work with the merger attachment as each forming shield is required to be in a different position from the other.
- It is advised to add a camera to the base machine to view the crop flow under the machine. The camera can be mounted under the right-side storage box and can be displayed on a 2630 display or with a camera display screen mounted in the cab by the dealer.
- This attachment is not recommended for the W200M in heavy crop conditions due to the horsepower requirements of the merger on the power unit.
- The shipping skid the merger arrives on is returnable for full credit if desired.
- The unit ships via flatbed from the factory in Mayville, Wisconsin.
- Different bundles are needed for the different power units. Refer to the Ordering Information below for more information.
- It is extremely important to note the Model and Year of the windrower that the merger is being installed on when ordering. RCI is not responsible for incorrectly ordered bundles.

Ordering Information

- RC201035 Bundle, R1 Merger Attachment
- RC201133 Bundle, W200 (Up to MY21) Completion
- RC201198 Bundle, W200M and W235M (MY22+) Completion
- RC201158 Bundle, W235R and W260R (MY22+) Completion
- RC201285 Assembly, Shipping Pallet and Stands

Installation Time

- Approximately 12-20 hours, depending on technician experience

3 TABLE OF CONTENTS

4 SAFE OPERATION OF MACHINE

Operator Authorization

The machine owner must provide the operator of the machine this manual and ensure that the operator reads and understands the contents. This must be performed before the machine is put into operation.

Safety Alert Symbol

This safety alert symbol is used to alert the operator to the potential for personal injury. Whenever this symbol is noticed in this manual or on the machine, be alert to the situation and read the message near the symbol. Always be alert for the potential for personal injury.

General Safety Precautions / Accident Prevention

Before operation of the machine each time, check the entire machine for operational and road safety. Refer to the Operator's Manual for the Self-Propelled Windrower for all information regarding the windrower. This manual is for the merger attachment and only covers items related to the operation of the attachment.

1. The warning and safety decals on the attachment provide important information to ensure safe operation of the machine. Read and follow these instructions at all times and remain safe.

2. Familiarize yourself with all controls of the machine and attachment as well as the function of the unit before operation of the machine.

3. Check all guards and shields to make sure they are in place and functional. Replace any defective or missing guards, shields, or components before operation.

4. Avoid loose fitting clothing. The operator should always wear close-fitting clothing and sturdy footwear.

5. When traveling on public roads or transporting the machine, obey all regulations for the area. See TRANSPORTING THE MACHINE for more information on proper machine setup for transportation.

6. Before harvesting begins each time the machine is operated, inspect the area around the machine. Ensure that no one is close to the machine for bystander safety.

7. Keep clear of the working and danger area of the machine.

8. Use caution when working on moveable components of the machine. There are many pinch and shear points.

5 SAFETY WARNING SIGNS

Safety Messages

Whenever the words and symbols shown below are used in this manual or on the machine, the instructions MUST be followed as they relate to personal safety.

DANGER in white letters on a red background indicates an imminently hazardous situation that, if not avoided, will cause death or very serious injury.

WARNING in black letters on an orange background indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION in black letters on a yellow background indicates a potentially hazardous situation that, if not avoided, may result in minor injury.

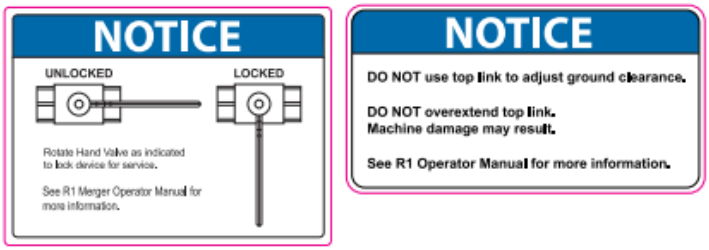
Warning Decal 1

Warning Decal 2

Two notice decals are provided as a reminder on proper operation of functions of the unit.

The first indicates the proper use of the lock-out valve to prevent inadvertent movement of the lift cylinder during service.

The second is a reminder to not use the top link to adjust ground clearance of the merger attachment. Machine damage may result.



Notice Decals

6 SAFETY SIGN LOCATIONS

Figure 1. Front Belt (Left Side)

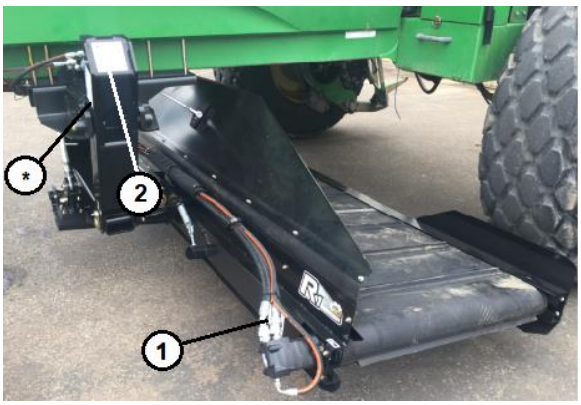


Figure 3. Cross Belt (Right Side)

Figure 2. Front Belt (Right Side)

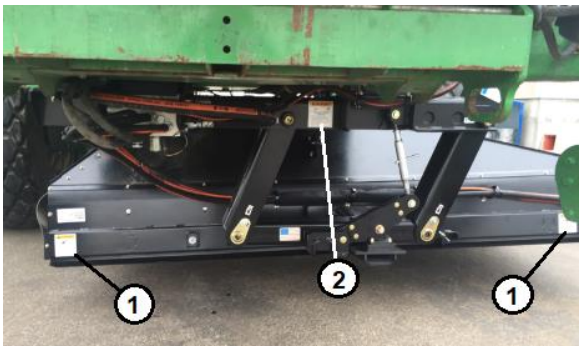


Figure 4. Cross Belt (Rear)

Merger Lockout Location (*)
A lockout device is provided at the main lift cylinder of the merger. A decal is placed next to the lockout to illustrate the operation. Always lock out the merger lift cylinder before doing any service on the merger. See Figure 5.

Starting with s/n 1413, this valve is located on the same hydraulic line, but at the manifold rather than the RH side of the machine. Follow the hydraulic line back to the manifold to locate the valve.

Figure 5. Merger Lockout Location
Key 1 – Lockout Location Key 2 - Decal
Key 3 – Toplink Notice - Hidden

7 OPERATING THE UNIT

Preparing for the Field

CAUTION: To avoid bodily injury, disengage platform and shut off windrower engine before starting pre-checks.

1. Trash and debris are removed from the machine, especially around bearings.

2. All shields and guards are properly installed and tightened. Replace any damaged or missing shields and guards.

3. Belt speed is adjusted for crop conditions (See ADJUSTING BELT SPEED in this section).

4. Service items are completed (See MAINTENANCE section).

5. Belt Condition and Tension are proper (See BELT ADJUSTMENTS in ADJUSTMENTS section).

6. Belt frames are properly installed and hardware is properly fastened (See BELT FRAME INSTALLATION in SERVICE section).

7. All warning labels and signs are visible and in place. Replace any warning labels that are missing or damaged (See SAFETY SIGNS at beginning of this manual).

8. Checklist for Windrower is complete (See OPERATING WINDROWER, PREPARING FOR THE FIELD section of Windrower Operator Manual).

9. Checklist for Platform is complete (See PRESTARTING CHECKS section of the Platform Operator's Manual).

10. All adjustments for crop conditions have been made (See INTIAL SETUP CONDITIONS in PERFORMACE section).

R1 - W200M, W235M, W235R, W260R
Operating the Unit

Refer to the Self-Propelled Windrower Operator Manual for operation of controls of Windrower.

Enable/Disable the Attachment

The Merger Attachment needs to be ENABLED for automatic operation.

To enable the attachment, press and hold the Merger Enable / Disable Button on the Multi-Function Handle as indicated by Key 1, Figure 6, for five (5) seconds. An indicator for the merger will appear in the corner post next to the platform RPM as shown in Figure 7.

To disable the attachment, press and hold the Merger Enable / Disable Button on the Multi-Function Handle (Key 1, Fig. 6) for five (5) seconds. An indicator for the merger will disappear in the corner post next to the platform RPM as shown in Figure 7.

Note: The front belt of the merger will start to turn after approximately 5 seconds after the header is turned on. Wait for the belt to start before harvesting any crop. The operator will be able to hear the conveyor start or can check the status of the belt with the recommended camera system (see Marketing Bulletin or front of this manual).

Raising or Lowering the Cross Belt

Once enabled, the cross belt of the merger will lower automatically when the float button for the header, (Key 2, Fig. 6) is double-clicked.

The cross belt of the merger will raise automatically when the raise button for the header (Key 3, Fig. 6) is double-clicked

To lower the merger, first lower the platform by pressing the Header Float button 1 time (Key 2, Fig. 6). Then press the same button a second time to lower the merger.

Figure 6. Merger Controls
Key 1 – Merger Enable/Disable
Key 2 – Header Float (Merger Lower 2x)
Key 3 –Header Raise (Merger Raise 2x)
Key 4 – Belt Speed + (Adjust Mode)
Key 5 – Belt Speed – (Adjust Mode)
Key 6 – Merger Raise (Adjust Mode)
Key 7 – Merger Lower (Adjust Mode)
Key 8 – Adjust Mode Indicator Light

Figure 7. Merger Enable Indicator
Key 1 – Merger Enable Icon Illuminated

Manual Raise/Lower of Cross Belt
When the *Merger Adjustment Mode* is enabled, the cross belt can be raised and/or lowered manually.

IMPORTANT: *Merger Adjustment Mode* will lock out any header adjustments from the Multi-Function Handle for five (5) seconds after the last adjustment is made. The unit will revert to platform adjustment automatically after five (5) seconds of no adjustments.

To enable the *Merger Adjustment Mode*, press the Merger Enable/Disable button (Key 2, Fig. 8) for one click (do not hold). The indicator light (Key 8, Fig. 8) will illuminate while in the *Merger Adjustment Mode.*

To raise the merger cross belt manually, press the upper portion of the left quad button (Key 6, Fig. 8) while in *Merger Adjustment Mode*. The merger cross belt will raise for the duration of the button press.

To lower the merger cross belt manually, press the lower portion of the left quad button (Key 7, Fig. 8) while in *Merger Adjustment Mode*. The merger cross belt will lower for the duration of the button press.

IMPORTANT: Do not raise the cross belt completely in manual mode as the belt may continue running in a raised condition and belt damage may result.

Merger Attachment Auto-Raise
The merger attachment is designed to automatically when the windrower is reversed. This is to prevent damage to the merger attachment should an obstruction be encountered. This is an option in the Windrower Settings and is coupled with automatic header raise in reverse.

Figure 8. Merger Controls
Key 1 – Merger Enable/Disable
Key 2 – Header Float (Merger Lower 2x)
Key 3 –Header Raise (Merger Raise 2x)
Key 4 – Belt Speed + (Adjust Mode)
Key 5 – Belt Speed – (Adjust Mode)
Key 6 – Merger Raise (Adjust Mode)
Key 7 – Merger Lower (Adjust Mode)
Key 8 – Adjust Mode Indicator Light

Cross Belt Motor Engagement
The cross belt will only engage when the platform is engaged, lowered to harvesting position, and the merger is enabled. The merger must be enabled before lowering the platform for the cross belt to function properly. The cross belt will turn off automatically when raised.

Adjusting Belt Speed of Cross Belt Motor
Belt speed of the merger is controlled by pressing the left and right arrows of the left quad button (Key 4 and 5, Fig. 8) while in *Merger Adjustment Mode*. Each press of the button will result in a 10% change in output in the respective range of motor speed control. The left button decreases speed. The right button increases speed.

Front Belt Motor Engagement
Front Belt motor engagement is automatically acquired by engaging the platform of the machine. To disengage, turn off the platform.

Note: The front belt motor speed will remain constant at approximately 950 rpm.

Front Belt Motor Override
The front belt motor can be turned off once the platform is running by pressing the Front Belt Disable button on the armrest as shown in Figure 9.

Once the front belt is disabled, the platform must be turned off to reset the function of the front belt.

This feature is provided so that the operator can adjust the swath board completely down on the platform and deliver the windrow under the front belt for wide swaths for dry-down only.

Note: The front belt of the merger will start to turn after approximately 5 seconds after the header is turned on. Wait for the belt to start before harvesting any crop. The operator will be able to hear the conveyor start or can check the status of the belt with the recommended camera system (see Marketing Bulletin or front of this manual).

Figure 9. Front Belt Motor Override
Key 1 – Front Belt Motor Disable Button

R1 on W235/W260
Operating the Unit

Refer to the Self-Propelled Windrower Operator Manual for operation of controls of Windrower.

Enable/Disable the Attachment
The Merger Attachment needs to be ENABLED for automatic operation.

To enable the attachment, press and hold the Merger Enable / Disable Button on the Multi-Function Handle (Key 1, Fig. 10) for five (5) seconds. An indicator for the merger will appear in the corner post next to the platform RPM as shown in Figure 11.

To disable the attachment, press and hold the Merger Enable / Disable Button on the Multi-Function Handle (Key 1, Fig. 10) for five (5) seconds. An indicator for the merger will disappear in the corner post next to the platform RPM as shown in Figure 11.

Raising or Lowering the Cross Belt
Once enabled, the cross belt of the Merger will raise and lower automatically when the raise/lower button for the platform is double-clicked to the second detent.

To raise the merger, first raise the platform by pressing the "1" button on the Multi-Function Handle. Then double-click the platform raise button at the second detent.

To lower the merger, first lower the platform by pressing the Platform Lower Button on the Multi-Function Handle. Then press the same button a second time to lower the merger. The button must be pressed to the second detent both times for the merger to lower. See Figure 10.

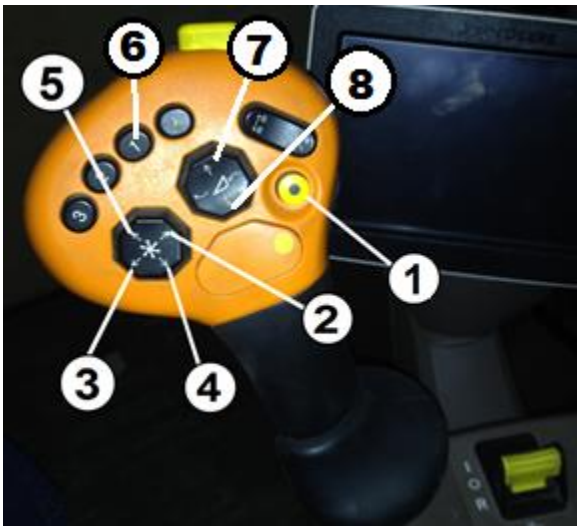


Figure 10. Merger Controls
Key 1 – Merger Enable/Disable
Key 2 – Belt Speed Increase
Key 3 – Belt Speed Decrease
Key 4 – Manual Merger Lower
Key 5 – Manual Merger Raise
Key 6 – "1" Button
Key 7 – Platform Raise
Key 8 – Platform Lower

Figure 11. Merger Enable Indicator
Key 1 – Merger Enable Icon Illuminated

Manual Raise/Lower of Cross Belt
When the Merger is enabled, the cross belt can be raised and/or lowered manually.

First, enable the *Merger Adjustment Mode*.

IMPORTANT: *Merger Adjustment Mode* will lock out any platform adjustments from the Multi-Function Handle for five (5) seconds after the last adjustment is made. The unit will revert to platform adjustment automatically after five (5) seconds of no adjustments.

To enable the *Merger Adjustment Mode*, press the yellow Merger Enable/Disable button for one click (do not hold). See Figure 12. The light in the button will illuminate while in the *Merger Adjustment Mode.*

To raise the merger cross belt manually, press the upper portion of the left quad button while in *Merger Adjustment Mode*. The merger cross belt will raise for the duration of the button press.

To lower the merger cross belt manually, press the lower portion of the left quad button while in *Merger Adjustment Mode*. The merger cross belt will lower for the duration of the button press.

IMPORTANT: Do not raise the cross belt completely in manual mode as the belt may continue running in a raised condition and belt damage may result.

Merger Attachment Auto-Raise
The merger attachment is designed to automatically when the windrower is reversed. This is to prevent damage to the merger attachment should an obstruction be encountered.

Figure 12. Merger Controls
Key 1 – Merger Enable/Disable
Key 2 – Belt Speed Increase
Key 3 – Belt Speed Decrease
Key 4 – Manual Merger Lower
Key 5 – Manual Merger Raise

Cross Belt Motor Engagement
The cross belt will only engage when the platform is engaged, lowered to harvesting position, and the merger is enabled. The merger must be enabled before lowering the platform for the cross belt to function properly. The cross belt will turn off automatically when raised.

Adjusting Belt Speed of Cross Belt Motor
Belt speed of the merger is controlled by pressing the left and right arrows of the left
quad button as shown in Figure 12 while in *Merger Adjustment Mode*. Each press of the button will result in a 10% change in output in the respective range of motor speed control. The left button decreases speed. The right button increases speed.

Front Belt Motor Engagement
Front Belt motor engagement is automatically acquired by engaging the platform of the machine. To disengage, turn off the platform.

Note: The front belt motor speed will remain constant at approximately 950 rpm.

Front Belt Motor Override
The front belt motor can be turned off once the platform is running by pressing the Front Belt Disable button on the armrest as shown in Figure 13.

Once the front belt is disabled, the platform must be turned off to reset the function of the front belt.

This feature is provided so that the operator can adjust the swath board completely down on the platform and deliver the windrow under the front belt for wide swaths for dry-down only.

Figure 13. Front Belt Motor Override
Key 1 – Front Belt Motor Disable Button

8 FIELD OPERATION

Note: Refer to the Self-Propelled Windrower Operator Manual for operation of controls of Windrower.

Summary
This following describes operation of the machine with the merger installed for two modes of harvesting

a. Single Windrowing
b. Merging Windrows

Single Windrowing
The belt frame can remain installed for swathing operations.

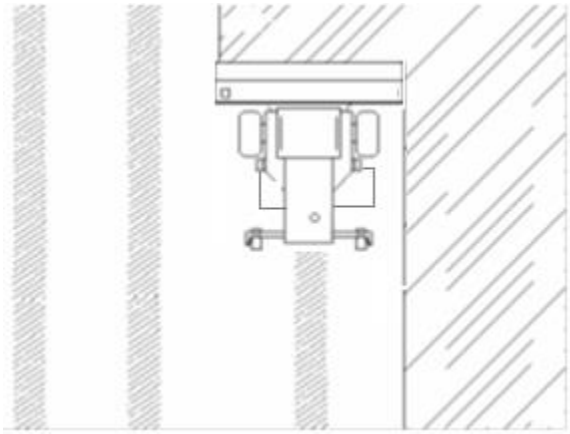


Figure 14. Single Windrowing

Disable the Merger as indicated in the OPERATING THE ATTACHMENT section of this manual.

Proceed with windrowing operation. The material will travel over the front belt and beneath the cross belt of the Merger.

Merging Windrows
Merging is achieved when two or more windrows are combined to a single windrow. This windrowing method is used when drying time is not needed for dry-down of the windrowed materials.
In light conditions, the belt speed can be slowed to allow for controlled placement of the merged windrows. In heavy conditions, increase the belt speed to maximum.

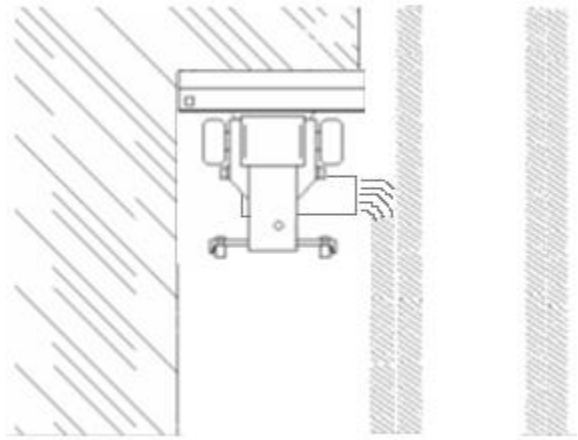


Figure 15. Merging Windrows

Front Belt Function
The purpose of this front belt assembly is to deliver material that drops out of the traditional crop flow passing above, back to the cross belt. It is not designed to carry the entire crop load from the platform, only the material that drops out from the main flow.

This will aide in the function of the machine in adverse crop conditions.

This belt frame is comprised of a belt that is aligned over a set of rollers with a groove at the ends to assist with tracking.

See Figure 16 for more details.

IMPORTANT
When lowering the merger to harvest, double-click the platform lower button on the hydrostatic handle until the cross belt is lowered completely to the limit of the hydraulic lift cylinder.

Belly-Dumping of Windrow
The windrow is restricted through the front belt to maximum width of approximately 6' (2 m).

The forming shields can be adjusted to control windrow formation as needed. To adjust, loosen the handle and move the forming shield along the slot.

For merging, it is best when the LH shield is approximately ¾ of travel in and the RH shield is approximately ¼ of travel in. See Figure 17.

When the merger is disabled, the front belt will continue to deliver the crop to the rear of the unit, in effect belly-dumping the windrow.

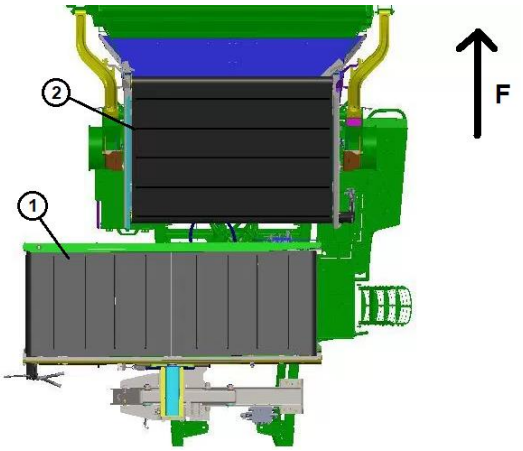


Figure 16. Cross Belt and Front Belt
Key 1 – Cross Belt
Key 2 – Front Belt

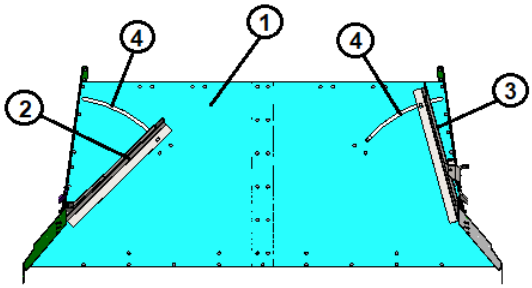


Figure 17. Forming Shields (Bottom View)
Key 1 – Forming Shield Assembly
Key 2 – LH Shield Key 3 – RH Shield
Key 4 – Slot for Travel

IMPORTANT
If automatic swathboard adjustment is used, remove the LH actuator and install the handle and carriage bolt from spare parts as outlined in the marketing bulletin.

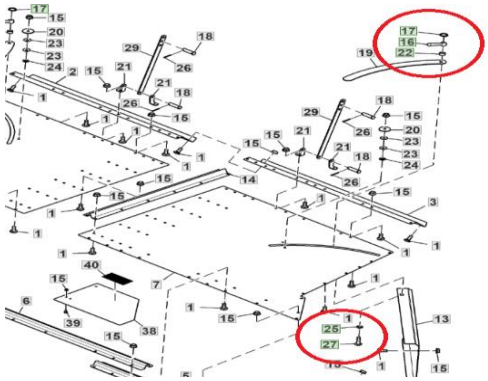


Figure 18. Actuator removal.

9 INITIAL SETTINGS

Swath Board Setting (R500/500R Platform)

The swath board directly behind the conditioner of the platform must be adjusted to the fully raised position to third notch at all times for proper crop flow. See Figure 19.

IMPORTANT: The initial setting for the swath board is the third notch from all the way open to completely open.

Note: If a platform angle of 4 or greater is used, set the swath board adjustment to the second or third notch.

Belt Speed

Adjust the belt speed to full speed for starting harvesting. Failure to do so may result in poor performance of the attachment.

Final belt speed adjustment is made while harvesting. See OPERATING THE ATTACHMENT section of this manual for more information.

Platform Setup

For the 500R/R500 Platform, refer to the Operator Manual for the Platform. Be sure to set the platform properly for the crop conditions it will be harvesting.

The key settings for the R1 Merger attachment are as follows:

1. Set the conditioner gap to ½ turn "above rumble".
2. Keep platform speed high for proper crop delivery to belts.
3. Ensure platform is equipped for conditions. This includes:
    a. Rotary Strippers
    b. High Lift Knives (optional)
    c. Rotation Direction

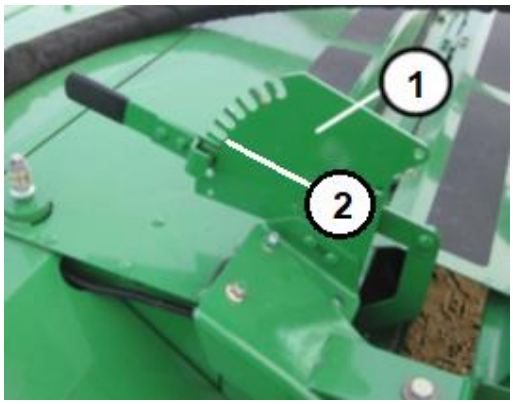


Figure 19. Swath Board Setting
Key 1 – Swath Board Control Arm
Key 2 – Notch 3

Power Unit Setup (All Models)

Remove all weights at the rear weight rack of the power unit (if equipped) when the merger is installed. Do this before leveling the frame of the power unit.

Ensure that the main frame of the windrower is adjusted to level AFTER the installation of the merger attachment and removal of the rear weights (if equipped). Adjust the rear suspension as needed per the Power Unit Operator Manual.

Ensure that the rear axle of the windrower is adjusted out at both sides to a position where 3 holes are exposed.

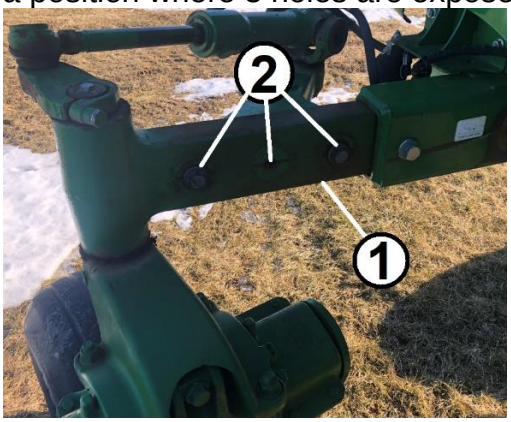


Figure 20. Axle Position
Key 1 – Axle
Key 2 – 3 Hole Locations Visible

10 ADJUSTMENTS

Front Crop Guide Adjustment

The front crop guide of the cross belt frame prevents crop from entering the area at the front side of the belt.

Improper adjustment of this crop guide may result in material accumulation inside of the belt or damage to the belt.

Always make sure area is free of debris before making any adjustments.

To adjust, loosen the front bolts of the crop guide and slide to adjust the clearance such that the crop guide rests just above the belt to minimize the gap. The gap should be less than ¼" (6mm).

Adjust the crop guide to be as level as possible, parallel to the belt.

See Figure 21 for more detail.

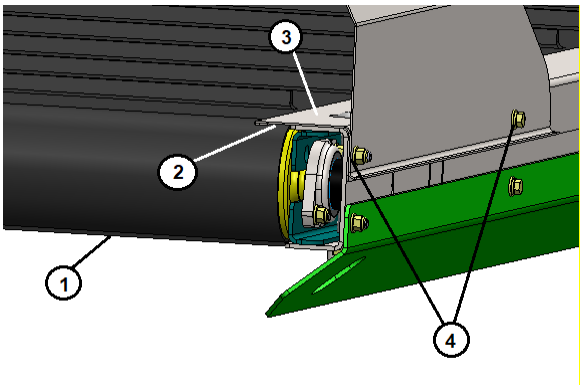


Figure 21. Front Crop Guide
Key 1 – Belt Key 2 – Gap Adjustment
Key 3 – Crop Guide Key 4 – Front Bolts

Rear Crop Guide Adjustment

The rear crop guide of the cross belt prevents crop from entering the area at the inside of the belt.

Improper adjustment of this crop guide may result in material accumulation inside of the belt or damage to the belt.

Always make sure area is free of debris before making adjustments.

To adjust, loosen the back bolts of the crop guide (carriage bolts are used from the inside to the back) and slide to adjust the clearance such to minimize the gap to the belt. The gap should be less than ¼" (6mm).

See Figure 22 for more detail.

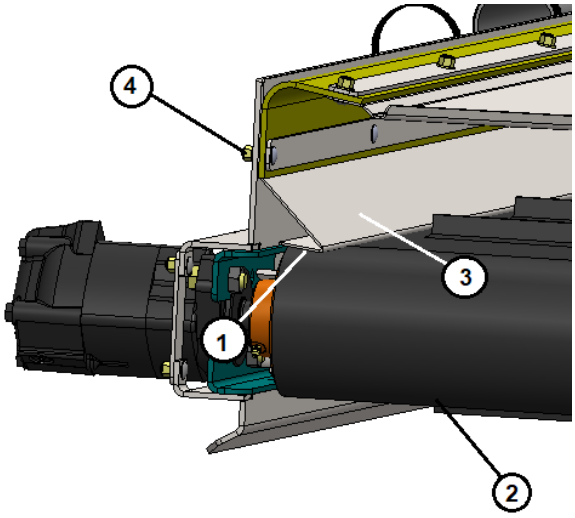


Figure 22. Rear Crop Guide
Key 1 – Gap Adjustment Key 2 – Belt
Key 3 – Crop Guide Key 4 - Bolts

Front Belt Shingle Adjustment
The front belt is equipped with two side shingles designed to prevent crop from entering at the side of the belt.

Adjustment of these shingles should not be needed as part of normal maintenance. However, should the shingles be removed for service, they must be reinstalled at the correct position.

Improper adjustment of this crop guide may result in material accumulation inside of the belt or damage to the belt.

Always make sure area is free of debris before making adjustments.

To adjust, loosen the back bolts of the crop guide (carriage bolts are used from the inside to the back) and slide to adjust the clearance such to minimize the gap to the belt. The gap should be approximately ¼" (6mm).

IMPORTANT: The shingle must never extend below the front crop guide. Failure to adjust properly may result in belt damage.

See Figure 23 for more detail.

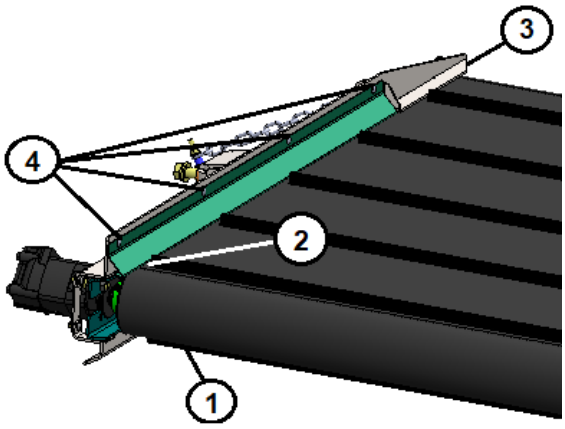


Figure 23. Front Belt Shingle Adjustment
Key 1 – Belt Key 2 – Gap Adjustment
Key 3 – Front Crop Guide
Key 4 – Bolts

Belt Tension Setting

First, always inspect the rollers to make sure they are clean of debris. Clean as necessary.

Both belts are tensioned in the same manner, using the same components.

Each tensioner incorporates a pivot arm, linkage, tensioner spring, threaded rod, spacer, and adjustment nut.

See Figure 24.

The adjustment nut rotates the threaded rod to extend the tensioner spring.

The tensioner spring provides a pull-force on the pivot arm.

The pivot arm exerts force through the linkage to the roller.

The roller slides in the main frame assembly to apply tension to the belt.

Once the belt tension is set, there is no need to adjust the belt tension as the spring will apply force throughout the travel of the belt as the belt stretches.

IMPORTANT: DO NOT USE AN IMPACT WRENCH ON THE ADJUSTMENT NUT!! THREAD DAMAGE IN THE TENSIONER SPRING MAY RESULT.

This is due to friction from corrosion or crop debris in the threads. Always use a ratchet wrench or open wrench for service and lubricate the threads of the rod when possible.

For service work of the belt, loosen (CCW) the adjustment nut until all tension is removed from the belt.

For installation, tighten the adjustment nut until the end of the tensioner spring is flush with the stop spacer and the nut no longer turns. Tighten firmly by hand. Do not use power tools to tighten the adjustment nut.

The adjustment nut for the cross belt is located at the left rear of the cross belt.

The adjustment nut for the front belt is located at the left side of the belt near the front wheel drop.

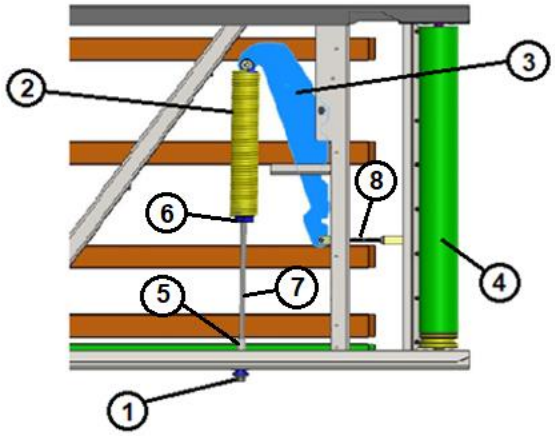


Figure 24. Belt Tension Setting
Key 1 – Adjustment Nut Key 2 – Spring
Key 3 – Tensioner Arm Key 4 – Roller
Key 5 – Stop Key 6 – Spring Casting
Key 7 – Threaded Rod
Key 8 - Linkage

Both belts are adjusted in the same manner; however, the length of the stops used on the threaded rods are different. The longer stop is used at the front conveyor.

Always make sure the stops are in place on the threads after reassembly or machine damage may result.

The linkages used are pre-set at a fixed length at time of assembly. Always make sure the linkage is returned to specification if disassembled for service.

SPECIFICATION:
Tensioner Linkage Length: 8.75” (215mm)

See Figure 25.

The linkages are also placed at different distances from the end of the roller on each conveyor.

The front belt is centered, and the cross belt is approximately 2/3” the distance to the rear.

This is to offset the tension load on the cross belt to compensate for forces from gravity (belt is on an angle) and from crop pushing on the belt in heavy conditions to ensure proper tracking.

See Figures 26 and 27.

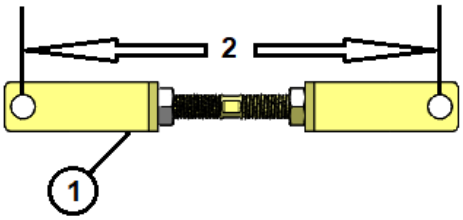


Figure 25. Linkage Length
Key 1 – Linkage Key 2 – Specification

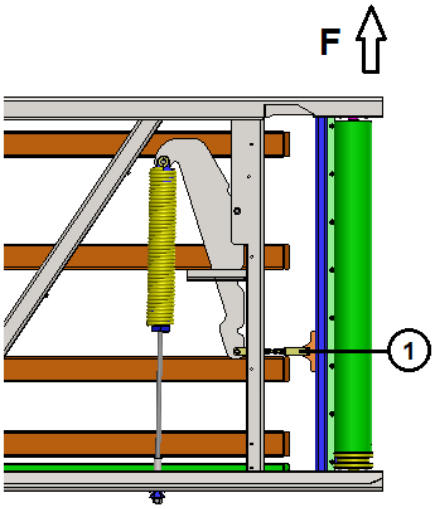


Figure 26. Cross Belt Tensioner
Key 1 – Linkage Location

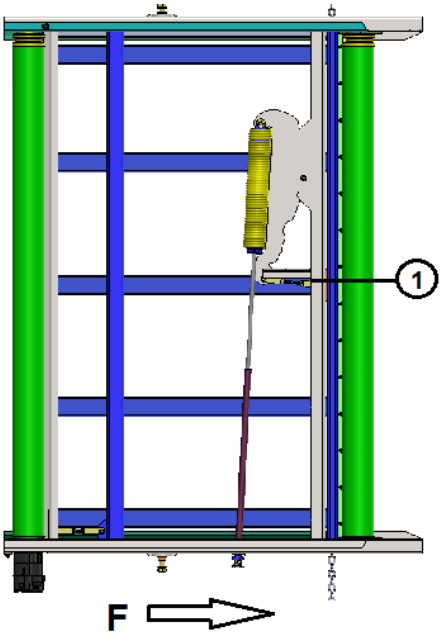


Figure 27. Front Belt Tensioner
Key 1 – Linkage Position

Drive Roller Alignment
The drive roller is set at time of initial assembly to provide for proper belt tracking and alignment.

The front belt drive roller is parallel to the front belt frame.

The cross-belt drive roller is offset at the motor end to be ¼" (6mm) offset from the other end of the drive roller.

The cross-belt frame is designed with rear frame member being ¼" (6mm) longer than the front frame member such that the roller frame is flush to the end of the frame member.

This alignment should only be changed as part of troubleshooting belt tracking issues. (See *Belt Troubleshooting* in the next section.)

The standard setting for both conveyors is to adjust the angle of the drive roller such that the carrier frame at the motor side is flush with the end of the frame.

See Figure 28.

To adjust the roller position, loosen the jam nuts on the linkage for the Drive Roller and rotate the threaded rod to extend or retract the motor end of the Drive Roller.

Tighten jam nuts when the adjustment is complete.

NOTE: It may be beneficial to remove all belt tension before adjusting the Drive Roller alignment.

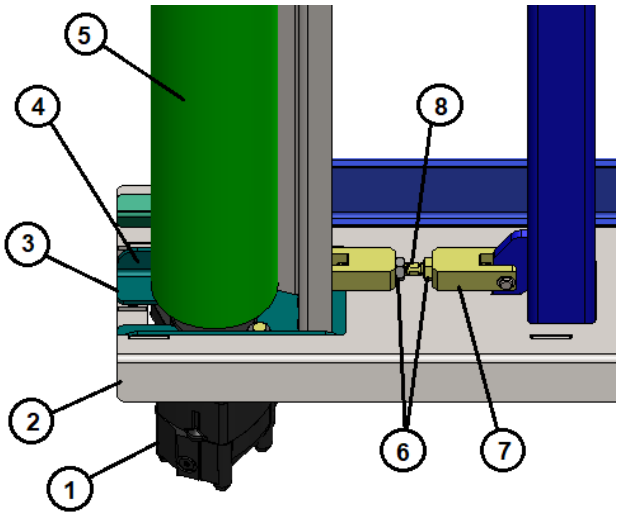


Figure 28. Drive Roller Alignment
(View from below the assembly)
Key 1 – Motor Key 2 – Frame
Key 3 – Flush Location
Key 4 – Carrier Frame
Key 5 – Drive Roller
Key 6 – Jam Nuts Key 7 – Linkage
Key 8 – Threaded Rod

Belt Troubleshooting
If the belt tracks high on the idler end (ie pushes away from the roller and is not seated on the roller to the high side, or jumps out on the idler end), decrease the angle of the drive roller by retracting the motor end of the drive roller one turn with the linkage.

If the belt tracks low on the idler roller end (ie pushes away from the roller and is trying to move away from the v-groove to the front direction of the machine), increase the angle of the drive roller by turning the tensioner on the motor end of the drive roller to extend one turn.

Scraper Adjustment

Each idler roller is equipped with a scraper to keep the roller clean. The scrapers are set as close to the roller as possible at time of assembly.

NOTE: Due to deflection of the carrier frames at the idler rollers under belt tension, the center of the support will deflect approximately 1/4" at the center and move the scraper closer to the roller than at the ends.

The front belt scraper has a profile cut in it and has the gap etched in the steel on the top surface. Set the front scraper clearance to the roller to 5/32" at the center and 1/32" at the ends. The scrapers are also reversible for added wear-life.

