John Deere 9RX
Ag Pro Undercarriage
Installation Instructions

For Models:
John Deere 9RX: 9470RX, 9520RX, 9570RX, 9620RX

<table>
<thead>
<tr>
<th>Purchase Date</th>
<th>Serial Number</th>
<th>Model Number</th>
<th>Tractor Model</th>
<th>Dealer</th>
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Part No: 41865-INS-R1  Serial Number: 10206358-Current  Date: 6-2-2020
To The Owner

This manual contains information concerning the installation of the undercarriage. You have purchased dependable, long lasting equipment, but only by proper care and operation can you expect to receive the performance and long service built into our products. Please have all operators read this manual carefully and keep the manual available for ready reference. If you have any questions or concerns, contact Grouser Products.

Caution:
- Always use caution when working around any equipment.
- Always wear safety glasses.
- Follow tractor manufacturer’s safety guidelines when installing this product.
- Use paint where necessary to prevent rust.
- Do not modify or permit anyone else to modify or alter the equipment and its components without first consulting Grouser Products.

Note:
- When installing hardware, only finger tighten until all hardware is in place.
- A full diagram of the assembly with the full list of parts is on pages 6-7.
- Unstrap and remove any components that are attached for shipping.
- Read all instructions prior to performing installation.
- Tractor frame not shown in some diagrams for clarity.
- The tracks may need to be rotated up or down to gain better access at some bolting locations.

To ensure the safety of those working under and around the machine, apply parking brake, and remove key from ignition before working on the machine.

Installation

1. If applicable, remove front weights, weight bracket, and toolbox from front of tractor.
2. Remove cable holder behind front axle if applicable. Keep spacer and washer to reinstall later.
3. If applicable, remove front axle support brackets from front of tractor (A).
4. Attach final drive brackets to final drive with 16 - 20mm x 60mm bolts and 16 - hardened flat washers (B).
5. Push brackets away from tractor frame to make room for installing undercarriage.
6. Remove front 2 tractor axle frame bolts on each side and attach the front brackets to front 2 holes on the tractor frame in front of the axle with 4 - 24mm x 100mm bolts and 4 - 7/8” hardened washers (C).
7. Remove rear 3 tractor axle frame bolts on each side and attach rear brackets to 3 holes on tractor frame behind axle with 6 - 24mm x 100mm bolts and 6 - 7/8” hardened washers (D).
8. Push brackets towards center to make room for installing undercarriage.

NOTE: The orientation of left and right front brackets is important. Install the brackets as shown above.
NOTE: When removing front tractor axle frame bolts, always leave rear bolt in on each side.
9. Completely thread 8 - 1" x 2" adjustment bolts (E) at rear of undercarriage with heads facing towards each other. The bolts will be adjusted after undercarriage is installed.  
10. Position undercarriage under tractor and center on frame of the tractor. Lift undercarriage until holes of undercarriage line up with holes in side of tractor frame.  
NOTE: When lifting undercarriage, watch for potential pinching of hoses or other components to prevent any damage.

11. Attach rear of undercarriage vertically to cross member on tractor frame behind rear axle with 4 - 7/8" x 3" bolts, 8 - 7/8" hardened flat washers, and 4 - 7/8" nuts (F).  
NOTE: Add shims between undercarriage and tractor frame to reduce any gap if necessary. Use shims until there is a gap of 1/16” or less on front. See attached diagram for proper location and orientation of each shim. Do Not put all of shims on one side of undercarriage.

12. Install 7 - 3/4" x 3-1/2" bolts and 7 - 3/4" hardened HD flat washers (G) through front holes on each side of undercarriage, shims, and tractor frame.  
13. Thread each bolt into front threaded plate. See full assembly diagram on Page 6 for correct orientation of plate. The side with the notch should be towards the front.

14. If there is a controller for drive shaft sensor on left inside frame of tractor, remove original hardware and reattach with new hardware in Step #15-16. Install controller between tractor frame and new nut plate.

15. Install 5 - 3/4" X 3" bolts and 5 - 3/4" hardened HD flat washers (H) through slots on each side of undercarriage, shims, and tractor frame.

16. Place controller from Step #14 on bolts and thread a 3/4” flange nut on top 4 bolts from Step #15. Attach nut plate to bottom bolt and line up top hex nuts to fit in nut plate (I). Note orientation of flange nuts.

17. Attach front and rear brackets (J) to inside of undercarriage and final drive brackets (K) to outside of undercarriage with a 