The cross belt scraper should be set to 3/32" clearance as the frame does not deflect as much as the front belt frame.

To adjust the scraper, first loosen the flange screws at the top of the scraper. Move the scraper as close to the roller as possible.

A top plate is provided to help keep pressure on the scraper to maintain straightness.

Start tightening the screws at the center of the scraper and move towards the outside, evenly, side-to-side, alternating screws for tightening.

As the scraper is tightened, make sure that the roller can be turned by hand. If the roller becomes tight, loosen the scraper and start again, keeping slightly more gap to the roller.

Note: The run-out of the roller may be approximately .040" (1mm) at the center of the roller. Ensure that the clearance is measured all the way around the roller.

Once tightened, verify the roller can be turned by hand. The scraper should not drag at any part of the roller. See Figures 29, 30, and 31. Make sure that the scraper area is clear of any trash.

Once the belt is re-installed and tensioned, safely start the machine following the precautions at the beginning of this manual. Verify scrapers are not rubbing on the rollers.

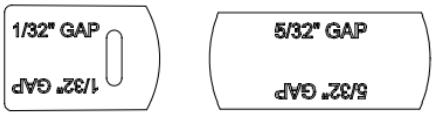


Figure 29. Scraper Marking – Front Belt

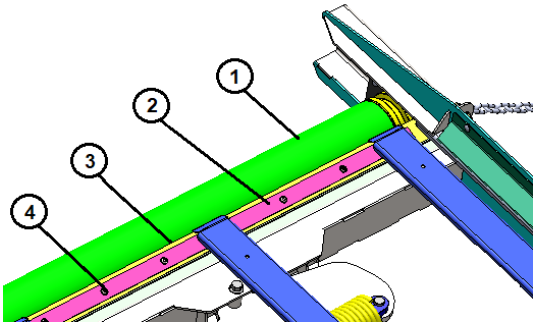


Figure 30. Scraper Adjustment
(Process is identical for each conveyor)
Key 1 – Roller Key 2 – Top Plate
Key 3 – Scraper Key 4 - Screw

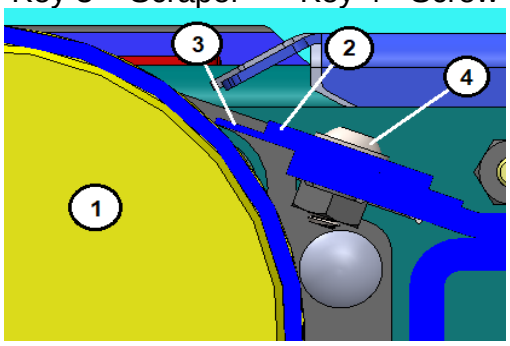


Figure 31. Scraper Adjustment
(Cross-Section View)
Key 1 – Roller Key 2 – Top Plate
Key 3 – Scraper Key 4 – Screw

Down-Stop Adjustment

The down-stop of the merger is adjusted to maintain the proper ground clearance of the lowest edge of the skid shoe to the ground when in the harvesting position in the field.

IMPORTANT: Always adjust the rear suspension of the windrower to level the main frame of the windrower when the platform is in float position on the ground with proper float pressure and the rear wheels are trailing the machine. Always make sure the rear weights are removed from the windrower and that the frame is leveled prior to setting the down stop. NEVER use the turnbuckle at the rear to adjust the ground clearance. Use the stop bolts. The turnbuckle is only used to adjust the raised transport position.

Improper adjustment of the suspension can cause damage to the merger attachment.

Refer to the Windrower Operator Manual for more information regarding the rear suspension.

SPECIFICATION:
Ground clearance at lowest point of skid shoe when in field (left end of cross belt):

4” to 6” (100 to 150 mm)

See Figure 32.

Loosen the jam nuts on the down-stop bolts at the bottom of the pivot frame. Adjust the stop bolts evenly until the desired clearance is achieved.

Tighten the jam nuts properly.

See Figure 33.

NOTE: The linkage at the rear (turnbuckle) is only used for adjusting the Transport Position Adjustment. IT IS NOT USED for the down-stop adjustment. See Figure 34.

WARNING

DO NOT use the top link to adjust for ground clearance. DO NOT overextend the top link. Machine damage may result.

Figure 32. Down-Stop Adjustment
Key 1 – Measurement Location

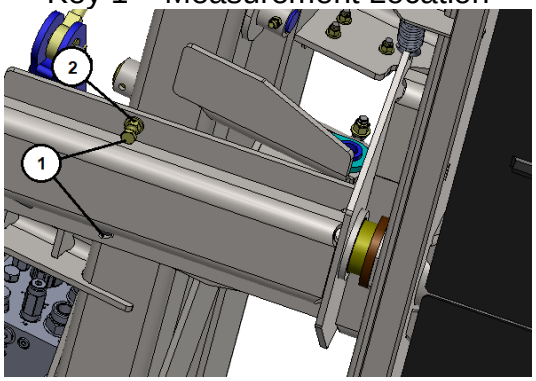


Figure 33. Down-Stop Bolts
(Bottom View of Pivot Frame)
Key 1 – Down-Stop Bolts
Key 2 – Jam Nut

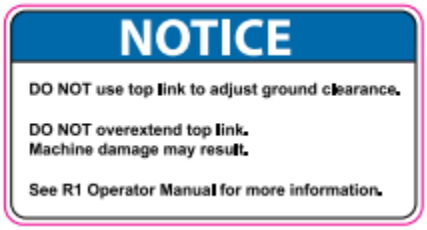


Figure 34. Notice for Top Link

Transport Position Adjustment

When in the raised position for transport, the merger should be flush to the bottom of the windrower main frame rails.

To adjust this position, first start with the linkage in a fully retracted setting (no threads showing). See Figure 29.

Raise the merger to the highest position. Lower the platform to the ground or engage the platform lock mechanism. Turn off the engine and remove the key.

Engage the merger lift cylinder lock-out valve at the main lift cylinder.

Check for clearance to between the front shield of the cross belt and the main frame rails of the windrower at EACH side. See Figure 36.

Loosen the jam nut on the linkage and adjust the linkage to extend the pivot arm down to raise the merger up until both sides of the conveyor are flush with the bottom of the windrower frame.

If already flush, back off the linkage until both sides of the conveyor are just flush without pressure on the bottom of the windrower frame.

Take care to observe the contact between the pivot frame and the plate in front of it. There should not be any pressure between these two parts. If the linkage becomes difficult to turn, ensure that there is not contact between the two components.

WARNING

DO NOT use the top link to adjust for ground clearance. DO NOT overextend the top link. Machine damage may result.

IMPORTANT: The handle of the linkage must always be parallel to the cross belt after adjustment to prevent any contact with other components during movement. See Figure 37.

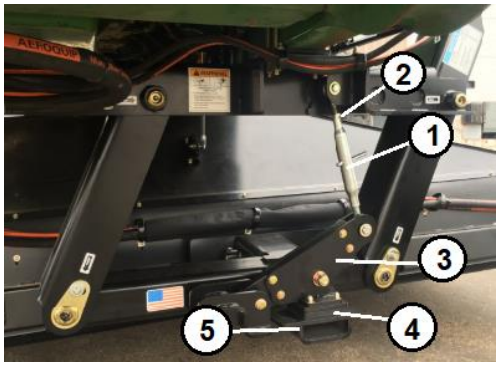


Figure 35. Adjustment Components
Key 1 – Linkage Key 2 – Jam Nut
Key 3 – Pivot Arm Key 4 – Slider
Key 5 – Pivot Frame

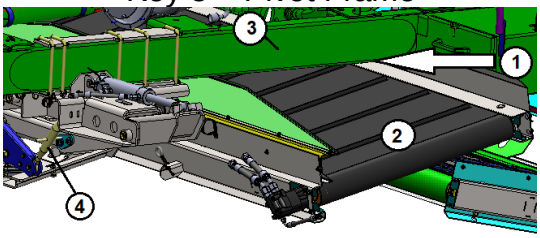


Figure 36. Contact Location (each side)
Key 1 – Location Key 2 – Cross Belt
Key 3 – Main Frame Rail
Key 4 – Linkage

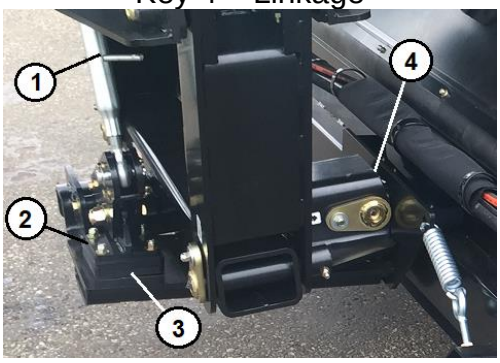


Figure 37. Contact Location
Key 1 – Linkage Key 2 – Spacer
Key 3 – Slider Key 4 – Contact Point

Over time, the components may settle due to tolerance in the assembly and the conveyor may no longer make contact with the main frame. This is normal and the conveyor should always be within 1” of the main frame for proper transport of the unit.

NOTE: The cross-belt frame can pivot on the center pin. Adjustment of the tension is described in the next page. The right side of the conveyor will almost always contact the frame before the left side.

NOTE: When in the lowered position, the block at the end of the pivot arm should be loose relative to the pivot arm. If it is under pressure when the cross belt is lowered fully, either the down-stop or linkage may be out of adjustment. It is permissible to be tight in the lowered position, but the down stop and linkage should be inspected for issues.

There are spacer plates located at the slider plate to allow for further adjustment if needed. These can be removed if needed but are typically used at all times with the unit.

Pivot Spring Adjustment

The cross belt is mounted on a pivot pin and allowed to pivot to aid in clearing obstructions in the field.

The cross belt also has a rest position that angles it up and to the right for proper discharge of material.

A spring provides the resistance to maintain the proper angle. See Figure 38.

If the conveyor tends to “bounce” on the pivot pin through normal travel in the field, the spring tension can be increased. The conveyor should hold approximately 100 lbs of weight near the drive roller before it lowers at the discharge end.

To adjust, loosen the lower nut and tighten the upper nut to draw the spring tighter.

The default setting is when there is approximately 1” of threads exposed below the lower nut.

The eyebolt must always be parallel to the cross belt to ensure that the spring does not twist under load.

See Figure 38.

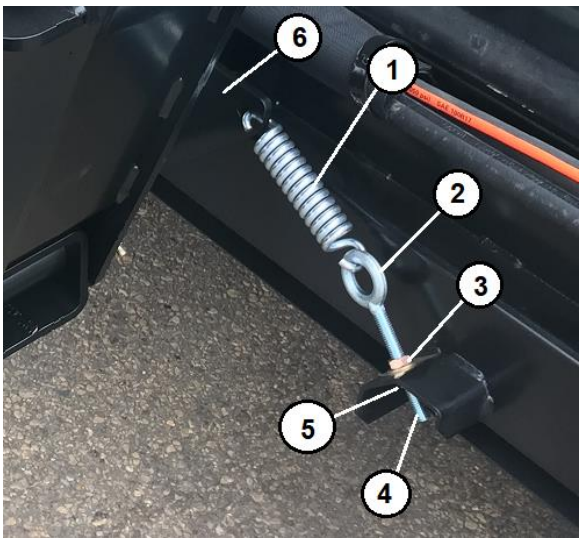


Figure 38. Pivot Spring Adjustment
Key 1 – Spring Key 2 – Eye Bolt
Key 3 – Upper Nut Key 4 – Threads
Key 5 – Lower Nut Key 6 - Plate

Rear Pan Position

The rear pan of the cross belt is adjusted at time of assembly to be positioned in a way that allows for folding-down without interference with the main frame of the windrower during the lift process.

The rear pan is also designed to be flexible to not cause damage to other components during folding and operation.

The rear pan may flex over time and is designed to do so.

The left end of the rear pan features a UHMW flap that is used to direct air flow from the conditioner towards the RH side of the machine. It also helps to prevent dry material from discharging out the LH side of the cross belt.

The default location for the lower end of the linkage is the center hole. The rod end is assembled with the stud facing the LH side of the machine.

The upper end of the linkage is installed with the stud of the rod end facing the RH side of the machine.

See Figures 39 and 40.

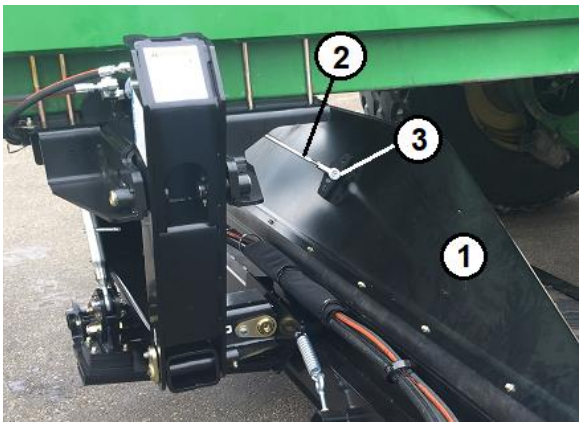


Figure 39. Rear Pan
Key 1 – Pan Key 2 – Linkage
Key 3 – Center Hole

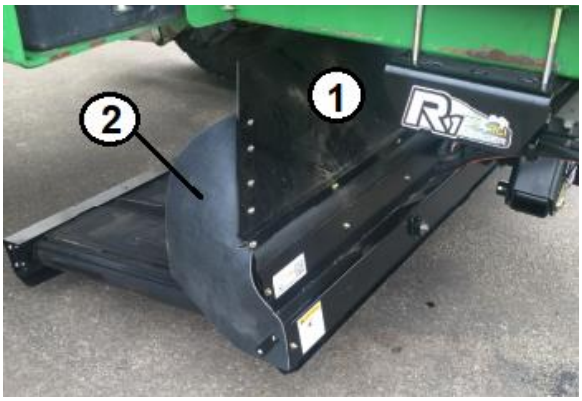


Figure 40. LH Flap
Key 1 – Pan Key 2 - Flap

Front Conveyor Belt Speed
Starting with s/n 1413, the front conveyor speed can be slowed relative to the cross belt for use in lighter conditions.

For previous machines, the front belt speed is fixed and pre-set during installation. See installation instructions for more information.

With s/n 1413 and newer units, the front belt speed can be slowed by adjusting the hand valve on the manifold in for slower and out for faster speeds. The cross belt will maintain the same speed.

To adjust the front belt speed slower on s/n 1413 and newer units, first lower the unit and platform to the ground and shut off the engine. Remove the key from the ignition.

Loosen the lock collar by hand and rotate the valve knob clockwise to slow the front belt speed. Rotate counterclockwise to increase the front belt speed. Secure in position with the lock collar. See Figure 41.

IMPORTANT:
1. Never adjust with the engine running.
2. Never use any tools to adjust the valve. Valve damage may result.
3. Always reset to fastest speed for crops over 5 tons/acre in yield or machine plugging may result.

On units with s/n 1413 and higher, the valve can be turned all the way open for the highest speed without the use of a tachometer. The maximum speed is controlled by an orifice internal in the manifold.

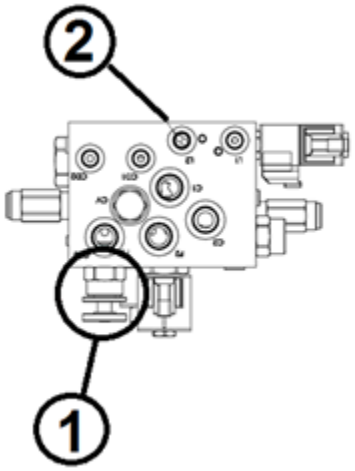


Figure 41. Front Conveyor Belt Speed Manual Adjustment
(s/n 1413 and higher)
Key 1 – Manual Adjustment Valve
Key 2 – Manifold

11 MAINTENANCE

Lubrication

The following is a list of all required lubrication points on the R1 Merger Attachment.

Refer to the Self-Propelled Windrower Operator Manual for lubrication requirements of the windrower.

Refer to the Platform Operator Manual for lubrication requirements of the platform.

Figure 42. Lubrication Location Decal

Location	Frequency	Requirement
Front Belt Motor	10 hours	1
Cross Belt Motor	10 hours	1
Pivot Pins	10 hours	6
Hydraulic Cylinder	10 hours	2

Note: Use same grease as recommended with the windrower.

Note: Each motor shaft location / end of roller is a splined drive equipped with two grease fittings 180 degrees apart for ease of access. Only one grease fitting at each location is required to be greased at the given interval.

See Figure 43 for lubrication locations.

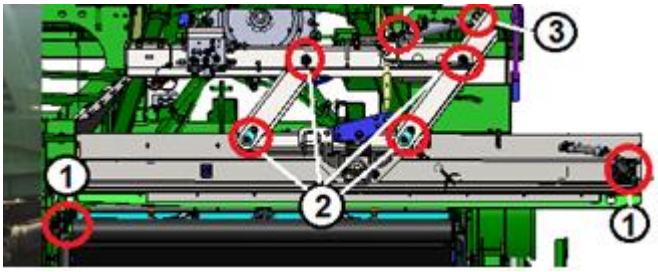


Figure 43. Grease Locations
Key 1 – Motor Shaft Key 2 – Pivot Pins
Key 3 – Cylinder End

Fire Prevention

Due to the environment that this attachment operates in, the risk of fire is present.

Regular inspection and cleaning can reduce the risk of fire.

Keep the attachment free of debris to limit the risk of fire.

Inspect the machine daily for any signs of damage or failed components. This includes but is not limited to sounds that may indicate an early warning of a failure and unusual wear patterns that indicate misalignment or an early sign of failure.

IMPORTANT: Keep rollers and drive components clear of debris. Clean as necessary.

IMPORTANT: Keep engine and hydraulic components compartments clear of debris. Clean as necessary.

Belt Care

The belt compound includes polyester reinforced-rubber. Although designed for durability, the following is important to consider to maximize the life of the belt.

Always store the unit out of direct sunlight in a cool, dry place free of rodents.

Always keep the belt and rollers free of debris, moisture (when not in use), oil, grease, and any other chemicals that may affect the belt.

Do not treat the belt with any belt dressing of any kind.

Prevent damage to the belt by avoiding foreign objects that may cause cuts or damage to the belt.

Make any necessary repairs to the edges of the belt if they are damaged by improper adjustment or any other outside force.

Keep the area under the crop guides clear of crop build-up. Over time, crop debris can accumulate and cause heavy wear on the belt.

Regularly inspect belt tension as needed. Improperly tensioned belts can result in belt slippage on the drive roller or excessive wear.

12 SERVICE

Bolt Torque Values

Note: Bolt torque values can be found at the beginning of the INSTALLATION INSTRUCTIONS section of this manual.

Belt Replacement

To replace the cross belt, lower the attachment to the down position, lower the platform to the ground, and shut off the engine.

Release the belt tension (see BELT TENSION ADJUSTMENT in the ADJUSTMENTS Section).

Remove the belt from the belt frame.

Install new belt and adjust the belt tension. (see BELT TENSION ADJUSTMENT in the ADJUSTMENTS Section).

It may be advantageous to use a ratchet strap around the belt with the ratchet positioned at the bottom side of the belt.

Move the seam of the belt to the bottom center of the belt frame. Ratchet the strap to pull all slack of the belt to the bottom of the belt and to help hold the belt in a raised position to aid in installing the pin.

Also, it may be helpful to use a cordless drill on the belt pin to rotate it slowly during installation. Take proper safety precautions when using power tools.

To replace the belts of the front belt frame, lower the attachment to the down position, lower the platform to the ground, and shut off the engine.

Release the belt tension (see BELT TENSION ADJUSTMENT in the ADJUSTMENTS Section).

Remove the belt from the belt frame.

Install new belts and adjust the belt tension. (see BELT TENSION ADJUSTMENT in the ADJUSTMENTS Section).

NOTE: When installing the belt pin, bend the end of the pin parallel to the opposite end. Cut off any extra pin material. Both ends of the pin, when bent, should be aligned and rotated in a trailing fashion relative to belt rotation.

13 THEORY OF OPERATION

Electrical System

The electrical system for the merger attachment is integrated to the electrical system of the W200-Series Windrower by use of a CAN controller.

The system uses 12 volts and has a 20 amp fused limit built into the fuse bank of the windrower.

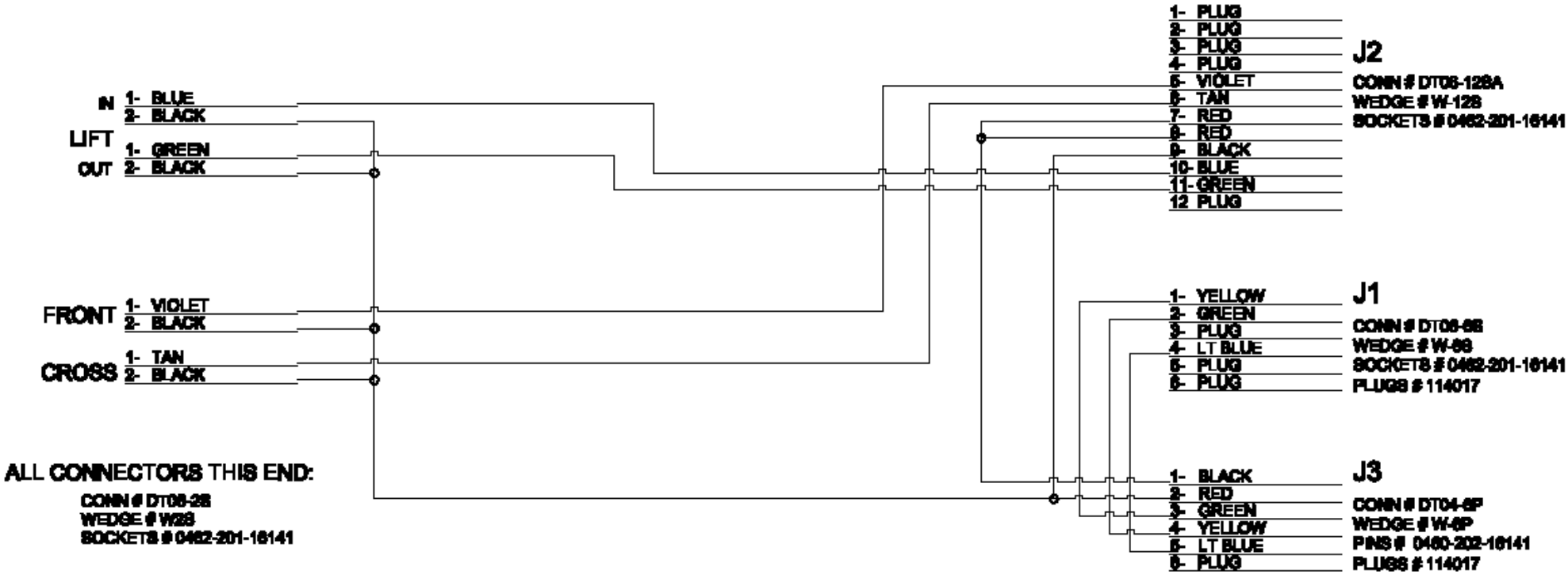
This electrical system is designed such that the belt frame will raise and lower at the same time as the platform. This is accomplished through the CAN controller.

The CAN controller only monitors the traffic on the CAN of the windrower and reacts accordingly. It does not communicate with the CAN of the windrower.

Belt speed is also controlled through the controller and regulated through a PWM output on the solenoid valve.

The following diagram is the functional schematic for the wire harness used in the attachment.

Figure 44. Merger Attachment Wire Harness Functional Schematic



Hydraulic System

The hydraulic system of the merger attachment uses a dedicated circuit of the machine for all functions related to the attachment.

The circuit is supplied with oil from a dedicated pump. The reservoir for the circuit is shared with the Windrower.

See schematics on the following pages.

SPECIFICATIONS:

System relief pressure:
3,000 psi (20,684 kPa) maximum

Cylinder Circuits Relief Pressure:
2,500 psi (17,236 kPa) maximum

IMPORTANT

The Manifold design allows belt speed to be maintained while engine pulls down to approximately 2000 rpm.

This better matches the platform speed control so all working components maintain operating speed under load.

For the system to operate correctly, it is important to adjust the front belt motor speed to specification (950 rpm) as outlined at the end of the INSTALLATION INSTRUCTIONS Section of this manual.

Figure 45. Merger Attachment Hydraulic Manifold Functional Schematic (up to s/n 1412)

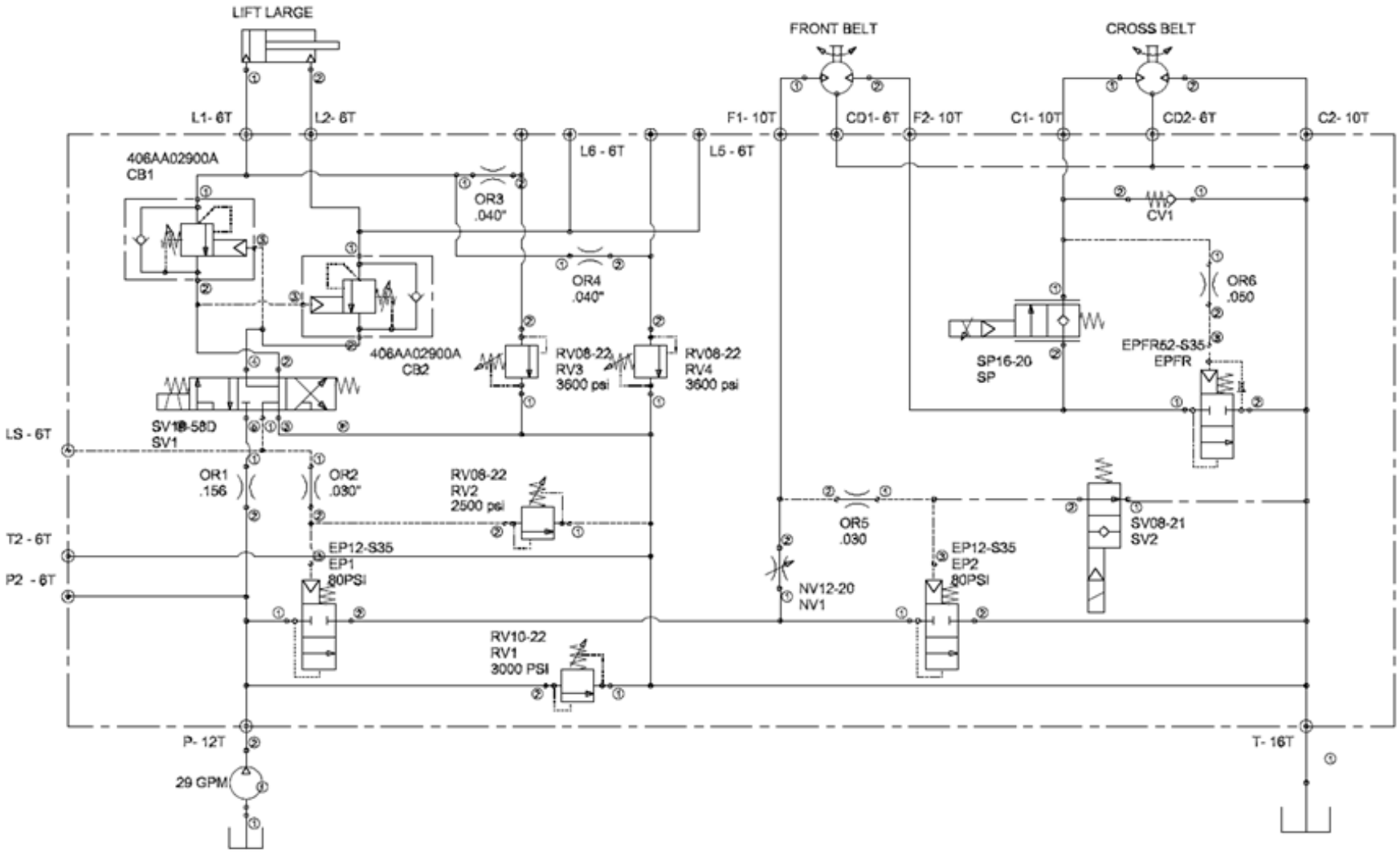


Figure 46. Merger Attachment Hydraulic Manifold Functional Schematic (s/n 1413 and above)

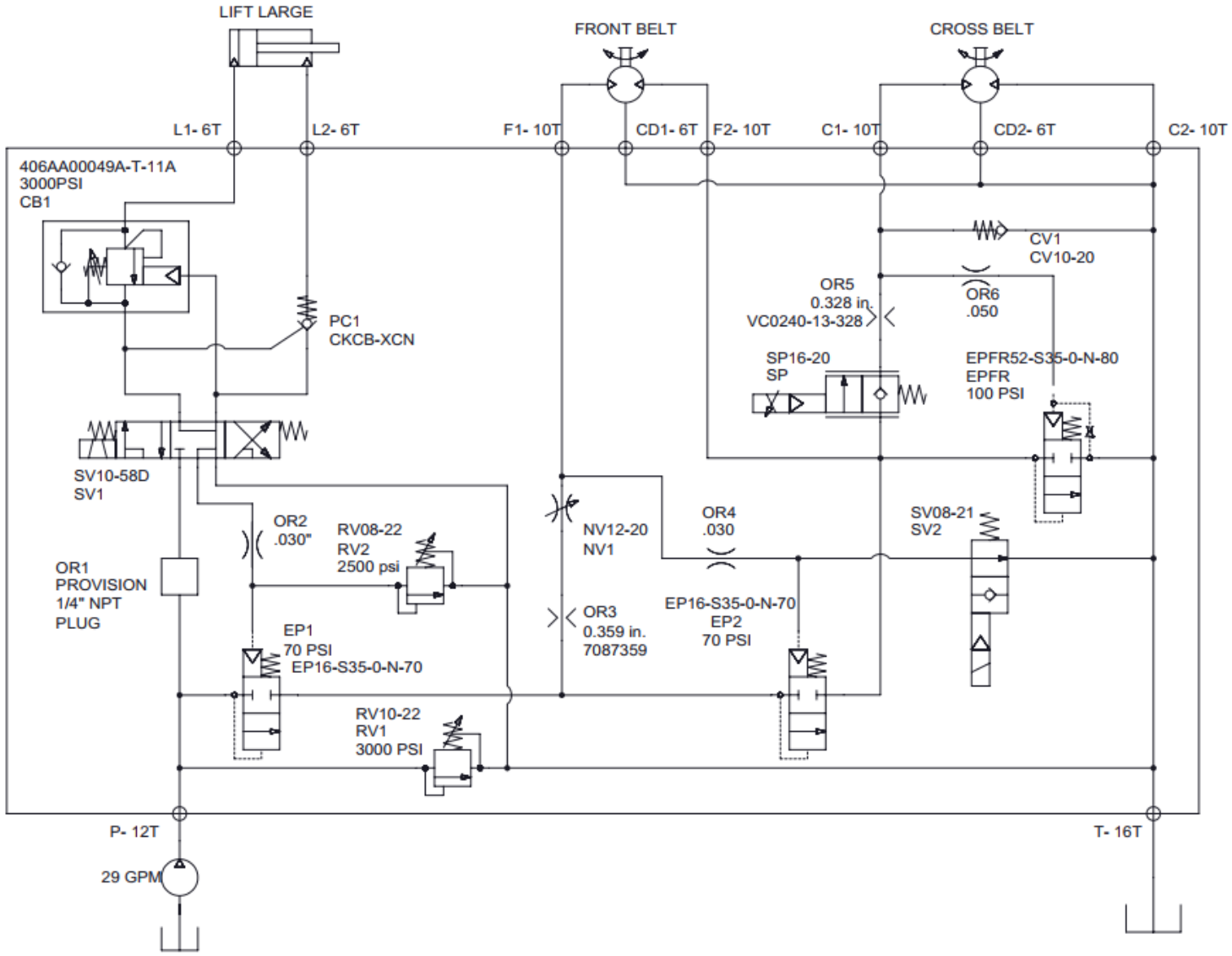


Figure 47. W235 / W260 Hydraulic System Component Diagram

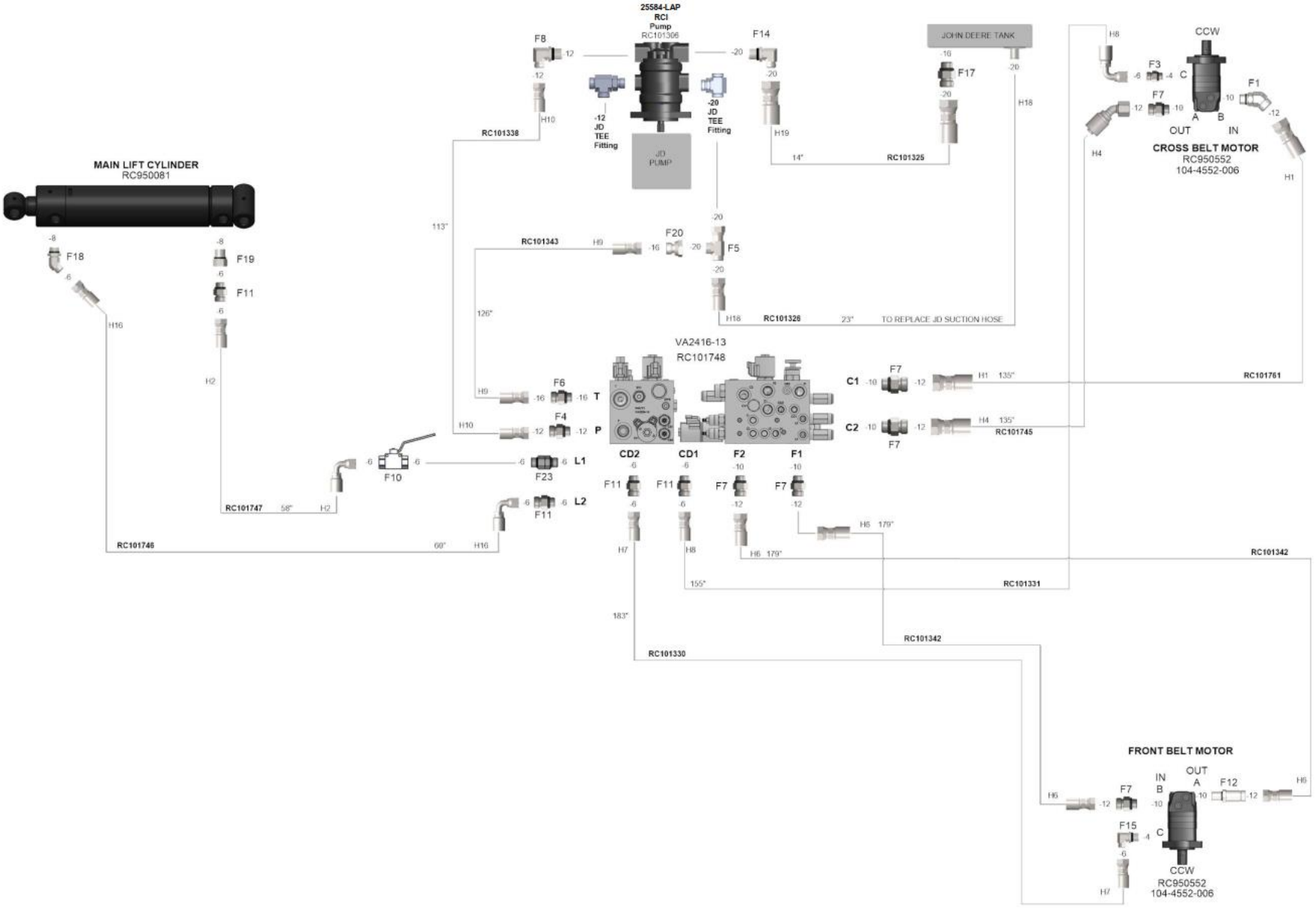
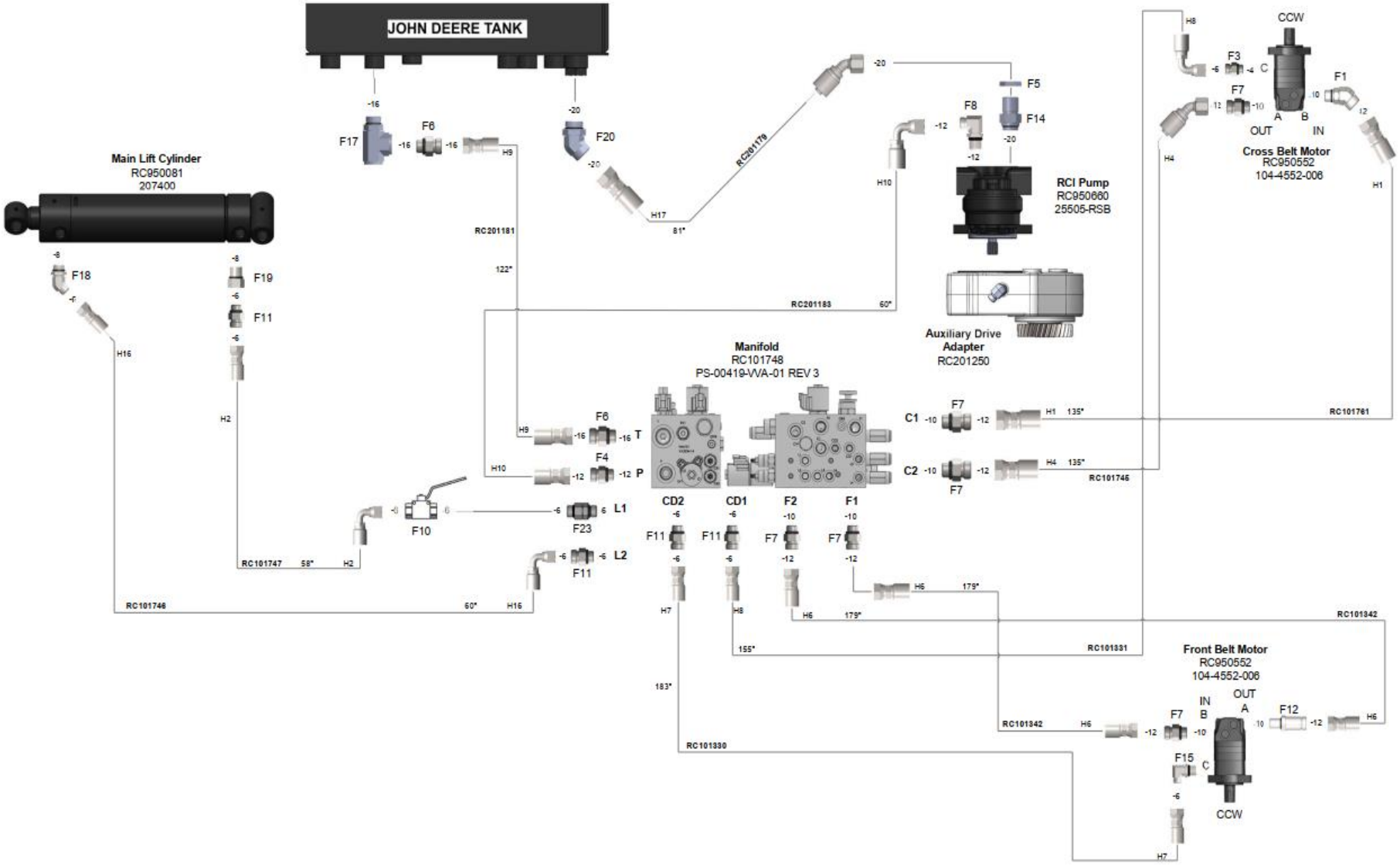


Figure 48. W200M / W235M / W235R / W260R Hydraulic System Component Diagram



14 SPECIFICATIONS

Dimensions And Weights

All values are approximate and are subject to change without notice.

Shipping Weight: 2,900 lbs (1360 kg)

Installed Weight: 2,380 lbs (1080 kg)

Shipping Dimensions:

Width:	84 in (214 cm)
Height:	42 in (107 cm)
Length:	120 in (305 cm)

15 INSTALLATION INSTRUCTIONS

General Comments

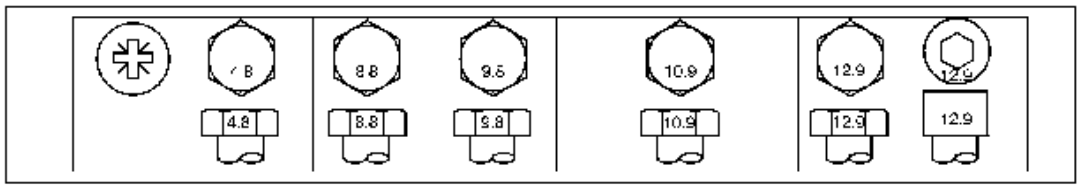
The following is a list of special tools that will be needed to complete the installation.

- 7/8” drill bit (W235 and W260 only)
- 13/32” drill bit
- 11/64” drill bit
- 7/16” drill bit
- 1/2” drill (with chuck to fit all bits)
- Fork lift / lifting device
- Car Dolly (Qty 4 – if available, or other rolling device for front conveyor)

Parts of the installation will require the help of an assistant due to the size of components being handled.

Always use appropriate safety equipment and safe practices during the installation and setup of the merger.

Metric Bolt and Screw Torque Values



Bolt or	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
Screw	Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]	
Size	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in
M6	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
									N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
			N·m	lb-ft	N·m	lb-ft	N·m	lb-ft								
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
	N·m	lb-ft														
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	480	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instructions for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class. Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

[a]"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C zinc flake coating.

[b]"Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B zinc flake coating.

Standard Bolt and Screw Torque Values

Bolt or	SAE Grade 1				SAE Grade 2[a]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
Screw	Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]	
Size	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in
1/4	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	120	17	150
													N·m	lb-ft	N·m	lb-ft
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
									N·m	lb-ft	N·m	lb-ft				
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N·m	lb-ft	N·m	lb-ft	N·m	lb-ft								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N·m	lb-ft														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	305	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

[a] Grade 2 applies for hex cap screws (not hex bolts) up to 6. in (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

[b] "Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

[c] "Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B zinc flake coating.

Preparation of Machine

It is best to remove the platform from the machine for ease of installation. The platform can be left installed on the machine for this installation if desired, but “car dollies” (or similar devices) will be needed to maneuver the front conveyor into position. If dollies are not available, the platform can be removed to gain access to the front of the unit.

Arrange the machine such that the rear wheels are trailing the machine to maximize the clearance under the center of the machine for the installation of the merger. (i.e. machine is ready to drive forward with wheels already behind the frame).

If leaving platform installed, lower platform to the ground, rotate to zero degrees tilt, shut off engine and remove key.

If removing the platform, Refer to the Platform Operator Manual.

Remove toolbox and supporting bracket at LH side of machine. The toolbox is not compatible with the merger attachment. Reinstall the hardware in the locations on the frame that it is removed.

See Figure 51.

Remove the front belt frame from the top of the shipping crate and set to the ground. Take care to not damage the belt during removal. A forklift can be used under the belt as long as care is taken to protect the belt.

Open the shipping crate and release all components from the crate.

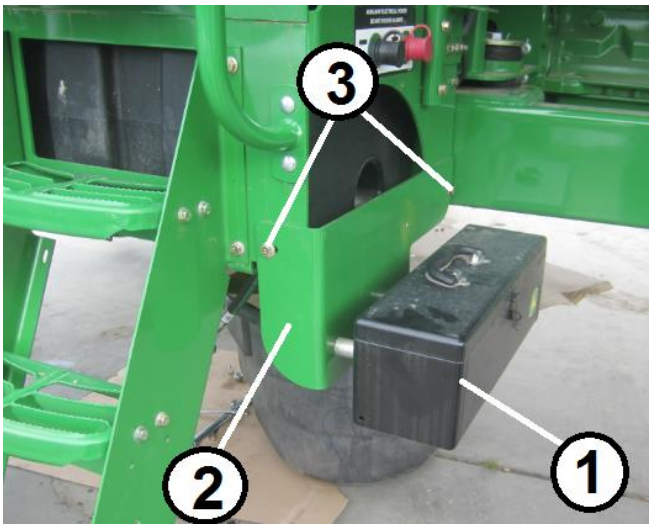


Figure 51. Toolbox Location
Key 1 – Toolbox Key 2 – Support Bracket Key 3 – Hardware (reinstall)

Install Forming Shield Components
If the platform is removed, this step can be completed at any time before the platform is installed.

With the help of an assistant, remove the links of the forming shields and lower to a rest position.

IMPORTANT: Remove the Fluff Board at the rear of the forming shields. This part will not be reused but should be kept for possible future use if the merger is removed.

Remove the side hardware of the Fluff Board and retain for future use as well.

See Figure 52.

Using the original hardware from the top of the Fluff Board, install the new support across the back of the forming shields.

Install the forming shields to the windrower using the new links provided with the merger. Replace the original links on the forming shields. Retain the original links for future use.

Install the links in the lowest position (end hole).

Replace side forming shields with new shields supplied with the merger.

See Figure 53.

Set the forming shields as follows:

RH Side: ¼ of the way in.
LH Side: ¾ of the way in.

This allows the crop flow to favor the right side of the machine on exit.

If automatic forming shield adjustment is installed, remove the LH actuator, and install the following parts from John Deere parts:

- Z24696 Handle (1)
- N105572 Snap Ring (1)
- A49465 Bushing (1)
- 24H1724 Washer (1)
- 03M7209 Bolt (1)

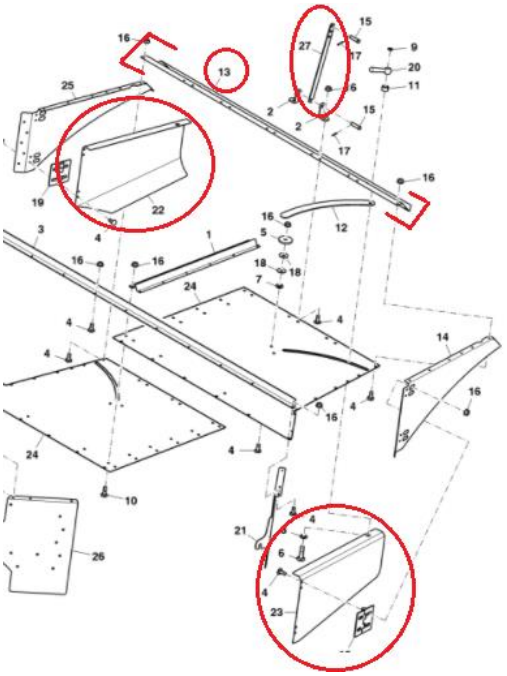


Figure 52. Part Removal

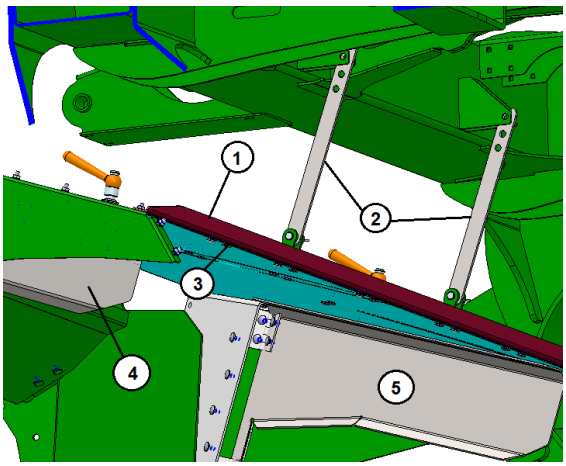


Figure 53. Forming Shield Components
Key 1 – Rear Support Key 2 – Links
Key 3 – Hardware Key 4 – LH Shield
Key 5 – RH Shield

W235R and W260R
Forming Shield Insert Installation

Only for the W235R and W260R, install the forming shield insert on each side of the forming shield assembly.

Remove the factory insert in this location as it will interfere with the new adjustable forming shields (Key 2, Fig. 54).

Install the new insert (Key 1, Fig. 54) using original hardware.

Install on both the LH and RH side.

See Figure 54.

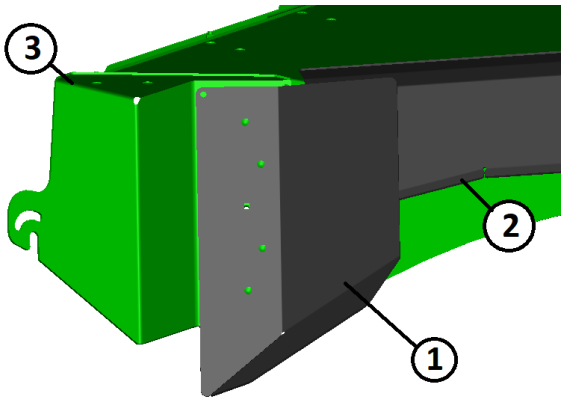


Figure 54. Forming Shield Insert Install
Key 1 – Insert Key 2 – Forming Shield
Key 3 – Forming Shield Assembly

W200M, W235M, W235R and W260R Hydraulic Installation

Note: For W235 and W260, see next section.

Drain hydraulic reservoir. (To drain reservoir, see DRAIN AND FILL HYDRAULIC RESERVOIR in Windrower Technical Manual.)

Alternatively, a vacuum system can be carefully used during the tank fitting installation steps to limit the need to drain the reservoir. If you decide to use a vacuum system, skip the hydraulic installation until the cross belt and front belt are fully installed on the frame to allow for immediate hose installation to the manifold.

IMPORTANT: All hydraulic connections are shown in this section for the manifold but may not be able to be completed until the merger is installed. This is done so that those using a vacuum system can save time in installation and reference the connections quickly. If draining the system, route hoses to the manifold area but finish the connections after installing the conveyors as outlined later in the manual.

Note: LH (Left Hand) and RH (Right Hand) description depict positioning referenced when sitting in the driver seat of the windrower.

A pump is added to the machine to drive the merger attachment. This pump is to be added at the auxiliary drive port of the engine using an auxiliary drive offset drive adapter.

See Figure 55 for a functional diagram of the circuit to be installed.

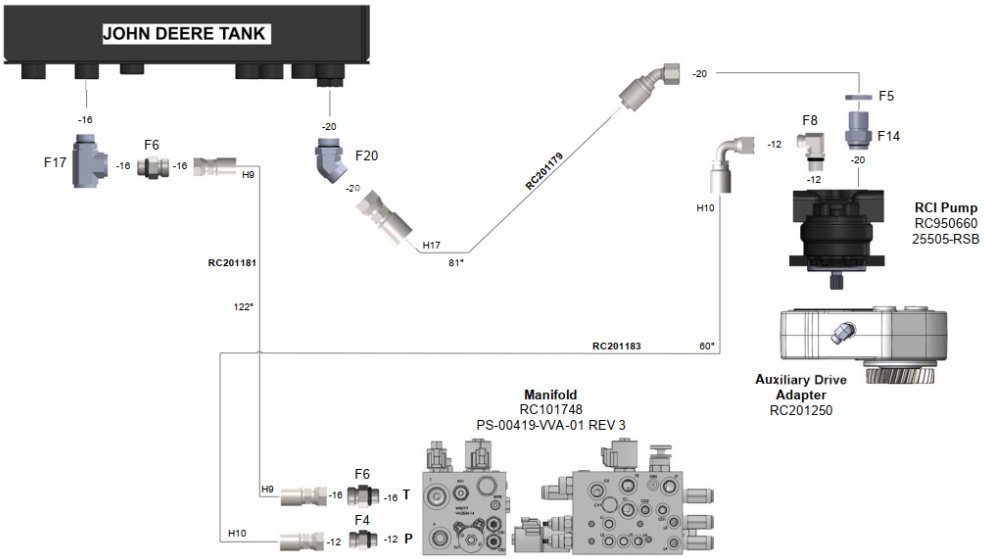


Figure 55. Functional Diagram of Pump Installation

Clean the area around the auxiliary drive on LH side of machine as needed.

Remove the timing cover plate at the auxiliary drive. See Key 2 of Figure 56.

Clean the drive surface.

Prepare the auxiliary drive offset drive assembly for installation. See Figure 57.

Remove the Plug at Key 1 in Figure 56 and install the adapters (Key 5 and Key 6 in Figure 57).

IMPORTANT:
Install the adapters (Key 5 and Key 6, Fig. 57) before installing the adapter housing.

Install the auxiliary drive offset drive assembly and the gasket onto the auxiliary drive location on the engine.

The gasket used is a paper gasket and has a tab at the side for reference. The rubberized gasket supplied is used with the pump mounting to the adapter. Do not interchange the gaskets.

Install two M12 x 110mm bolts at the main attachment point to the engine.

Tighten bolts to specification. Do not overtighten.

SPECIFICATION:
M12 x 110mm Bolts at Adapter Drive
70 ft-lbs. (95 Nm)

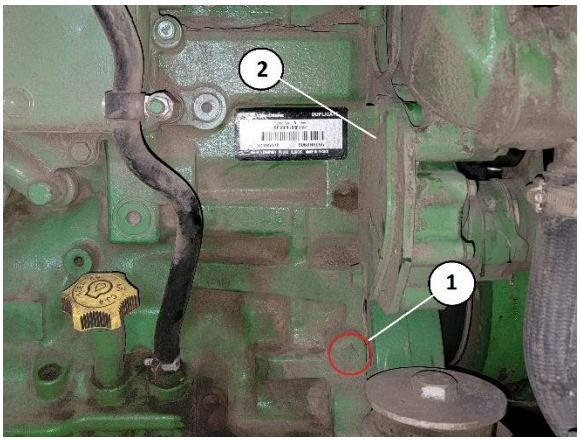


Figure 56. Auxiliary Drive Components
Key 1 – Return Plug Key 2 – Cover

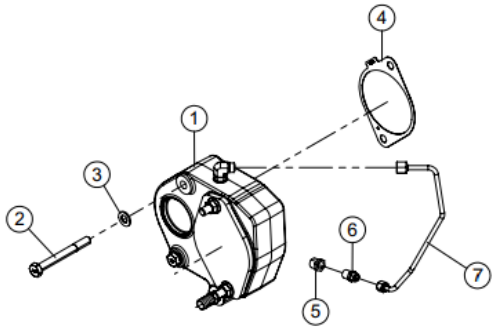


Figure 57. Aux Drive Offset Drive
Key 1 – Housing Key 2 – M12x110 Bolt
Key 3 – M12 Washer Key 4 – Gasket
Key 5 – Adapter Key 6 – Adapter
Key 7 – Return Oil Line

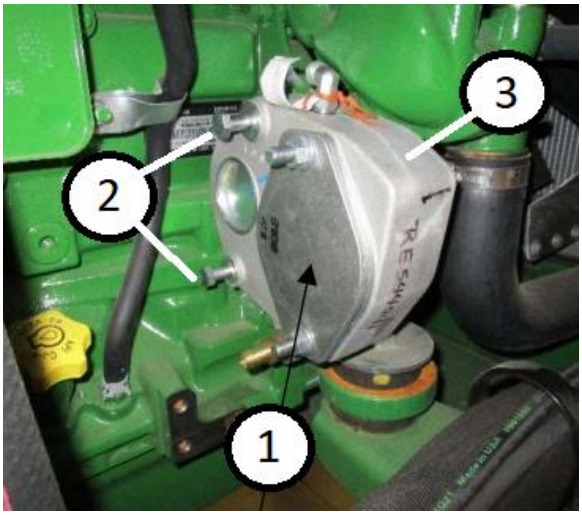


Figure 58. Aux Drive Offset Drive Install
Key 1 – Cover Key 2 – M12x110 Bolts
Key 3 – Offset Drive

Install the oil pressure line and drain line to the adapter as shown in Figures 59 through 61.

Tighten all hardware properly.

The pressure line installs at the previously installed fitting in the engine block.

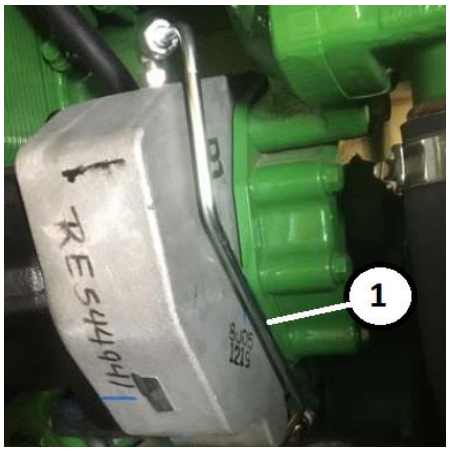


Figure 59. Pressure Line Install
Key 1 – Pressure Line

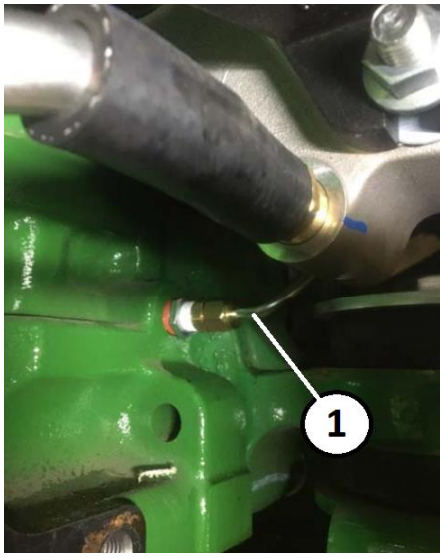


Figure 60. Pressure Port Install
Key 1 – Pressure Line

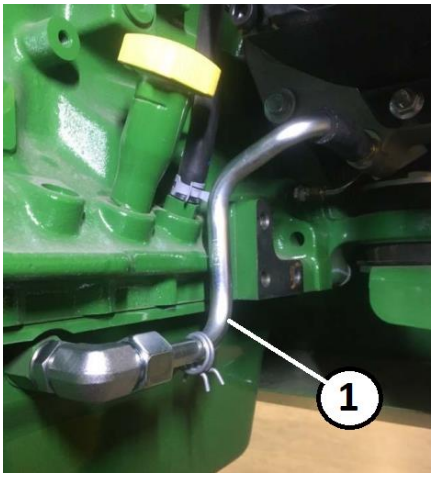


Figure 61. Return Line Installation
Key 1 – Return Line

Remove the plate on the auxiliary drive mounting surface for the pump. Retain the hardware for installation of the pump.

Clean the pump mounting surface. Install the gasket on the pump. Install the hydraulic pump with the gasket at the auxiliary drive port of the offset adapter.

The gasket used is a rubberized gasket. The paper gasket is used at the aux drive adapter mounting to the engine. Do not interchange the gaskets.

Guide the pump into the 13-tooth spline of the adapter. If it does not align, rotate the shaft of the pump slightly to align.

Install the original hardware used with the cover of the offset drive adapter. Tighten hardware to specification. Do not overtighten.

SPECIFICATION:
M12 Hardware 70 ft-lbs. (95 Nm)

Install the bulkhead fitting at the suction port of the pump. Tighten properly.

Install the support bracket at the engine block and over the long thread side of the bulkhead fitting at the suction port of the pump. See Figures 63 and 64.

Install M12 x 30 Bolts with washers and lock washers. Tighten hand tight only. Install the large nut on the bulkhead fitting and tighten properly. Ensure that there is no side load on the pump assembly from the support installation. Adjust as necessary. Tighten M12 hardware properly.

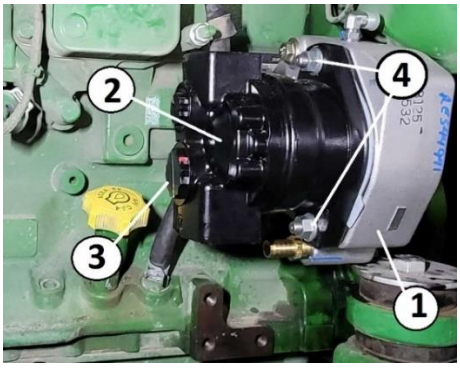


Figure 62. Pump Installation
Key 1 – Offset Adapter Key 2 – Pump
Key 3 – Suction Port Key 4 - Hardware

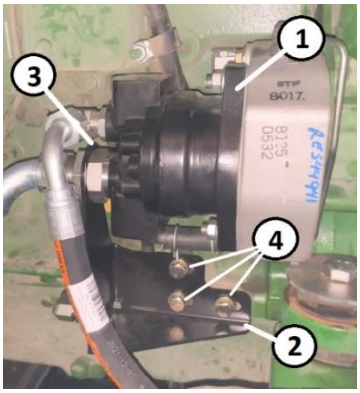


Figure 63. Pump Support Installation
Key 1 – Pump Key 2 – Support
Key 3 – Bulkhead Fitting
Key 4 – M12 Bolts

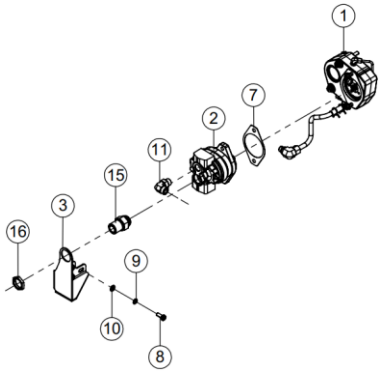


Figure 64. Pump Support
Key 1 – Aux Drive Key 2 – Pump
Key 3 – Support Key 8 – Bolt
Key 15 – Suction Bulkhead Fitting
Key 16 – Bulkhead Nut

Install the -12 ORFS to -12 ORB elbow at pump pressure port (top port).

Install pressure hose RC201183 from pressure port to the “P” port of the manifold following the routings indicated in Figures 65 through 67.

The line will loop through the P-Clamp Installed at the air deflector pan mounting hardware in the corner as shown in Figure 66. Use existing hardware to install the P-Clamp.

From the P-Clamp, the line will loop around horizontally towards the center of the machine and loop back to the “P” Port at the manifold.

These connections to the manifold can be

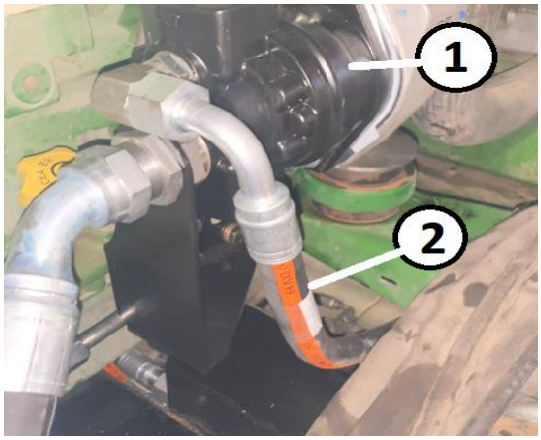


Figure 65. Pressure Line Installation
Key 1 – Pump Key 2 – Pressure Line

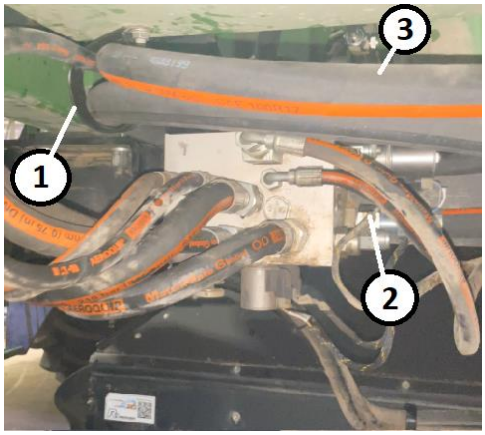


Figure 66. Pressure Line Routing
Key 1 – P-Clamp Key 2 – P-Port
Key 3 – Pressure Line

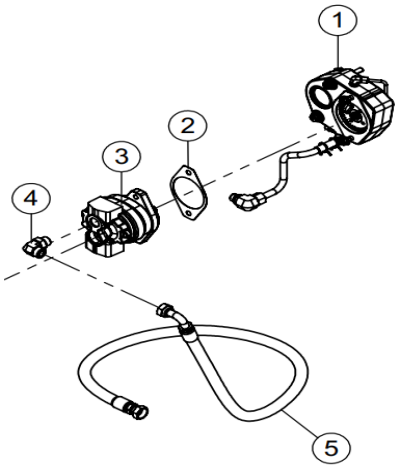


Figure 67. Pressure Line
Key 1 – Aux Drive Key 2 – Gasket
Key 3 – Pump Key 4 - 90 Deg Adapter
Key 5 - Hose

Locate the ports of the hydraulic tank that will be used for the suction and return for the merger attachment.

The suction port has a plug in it from the factory. The return port will be adding a T-Fitting to an existing return port for installation of the merger return line.

The system can be drained as outlined in the beginning of the installation instructions. Alternatively, a vacuum system can be used on the tank but be sure to cap all fittings and openings whenever possible during the installation process to minimize air entering the system.

The suction fitting will be located toward the Center of the machine (access from RH side).

The return fitting will be located on the ladder-side of the machine.

Remove the plug in the suction fitting and install the -20 ORB x -20 ORFS 45 deg fitting into the port.

Install the suction line from the new fitting at the tank to the suction port as indicated in Figures 68 through 74.

Secure hoses to other hoses as necessary to avoid contact with any electrical components, moving parts, or hot surfaces. No hoses may hang beneath the main frame of the windrower.

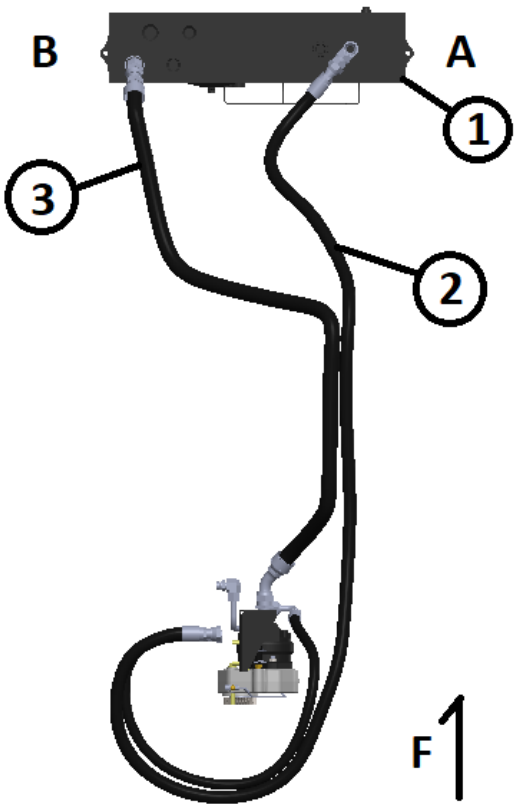


Figure 68. Bottom view of Hydraulics
A – Ladder-Side of Machine
B – Center of Machine
Key 1 – Hyd. Tank Key 2 – Return Line
Key 3 – Suction Line Key F – Forward

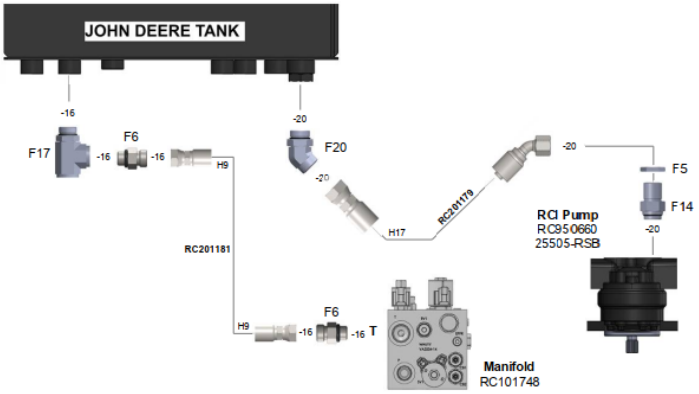


Figure 69. Pump Line Layout

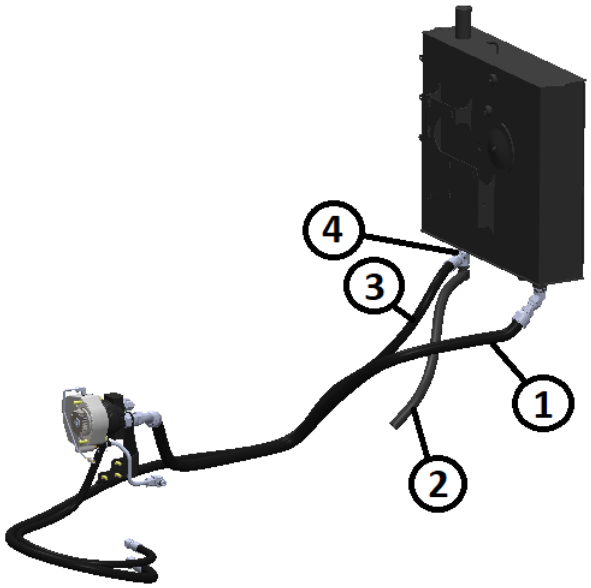


Figure 70. Pump Line Routing
Key 1 – Suction Hose Key 2 – JD Hose
Key 3 – Return Line Key 4 – T-Fitting

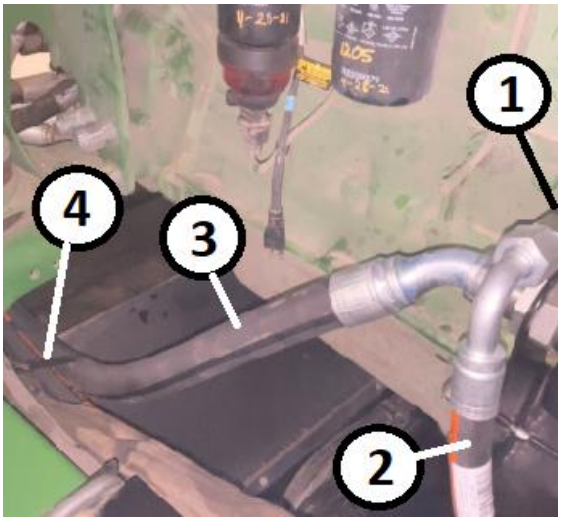


Figure 71. Pump Connections
Key 1 – Pump
Key 2 – Pressure (to manifold)
Key 3 – Suction
Key 4 – Tie Band location

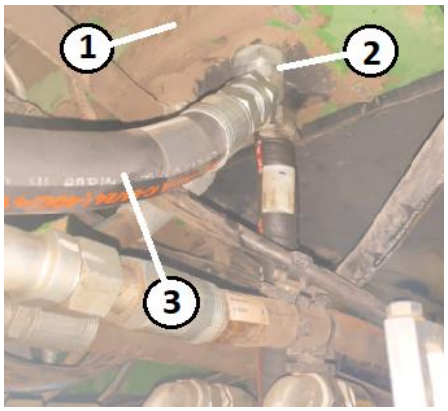


Figure 72. Suction Port
Key 1 – Tank Key 2 – 45 deg Fitting
Key 3 – Suction Hose

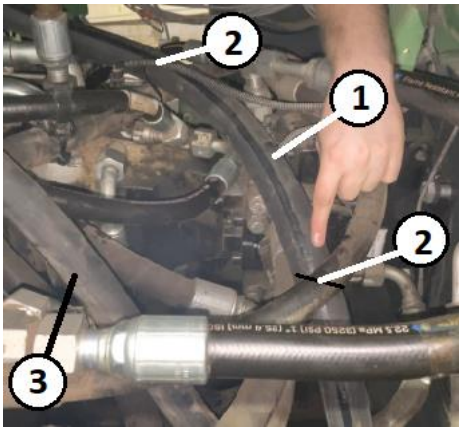


Figure 73 – View from Ladder
Key 1 – Suction Hose
Key 2 – Tie Bands (AR)
Key 3 – Return Hose

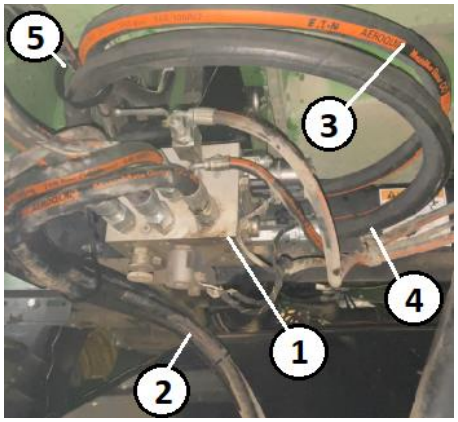


Figure 74. Manifold Routing
Key 1-Valve Key 2 – Cross Belt Hoses
Key 3 – Pressure Key 4 –Tank Return
Key 5 – P-Clamp

W235 and W260 Hydraulic Installation
Note: For W200M, W235M, W235R and W260R, see previous section.

Drain hydraulic reservoir. (To drain reservoir, see DRAIN AND FILL HYDRAULIC RESERVOIR in Windrower Technical Manual.)

Alternatively, a vacuum system can be carefully used during the tank fitting installation steps to limit the need to drain the reservoir.

Note: LH (Left Hand) and RH (Right Hand) description depict positioning referenced when sitting in the driver seat of the windrower.

IMPORTANT

It is important to locate the proper pump on the machine. The next step is to remove the auxiliary hydraulic pump from the main hydrostatic pump. Do not confuse the pump with the smaller charge pump on the RH stack. See Figure 76 for a bottom view of the pump stacks. The Red "X" is the incorrect pump. The Yellow "Circle" is around the auxiliary hydraulic pump.

Remove hydraulic fittings from the pump and remove auxiliary hydraulic pump from the main hydrostatic pump. Two (2) M12x35 bolts are removed. See Figures 75 through 77 for reference.

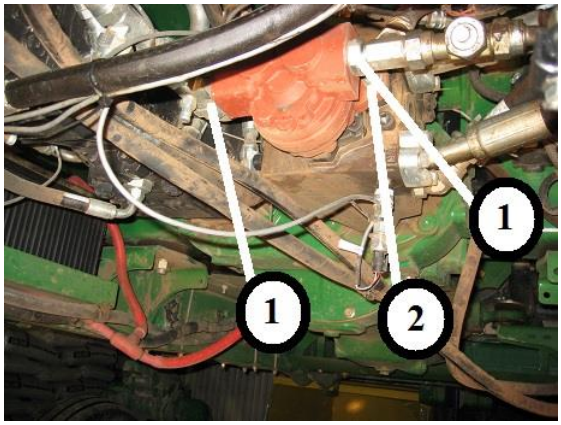


Figure 75. Original Hydraulic Fittings
Key 1 – Hydraulic Fittings
Key 2 – M12x35 bolts

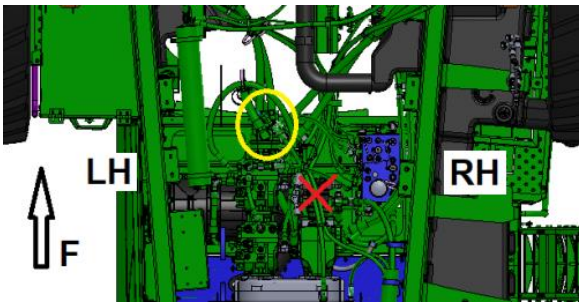


Figure 76. Bottom View of Pump Area
Circle – Auxiliary Hydraulic Pump

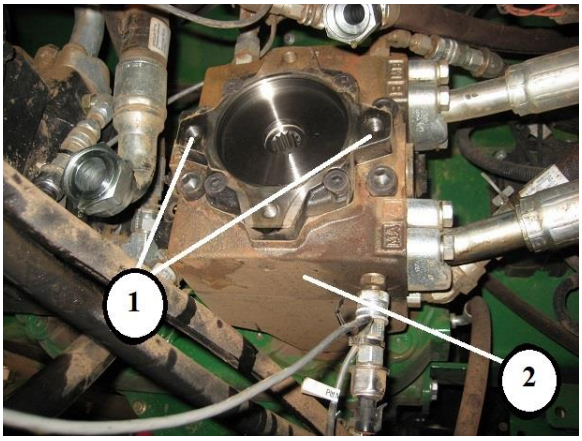


Figure 77. Main Hydrostatic Pump
Key 1 – Mounting Hole Locations (M12)
Key 2 – Main Hydrostatic Pump

Install Merger Hydraulic Pump

Install hydraulic fittings in pump prior to pump installation. Orient the fittings as indicated, but do not tighten fittings at this time.

NOTE: The pump section closest to the splined shaft end replaces the original windrower charge pump. The section at the rear of the pump is for the operation of the merger attachment.

Install merger hydraulic pump with original O-ring and reuse two (2) M12x35 bolts. Orient the pump such that the suction ports are facing the right side of the machine. See Figure 78.

Install Suction lines on the right side of RCI auxiliary hydraulic pump to tank ports. The original hydraulic suction hose for the auxiliary pump of the base machine is replaced with a new hose and is routed from the rear right port of the pump to the original back right port of the tank shown in Figure 78. The hose removed should be saved with the original charge pump for the customer.

Note: New suction line is equipped with a straight fitting rather than a 90 degree at the end of the hose that connects to a T-fitting at the back right port of the pump. The T-fitting must be rotated such that the -20 port is facing up. See Figure 82 for functional layout of the fittings in this area. See Figures 80 through 85 for illustrations of the installation.

The suction line for the pump front right port is routed to the back left port of the tank. See Figure 79, Key 2.

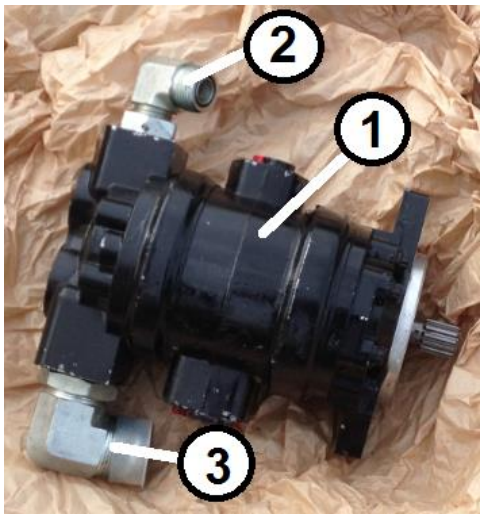


Figure 78. Hydraulic Pump Assembly
Key 1 – Pump Key 2 – 90 deg, -12
Key 3 – 90 deg -20 to -16

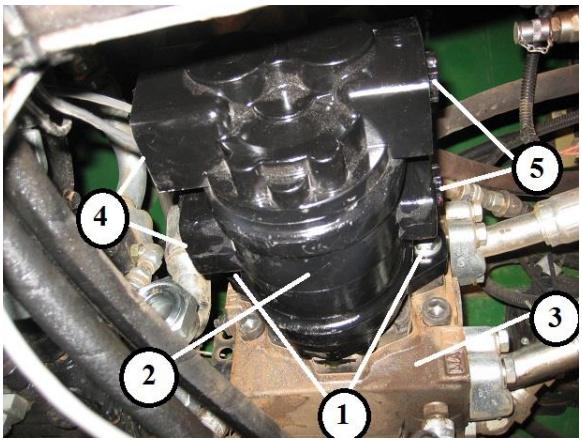


Figure 79. Orientation of Installed RCI Auxiliary Hydraulic Pump
Key 1 – M12x35 Bolts
Key 2 – Merger Hydraulic Pump
Key 3 – Hydrostatic Pump
Key 4 - -20 ports (RH side of pump)
Key 5 - -12 ports (LH side of pump)

Note: Reuse original hose clamp with replacement suction hose.

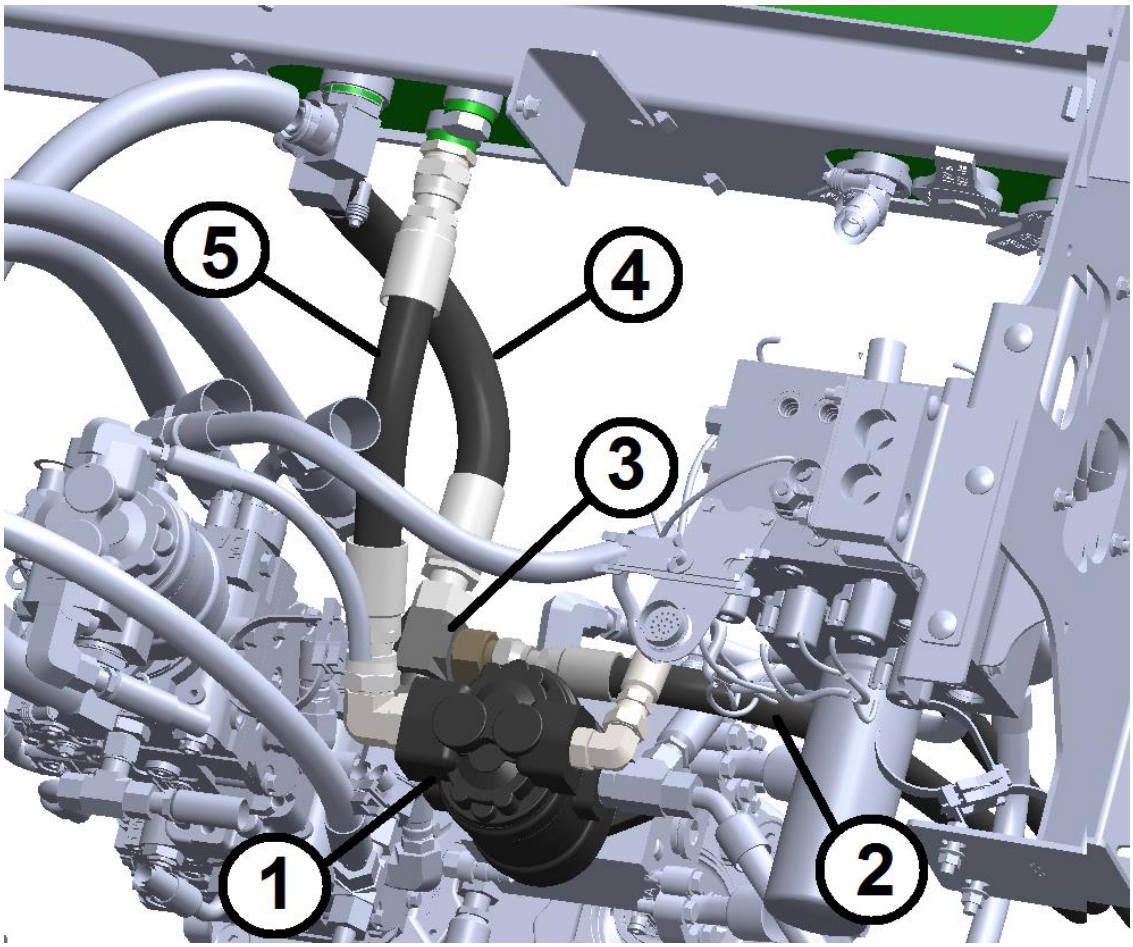


Figure 80. W200 Series Pump Installation and Hose Routing

Key 1 – Pump Key 2 – Return from Merger Manifold

Key 3 – T-Fitting at Charge Pump Key 4 – New Charge Pump Section Suction Hose

Key 5 – Merger Pump Section Suction Hose

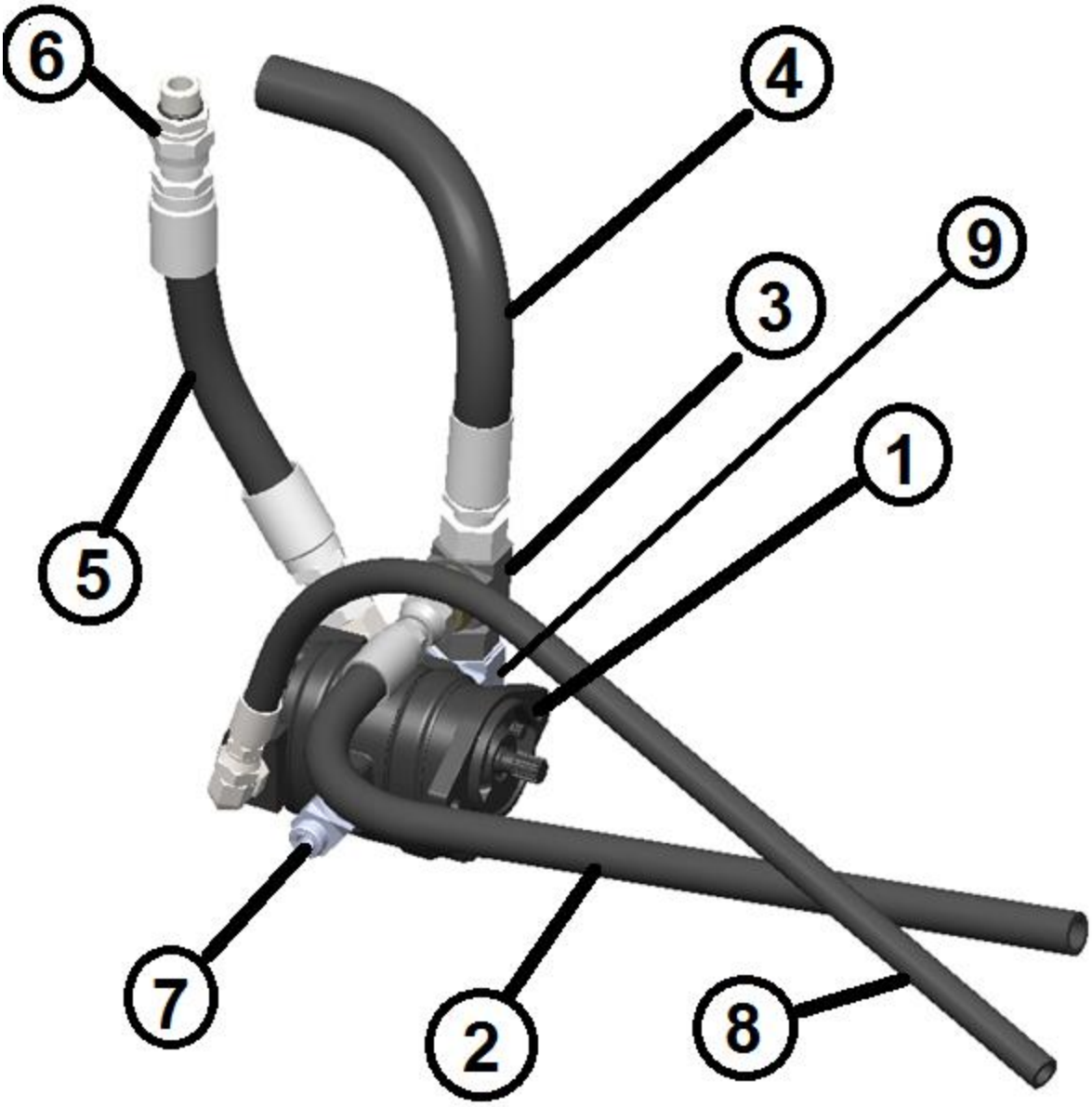


Figure 81. W200 Series Pump Installation and Hose Routing (isolated view)
Key 1 – Pump Key 2 – Return from Merger Manifold
Key 3 – T-Fitting at Charge Pump Key 4 – New Charge Pump Section Suction Hose
Key 5 – Merger Pump Section Suction Hose Key 6 – Suction Fitting at Tank
Key 7 – Original Pressure Port Fitting on Charge Pump
Key 8 – Merger Pressure Line to Merger Manifold
Key 9 – Original T-Fitting at Charge Pump

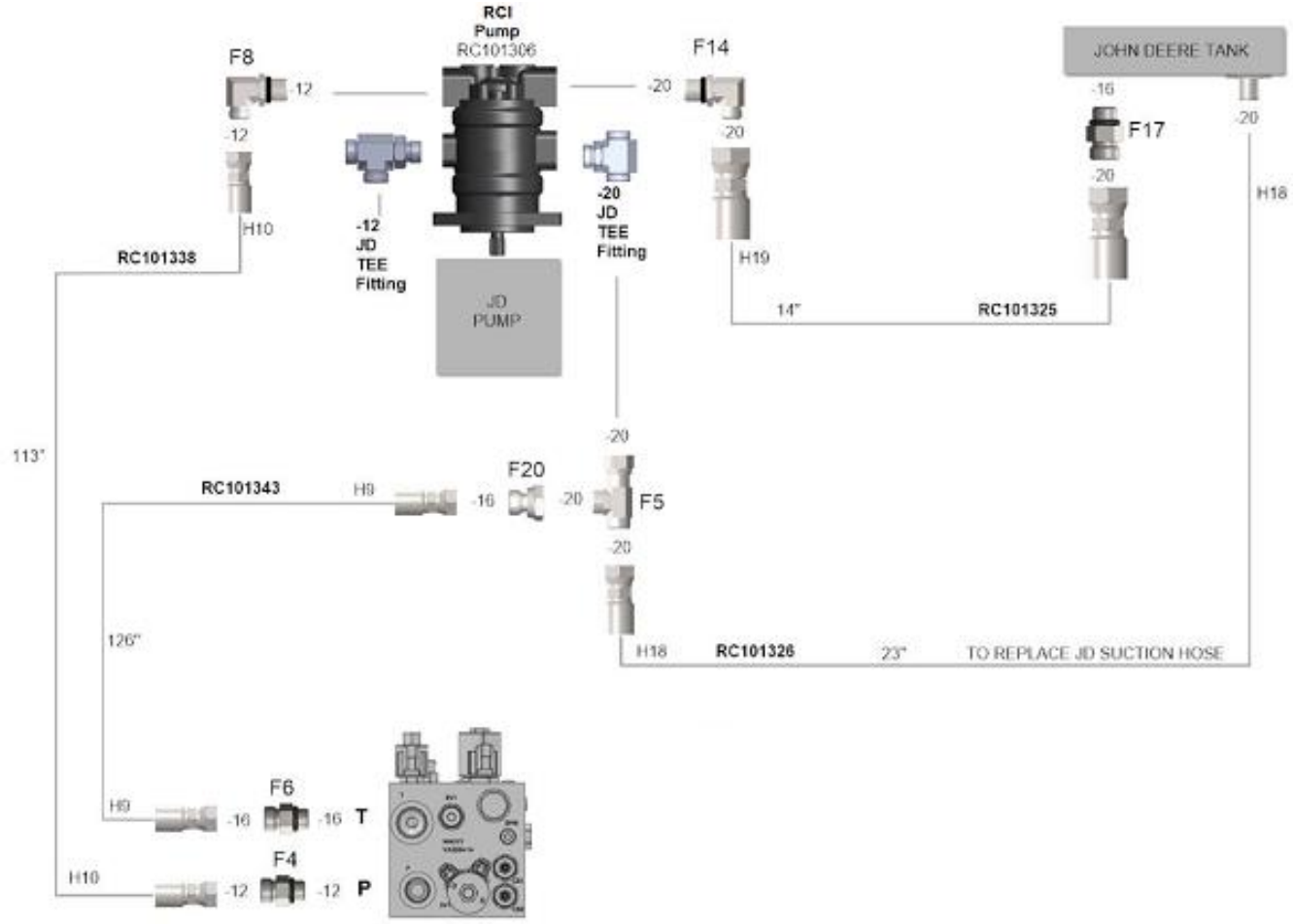


Figure 82. Functional Layout of Pump Installation – W200 Series

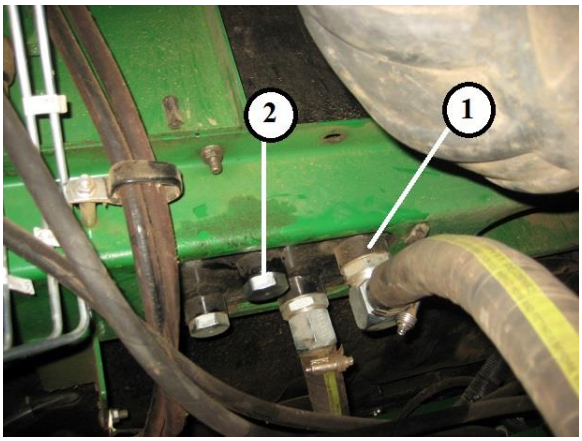


Figure 88. Tank Port Locations
Key 1 – Charge Pump Suction Port
Key 2 – Merger Pump Section Suction Port

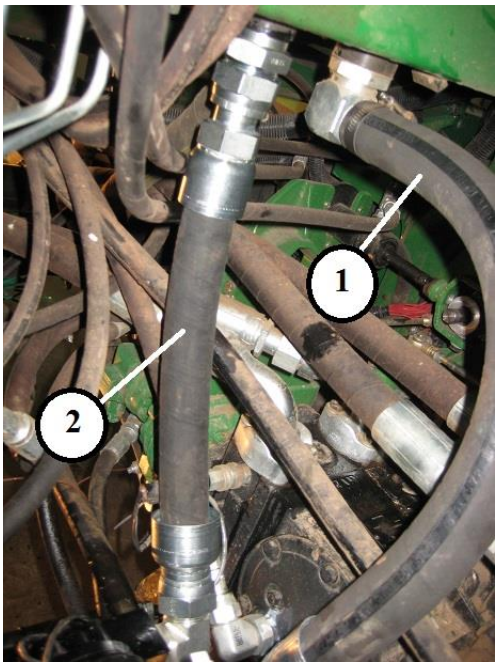


Figure 84. Suction Line Locations
Key 1 – Charge Pump Section Suction Hose
Key 2 – Merger Pump Section Suction Hose

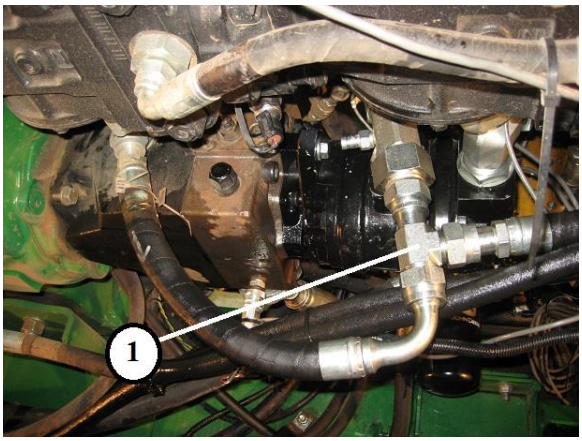


Figure 85. Original Line Re-Connection
Key 1 – Original T-Fitting at Charge Pump Suction Port

Install pressure lines on the left side of the pump. Original supply line routed to the machine manifold passes to the back port on the left side of the pump. The front port on the left side of the pump is routed to the merger manifold at the rear merger and will be installed after the attachment is mounted. See Figure 86. Tighten all hardware, fittings, and hoses properly.

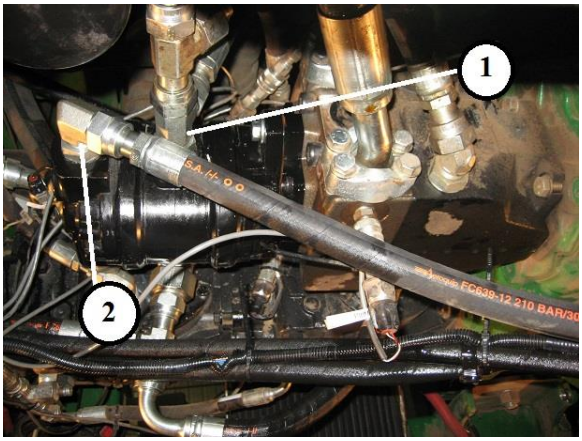


Figure 86. Pressure Lines at Pump (Ref)
Key 1 – Original Pressure Line to Windrower Manifold
Key 2 – Pressure Line to Merger Manifold
(to be installed after merger is mounted)

Frame Rail Bracket Kit Installation

A frame rail bracket kit is included in the merger completion bundle to provide for a contact point for the cross belt on the main frame of the windrower when the cross belt is in the raised position. This bracket also supports the coolant lines and battery cables.

Locate the bracket assembly and install at the frame supports indicated by Figures 87 through 89. The bracket mounts to the inside of the frame weldment.

The bracket must wrap around the bottom of the frame rail.

The battery cables are secured by the lower blocks.

The coolant lines are secured by the upper block.

The wire harness rests on the upper block and is maintained in the opening of the bracket by the frame rail.

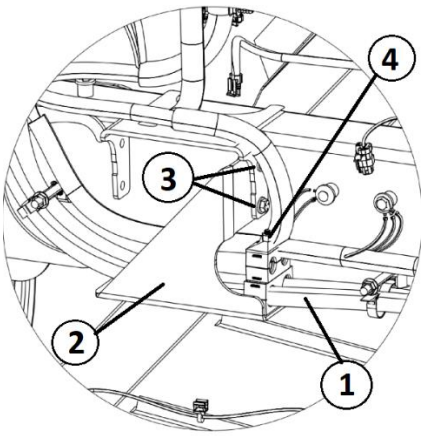


Figure 87. Frame Rail Bracket
Key 1 – Battery Cable Key 2 – Bracket
Key 3 – Bracket Bolts Key 4 – Block Bolt

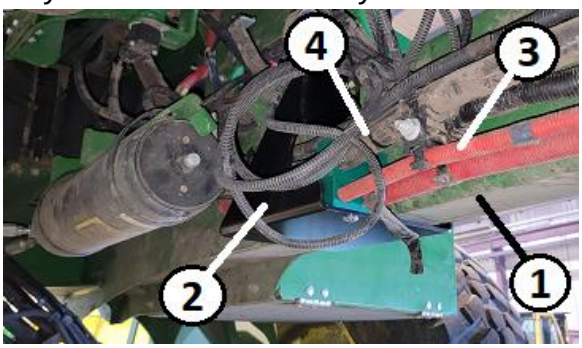


Figure 88. Frame Rail Bracket Installed
Key 1 – RH Frame Rail Key 2 – Bracket
Key 3 – Battery Cable Key 4 – Coolant

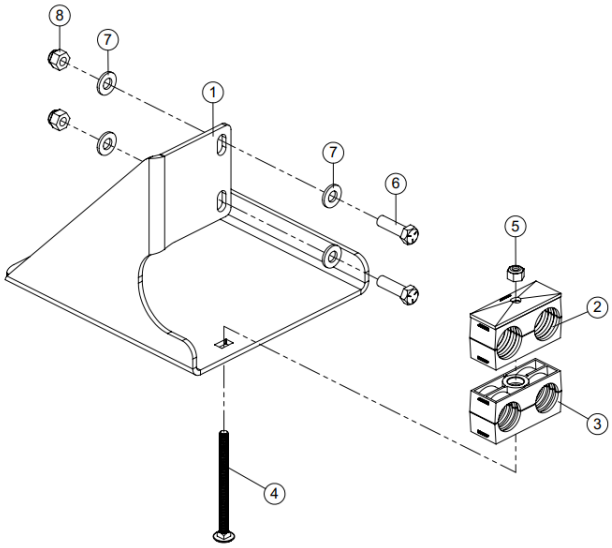


Figure 89. Bracket Components
Key 1 – Bracket Key 2 – Clamp Block
Key 3 through 8 - Hardware

Front Belt Installation

Install Belt Frame Support Brackets W200M and W235M
For all other models, see following sections.

No drilling is required. Install the brackets and hardware to the bottom rear of the wheel drops as indicated in Figure 90. The swivel joint will be towards the inside of the wheel drop and towards the rear of the machine.

Tighten all hardware properly.

For future reference, when installing the front belt frame on the W200M and W235M, the pivot bolt will go in the lower hole location in the tube of the frame, where a weld nut is located inside the frame. Use a bushing at each side for a spacer between the frame and the support bracket.

See Figures 89 through 91.

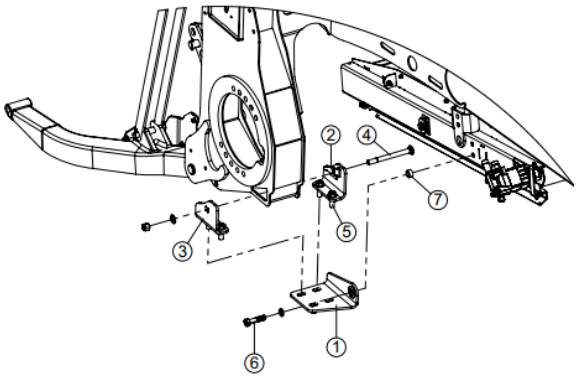


Figure 89. Support Bracket Components

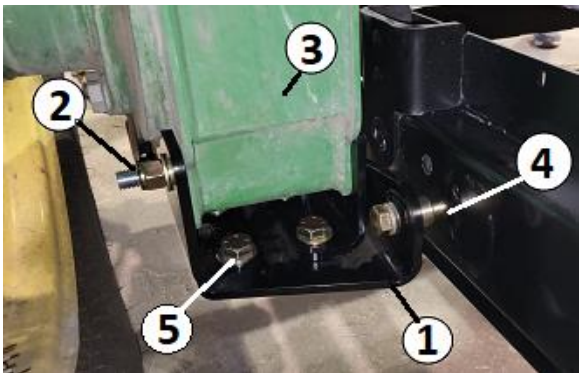


Figure 89. Support Bracket Install (LH Side Shown)
Key 1 – Bracket Key 2 – Cross Bolt
Key 3 – LH Wheel Drop
Key 4 – Bushing and Lower Hole
Key 5 - Hardware

Figure 90. RH Mounting

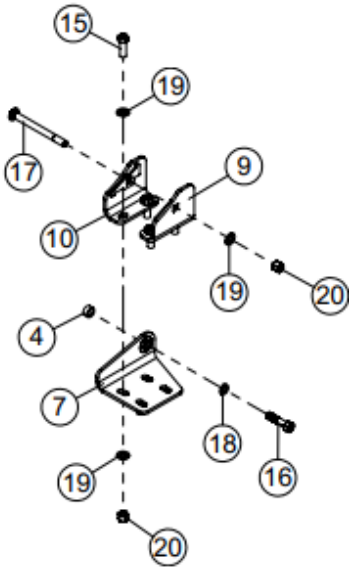


Figure 91. Exploded View of Parts

A completed assembly is shown in Figure 92.

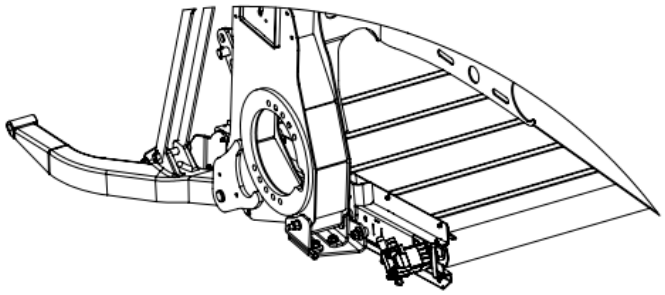


Figure 92. W200M and W235M Belt Frame Support Brackets Installed

Install Lift Arm Assembly to the RH lift arm as shown in Figure 93.

Tighten hardware properly.

Repeat the process at the LH lift arm.

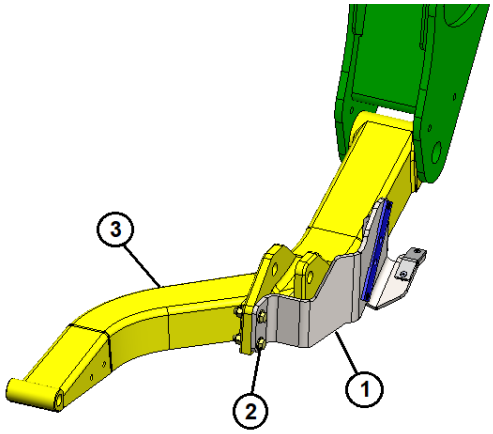


Figure 93. Front Belt Frame Mounting
Key 1 – Support Bracket
Key 2 – Bolt ½-13 x 1¾ Gr 5 YZ Hex
Key 3 – RH Lift Arm

Install Belt Frame Support Brackets W235R and W260R

For all other models, see other sections.

No drilling is required. Install the brackets and hardware to the bottom rear of the wheel drops as indicated in Figure 94. The swivel joint will be towards the inside of the wheel drop and towards the rear of the machine.

Tighten all hardware properly, but it is permissible to leave the main bracket hardware loose until the front conveyor is installed so that the bracket can slide left to right to adjust to the conveyor easier.

For future reference, when installing the front belt frame on the W235R and W260R, the pivot bolt will go in the lower hole location in the channel on top of the front belt frame rail. Bolt the front conveyor directly to the bracket at the swivel joint.

The bottom bracket, Key 1 in Figure 94, is slotted to adjust the positioning to the front conveyor. Do not tighten the bolts until the conveyor is mounted.

See Figures 94 through 95.

Install Lift arm assemblies to the RH lift arm as shown in Figure 96.

Tighten hardware properly.

Repeat the process at the LH lift arm.

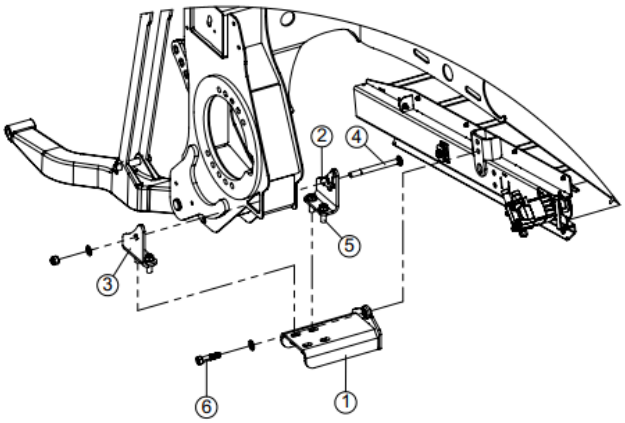


Figure 94. Support Bracket Install

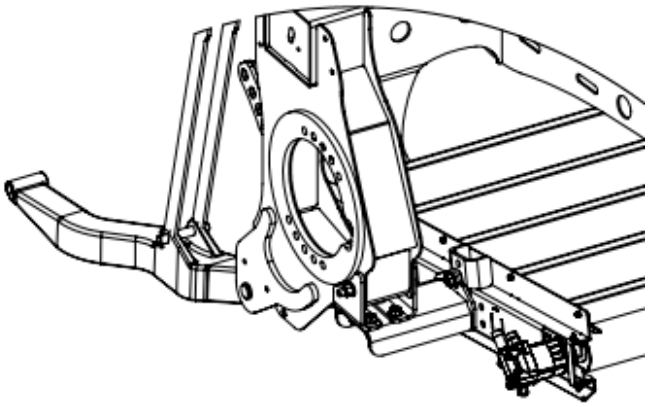


Figure 95. Support Bracket Installed

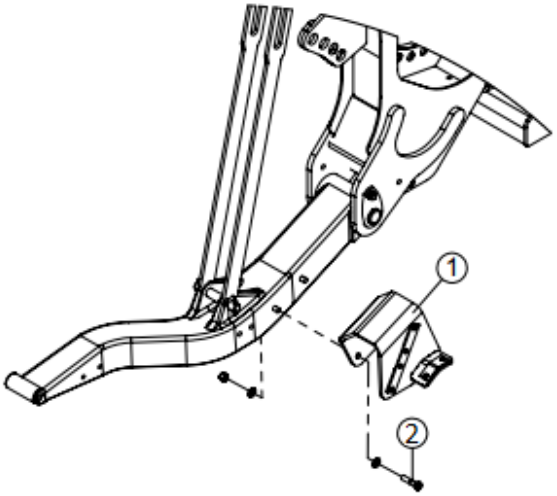


Figure 96. Lift Arm Assembly Install
Key 1 – Lift Arm Assembly
Key 2 - Hardware

Install Belt Frame Support Brackets W235 and W260 (Up to MY21)

Starting with a running change in MY2020, the windrower jack stand brackets will have the mounting holes prepared for the brackets. No drilling is required.

For earlier machines, drill the holes in the jack stand brackets at the wheel drops to 7/8" diameter through all.

This hole is the mounting location for the front belt frame supports.

See Figure 97.

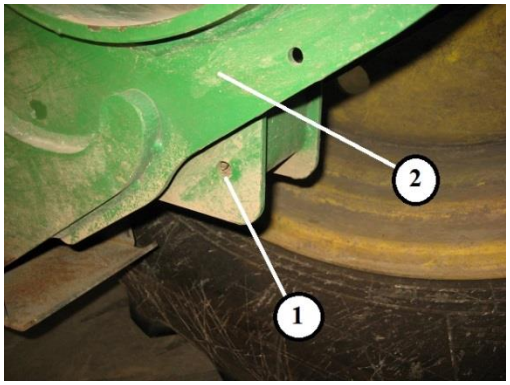


Figure 97. Jack Stand Bracket
Key 1 – ½" Hole (to be drilled to 7/8")
Key 2 – Windrower Main Frame

Remove the support brackets from the side of the front conveyor.

Install the front merger support bracket to the inside of the axle frame and secure with ¾" x 7½" grade 8 hex bolt.

See Figures 98 and 99.

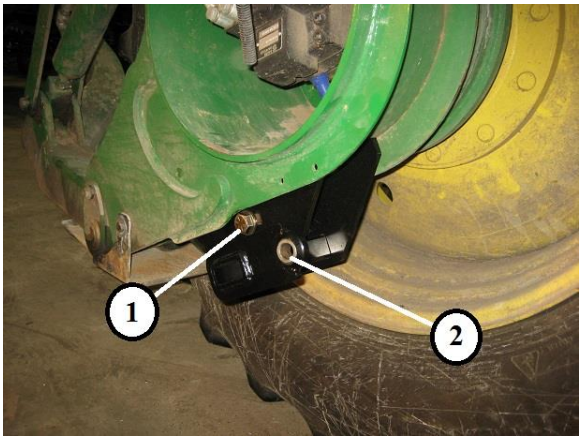


Figure 98. Front Belt Frame Support
Key 1 – Bolt ¾"x7½" Grade 8
Key 2 – Swivel

Repeat this process on the opposite side of the frame.

Tighten all hardware properly.

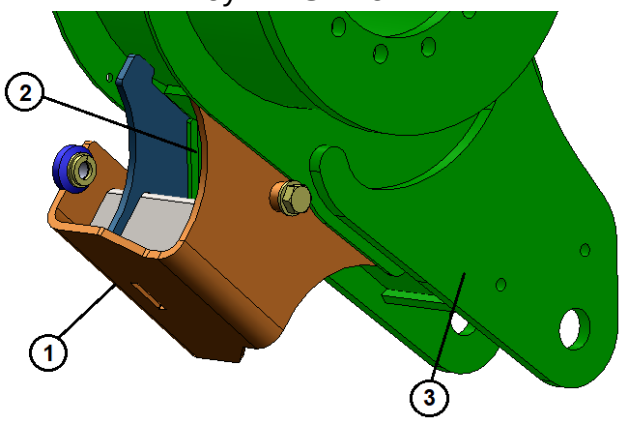


Figure 99. Front Belt Frame Support
Key 1 – Support Key 2 – Jack Stand
Key 3 – Windrower Frame

Install Lift Arm Supports

Install Lift arm assemblies to the RH lift arm as shown in Figure 100.

Tighten hardware properly.

Repeat the process at the LH lift arm.

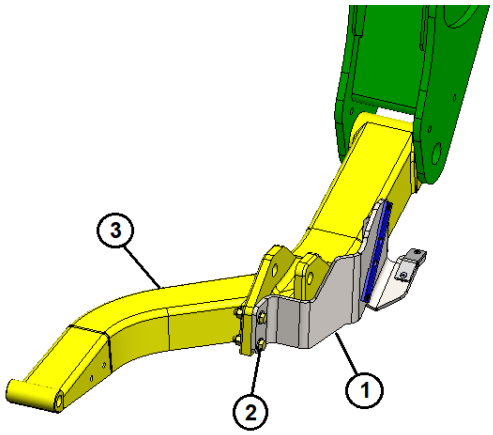


Figure 100. Front Belt Frame Mounting
Key 1 – Support Bracket
Key 2 – Bolt ½-13 x 1¾ Gr 5 YZ Hex
Key 3 – RH Lift Arm

All Models

Install Front Conveyor

With the help of an assistant, safely move belt frame assembly under the machine to the front.

If the platform is attached, use “car dollies” or another rolling device to position the front conveyor under the unit.

If the platform is detached, use a forklift or other lifting device to install the front conveyor.

See Figure 101.

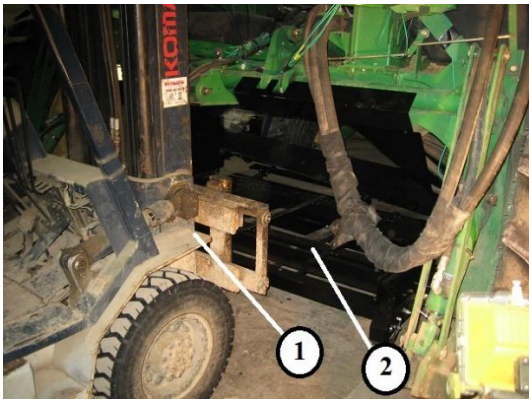


Figure 101. Position Front Belt Frame
Key 1 – Forklift (lifting device)
Key 2 – Front Belt Frame

The conveyor will rest on the supports attached to the lift arms.

See Figure 102.

The front lift arm bracket will look different depending on the model of windrower.

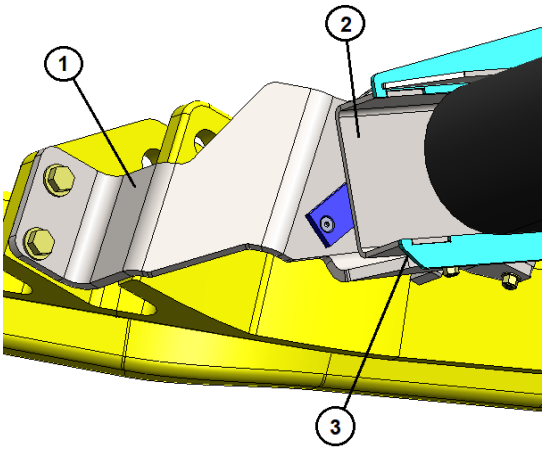


Figure 102. Front Support
Key 1 – Support Key 2 – Front Conveyor
Key 3 – Contact Point

Raise the rear of the conveyor and maneuver into position to install the main bolts at the supports at the wheel drop to the side holes in the front conveyor.

W235 and W260 only:

IMPORTANT: Install bolts at each side using the provided bushing and washers at LH side to shift the front conveyor to the RH side fully. No washers should be used on the RH side between the ball joint and the frame except in conditions where interference may occur. See next page for more information.

W200M, W235M, W235R and W260R:

IMPORTANT: Install bolts at each side using the provided bushings to center the front belt between the wheel drops for the W200M and W235M. For the W235R and W260R, adjust the bottom support bracket left to right to meet up to the conveyor frame. Tighten all hardware properly when installed, starting with the main pivot bolts at the swivel joints at the front conveyor mount bolts.

IMPORTANT:

The mounting hole positions for each model of windrower for the front conveyor are shown in Figure 103.

Always install the bolts to the correct hole location or machine damage may result.

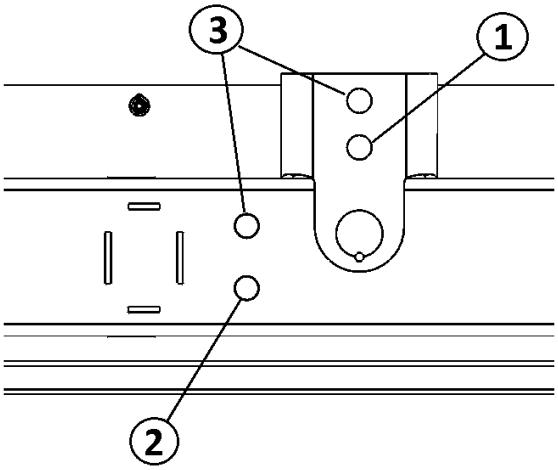


Figure 103. Front Conveyor Mounting Locations (RH Side Shown)

Key 1-Use for W235/W260/W235**R**/W260**R**

Key 2 – Use for W200**M**/W235**M**

Key 3 – Do Not Use

Front Conveyor Installation Notes
IMPORTANT FOR W235 / W260:
(This does not apply to W200M, W235M, W235R and W260R.)
This offset with the bushing at the mounting bolt for the front conveyor is to allow for clearance of the adjuster for spring tension to the LH wheel drop. When properly installed, there should be approximately ½" of clearance between the end of the threaded rod and the wheel drop.

Tighten hardware properly.

See Figure 104 for installation. See Figure 105 for explanation of offset. Remove the lifting device.

When installing the bolts at the front conveyor, shim the conveyor to the RH side using provided bushing and washers at the LH side.

Most machines need only one washer at the RH side of the unit to prevent it from binding at the front.

There will be a gap in the pockets on the lift arms at the LH side. This is normal.

IMPORTANT: Make sure the belt tension adjustment nut clears the wheel drop on the LH side.

See Figure 106.

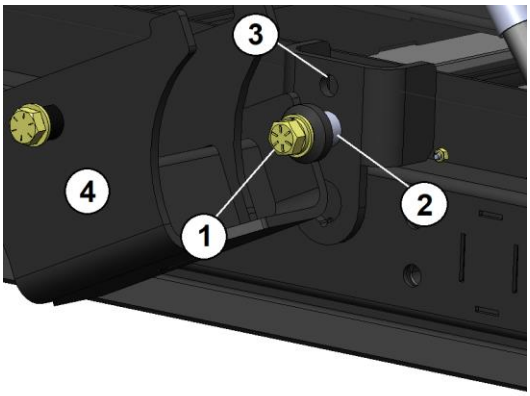


Figure 104. Side Bolt Installation
(W235/W260 Shown)
Key 1 – Front Conveyor Mount Bolt
Key 2 – Lower Mounting Hole
Key 3 – Upper Mounting Hole
Key 4 - Support

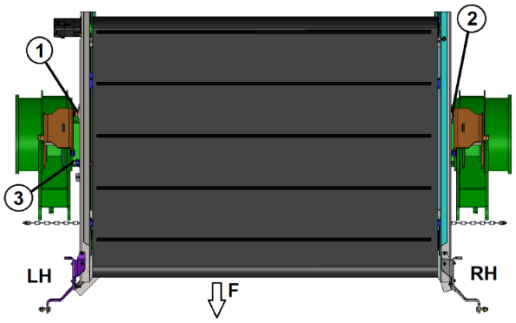


Figure 105. Conv. Shims–Bottom View
(W235/W260 Only)
Key 1 – Washer Location (LH)
Key 2 – No Washers (RH)
Key 3 – Clearance for Adjuster

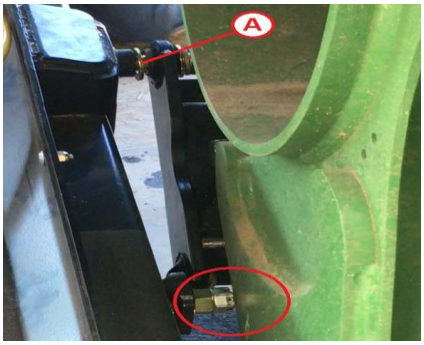


Figure 106. LH Wheel Drop Clearance
(View from front look back at LH side)
Key A – Shim Wash Location.
Circle – Clearance Location

Installation of Chains
All Models

Attach chains at the front of the front conveyor to the supports at the lift arms at each side.

The chain is to remain loose and is used only to prevent the conveyor from tipping too far to the rear when one lift arm travels 6” more than the other.

When in a resting position, the chains should have about 6” of slack at each side.

Tighten hardware properly. Repeat at opposite side.

See Figure 107.

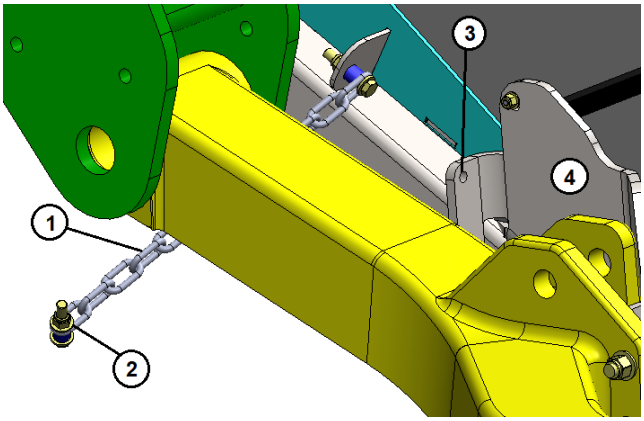


Figure 107. Chain Installation
Key 1 – Chain Key 2 – Hardware
Key 3 – Hole Location Key 4 – Support

Cross Belt Frame Installation
All Models

Remove the large U-bolts and plates from the cross-belt assembly on the skid.

See Figure 108.

Collect the other U-bolts from the box shipped with the merger.

Set the longer plate on top of the RH frame rail in the engine compartment.

Orient the notch towards the rear of the machine as shown in Figure 108.

Set 6 U-bolts in the slots in the plate and place them over the frame rail. Take care to ensure the U-bolts do not interfere with any wire harnesses during the installation.

Note: Depending on vintage of W200-Series, it may be necessary to adjust or modify the engine heat shield between the engine and the frame rail to clear the U-bolts. Take care to ensure the heat shield clears all wire harnesses properly after adjustment.

See Figure 109.

Set the shorter plate on top of the LH frame rail in the engine compartment

Set 2 U-bolts in the slots in the plate and place them over the frame rail. Take care to ensure the U-bolts do not interfere with any other components during the installation. See Figure 110.

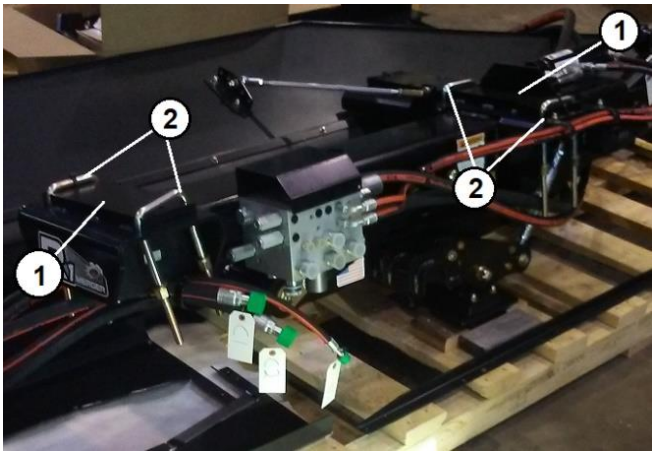


Figure 108. U-Bolt Storage Location
Key 1 – Plates Key 2 – U-Bolts

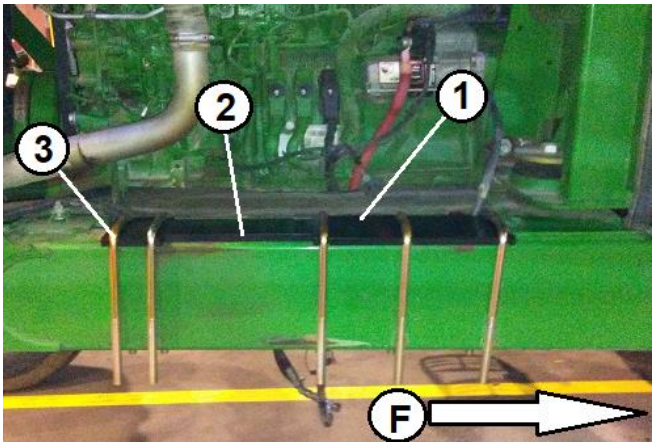


Figure 109. RH Frame Plate Installation
Key 1 – Plate Key 2 – Notch
Key 3 – U-Bolt Key F – Forward Direction

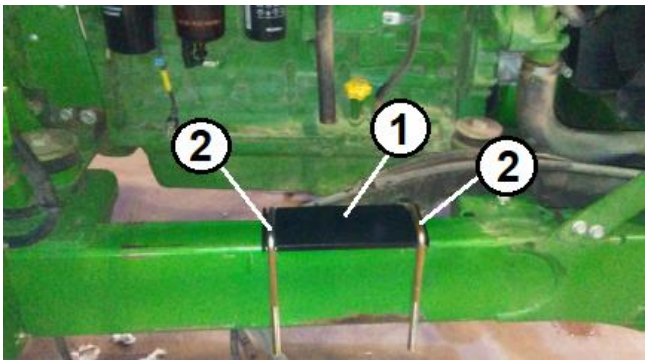


Figure 110. LH Frame Plate Installation
Key 1 – Plate Key 2 – U-Bolts

Install Cross Belt

Lift the cross-belt assembly on the shipping skid with a forklift or other portable lifting device from the right-side discharge end of the belt. See Figure111.

Keep the shipping skid under the belt frame for the duration of the installation.

IMPORTANT: Use fork extensions or other device when picking up the cross-belt assembly on the crate.

With the help of an assistant, slowly raise the cross belt to a height where it is possible to install the washer and nut on the rear U-bolts on each side of the unit.

IMPORTANT: It is easiest to start all U-bolts on the RH side of the unit first. Then start the two LH U-bolts. Keep the unit on the skid through the installation of all U-bolts.

Tighten the rear bolts such that the next U-bolts forward can be installed. DO NOT TIGHTEN U-BOLTS FULLY at this time.

Continue installing U-bolts from the rear forward and lift the unit off the skid using the U-bolts. The cross-belt pivot frame will level out during the lifting operation.

When all U-bolts are started, tighten the U-bolts evenly until the main pivot frame is flush to the main frame rails, but do not tighten fully.

With the help of the assistant, move the frame back and forth by hand until the main pivot frame is perpendicular to the centerline of the main frame and the pivot frame is not bound by misalignment.

Check the clearance between the merger cross belt and front RH drive tire. Clearance should be approximately 2” at the closest point. If too close, adjust the RH side assembly rearward on the frame rail or the LH side assembly forward as needed.

Tighten U-bolts to specification.

SPECIFICATION:
U-Bolt Torque 150 ft-lbs. (204 Nm)

Check each torque after all U-bolts are tight. See Figure 112.

Figure 111. Cross Belt Positioning
Key 1 – Forklift Key 2 – Skid
Key 3 – Cross Belt

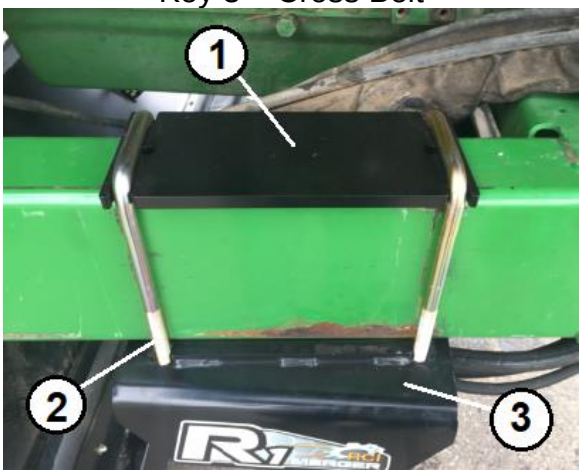


Figure 112. U-Bolt Installation
Key 1 – Plate Key 2 – U-Bolt
Key 3 – Main Pivot Frame

Grab Handle Installation

Install handle at the right side of the machine between the cab platform and toolbox.

See Figure 113.

Holes are existing in the frame for the handle hardware. If the holes are missing due to a change in production, mark and drill the holes as needed. Tighten all hardware properly.

Pump Hydraulic Hose Routing

The hoses for the front conveyor, supply pressure and return, need to be routed for proper function.

Several hoses are labeled for port locations at the manifold. Front hoses are labeled for port at the motor. Connect all hoses to the manifold.

Route the pressure and return lines from the side of the manifold around to the rear and to the left frame rail of the windrower.

See Figure 114.

Install the provided P-clamp at the existing bolt in the pan beneath the engine to secure the pressure and return line. See Figure 114.

Cross Belt Hyd. Hose Installation

The cross-belt motor hoses are disconnected at the manifold for shipping. The ends at the manifold are labeled. Connect Hose A to Port C2 and Hose B to Port C1 in manifold.

A full routing diagram is available on pages 37 and 38 in this manual.

Figure 113. Grab Handle Installation
Key 1 – Grab Handle
Key 2 – RH Side of Machine

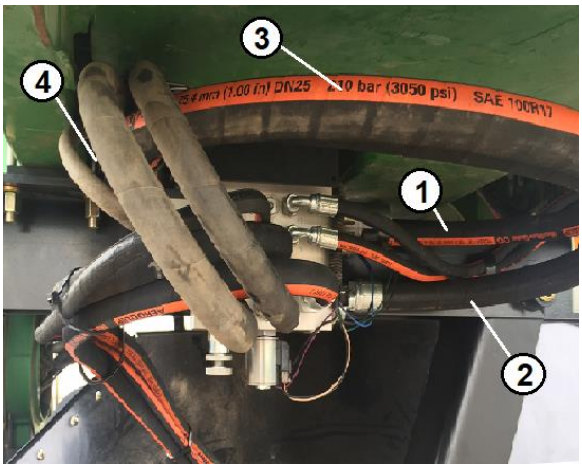


Figure 114. Pressure and Return
Key 1 – Pressure Key 2 – Return
Key 3 – Loop to Rear
Key 4 – Routing Along Frame Rail

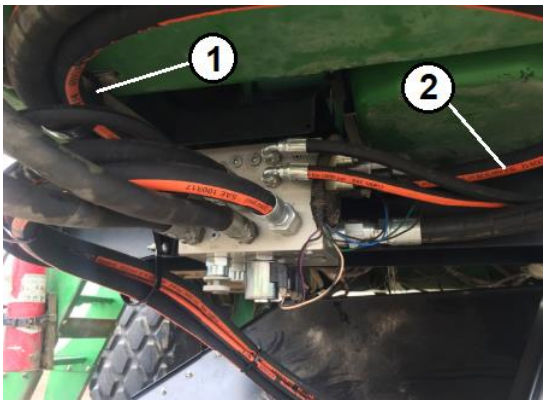


Figure 115. P-Clamp Installation
Key 1 – P-Clamp Key 2 - Hoses

Route the hoses along the frame rail to the pump. Secure with tie bands around the hoses to keep together. Take care to avoid any interferences with moving components or electrical components. Secure to solid mounting locations using provided tie bands.

Install the lines at the pumps. See Figure 116. Refer to *Hydraulic Installation* Section for more information.

Motor Hydraulic Hose Installation

Route three lines for the front conveyor motor to the rear of the unit and loop around over the top of the pressure and return lines.

Route the lines along the frame rail and secure to the pressure and return lines as far as possible with provided tie bands. Route the hoses down to the LH wheel drop to connect to the front conveyor motor.

The two larger lines are labeled to match ports A&B at the front belt motor. Hose F2 connects to Port A. Hose F1 connects to Port B.

The case drain line will split from the other two hoses to attach with a shorter bend radius to the fitting at the case drain of the front belt motor. Secure hoses to fittings properly. See Figures 116 and 117. Inspect and adjust to ensure the hoses are not rubbing on other components and are secured properly.

Take care to avoid any interferences with moving components or electrical components. Secure to solid mounting locations using provided tie bands.

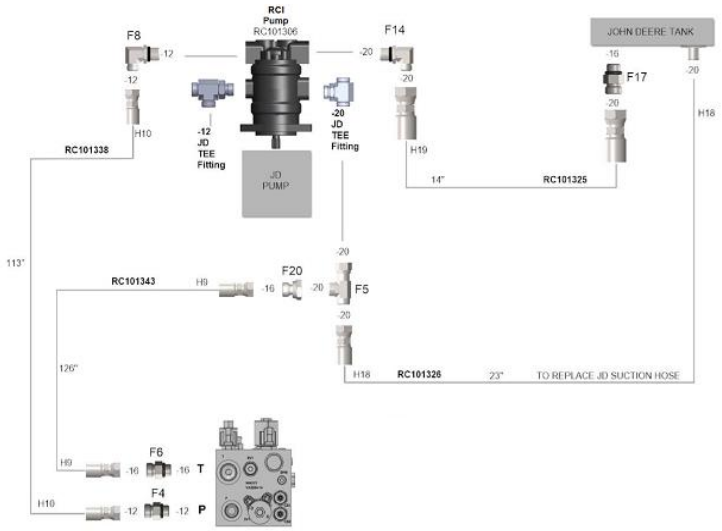


Figure 116. Functional Layout of Pump Installation – W200 Series

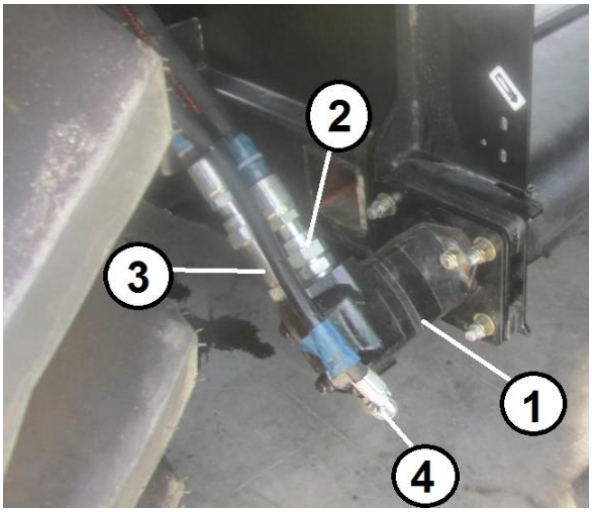


Figure 117. Front Motor Connections
Key 1 – Front Motor Key 2 – Port B
Key 3 – Port A Key 4 – Case Drain

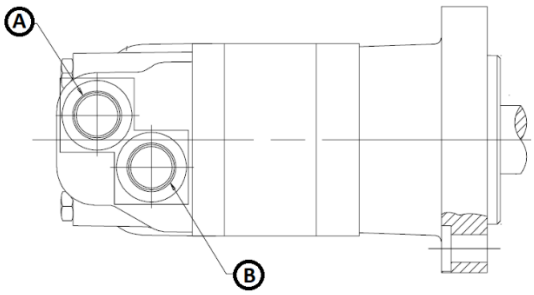


Figure 118. Port Identification

Electrical Installation

Install controller at the right side of the machine frame in the location shown in Figure 119.

Note: Different models will have a different orientation for the mounting of the controller, but mounting holes are provided in the panel from the factory.

Install machine screws provided to fasten the controller to the frame in the control panel.

Install wire harness beginning at the controller. Connect two Deutsch connectors to the controller ports.

See Figure 120.

Connect the CAN connection to the port provided in the main machine wire harness.

See Figure 121.

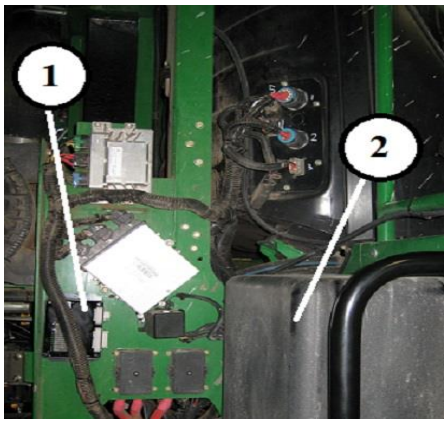


Figure 119. Electrical Location
Key 1 – RCI Electrical Control Board
Key 2 – Tank RH Side of Machine (reference only)

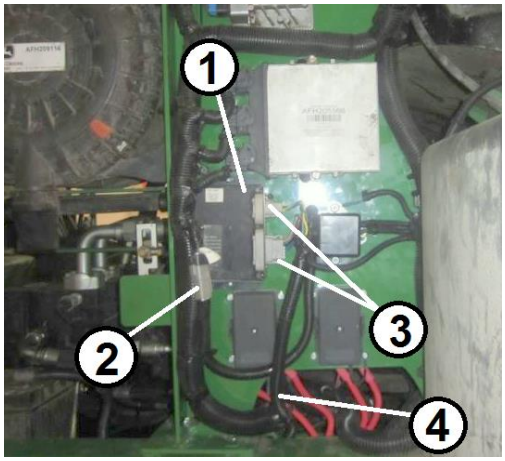


Figure 120. Wire Harness Connections
Key 1 – Controller Key 2 – CAN
Key 3 – Controller Connections
Key 4 – Harness Routing

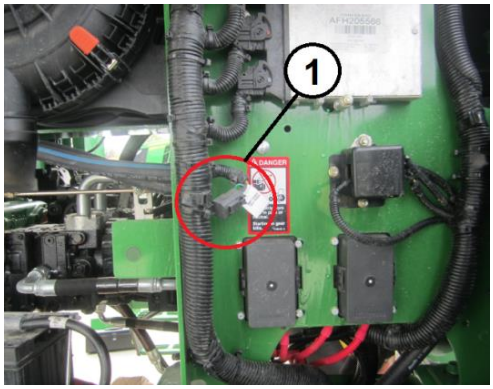


Figure 121. CAN Connection
Key 1 – Port on Windrower Wire Harness

Route harness along hoses on RH frame rail towards the rear of the machine.

Route the harness to the manifold at the rear of the merger pivot frame.

Secure with tie bands provided as needed. It is acceptable to route the harness along the lift cylinder hydraulic hoses over to the frame rail on the RH side.

Do not secure to any battery cables or any other hydraulic pressure hoses, but rather to existing clamps on the frame of the windrower.

See Figure 122.

At the manifold, connect the following for the wire harness.

Green Wire = Position 1 (raise)
Blue Wire = Position 2 (lower)
Tan Wire = Position 3 (larger coil)
Violet Wire = Position 4 (smaller coil)

See Figure 123.

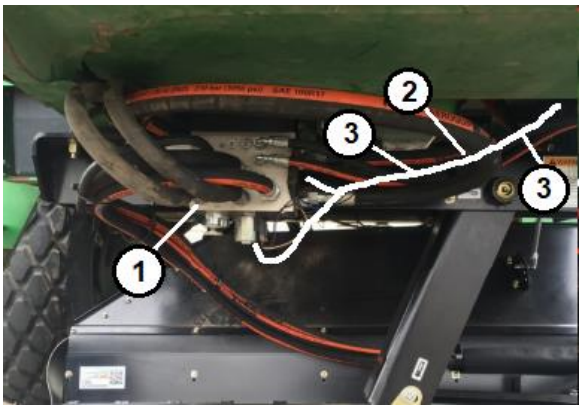


Figure 122. Wire Harness Installation
Key 1 – Manifold Key 2 – Harness
Key 3 – Tie Band Location (at pin boss)
Key 4 – Routing along main frame.

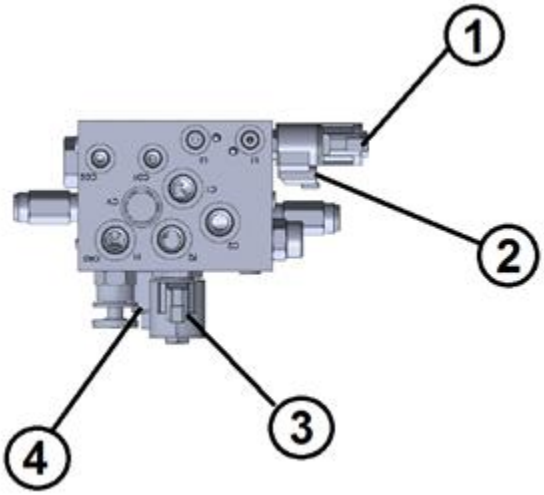


Figure 123. Manifold Wiring Locations
Key 1 – Green Wire Key 2 – Blue Wire
Key 3 – Tan Wire Key 4 – Violet Wire

Software Changes

For the W200M, W235M, W235R and W260R, no changes are needed in the software. The software will automatically recognize the merger controller.

For the W235 and W260 (up to MY21), the software of the W200-Series Self Propelled Windrower must be changed to acknowledge the installation of the merger attachment.

To change the diagnostic address, access the addresses through the armrest display in the cab of the machine.

NOTE: Do not start the engine for this adjustment, but the key must be in the "ON" position.

Press the button in the armrest indicated in Figure 124, Key 2.

Select "Message Center" as shown in Figure 125, Key A.

Next, select "Address" as shown in Figure 126, Key A. Then select "OOC" in the dropdown, Key B. Press "Enter."

Scroll to address 172. Change the second to right digit to "1". The display should read as follows: XX1X

Save the setting and exit the menu.

Remove the cap indicated in Figure 126, Key 1. This button is used for disabling the front belt.

Figure 124. Armrest Buttons
Key 1 – Remove Cap Key 2 – Menu Button

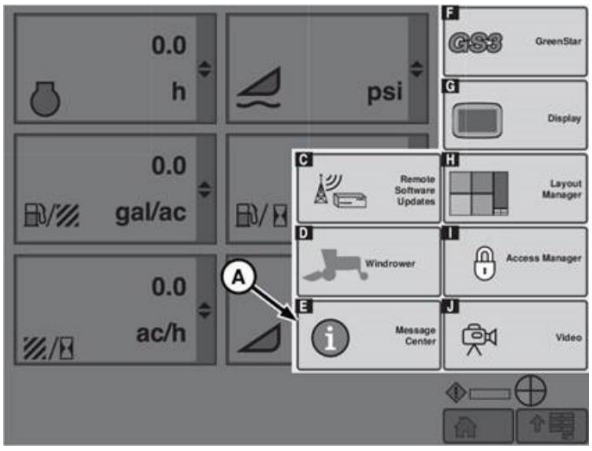


Figure 125. Message Center
Key A – Message Center Link

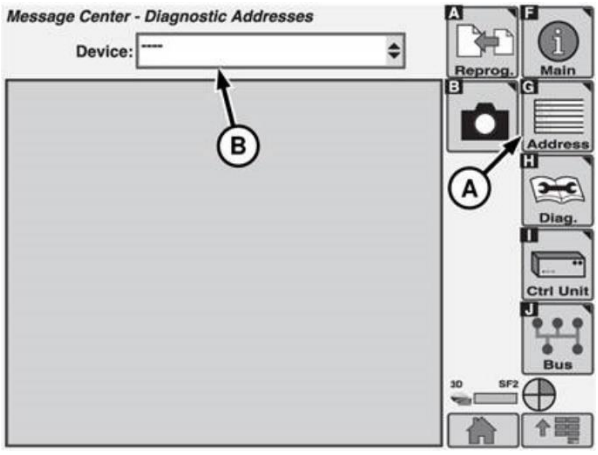


Figure 126. Address Link
Key A – Address Link Key B – Device List

Final Unit Preparations
Fill Hydraulic Reservoir
Fill the hydraulic reservoir. (To fill reservoir, see DRAIN AND FILL HYDRAULIC RESERVOIR in Windrower Technical Manual.)

Install Platform (If needed)
Install the platform on the machine. See the Operator Manual for the Self-Propelled Windrower and Platform.

Remove Weights - IMPORTANT
Remove any rear weights in the power unit, if equipped. See Operator Manual for the Self-Propelled Windrower.

Adjust Rear Axle – IMPORTANT
Ensure that the rear axle of the windrower is adjusted out at both sides to a position where 3 holes are exposed. See Operator Manual for the Self-Propelled Windrower. See Figure 127.

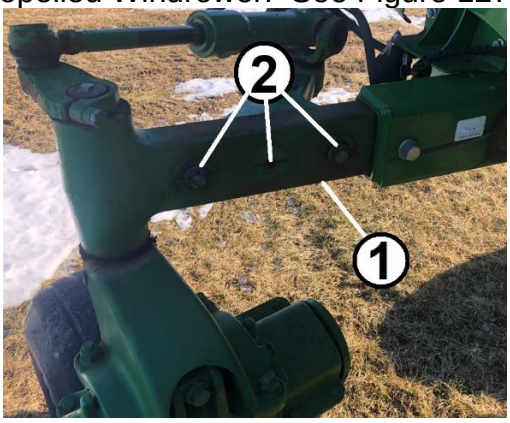


Figure 127. Axle Position
Key 1 – Axle
Key 2 – 3 Hole Locations Visible

Level Machine - IMPORTANT
Ensure that the main frame of the windrower is adjusted to level AFTER the installation of the merger attachment, removal of the rear weights (if equipped), and adjustment of rear axle. Adjust the rear suspension as needed per the Power Unit Operator Manual.

Final Installation Inspection List
The following is an inspection checklist for the R1 merger attachment. Complete this inspection list prior to delivery of the machine to the customer.

1) Check all settings of the platform on the machine. See SETTINGS AND ADJUSTMENTS section of this manual and the 500R Operator Manual.

2) Check for leaks on all components after a few seconds of run time. Shut off engine and remove key prior to inspection.

   WARNING: Be aware of any potential high-pressure leaks and avoid as necessary. Failure to do so may result in serious personal injury.

3) Start engine. Press yellow button on hydrostatic handle to enable the merger. See ENABLE / DISABLE MERGER ATTACHMENT section in this manual.

4) Adjust the belt speed. See ADJUST BELT SPEED section in this manual.

   Verify the belt speed changes. Set speed to maximum.

5) With the merger enabled, raise the platform to the highest position. Adjust the platform angle to full tilt forward. Shut off the engine. Remove key. Lock out the platform.

Perform a visual inspection of the attachment and all new components to verify there is no interference of any components, hoses, or other issues.

If any issues arise, safely start machine, lower platform to ground, shut off engine and remove key before performing any adjustments.

Safely address any issues as needed.

6) Repeat Step 5 with platform lowered to floor and platform tilt angled completely forward.

7) Perform all initial settings of machine and attachment. See INITIAL SETTINGS section of this manual.

8) Operate attachment and simulate normal machine operations. See OPERATING THE ATTACHMENT section of this manual.

9) Verify that during the lowering of the platform, with the platform engaged, the cross-belt lowers, and the belt turns to discharge to the right.

10) Verify that during the raising of the platform, the cross belt raises fully.

.

11) Verify that the front belt rotates when the platform is engaged. This belt is visible from the operator station from the seat by looking down out the front window.

12) Adjust the front belt motor speed as outlined in the next section. If you do not have a tachometer and have s/n 1413 or newer, simply open the hand valve fully (CCW) by hand with the engine off.

13) Operate the unit for 15 minutes to break-in the scrapers at the rollers. See IMPORTANT information on the following pages.

IMPORTANT:
If the machine raise/lower functions are backwards, simply swap the blue and green wires at the manifold. Do not change the hose routing.

NOTE:
If there are any error codes with the windrower for the float control for the platform, resolve the issues before continuing with the merger attachment. The merger attachment will not function properly if the raise/lower circuit of the windrower is not functioning properly.

Inspect the front forming shields at the hydrostatic lines to the wheel motors when the platform is fully raised and rotated back and forth. If there is interference, adjust either the forming shield position or the hydrostatic lines as necessary. See Figure 128.

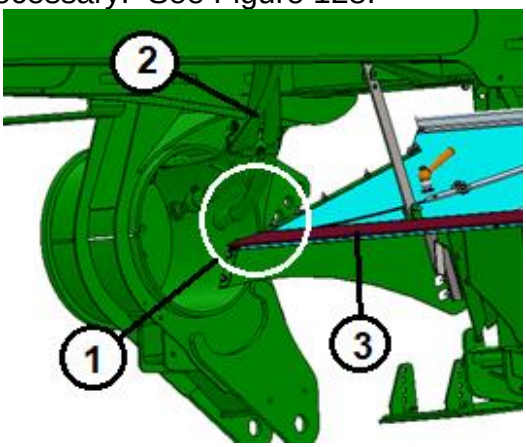


Figure 128. Check for Interference
Key 1 – Location (both sides)
Key 2 – Hydrostatic Lines
Key 3 – Forming Shields

IMPORTANT:
Once all adjustments are completed, be sure to operate the merger in a lowered, engaged mode, at wide-open throttle for at least 15 minutes to allow for the break-in of the scrapers on both conveyors.

A squeaking sound may be heard during this process and usually is eliminated by the end of the break-in period.

If the sound does not cease, inspect the unit fully, adjust as needed and operate for another 15 minutes.

If the sound continues, inspect the scrapers at the rollers prior to engaging any crop in the field.

IMPORTANT
Adjust Front Belt Frame Motor Speed
Adjust the front belt motor speed to Specification at wide open throttle. Use a photo / non-contact tachometer to measure the roller speed on the drive roller to determine the motor speed.

If you do not have a tachometer available and have s/n 1413 or newer, simply open the hand valve fully (CCW) by hand with the engine off. The valve will limit the top-end speed automatically.

SPECIFICATION:

Front Belt Motor Speed	950 RPM

WARNING:
Do not adjust the front belt motor speed above 950 rpm as this will have a negative impact on the reliability of the belt motor.

Adjust front belt motor speed by adjusting the hand valve on the bottom of the manifold. Ensure that the machine is off, and the cross belt is locked out, before adjusting the motor speed. Turn lock ring counterclockwise to release the valve.

Then rotate the primary knob to adjust speed.

CCW will increase speed.

CW will decrease speed.

Note: The valve will not be able to be adjusted by hand if there is any system pressure on the circuit.

DO NOT USE TOOLS TO TURN THE VALVE. Adjust by hand only with the engine turned off.

See Figure 129.

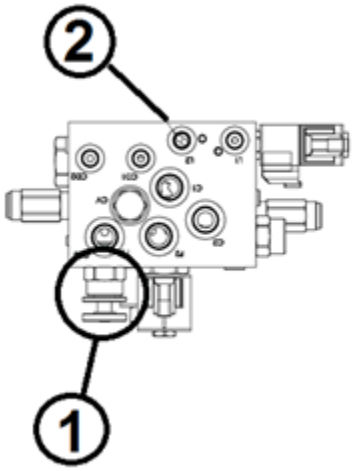


Figure 129. Front Belt Motor Adjustment
Key 1 – Hand Valve
Key 2 – Manifold (reference)

Note: For mergers s/n 1413 and higher, the maximum speed is controlled by an orifice in the manifold. In the absence of the availability of a photo tachometer for these units, simply turn the valve counter-clockwise fully to allow for full-speed. See ADJUSTMENTS Section in this manual for more information.

Decal Installation

For the W235 and W260, a window decal for operation of the unit is provided. Install this decal on the door of the cab or at the RH cab window directly above the armrest.

No decal is provided for other models.

See Figure 130.

Figure 130. Decal Installation

16 PRE-SEASON CHECKLIST

Key	Functional Area	Item	Description	Checked
1	Forming Shields	Side Shields	Check for damaged components	
2			Check for loose components	
3			Check for interference with platform	
4		Top Link	Check hardware for tightness	
5			Check for wear on pivot arms and pivot	
6			Check for wear on bushings	
7	Front Conveyor	Belt	Check for cleanliness of assembly	
8			Check for material at scraper	
9			Check for material wrapping at rollers	
10		Rollers	Grease roller at drive motor	
11			Check for interferences	
12			Check for hardware tightness	
13		Motor	Check fittings at motor for leak	
14			Check motor for leak at motor shaft	
15		Tensioner	Check belt tension	
16			Check for belt alignment on rollers	
17			Check that belt does not hang below frame	
18		Mount	Check hardware for tightness	
19			Check for cracks on supports	
20	Rear Conveyor	Belt	Check for cleanliness of assembly	
21			Check for material at scraper	
22			Check for material wrapping at rollers	
23		Rollers	Grease roller at drive motor	
24			Check for interferences	
25			Check for hardware tightness	
26		Motor	Check fittings at motor for leak	
27			Check motor for leak at motor shaft	
28		Tensioner	Inspect belt tension per manual	
29			Check for proper lock installation at rear	
30			Inspect bearings and adjusters	
31			Inspect adjuster rod for roll pin damage	
32			Check for belt alignment on rollers	
33			Check that belt does not hang below skid shoe	
34		Mount	Check hardware for tightness	
35			Check for cracks on supports	

Key	Functional Area	Item	Description	Checked
36	Pivot Mechanism	Greasing	Check for proper greasing of all 6 pin locations plus lift cylinder	
37			Check play in pivot pins - look for wear	
38		Cylinder	Inspect for leaks	
39		Mounts	Check hardware for tightness	
40			Inspect for movement on mainframe - tighten if loose	
41			Inspect all components for cracks	
42		Tilt Cylinders	Inspect tilt cylinders for leaks	
43			Inspect tilt cylinders for interference	
44	Shields	Cross Belt	Inspect and adjust belt seals to belt	
45			Inspect plastic sheet and supporting strap for damage	
46	Hydraulic	Manifold	Inspect for leaks	
47			If manifold is wet with oil, retighten all plugs on manifold with allen wrench. Permissible to use Loctite on plugs, but clean surface first.	
48		Hoses	Inspect all hoses for damage	
49		Fittings	Inspect all fittings for tightness and orientation	
50		Oil	Inspect oil level of windrower	
51	Electrical	Controller	Inspect controller for damage	
52		Harness	Inspect harness for damage	
53			Inspect harness for rubbing - adjust as necessary	
54		Controls	Inspect MHC at armrest for any issues	
55	Decals	Warning	Inspect all decals compared to manual - replace as needed	
56	Manual	Manual	Check for manual in cab of unit	

17 DAILY CHECKLIST

Key	Functional Area	Item	Description	Checked
1	Front Conveyor	Belt	Check for cleanliness of assembly	
2			Check for material at scraper	
3			Check for material wrapping at rollers	
4		Rollers	Grease roller at drive motor	
5		Tensioner	Inspect belt.	
6			Check for belt alignment on rollers	
7			Check that belt does not hang below frame.	
8	Cross Belt	Belt	Check for cleanliness of assembly	
9			Check for material at scraper	
10			Check for material wrapping at rollers	
11		Rollers	Grease roller at drive motor	
12		Tensioner	Inspect belt	
13			Inspect bearings	
14			Check for belt alignment on rollers	
15			Check that belt does not hang below skid shoe	
16	Pivot Mechanism	Greasing	Check for proper greasing of all 6 pin locations plus lift cylinder	
17	Shields	Cross Belt	Inspect belt seals to belt	
18	Powertrain	Components	Clean engine and hydraulic components compartment of debris	

18 REPAIR PARTS

General Comments

The following includes information regarding parts for the windrow merger attachment.

Right- or left-hand parts are determined by sitting in the operator's seat facing forward.

The abbreviation "A.R." in the "USED" column indicates "As Required." This is because a different number of the specific component may be needed for proper assembly depending on the tolerance of the individual machine.

All parts listed for the windrow merger attachment are available through your local dealer.

Attention: Dealer – Contact RCI directly for all part orders for this attachment.

In general, any fabricated component painted black is an RCI part and any part that is painted John Deere green is a John Deere part and can be located in the Parts Manual for the machine to which the attachment is installed.

Please include a serial number and model of the attachment when placing a parts order. The serial number plate is attached to the rear of the main pivot frame.

Replacement Hardware

The use of improper hardware in any location can result in the failure of the component fastened with the hardware or related structures, and can cause personal injury, further damage to the product, or loss of property.

Replacement Parts

Replacement parts may have occasional differences to the parts being replaced. This difference is typically providing the benefit of a design change made after the release of this publication.

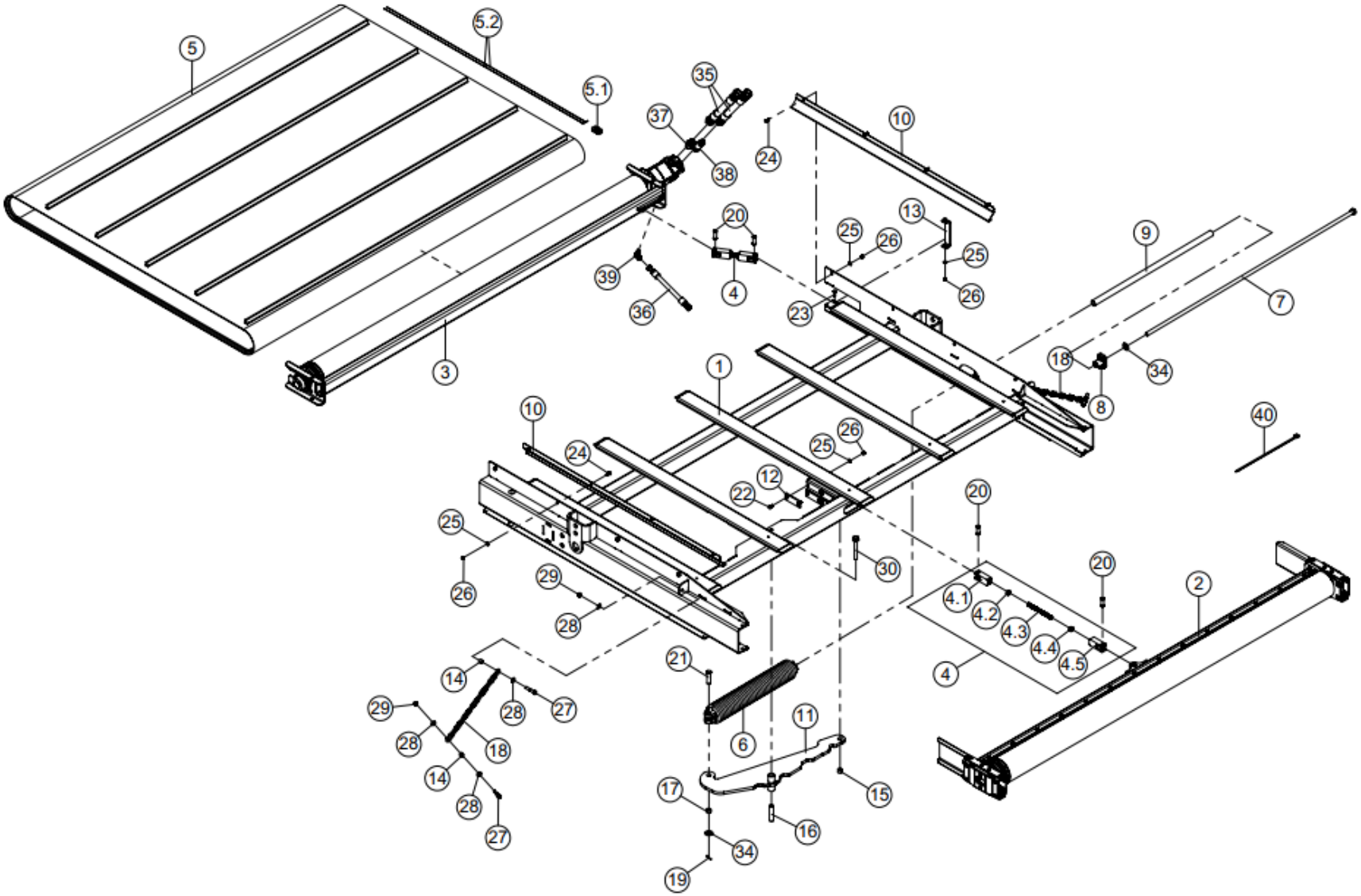
Recommended Spare Parts Listing - Dealer

The following spare parts are recommended for stocking purposes and include common wear items for this attachment.

Part Number	Description	Qty per Unit
RC101665	Belt (Cross)	1
RC101280	Belt (Front)	1
RC101370	Rod, Belt (Front)	2
RC101371	Rod, Belt (Cross)	1
RC0359	Bearing	8
RC0358	Flange, Bearing	8

Repair Parts Alphabetical Index

Front Belt Frame



Front Belt Frame

Key	Part Number	Description	Qty	Comments
1	RC201100	Weldment, Front Frame	1	
2	RC201034	Assembly, Front Belt Frame Carrier	1	
3	RC201043	Assembly, Front Drive Roller	1	
4	RC230173	Assembly, Connecting Rod	2	
4.1	RC902350	End, 1/2-20 RH YZ Rod	1	
4.2	RC901881	Nut, 1/2-20 YZ Hex Jam	1	
4.3	RC902351	Rod, 1/2-20 x 6 YZ O.T. Connecting	1	
4.4	RC902317	Nut, 1/2-20 LH CZ Jam	1	
4.5	RC902353	End, 1/2-20 LH YZ Rod	1	
5	RC201216	Belt, Front Conveyor	1	
5.1	RC101513	Splice, 48"	1	
5.2	RC101370	Rod, Belt	1	
6	RC230026	Assembly, Spring	1	
7	RC201156	Rod, Tension	1	
8	RC063040	Pivot	1	
9	RC201105	Spacer	1	
10	RC201106	Shingle, Side	2	
11	RC201086	Arm, Tensioner	1	
12	RC230019	Spacer	4	
13	RC201088	Plate, End	1	
14	RC130141	Spacer	4	
15	RC902276	Bushing, 1/2 I.D. x 3/4 O.D. x 1/2 Bronze	1	
16	RC902275	Bushing, 1/2 I.D. x 3/4 O.D. x 3 Bronze	1	
17	RC902277	Bushing, 5/8 I.D. x 3/4 O.D. x 1/2 Bronze	1	
18	RC902356	Chain, 1/4 Grade 43 High Test	2	
19	RC900839	Pin, 1/8 x 1 YZ Cotter	1	
20	RC902354	Pin, 1/2 x 1-5/16 SS Grooved Clevis	4	
21	RC902323	Pin, 5/8 x 2-1/4 CZ Clevis	1	

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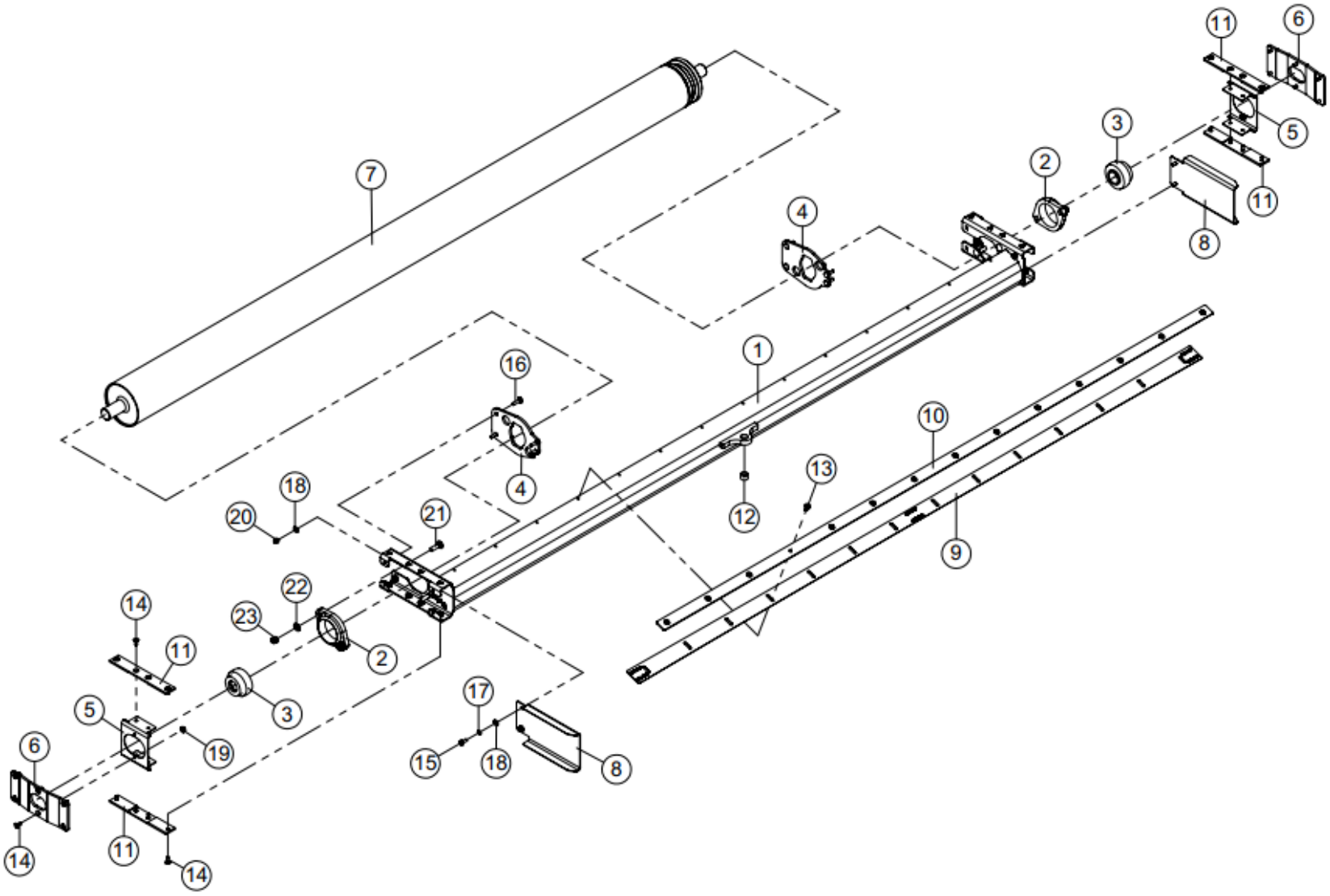
Front Belt Frame – Continued

Key	Part Number	Description	Qty	Comments
22	RC902209	Screw, 1/4-20 x 3/4 SS Flat Head Socket	8	
23	RC901557	Bolt, 1/4-20 x 1 CZ Carriage	2	
24	RC902039	Bolt, 1/4-20 x 3/4 CZ SN Carriage	8	
25	RC902696	Washer, 1/4 SAE YZ Hard Flat	18	
26	RC900575	Nut, 1/4-20 YZ Nylock	18	
27	RC900099	Bolt, 3/8-16 x 2 Gr 5 YZ Hex	4	
28	RC900677	Washer, 3/8 SAE YZ Hard Flat	8	
29	RC900583	Nut, 3/8-16 YZ Nylock	4	
30	RC902309	Bolt, 1/2-13 x 4 CZ Serrated Flange	1	
31	RC902308	Bolt, 1/2-13 x 6 Gr 5 CZ Carriage	1	
32	RC900691	Washer, 1/2 SAE YZ Hard Flat	1	
33	RC900588	Nut, 1/2-13 YZ Nylock	1	
34	RC900694	Washer, 5/8 SAE YZ Hard Flat	2	
35	RC101342	Assembly, Hydraulic Hose	2	
36	RC101330	Assembly, Hydraulic Hose	1	
37	RC700093	Adapter, -12 MORFS -10 MORB Straight	1	
38	RC700111	Adapter, -12 MORFS -10 MORB Straight Long	1	
39	RC700117	Elbow, -6 MORFS x -4 MORB 90°	1	
40	RC902456	Tie, 15 UV Resistant Cable	12	

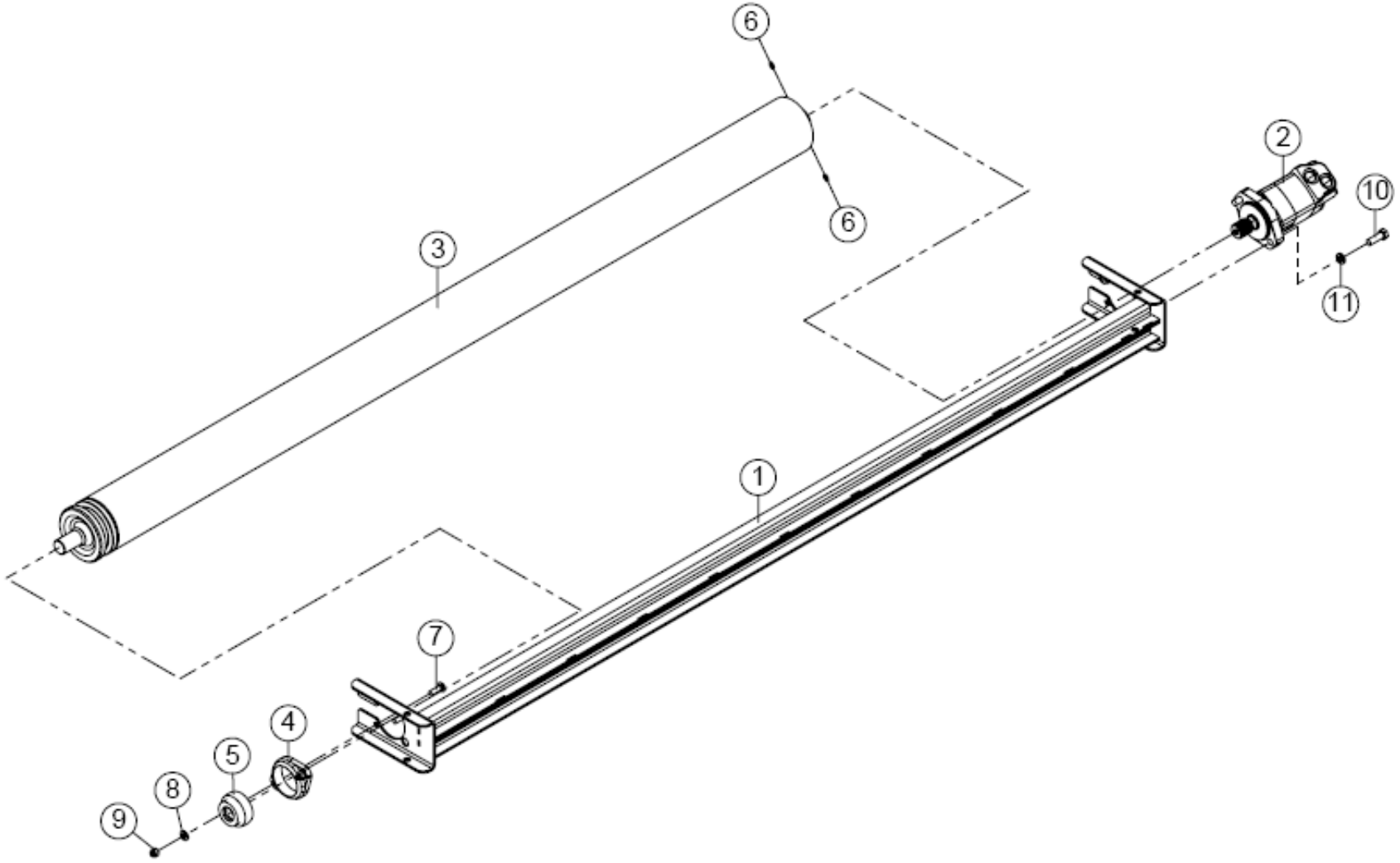
Front Conveyor Idler Roller



Front Conveyor Idler Roller

Key	Part Number	Description	Qty	Comments
1	RC201101	Frame, Front Belt Carrier	1	
2	RC0358	Flange, Bearing	2	
3	RC0359	Bearing	2	
4	RC101633	Guard	2	
5	RC201083	Support	2	
6	RC230018	Pad, Wear	2	
7	RC101027	Roller, Driven	1	
8	RC201102	Guard	2	
9	RC101627	Scraper	1	
10	RC201104	Plate, Front Belt Scraper Washer	1	
11	RC230020	Plate, Wear	4	
12	RC902276	Bushing, 1/2 ID x 3/4 OD x 1/2"	1	
13	RC902368	Screw, 1/4-20 x 5/8" SS Flange SH Cap	14	
14	RC902433	Screw, 1/4-20 x 5/8 CZ FH Socket	28	
15	RC900059	Bolt, 1/4-20 x 5/8 Gr 5 YZ Hex	4	
16	RC901557	Bolt, 1/4-20 x 1 CZ Carriage	8	
17	RC900724	Washer, 1/4 YZ Lock	4	
18	RC902696	Washer, 1/4 SAE YZ Hard Flat	12	
19	RC900659	Nut, 1/4-20 YZ Serated Flange	12	
20	RC900575	Nut, 1/4-20 YZ Nylock	8	
21	RC900404	Bolt, 3/8-16 x 1-1/4 CZ Carriage	4	
22	RC900677	Washer, 3/8 SAE YZ Hard Flat	4	
23	RC900583	Nut, 3/8-16 YZ Nylock	4	

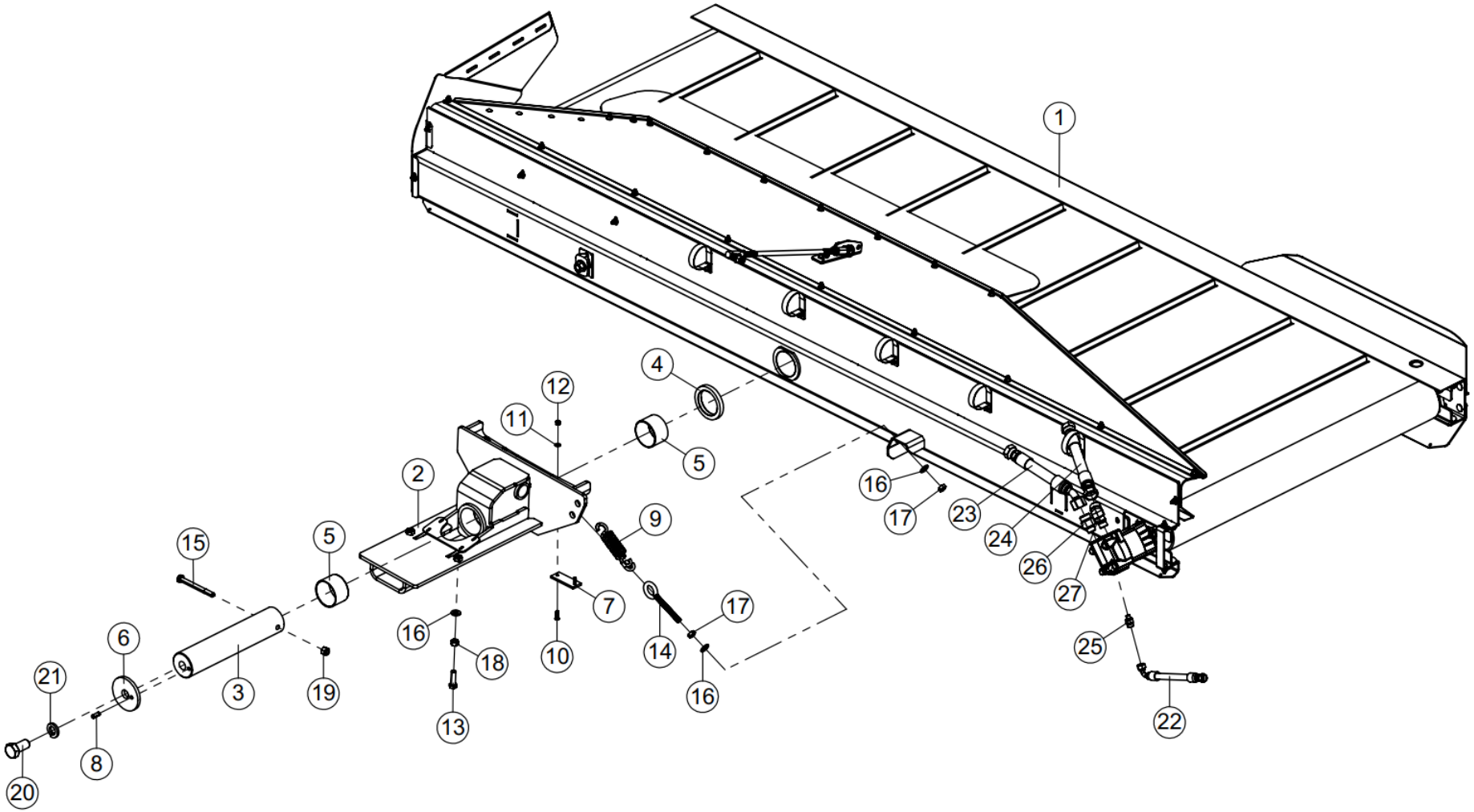
Front Conveyor Drive Roller



Front Conveyor Drive Roller

Key	Part Number	Description	Qty	Comments
1	RC201107	Weldment, Front Belt Drive Roller Frame	1	
2	RC950552	Motor, Hydraulic	1	
3	RC101022	Roller, Drive	1	
4	RC0358	Flange, Bearing	1	
5	RC0359	Bearing	1	
6	RC902080	Zerk, 1/4-28 Straight Grease	2	
7	RC900404	Bolt, 3/8-16 x 1-1/4 CZ Carriage	2	
8	RC900677	Washer, 3/8 SAE YZ Hard Flat	2	
9	RC900583	Nut, 3/8-16 YZ Nylock	2	
10	RC900282	Bolt, 1/2-13 x 1-1/2 Gr 8 YZ Hex	2	
11	RC900731	Washer, 1/2 YZ Lock	2	

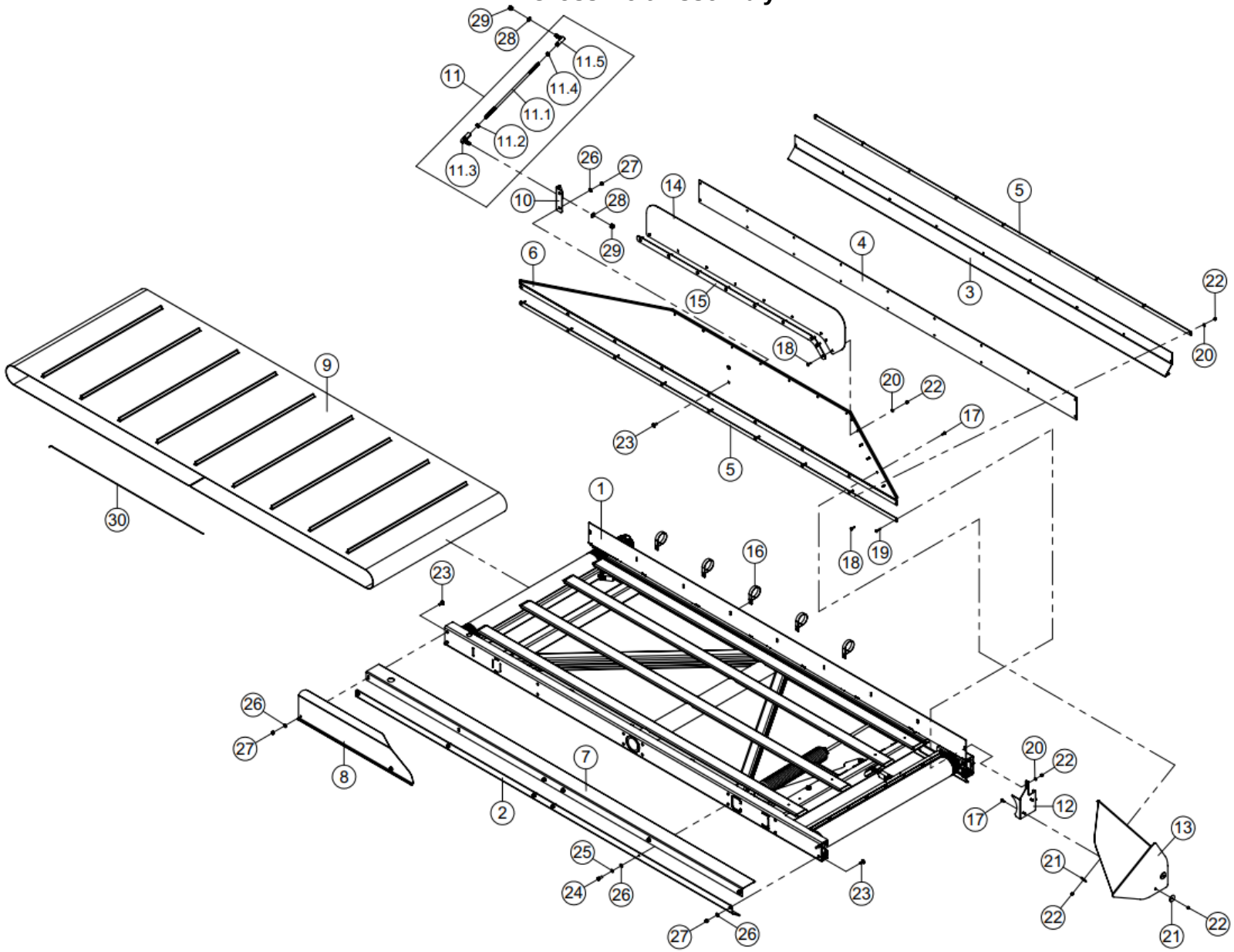
Cross Belt Mount



Cross Belt Mount

Key	Part Number	Description	Qty	Comments
1	RC101602	Assembly, Cross Belt	1	
2	RC201119	Base, Pivot	1	
3	RC110075	Pin	1	
4	RC110043	Bearing, Pivot	1	
5	RC950063	Bushing, 3 ID x 2 Sleeve	2	
6	RC201140	Washer	1	
7	RC230019	Spacer	2	
8	RC901763	Pin, 3/8 x 1 CZ Roll	1	
9	RC950097	Spring, 5-1/2 x 1.406 O.D. Extension	1	
10	RC902326	Screw, 1/4-20 x 1 CZ Flat Head Socket	4	
11	RC900668	Washer, 1/4 SAE YZ Flat	4	
12	RC900575	Nut, 1/4-20 YZ Nylock	4	
13	RC901783	Bolt, 1/2 x 1-3/4 YZ Gr 8 Hex	2	
14	RC902355	Bolt, 1/2-13 x 4 CZ Closed Eye	1	
15	RC901598	Bolt, 1/2-13 x 5 Gr 8 YZ Hex	1	
16	RC900691	Washer, 1/2 SAE YZ Hard Flat	4	
17	RC900612	Nut, 1/2-13 YZ Hex Jam	2	
18	RC900529	Nut, 1/2-13 YZ Hex	2	
19	RC900588	Nut, 1/2-13 YZ Nylock	1	
20	RC901966	Bolt, 1-8 x 2 Gr 8 YZ Hex	1	
21	RC900738	Washer, 1 YZ Lock	1	
22	RC101331	Assembly, Hydraulic Hose	1	
23	RC101745	Assembly, Hydraulic Hose	1	
24	RC101761	Assembly, Hydraulic Hose	1	
25	RC700076	Adapter, -6 MORFS -4 MORB Straight	1	
26	RC700093	Adapter, -12 MORFS -10 MORB Straight	1	
27	RC700891	Elbow, -12 MORFS -10 MORB 45°	1	

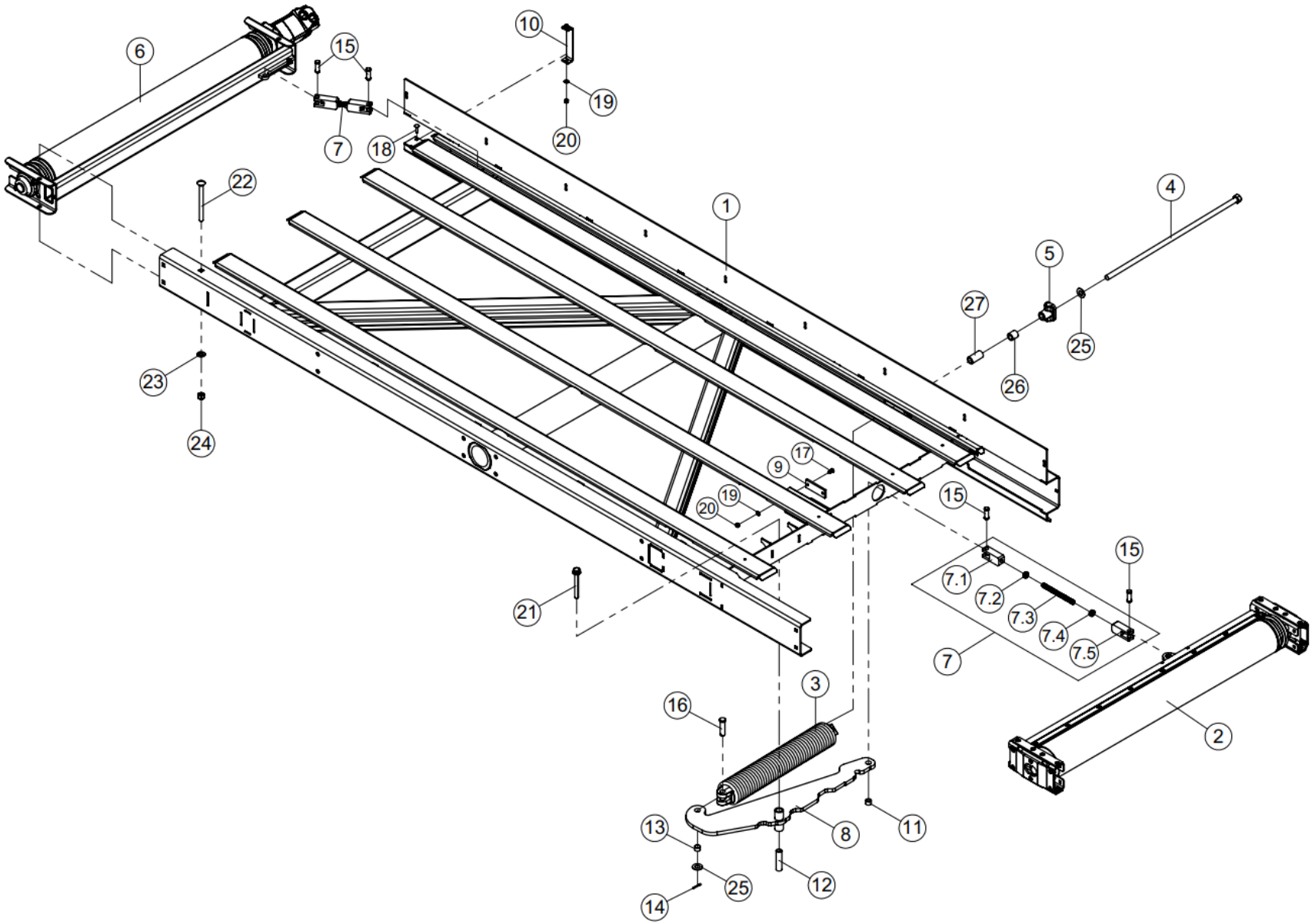
Cross Belt Assembly



Cross Belt Assembly

Key	Part Number	Description	Qty	Comments
1	RC230017	Assembly, Belt Frame	1	
2	RC201090	Shoe, Skid	1	
3	RC201091	Shingle, Rear	1	
4	RC101604	Hinge, Rubber	1	
5	RC201093	Strap	2	
6	RC201095	Sheet, Top	1	
7	RC201096	Shingle	1	
8	RC201097	Guard, Crop	1	
9	RC101665	Belt, Cross	1	
10	RC201098	Support	1	
11	RC101722	Rod, Adjuster	1	
11.1	RC950581	Rod, 1/2-20 x 18" CZ Round Connecting	1	
11.2	RC902318	Nut, 1/2-20 CZ Jam	1	
11.3	RC902307	End, RH 1/2-20 Rod	1	
11.4	RC902317	Nut, 1/2-20 LH CZ Jam	1	
11.5	RC902306	End, LH 1/2-20 Rod	1	
12	RC201099	Shield, Cross Belt Roller	1	
13	RC201052	Shield	1	
14	RC201197	Seal, Shield	1	
15	RC201196	Strap, Rear Shield Seal	1	
16	RC901690	P-Clamp, 2-3/4 Cushion	5	
17	RC901556	Bolt, 1/4-20 x 3/4 CZ Carriage	7	
18	RC901557	Bolt, 1/4-20 x 1 CZ Carriage	18	
19	RC902310	Bolt, 1/4-20 x 1-1/4 CZ Carriage	9	
20	RC902696	Washer, 1/4 SAE YZ Hard Flat	28	
21	RC901838	Washer, 1/4 CZ Fender	6	
22	RC900575	Nut, 1/4-20 YZ Nylock	34	
23	RC900402	Bolt, 3/8-16 x 1 CZ Carriage	6	
24	RC900088	Bolt, 3/8-16 x 1 Gr 5 YZ Hex	8	
25	RC900728	Washer, 3/8 YZ Lock	8	
26	RC900677	Washer, 3/8 SAE YZ Hard Flat	14	
27	RC900583	Nut, 3/8-16 YZ Nylock	6	
28	RC900691	Washer, 1/2 SAE YZ Hard Flat	2	
29	RC900590	Nut, 1/2-20 YZ Nylock	2	
30	RC101371	Rod, Belt	1	

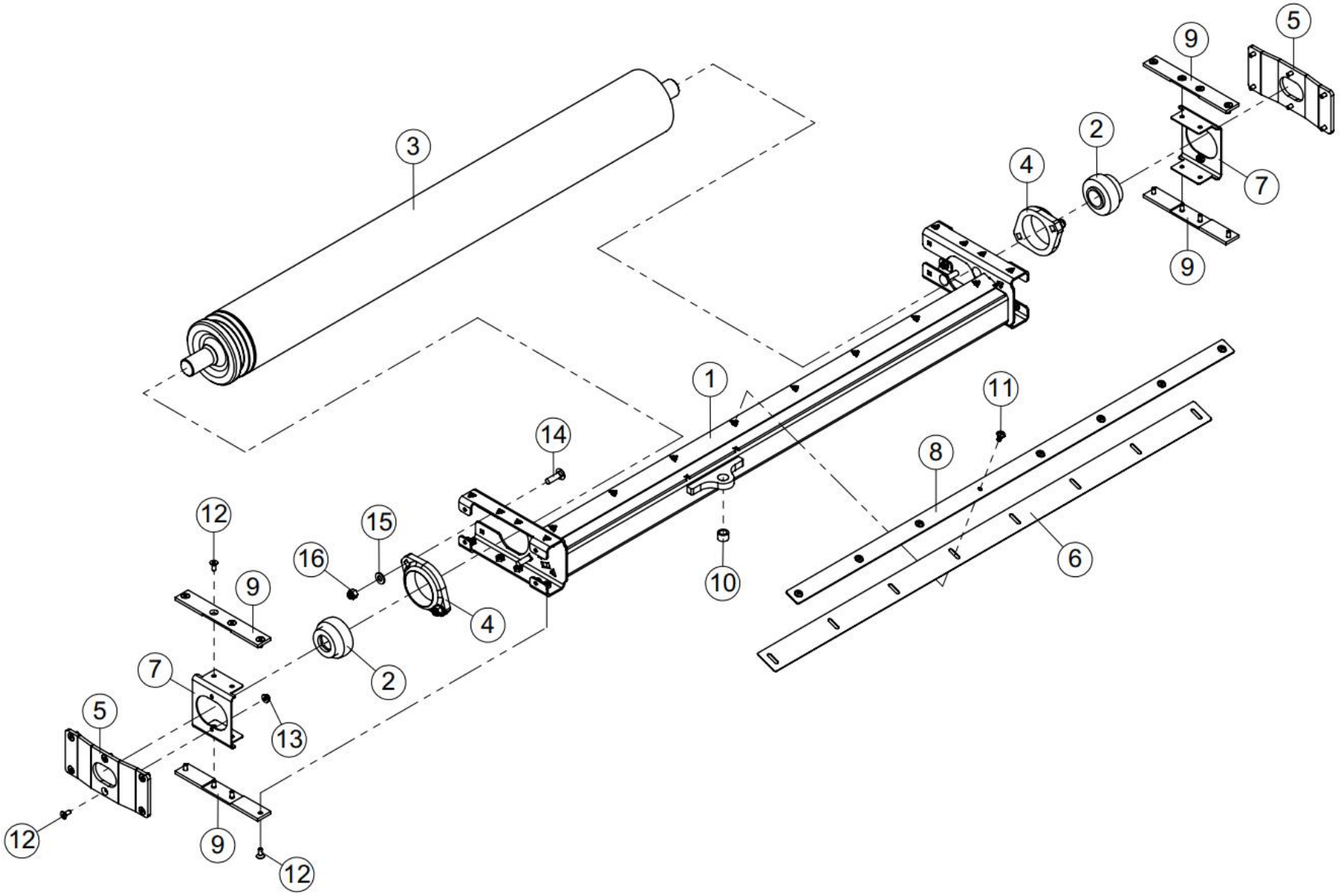
Cross Belt Tensioner



Cross Belt Tensioner

Key	Part Number	Description	Qty	Comments
1	RC201080	Frame, Belt	1	
2	RC230013	Assembly, Carrier	1	
3	RC230026	Assembly, Spring	1	
4	RC201137	Rod, Tension	1	
5	RC063040	Pivot	1	
6	RC230505	Frame, Carrier	1	
7	RC230173	Assembly, Connecting Rod	1	
7.1	RC902350	End, 1/2-20 RH YZ Rod	1	
7.2	RC901881	Nut, 1/2-20 YZ Hex Jam	1	
7.3	RC902351	Rod, 1/2-20 x 6 YZ O.T. Connecting	1	
7.4	RC902317	Nut, 1/2-20 LH CZ Jam	1	
7.5	RC902353	End, 1/2-20 LH YZ Rod	1	
8	RC201086	Arm, Tensioner	1	
9	RC230019	Spacer	4	
10	RC201088	Plate, End	1	
11	RC902276	Bushing, 1/2 I.D. x 3/4 O.D. x 1/2	1	
12	RC902275	Bushing, 1/2 I.D. x 3/4 O.D. x 3	1	
13	RC902277	Bushing, 5/8 I.D. x 3/4 O.D. x 1/2	1	
14	RC900839	Pin, 1/8 x 1 YZ Cotter	1	
15	RC902354	Pin, 1/2 x 1-5/16 SS Grooved Clevis	4	
16	RC902323	Pin, 5/8 x 2-1/4 CZ Clevis	1	
17	RC902209	Screw, 1/4-20 x 3/4 SS FH Socket	8	
18	RC901557	Bolt, 1/4-20 x 1 CZ Carriage	2	
19	RC902696	Washer, 1/4 SAE YZ Hard Flat	10	
20	RC900575	Nut, 1/4-20 YZ Nylock	10	
21	RC902309	Bolt, 1/2-13 x 4 CZ Serrated Flange	1	
22	RC902308	Bolt, 1/2-13 x 6 Gr 5 CZ Carriage	1	
23	RC900691	Washer, 1/2 SAE YZ Hard Flat	1	
24	RC900588	Nut, 1/2-13 YZ Nylock	1	
25	RC900694	Washer, 5/8 SAE YZ Hard Flat	2	
26	RC902684	Spacer, .625" ID x 1.00" OD x 1" CZ	1	
27	RC902681	Spacer, .625" ID x 1.00" OD x 2" CZ	1	

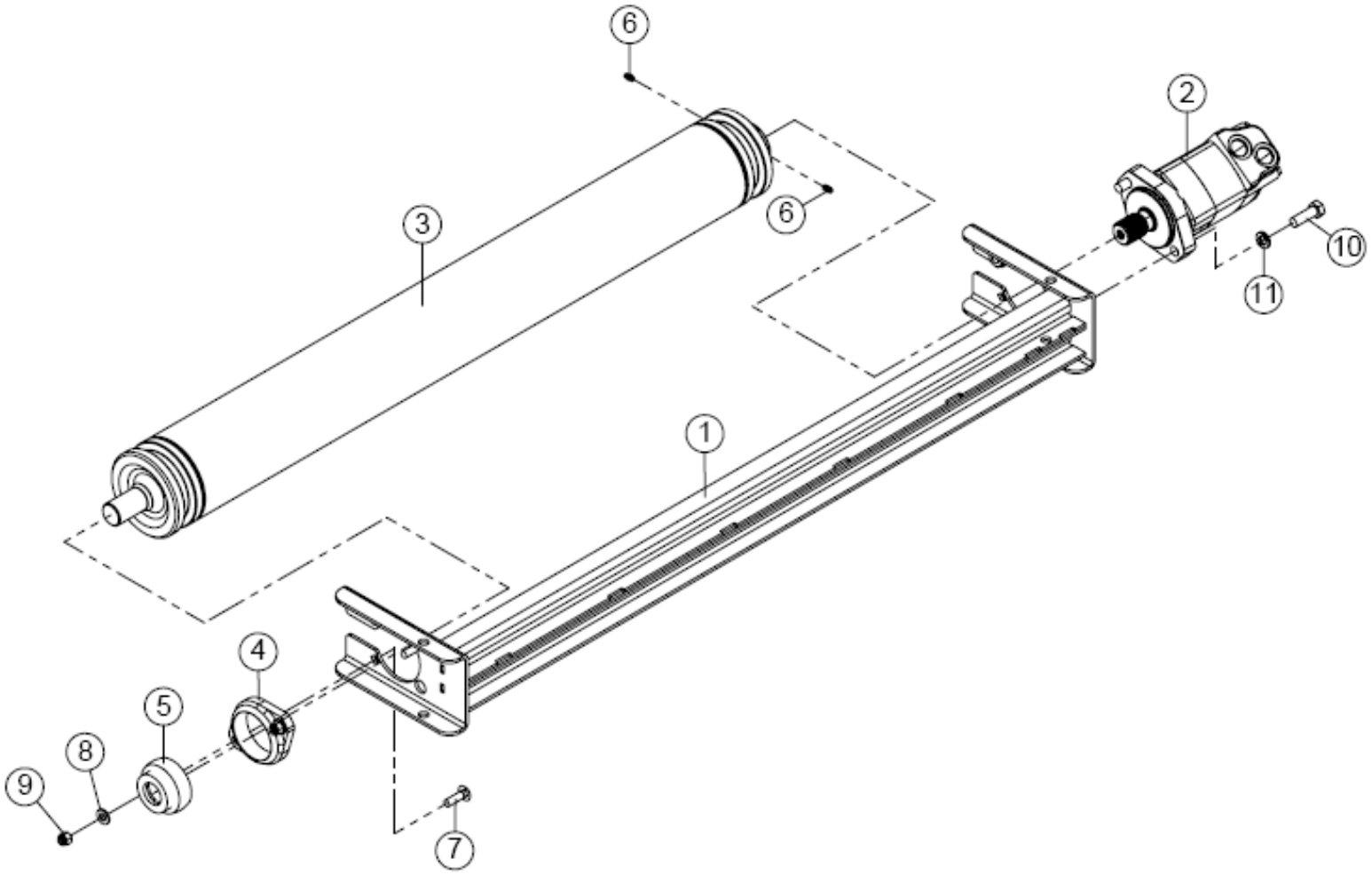
Cross Belt Idler Roller



Cross Belt Idler Roller

Key	Part Number	Description	Qty	Comments
1	RC201081	Frame, Carrier	1	
2	RC0359	Bearing	2	
3	RC082045	Roller, Idler	1	
4	RC0358	Flange, Bearing	2	
5	RC230018	Pad, Wear	2	
6	RC101557	Scraper	1	
7	RC201083	Support	2	
8	RC201084	Plate, Front Belt Scraper Washer	1	
9	RC230020	Plate, Wear	4	
10	RC902276	Bushing, 1/2 ID x 3/4 OD x 1/2"	1	
11	RC902368	Screw, 1/4-20 x 5/8" SS Flange SH Cap	8	
12	RC902433	Screw, 1/4-20 x 5/8 CZ Flat Head Socket	28	
13	RC900659	Nut, 1/4-20 YZ Serrated Flange	12	
14	RC900404	Bolt, 3/8-16 x 1-1/4 CZ Carriage	4	
15	RC900677	Washer, 3/8 SAE YZ Hard Flat	4	
16	RC900583	Nut, 3/8-16 YZ Nylock	4	

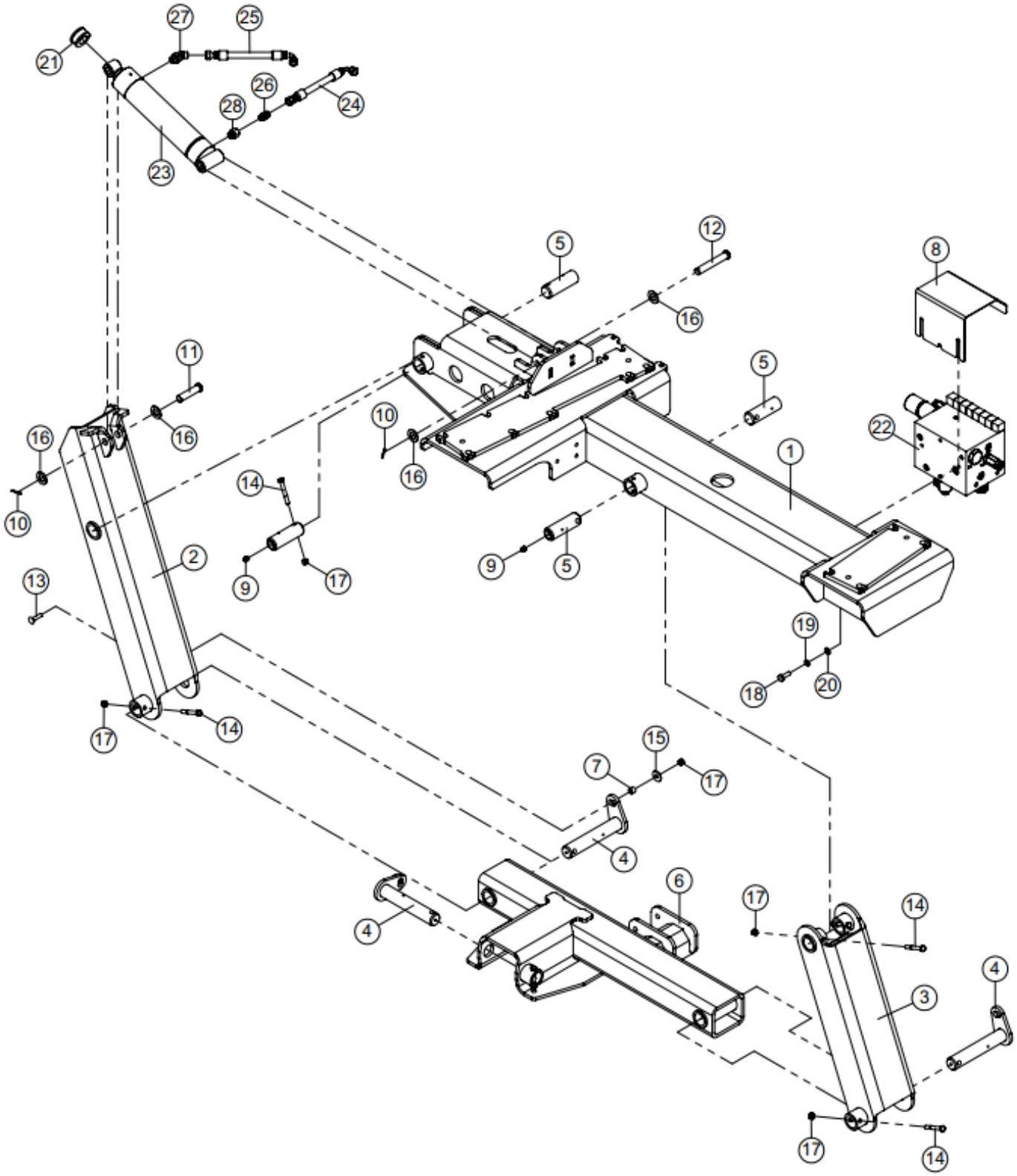
Cross Belt Drive Roller



Cross Belt Drive Roller

Key	Part Number	Description	Qty	Comments
1	RC201085	Weldment, Cross Belt Drive Roller Frame	1	
2	RC950552	Motor, Hydraulic	1	
3	RC082601	Roller, Drive	1	
4	RC0358	Flange, Bearing	1	
5	RC0359	Bearing	1	
6	RC902080	Zerk, 1/4-28 Straight Grease	2	
7	RC900404	Bolt, 3/8-16 x 1-1/4 CZ Carriage	2	
8	RC900677	Washer, 3/8 SAE YZ Hard Flat	2	
9	RC900583	Nut, 3/8-16 YZ Nylock	2	
10	RC900282	Bolt, 1/2-13 x 1-1/2 Gr 8 YZ Hex	2	
11	RC900731	Washer, 1/2 YZ Lock	2	

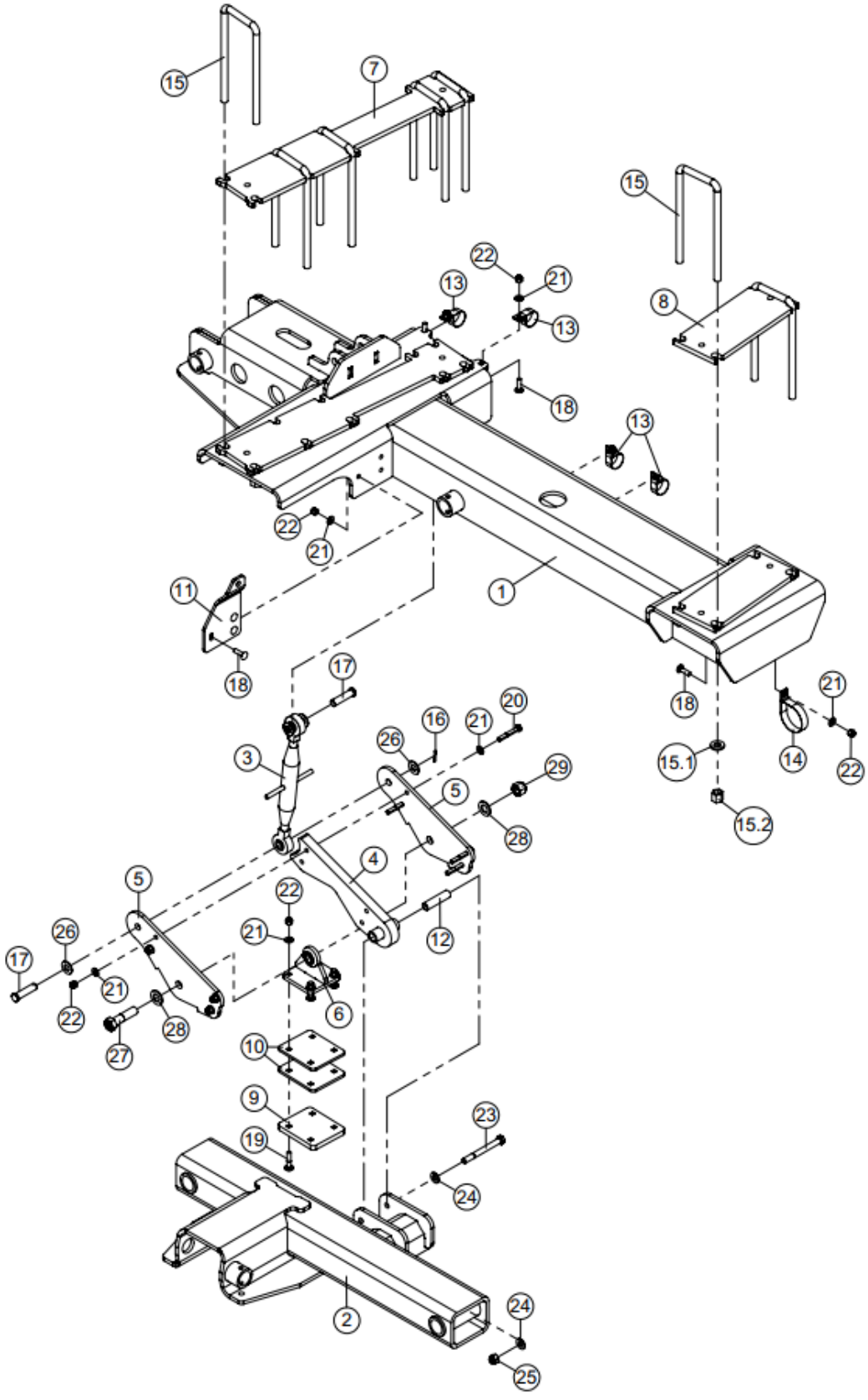
Main Pivot Frame



Main Pivot Frame

Key	Part Number	Description	Qty	Comments
1	RC201130	Weldment, Cross Beam	1	
2	RC201131	Weldment, RH Pivot Arm	1	
3	RC201118	Arm, Pivot	1	
4	RC201138	Pin, Pivot	3	
5	RC201139	Pin	4	
6	RC201120	Weldment, Carrier	1	
7	RC130141	Spacer	3	
8	RC201128	Guard, Wind	1	
9	RC901714	Zerk, M10-1 Straight Grease	7	
10	RC900826	Pin, 1/8 x 1-1/4 SS Cotter	2	
11	RC901905	Pin, 3/4 x 3 CZ Clevis	1	
12	RC901808	Pin, 3/4 x 4-1/2 CZ Clevis	1	
13	RC900406	Bolt, 3/8-16 x 1-1/2 CZ Carriage	2	
14	RC901358	Bolt, 3/8-16 x 2-3/4 Gr8 YZ Hex	7	
15	RC900680	Washer, 3/8 CZ Heavy Fender	3	
16	RC902416	Washer, 3/4 SAE YZ Hard Flat	4	
17	RC900583	Nut, 3/8-16 YZ Nylock	10	
18	RC901188	Bolt, M10-1.5 x 30mm Gr 10.9 YZ Hex	2	
19	RC901293	Washer, M10 YZ Lock	2	
20	RC901704	Washer, M10 YZ Flat	2	
21	RC950236	Kit, Stroke Control Block	1	
22	RC101748	Assembly, Manifold	1	
23	RC950081	Cylinder, 2.5" x 8" Welded	1	
24	RC101747	Assembly, Hydraulic Hose	1	
25	RC101746	Assembly, Hydraulic Hose	1	
26	RC700077	Adapter, -6 MORFS -6 MORB Straight	1	
27	RC700881	Elbow, -6 MORFS -8 MORB 45°	1	
28	RC700633	Reducer, -8 MORB -6 FORB Straight	1	

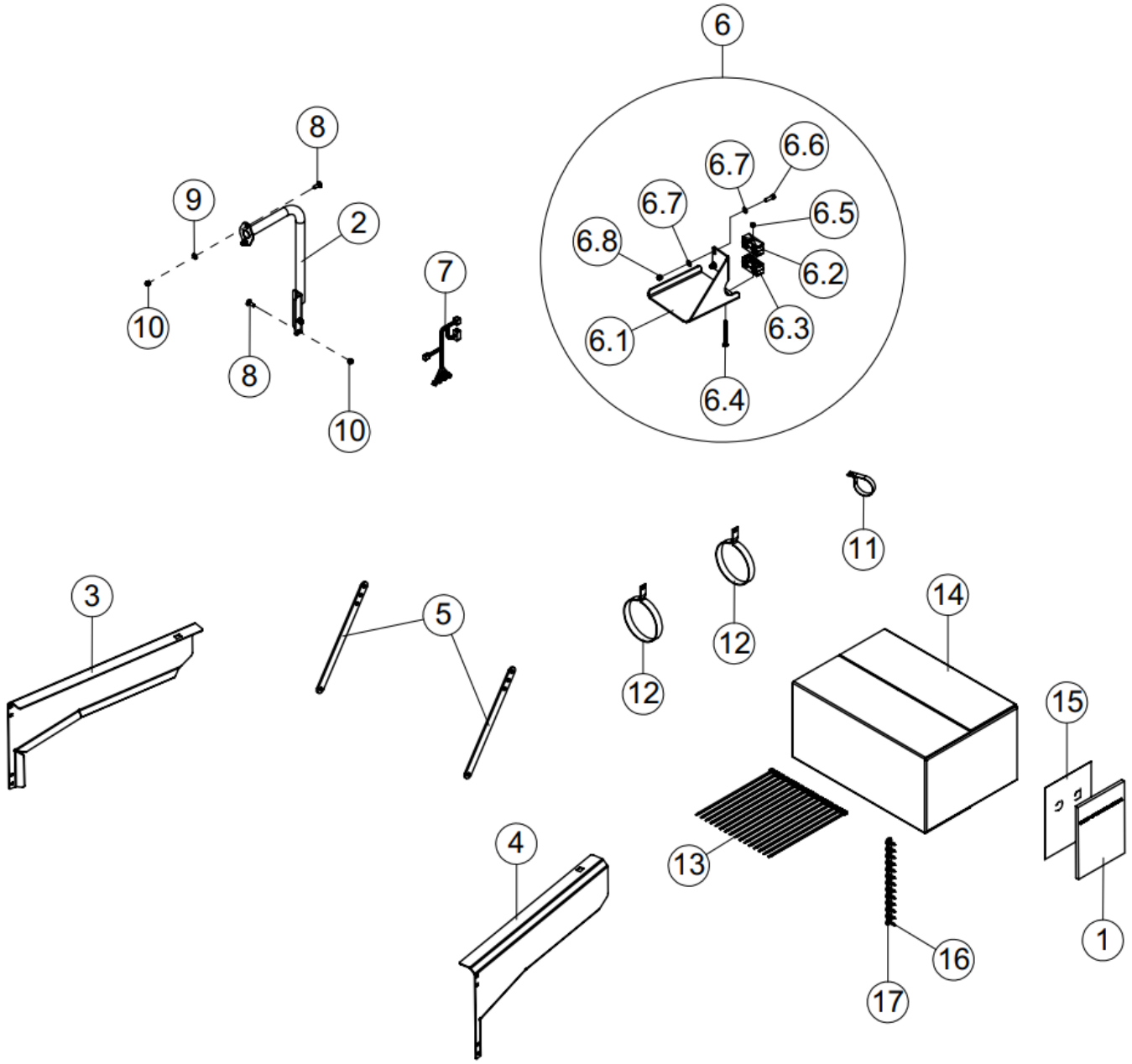
Mounting Components



Mounting Components

Key	Part Number	Description	Qty	Comments
1	RC201130	Weldment, Cross Beam	1	
2	RC201120	Weldment, Carrier	1	
3	RC950082	Link, 5/8 x 13-18" Cat 0 Top	1	
4	RC201121	Weldment, Arm	1	
5	RC201122	Plate	2	
6	RC201123	Weldment, Slider	1	
7	RC201059	Plate, Spacer	1	
8	RC201060	Plate, Spacer	1	
9	RC101718	Plate, Wear	1	
10	RC201126	Spacer	2	
11	RC201129	Bracket, Tie Rod	1	
12	RC902275	Bushing, 1/2 I.D. x 3/4 O.D. x 3	1	
13	RC901689	P-Clamp, 1-1/2 Cushion	4	
14	RC901690	P-Clamp, 2-3/4 Cushion	1	
15	RC902300	U-Bolt, 5/8-18 x 4 x 10-5/8 YZ	7	
15.1	RC902302	Washer, 5/8 YZ Heavy Flat	14	
15.2	RC902301	Nut, 5/8-18 YZ Long	14	
16	RC900839	Pin, 1/8 x 1 YZ Cotter	2	
17	RC902150	Pin, 5/8 x 2-1/2 CZ Clevis	2	
18	RC900404	Bolt, 3/8-16 x 1-1/4 CZ Carriage	8	
19	RC901737	Bolt, 3/8-16 x 1-3/4 Gr 5 CZ Carriage	4	
20	RC901635	Bolt, 3/8-16 x 2-1/2 Gr 8 YZ Hex	4	
21	RC900677	Washer, 3/8 SAE YZ Hard Flat	20	
22	RC900583	Nut, 3/8-16 YZ Nylock	16	
23	RC901594	Bolt, 1/2-13 x 4-3/4 Gr 8 YZ Hex	1	
24	RC900691	Washer, 1/2 SAE YZ Hard Flat	2	
25	RC900588	Nut, 1/2-13 YZ Nylock	1	
26	RC900694	Washer, 5/8 SAE YZ Hard Flat	4	
27	RC900318	Bolt, 3/4-10 x 3 Gr 8 YZ Hex	1	
28	RC902416	Washer, 3/4 SAE YZ Hard Flat	2	
29	RC900597	Nut, 3/4-10 YZ Nylock	1	

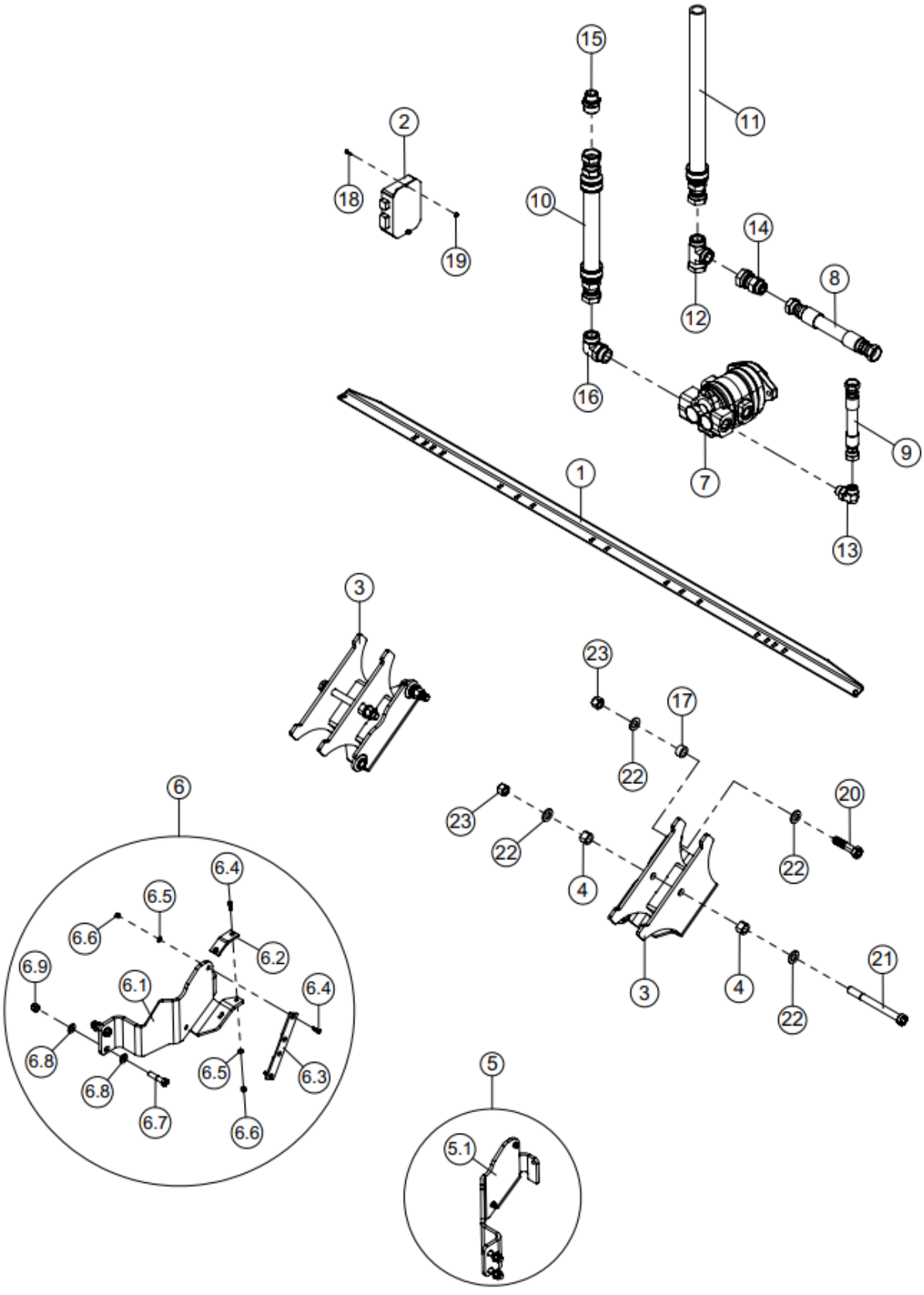
Base Machine Components



Base Machine Components

Key	Part Number	Description	Qty	Comments
1	RC201132	Manual, RC201132 Operator	1	
2	RC201109	Handle, Grab	1	
3	RC201112	Shield, RH Forming	1	
4	RC201113	Shield, LH Forming	1	
5	RC201115	Link	2	
6	RC201209	Kit, Wire Harness Bracket	1	
6.1	RC201208	Bracket, Shield Mounting	1	
6.2	RC703115	Clamp, Double Line 1.18" ID	1	
6.3	RC703040	Clamp, Double Line 1.06" ID	1	
6.4	RC902824	Bolt, 5/16-18 x 4 CZ Carriage	1	
6.5	RC900579	Nut, 5/16-18 YZ Nylock	1	
6.6	RC900091	Bolt, 3/8-16 x 1-1/4 Gr 5 YZ Hex	2	
6.7	RC900677	Washer, 3/8 SAE YZ Hard Flat	4	
6.8	RC900583	Nut, 3/8-16 YZ Nylock	2	
7	RC101307	Harness, Wire	1	
8	RC900402	Bolt, 3/8-16 x 1 CZ Carriage	4	
9	RC900677	Washer, 3/8 SAE YZ Hard Flat	2	
10	RC900583	Nut, 3/8-16 YZ Nylock	4	
11	RC901690	P-Clamp, 2-3/4 Cushion	1	
12	RC702899	Strap, 8-1/2" Dia x 1" Wide Velcro	2	
13	RC902456	Tie, 15 UV Resistant Cable	16	
14	RC975026	Box, 26x18x12	1	
15	RC975042	Bag, 9"x12"x3mil UV Resistant Press-to-Close	1	
16	RC902572	Screw, #14-10 x 1-1/2 CZ Ph Flat Head Wood	13	
17	RC902415	Washer, 1/4 CZ Fender (1 O.D.)	13	

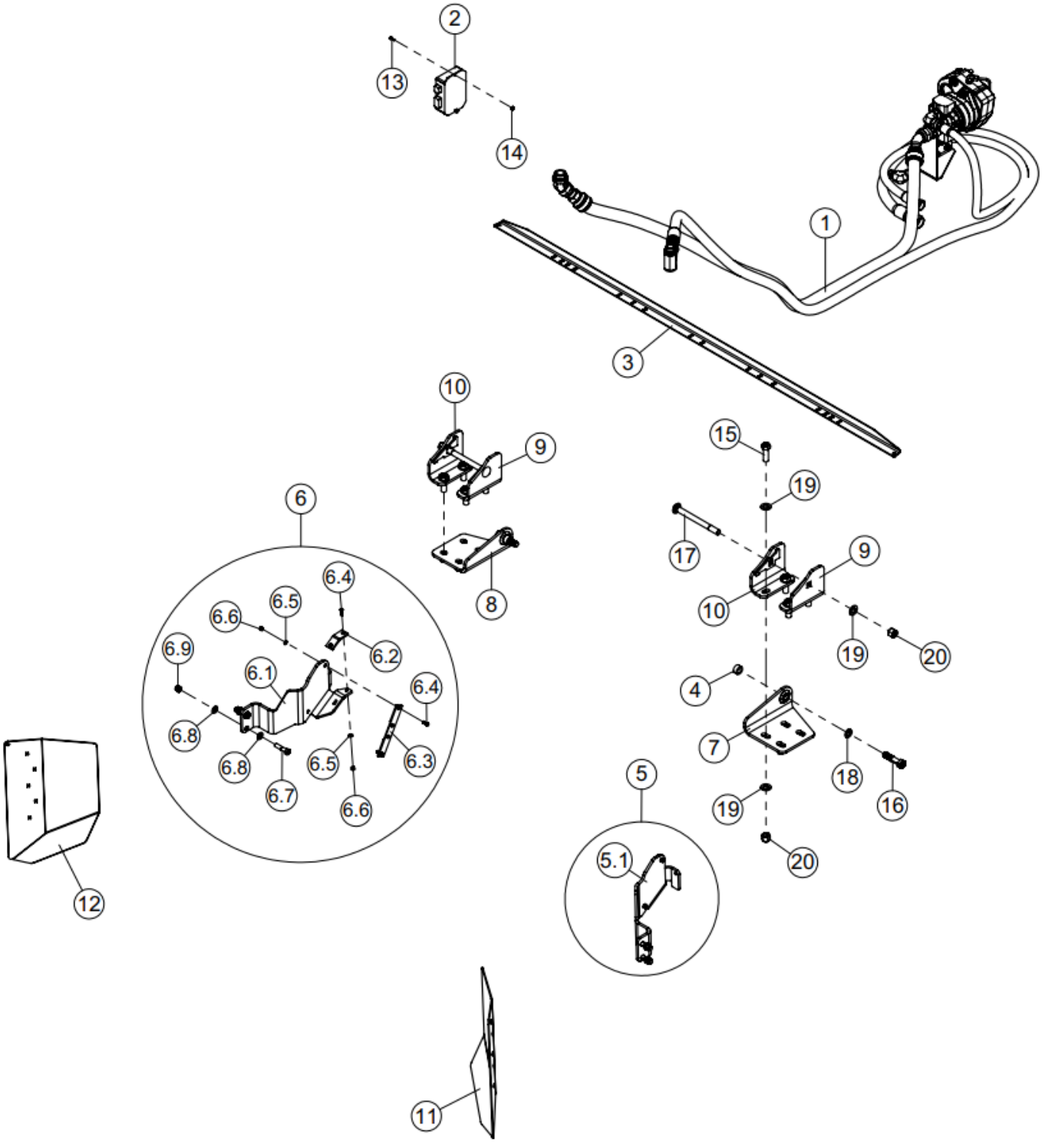
RC201133 - W200 (Up to MY21) Completion Bundle



RC201133 - W200 (Up to MY21) Completion Bundle

Key	Part Number	Description	Qty	Comments
1	RC201218	Brace, W200 and M-Spec Shield	1	
2	RC101138	Controller	1	
3	RC201108	Support, Front Support	2	
4	RC201070	Spacer, Support	4	
5	RC101642	Assembly, Front Conveyor LH Support	1	
5.1	RC201110	Support, Front Conveyor LH	1	
6	RC101643	Assembly, Front Conveyor RH Support	1	
6.1	RC201111	Support, Front Conveyor RH	1	
6.2	RC230019	Spacer	1	
6.3	RC230020	Plate, Wear	1	
6.4	RC902326	Screw, 1/4-20 x 1 CZ Flat Head Socket	4	
6.5	RC902696	Washer, 1/4 SAE YZ Hard Flat	4	
6.6	RC900575	Nut, 1/4-20 YZ Nylock	4	
6.7	RC900283	Bolt, 1/2-13 x 2-1/4 Gr 8 YZ Hex	2	
6.8	RC900691	Washer, 1/2 SAE YZ Hard Flat	4	
6.9	RC900588	Nut, 1/2-13 YZ Nylock	2	
7	RC101306	Pump, Gear	1	
8	RC101343	Assembly, Hydraulic Hose	1	
9	RC101338	Assembly, Hydraulic Hose	1	
10	RC101325	Assembly, Hydraulic Suction Hose	1	
11	RC101326	Assembly, Hydraulic Suction Hose	1	
12	RC700161	Tee, -20 ORFS Run Thru	1	
13	RC700133	Elbow, -12 MORFS -12 MORB 90°	1	
14	RC700242	Reducer, -20 FORFS -16 MORFS	1	
15	RC700100	Adapter, -20 MORFS -16 MORB Straight	1	
16	RC700140	Elbow, -20 MORFS -20 MORB 90°	1	
17	RC902687	Spacer, 3/4" ID x 1-1/4" OD x 5/8" CZ	1	
18	RC901718	Screw, #8-32 x 5/8 CZ Hex Flange	2	
19	RC901719	Nut, #8-32 CZ Serrated Flange	2	
20	RC902748	Bolt, 3/4-10 x 3-1/4 Gr 8 YZ Hex	2	
21	RC902045	Bolt, 3/4-10 x 8 Gr 8 YZ Hex	2	
22	RC902416	Washer, 3/4 SAE YZ Hard Flat	8	
23	RC900597	Nut, 3/4-10 YZ Nylock	4	

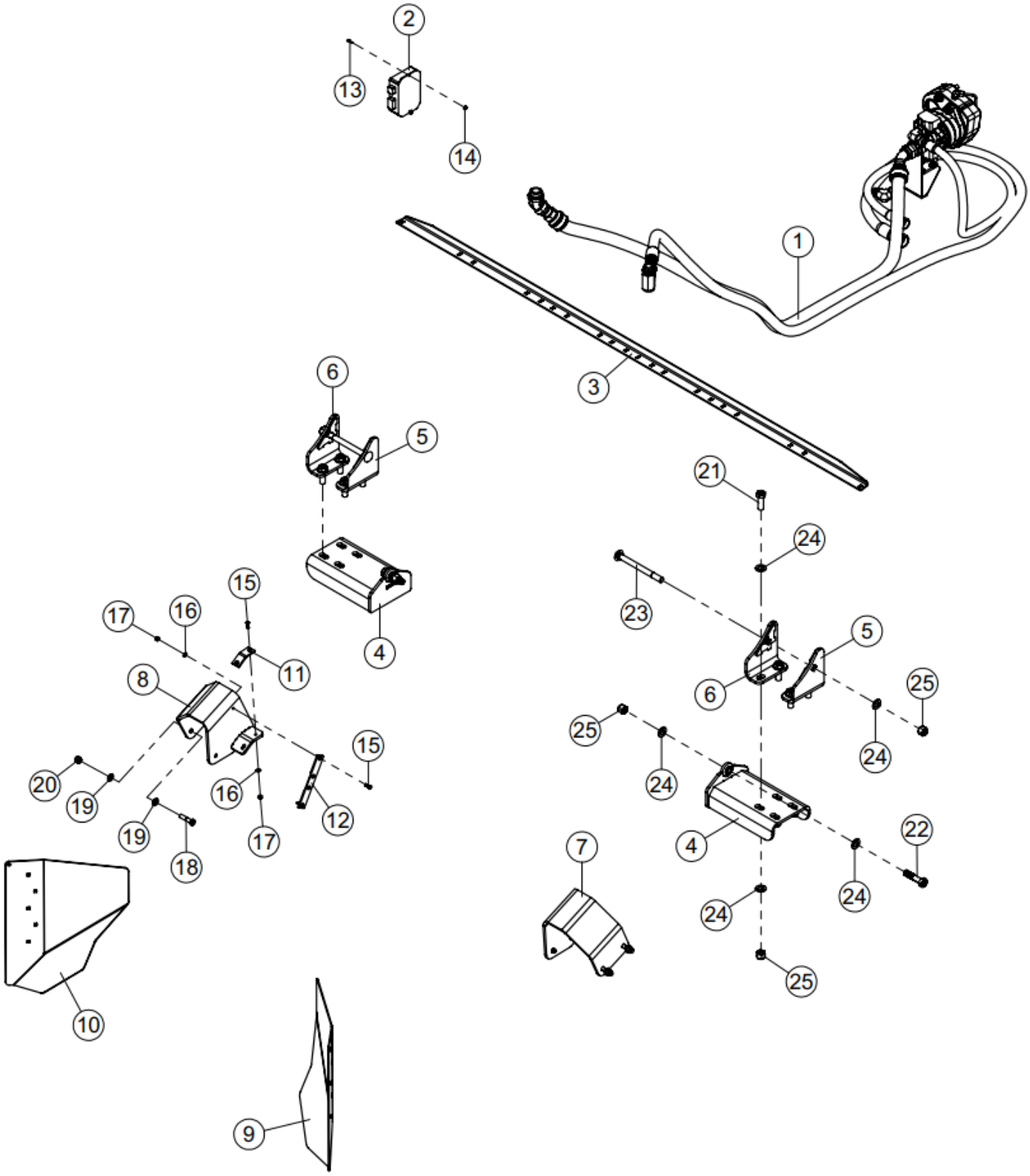
RC201198 – W200M and W235M (MY22+) Completion Bundle



RC201198 – W200M and W235M (MY22+) Completion Bundle

Key	Part Number	Description	Qty	Comments
1	RC201184	Kit, M and R-Spec (MY22+) Hydraulic Completion	1	
2	RC201185	Controller, M-Spec and R-Spec	1	
3	RC201218	Brace, W200 and M-Spec Shield	1	
4	RC902687	Spacer, 3/4" ID x 1-1/4" OD x 5/8" CZ	2	
5	RC101642	Assembly, Front Conveyor LH Support	1	
5.1	RC201110	Support, Front Conveyor LH	1	
6	RC101643	Assembly, Front Conveyor RH Support	1	
6.1	RC201111	Support, Front Conveyor RH	1	
6.2	RC230019	Spacer	1	
6.3	RC230020	Plate, Wear	1	
6.4	RC902326	Screw, 1/4-20 x 1 CZ Flat Head Socket	4	
6.5	RC902696	Washer, 1/4 SAE YZ Hard Flat	4	
6.6	RC900575	Nut, 1/4-20 YZ Nylock	4	
6.7	RC900283	Bolt, 1/2-13 x 2-1/4 Gr 8 YZ Hex	2	
6.8	RC900691	Washer, 1/2 SAE YZ Hard Flat	4	
6.9	RC900588	Nut, 1/2-13 YZ Nylock	2	
7	RC201191	Mount, M Series LH Lower Angle	1	
8	RC201190	Mount, M Series RH Lower Angle	1	
9	RC201202	Mount, M Series LH	2	
10	RC201205	Mount, M Series RH	2	
11	RC201227	Deflector, LH M-Spec	1	
12	RC201224	Deflector, RH M-Spec	1	
13	RC901718	Screw, #8-32 x 5/8 CZ Hex Flange	2	
14	RC901719	Nut, #8-32 CZ Serrated Flange	2	
15	RC900311	Bolt, 3/4-10 x 2-1/4 Gr 8 YZ Hex	8	
16	RC902748	Bolt, 3/4-10 x 3-1/4 Gr 8 YZ Hex	2	
17	RC902709	Bolt, 3/4-10 x 8-1/2 Gr 5 CZ Carriage	2	
18	RC900736	Washer, 3/4 YZ Lock	2	
19	RC900703	Washer, 3/4 SAE YZ Flat	18	
20	RC900597	Nut, 3/4-10 YZ Nylock	10	

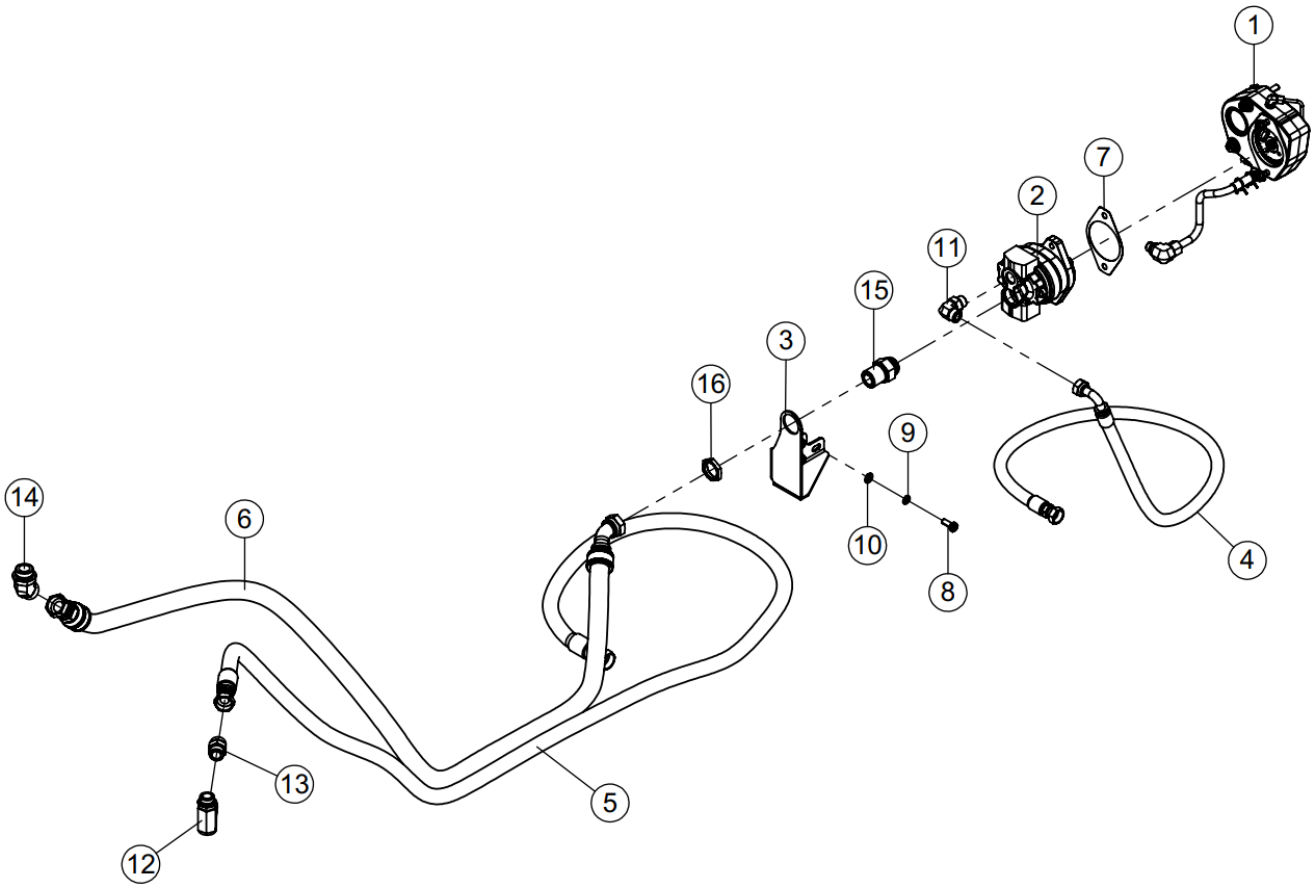
RC201158 – W235R and W260R (MY22+) Completion Bundle



RC201158 – W235R and W260R (MY22+) Completion Bundle

Key	Part Number	Description	Qty	Comments
1	RC201184	Kit, M and R-Spec (MY22+) Hydraulic Completion	1	
2	RC201185	Controller, M-Spec and R-Spec	1	
3	RC201220	Brace, R-Spec Shield	1	
4	RC201169	Mount, R Series	2	
5	RC201163	Mount, R Series LH	2	
6	RC201165	Mount, R Series RH	2	
7	RC201177	Bracket, R Series LH	1	
8	RC201175	Bracket, R Series RH	1	
9	RC201233	Deflector, LH R-Spec	1	
10	RC201230	Deflector, RH R-Spec	1	
11	RC230019	Spacer	2	
12	RC230020	Plate, Wear	2	
13	RC901718	Screw, #8-32 x 5/8 CZ Hex Flange	2	
14	RC901719	Nut, #8-32 CZ Serrated Flange	2	
15	RC902326	Screw, 1/4-20 x 1 CZ Flat Head Socket	8	
16	RC900668	Washer, 1/4 SAE YZ Flat	8	
17	RC900575	Nut, 1/4-20 YZ Nylock	8	
18	RC900283	Bolt, 1/2-13 x 2-1/4 Gr 8 YZ Hex	4	
19	RC900686	Washer, 1/2 SAE YZ Flat	8	
20	RC900588	Nut, 1/2-13 YZ Nylock	4	
21	RC900311	Bolt, 3/4-10 x 2-1/4 Gr 8 YZ Hex	8	
22	RC902748	Bolt, 3/4-10 x 3-1/4 Gr 8 YZ Hex	2	
23	RC902709	Bolt, 3/4-10 x 8-1/2 Gr 5 CZ Carriage	2	
24	RC900703	Washer, 3/4 SAE YZ Flat	22	
25	RC900597	Nut, 3/4-10 YZ Nylock	12	

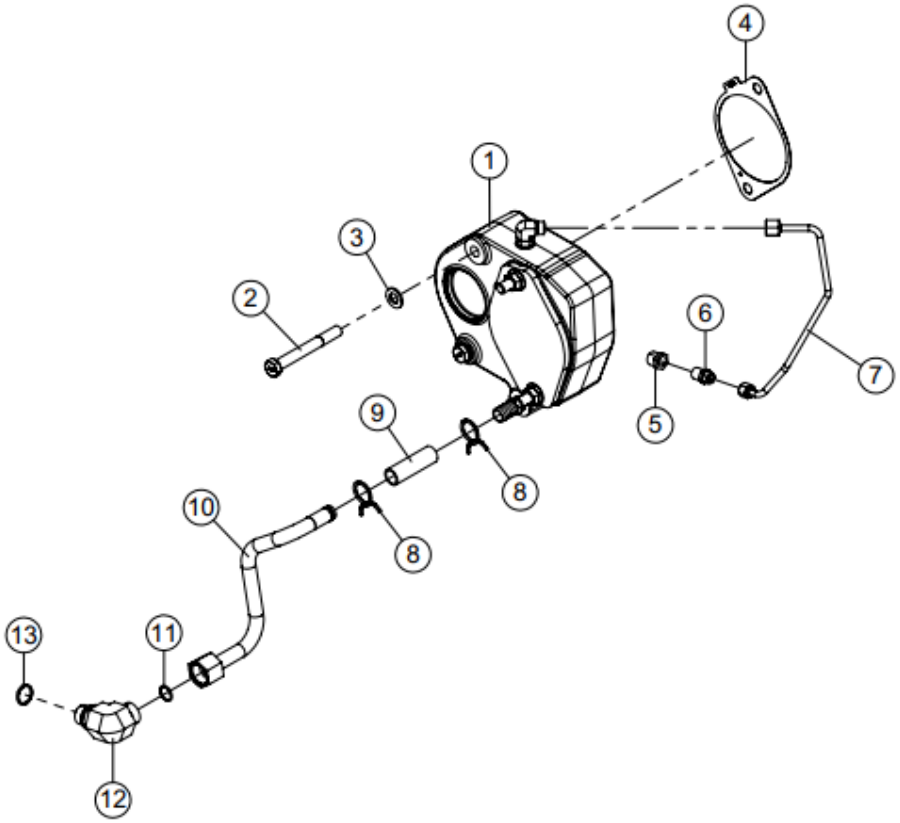
RC201184 – M and R-Spec (MY22+) Hydraulic Completion Bundle

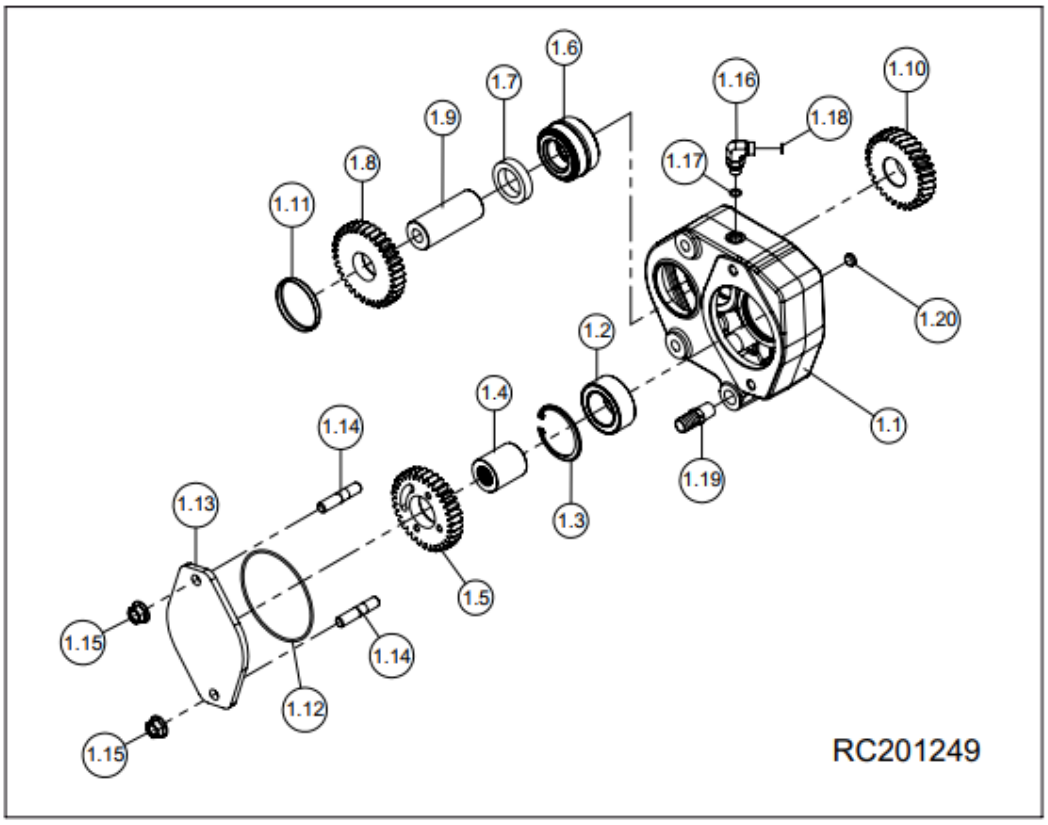


RC201184 – M and R-Spec (MY22+) Hydraulic Completion Bundle

Key	Part Number	Description	Qty	Comments
1	RC201250	Bundle, Auxiliary Drive Adapter	1	
2	RC950660	Pump, L2 Series Gear	1	
3	RC201236	Bracket, Aux Pump	1	
4	RC201183	Assembly, Hydraulic Hose	1	
5	RC201181	Assembly, Hydraulic Hose	1	
6	RC201179	Assembly, Hydraulic Hose	1	
7	RC950702	Gasket, SAE B-Flange	1	
8	RC902839	Bolt, M12-1.75 x 30mm Gr 10.9 YZ Hex	3	
9	RC901294	Washer, M12 YZ Lock	3	
10	RC902432	Washer, M12 YZ Hard Flat	3	
11	RC700133	Elbow, -12 MORFS -12 MORB 90°	1	
12	RC703131	Tee, -16 MORB Run	1	
13	RC700098	Adapter, -16 MORFS x -16 MORB Straight	1	
14	RC700898	Elbow, -20 MORFS -20 MORB 45°	1	
15	RC701022	Bulkhead, -20 MFS, -20 MORB, Straight	1	
16	RC700016	Nut, 1 11/16-12 Bulkhead Lock	1	

RC201250 – Auxiliary Drive Adapter Bundle

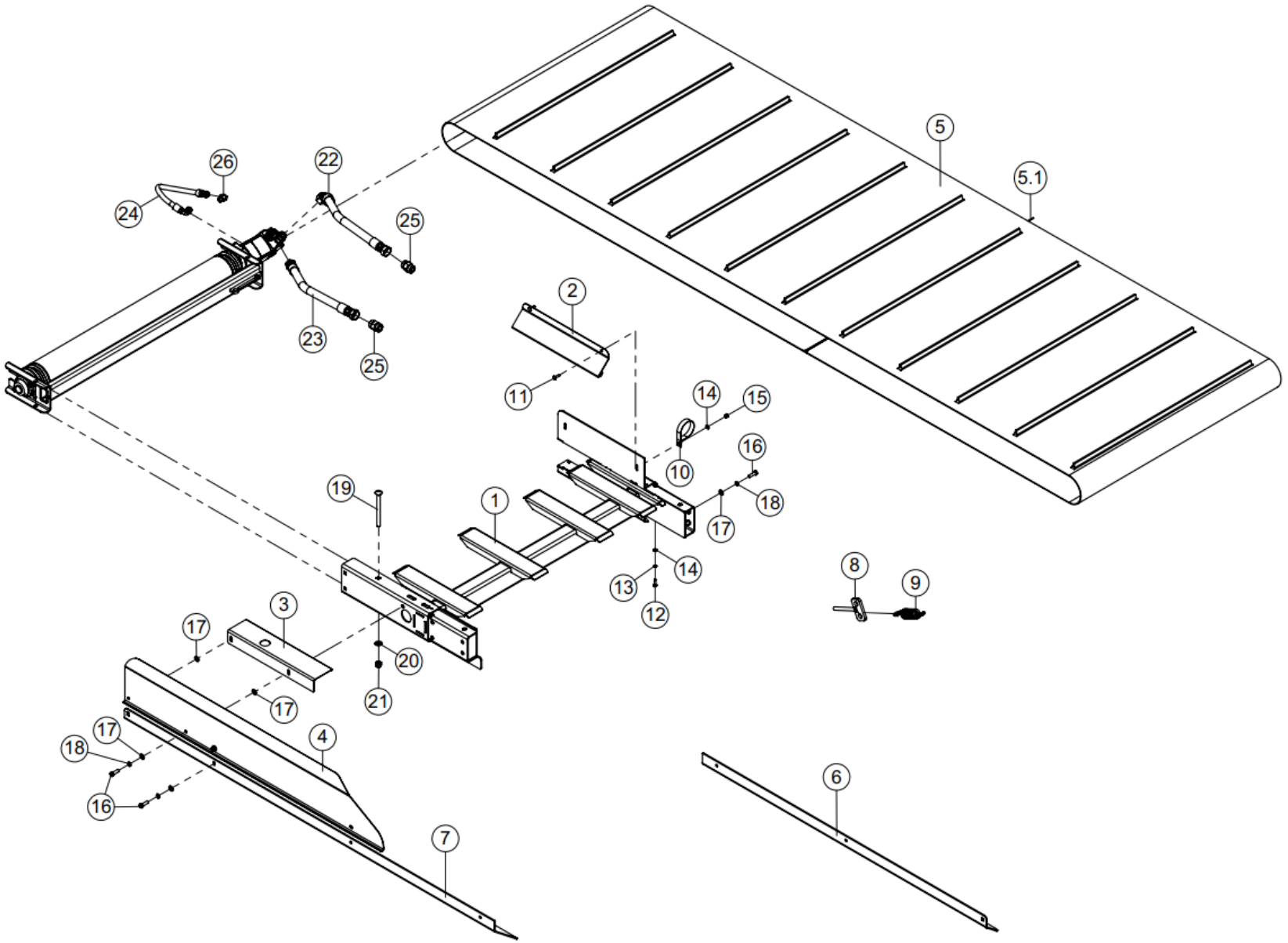




RC201250 – Auxiliary Drive Adapter Bundle

Key	Part Number	Description	Qty	Comments
1	RC201249	Adapter, Auxiliary Drive	1	
1.1	RC201237	Housing	1	
1.2	RC201238	Bearing	1	
1.3	RC201239	Ring, Retaining	1	
1.4	RC201240	Coupler	1	
1.5	RC201241	Gear	1	
1.6	RC201242	Bearing	1	
1.7	RC201243	Spacer	1	
1.8	RC201244	Gear	1	
1.9	RC201245	Shaft	1	
1.1	RC201246	Gear	1	
1.11	RC201247	Plug	1	
1.12	RC201248	O-Ring	1	
1.13	RC201251	Cover, Auxiliary Drive	1	
1.14	RC201252	Stud	2	
1.15	RC901702	Nut, M12-1.75 CZ Flange	2	
1.16	RC201254	Fitting, Elbow	1	
1.17	RC201255	O-Ring	1	
1.18	RC201256	O-Ring	1	
1.19	RC201257	Fitting, Hose Connector	1	
1.2	RC201258	Plug	1	
2	RC901200	Bolt, M12-1.75 x 100mm Gr 10.9 YZ Hex	2	
3	RC902432	Washer, M12 YZ Hard Flat	2	
4	RC201259	Gasket	2	
5	RC201260	Bushing, Pipe	1	
6	RC201261	Coupling	1	
7	RC201262	Line, Top Oil	1	
8	RC201263	Clamp, Hose	2	
9	RC201264	Hose	1	
10	RC201265	Line, Bottom Oil	1	
11	RC201266	O-Ring	1	
12	RC201267	Fitting, Elbow	1	
13	RC201268	O-Ring	1	

RC201150 – Cross Belt Extension Bundle - Optional



RC201150 – Cross Belt Extension Bundle - Optional

Key	Part Number	Description	Qty	Comments
1	RC201073	Frame, Extension	1	
2	RC201076	Shingle, Rear Extension	1	
3	RC201078	Shingle, Front Extension	1	
4	RC201141	Guard, Extension Crop	1	
5	RC201071	Belt, Extension	1	
5.1	RC101371	Rod, Belt	1	
6	RC201270	Shoe, LH Cross Belt Ext Skid	1	
7	RC201272	Shoe, RH Cross Belt Ext Skid	1	
8	RC201194	Tensioner, Double Spring	1	
9	RC950097	Spring, 5-1/2 x 1.406 O.D. Extension	1	
10	RC901690	P-Clamp, 2-3/4 Cushion	1	
11	RC901557	Bolt, 1/4-20 x 1 CZ Carriage	2	
12	RC900042	Bolt, 1/4-20 x 1 Gr 5 YZ Hex	2	
13	RC900724	Washer, 1/4 YZ Lock	2	
14	RC902696	Washer, 1/4 SAE YZ Hard Flat	4	
15	RC900575	Nut, 1/4-20 YZ Nylock	2	
16	RC900091	Bolt, 3/8-16 x 1-1/4 Gr 5 YZ Hex	5	
17	RC900677	Washer, 3/8 SAE YZ Hard Flat	7	
18	RC900728	Washer, 3/8 YZ Lock	5	
19	RC902308	Bolt, 1/2-13 x 6 Gr 5 CZ Carriage	1	
20	RC900691	Washer, 1/2 SAE YZ Hard Flat	1	
21	RC900588	Nut, 1/2-13 YZ Nylock	1	
22	RC201149	Assembly, Hydraulic Hose	1	
23	RC201153	Assembly, Hydraulic Hose	1	
24	RC201152	Assembly, Hydraulic Hose	1	
25	RC700035	Adapter, -12 MORFS -12 MORFS Straight	2	
26	RC700248	Elbow, -06 MORFS 90°	1	
27	RC901973	Tie, 11 UV Resistant Cable	1	

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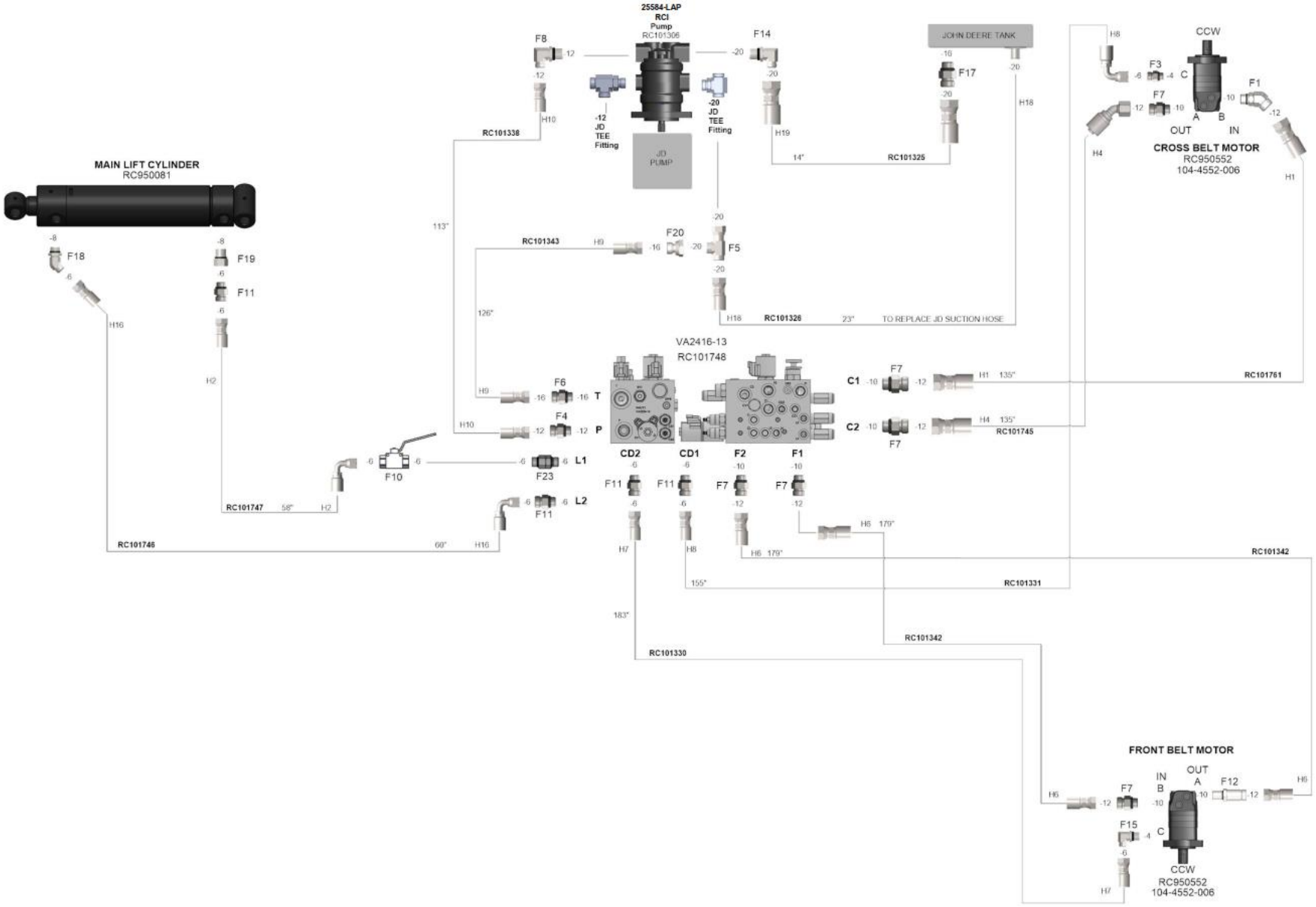
Electrical Components

Part Number	Description	QTY	Comments
RC101307	Harness, Wire	1	
RC101138	Controller	1	W200 Series
RC201185	Controller, M-Spec and R-Spec	1	M-Spec & R-Spec

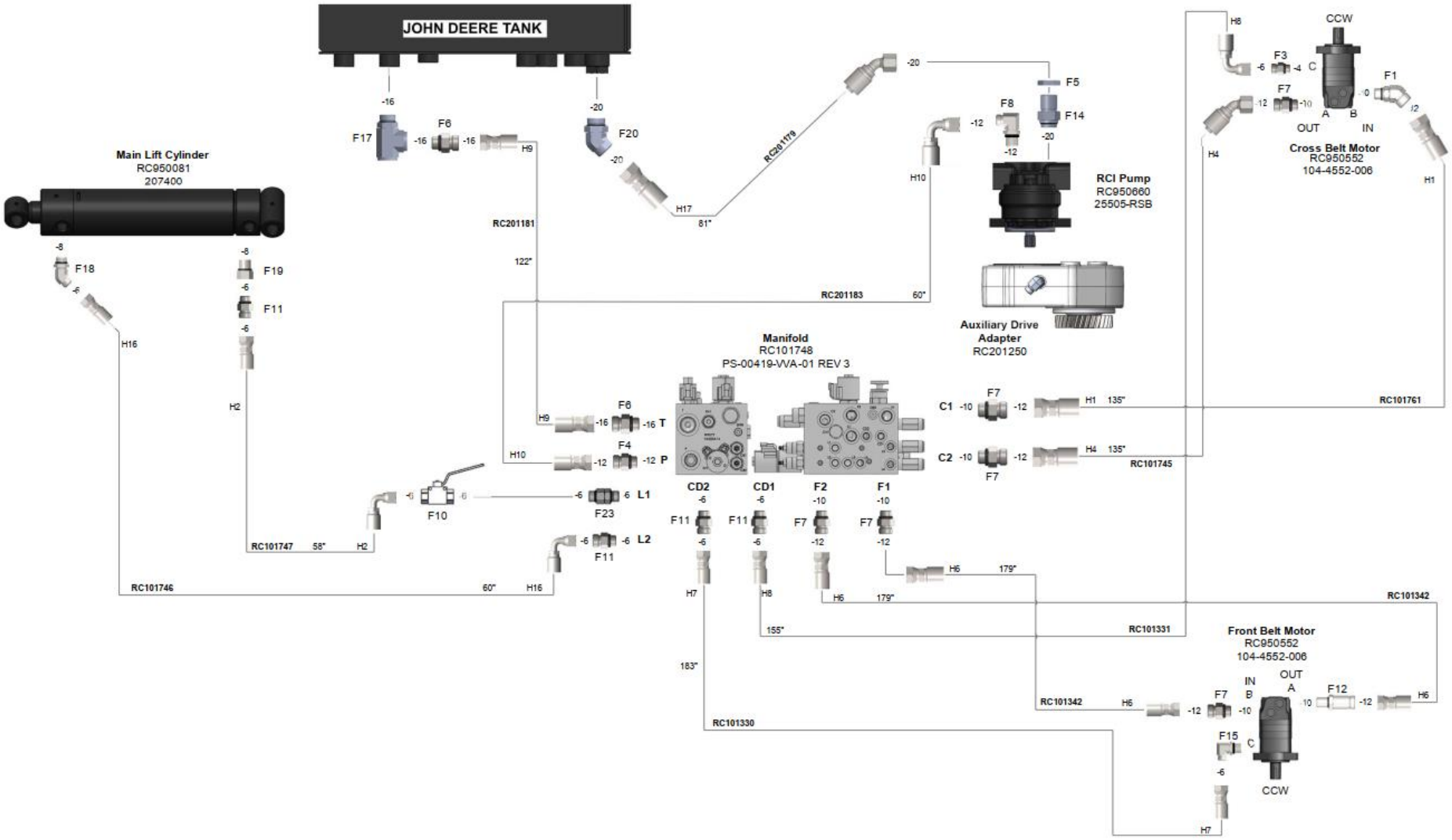
W200 Hydraulic System Components



W200 Hydraulic System Components

Key	Part Number	Description	ID	Qty
H1	RC101761	Assembly, Hydraulic Hose		1
H2	RC101747	Assembly, Hydraulic Hose		1
H4	RC101745	Assembly, Hydraulic Hose		1
H6	RC101342	Assembly, Hydraulic Hose		2
H7	RC101330	Assembly, Hydraulic Hose		1
H8	RC101331	Assembly, Hydraulic Hose		1
H9	RC101343	Assembly, Hydraulic Hose		1
H10	RC101338	Assembly, Hydraulic Hose		1
H16	RC101746	Assembly, Hydraulic Hose		1
H18	RC101326	Assembly, Hydraulic Suction Hose		1
H19	RC101325	Assembly, Hydraulic Suction Hose		1
F1	RC700891	Elbow, -12 MORFS -10 MORB 45°		1
F3	RC700076	Adapter, -6 MORFS -4 MORB Straight		1
F4	RC700094	Adapter, -12 MORFS -12 MORB Straight		1
F5	RC700161	Tee, -20 ORFS Run Thru		1
F6	RC700098	Adapter, -16 MORFS -16 MORB Straight		1
F7	RC700093	Adapter, -12 MORFS -10 MORB Straight		6
F8	RC700133	Elbow, -12 MORB -12MORFS 90°		1
F9	RC700395	Union, -6 MORB 90°		1
F10	RC700389	Valve, -6 FORB Ball		1
F11	RC700077	Adapter, -6 MORFS -6 MORB Straight		4
F12	RC700111	Adapter, -12 MORFS -10 MORB Straight Long		1
F14	RC700140	Elbow, -20 MORFS -20 MORB 90°		1
F15	RC700117	Elbow, -6 MORFS -4 MORB 90°		1
F17	RC700100	Adapter, -20 MORFS -16 MORB Straight		1
F18	RC700881	Elbow, -6 MORFS -8 MORB 45°		1
F19	RC700633	Reducer, -8 MORB -6 FORB Straight		1
F20	RC700242	Reducer, -20 FORFS -16 MORFS		1
F23	RC702617	Union, -06 MORB Swivel		1
	RC950081	Cylinder, 2.5" x 8" Welded	207400	1
	RC950552	Motor, Hydraulic	104-4552-006	2
	RC101306	Pump, Gear	25584-LAP	1

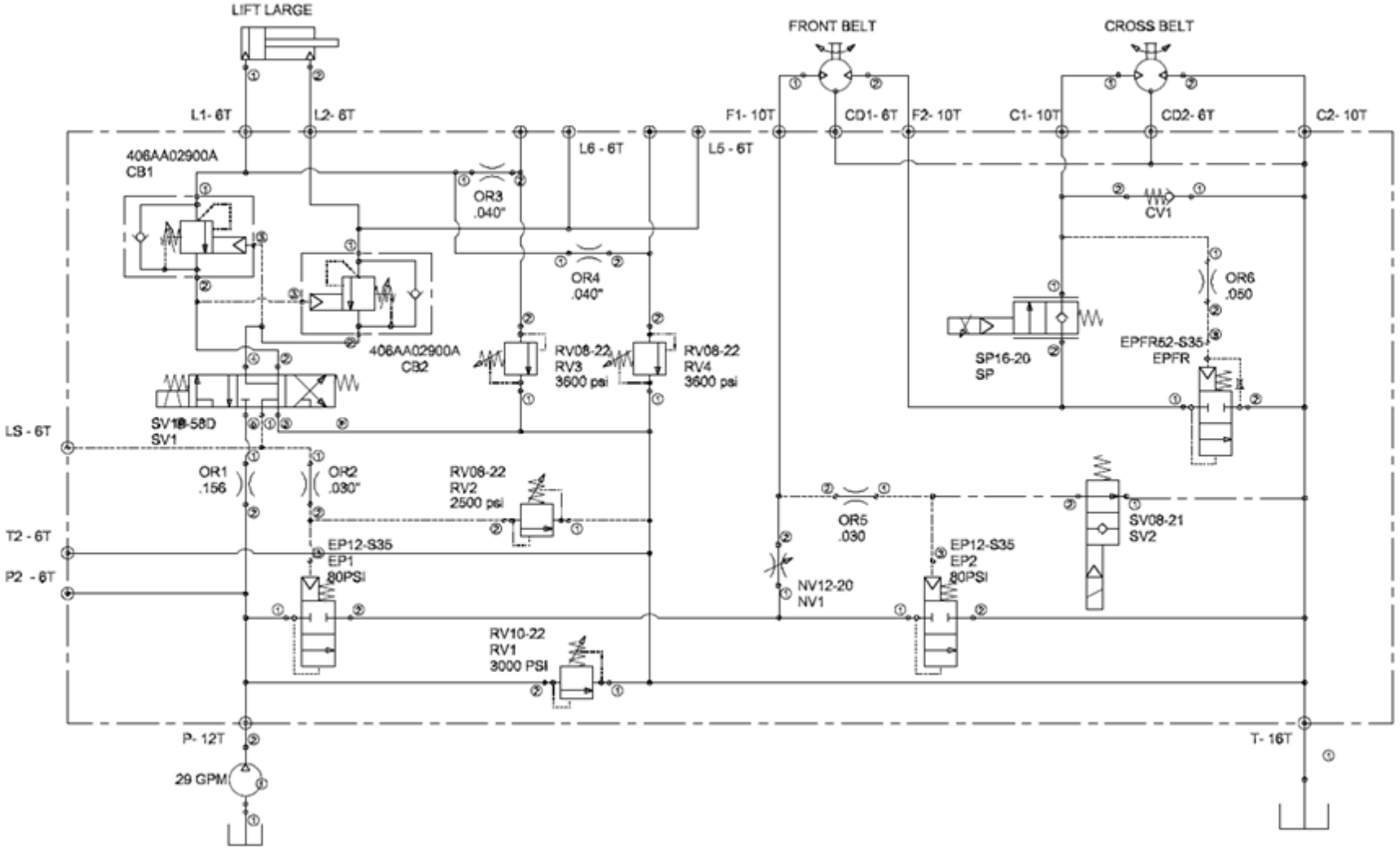
M & R-Spec Hydraulic System Components



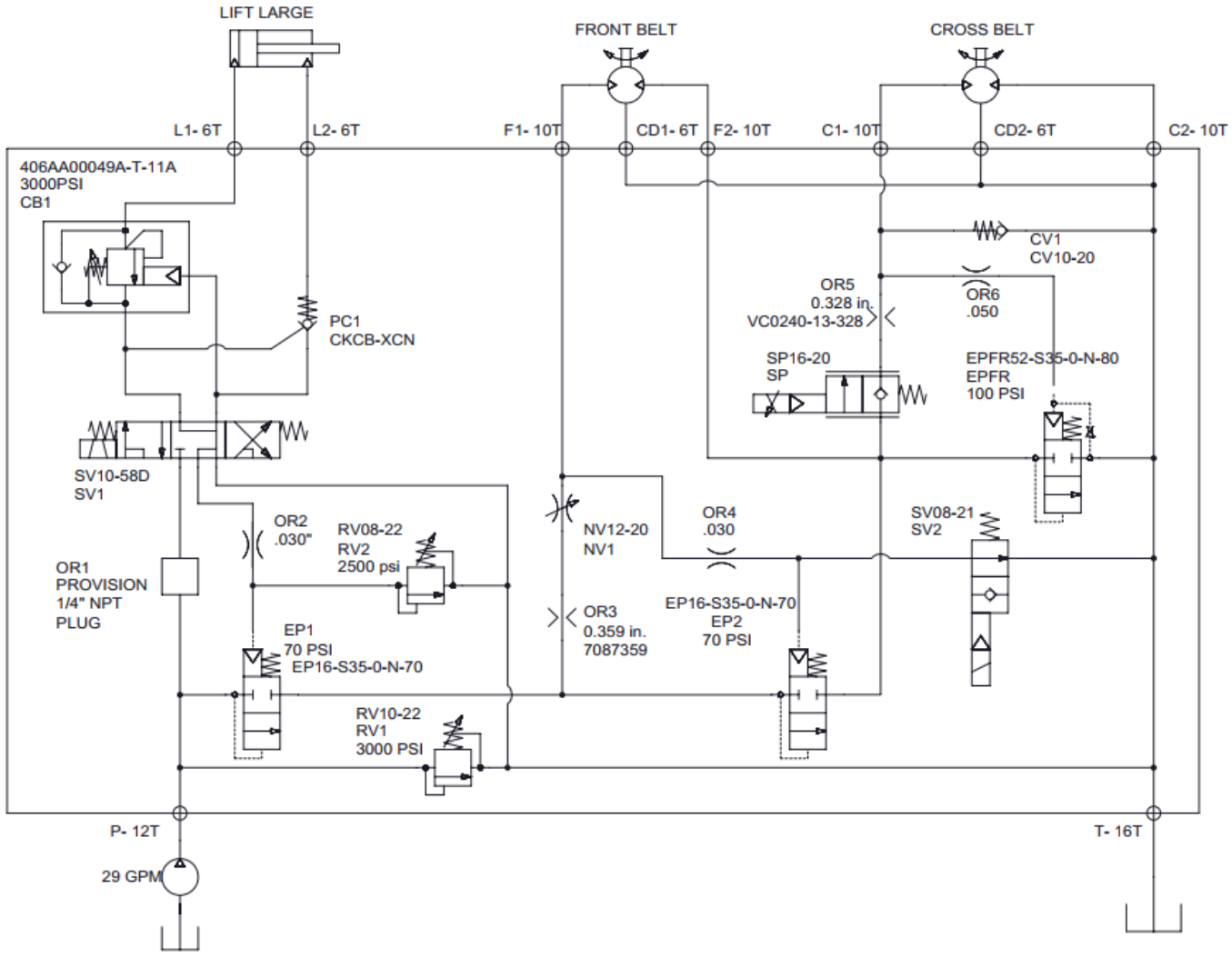
M & R-Spec Hydraulic System Components

Key	Part Number	Description	ID	Qty
H1	RC101761	Assembly, Hydraulic Hose		1
H2	RC101747	Assembly, Hydraulic Hose		1
H4	RC101745	Assembly, Hydraulic Hose		1
H6	RC101342	Assembly, Hydraulic Hose		2
H7	RC101330	Assembly, Hydraulic Hose		1
H8	RC101331	Assembly, Hydraulic Hose		1
H9	RC201181	Assembly, Hydraulic Hose		1
H10	RC201183	Assembly, Hydraulic Hose		1
H16	RC101746	Assembly, Hydraulic Hose		1
H17	RC201179	Assembly, Hydraulic Suction Hose		1
F1	RC700891	Elbow, -12 MORFS -10 MORB 45°		1
F3	RC700076	Adapter, -6 MORFS -4 MORB Straight		1
F4	RC700094	Adapter, -12 MORFS -12 MORB Straight		1
F5	RC700016	Nut, 1 11/16-12 Bulkhead Lock		1
F6	RC700098	Adapter, -16 MORFS -16 MORB Straight		2
F7	RC700093	Adapter, -12 MORFS -10 MORB Straight		6
F8	RC700133	Elbow, -12 MORB -12MORFS 90°		1
F9	RC700395	Union, -6 MORB 90°		1
F10	RC700389	Valve, -6 FORB Ball		1
F11	RC700077	Adapter, -6 MORFS -6 MORB Straight		4
F12	RC700111	Adapter, -12 MORFS -10 MORB Straight Long		1
F14	RC701022	Bulkhead, -20 MFS, -20 MORB Straight		1
F15	RC700117	Elbow, -6 MORFS -4 MORB 90°		1
F17	RC703131	Tee, -16 MORB Run		1
F18	RC700881	Elbow, -6 MORFS -8 MORB 45°		1
F19	RC700633	Reducer, -8 MORB -6 FORB Straight		1
F20	RC700898	Elbow, -20 MORFS -20 MORB 45°		1
F23	RC702617	Union, -06 MORB Swivel		1
	RC950081	Cylinder, 2.5" x 8" Welded	207400	1
	RC950552	Motor, Hydraulic	104-4552-006	2
	RC950660	Pump, Gear	25505-RSB	1
	RC201250	Bundle, Auxiliary Drive Adapter		1

Manifold Components (up to s/n 1412)



Manifold Components (s/n 1413 and above)



Manifold Components

Key	Part Number	Description	ID	Qty
	RC101748	Assembly, Manifold		1
	RC201007	Manifold (Block)		1
	RC101385	Relief, Diff Area Poppet	RV10-22H-0-N-35-30.00	1
	RC101525	Relief, Diff Area Poppet	RV08-22H-0-N-26-25.00	1
	RC101382	Valve, Needle	NV12-20B-0-N	1
	RC101527	Poppet, Proportional	SP16-20-0-V-00	1
	RC101529	Valve, Solenoid	SV10-58D-0-N-00	1
	RC101381	Valve, Solenoid	SV08-21-0-N-00	1
	RC101528	Spool, Logic Element Pilot	EP12-S35-0-N-80	2
	RC101389	Valve, Check	CV10-20-0-N-05	1
	RC101386	Regulator, Flow	EPFR52-S35-0-N-80	1
	RC101390	Coil	4303612	1
	RC101530	Coil	4303712	3
	RC101531	Spacer	4539700	1
	RC201024	Valve, Counterbalance 5:1 3000 PSI	1SE30F35S5	1
	RC201027	Valve, Check	CKCB-XCN	1
	RC201028	Orifice	3010-063-030	2
	RC201029	Orifice	3010-063-050	1
	RC703060	Nut, Hex	7004410	1
	RC703061	Nut, Hex	7004400	2
	RC700621	Plug, -08 MORB Socket Head	6408-H08-O	1
	RC700619	Plug, -04 MORB Socket Head	6408-H04-O	3
	RC703062	Plug, Manifold	22S-S02	12
	RC703064	Plug, Manifold	22S-S06	4
	RC703063	Plug, Manifold	22S-S04	2
	RC101534	Kit, Seal Repair	SK10-2N-T	2
	RC101535	Kit, Seal Repair	SK08-2N-T	2
	RC101536	Kit, Seal Repair	SK12-2X-M	1
	RC101537	Kit, Seal Repair	SK16-2V-T	1
	RC101538	Kit, Seal Repair	SK10-5N-MMMM	1
	RC101539	Kit, Seal Repair	SK12-3N-MM	2
	RC101540	Kit, Seal Repair	SK12-S3N-MM	1
	RC201025	Kit, Seal Repair	SK1079	1
	RC702913	Orifice OR5		1

19 PRE-DELIVERY CHECKLIST

After the unit has been assembled and lubricated and prior to delivery to customer, the merger needs to be inspected thoroughly to ensure it is in proper working order. The following checklist must be reviewed, and each item found to be satisfactorily completed.

- Merger attachment has been setup according to the instructions included in this manual.
- All grease fittings have been lubricated.
- All guards, shields and safety decals are in place, securely fastened, and operate correctly.
- All nuts and bolts have been tightened and inspected.
- Adjustments have been made as described in the Adjustments section of this manual.
- Crop guides at belt installed properly.
- All moving parts operate freely.
- Belt tension set properly.
- All applicable warranty information recorded.

I acknowledge that the pre-delivery service was performed, and the unit is ready for delivery to the customer.

_____	_____	_____
Dealership's Name	Representative	Date
_____	_____	_____
Model Number	Serial Number	Date Sold

Owner's Name and Address

Name_____

Address_____

City, State, Zip _____

Original: Enclose in manual and give to customer at time of delivery.

Copy: Dealership
Copy: RCI Engineering LLC

RCI Engineering LLC
Fax: 920-387-9806
Email: info@RCI.ag
Mail: 208 River Knoll Drive, Mayville, WI 53050

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20 DELIVERY CHECKLIST

The following items must be performed when delivering the attachment to the customer. Check off each item as it is performed.

- Provide the customer with the Operator's Manual and instruct them to read prior to operating the unit.
- Review and explain all safety information and operating adjustments.
- Provide all parts removed during installation to the customer.
- Review and explain maintenance and lubrication schedule that is required to ensure proper operation and long life.
- Show how to properly adjust and maintain the merger according to this manual.
- Make it be known that if the customer can visit or call the dealership to discuss any questions or problems they may encounter.
- Complete the Owner’s Registration with the customer, ensure it is completely filled out, and return it to RCI Engineering.

_____
Date Delivered

_____
Signature

Original: Enclose in manual and give to customer at time of delivery.

Copy: Dealership
Copy: RCI Engineering LLC

RCI Engineering LLC
Fax: 920-387-9806
Email: info@RCI.ag
Mail: 208 River Knoll Drive, Mayville, WI 53050

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21 OWNER REGISTRATION

Please fill out the following and return to RCI Engineering LLC.

_____	_____	_____
Dealership Name	Representative	Date
_____	_____	_____
Dealership City	Dealership Phone	Dealer State
_____	_____	_____
Model Number	Serial Number	**Date Sold**

_____	_____	_____
Customer Name	Customer Street Address	Customer City, State, Zip
_____	_____	_____
Customer Email	Customer Phone	Customer Fax

Original: Enclose in manual and give to customer at time of delivery.
Copy: Dealership
Copy: RCI Engineering LLC

RCI Engineering LLC
Fax: 920-387-9806
Email: info@RCI.ag
Mail: 208 River Knoll Drive, Mayville, WI 53050

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22 SUGGESTIONS TO RCI

Use this page to provide feedback to RCI regarding this product, manual, or other ways for RCI to improve in the future.

Product: R1 Merger Attachment

Dealership Name: _____

Dealership City: _____

Dealership Phone: _____

Technician: _____

S/N: _____

Date: _____

Installation Time (hours): _____

Comments:

_____
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Send to RCI Engineering:

RCI Engineering LLC
Fax: 920-387-9806
Email: info@rci.ag
Mail: 208 River Knoll Drive, Mayville, WI 53050

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RCI Engineering reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously manufactured or sold. Specifications, descriptions, and illustrative materials herein are as accurate as known at time of publication but are subject to change without notice.

All parts, service and warranty matters are handled by RCI Engineering LLC. Warranty for these products is 1 year of parts and labor as outlined in the RCI Engineering Warranty Statement. Visit w*ww.RCI.ag* for more product information, ordering, and additional information.

208 River Knoll Drive ● Mayville, WI 53050 ● 920-387-9804 ● Fax 920-387-9806 ● RCI.ag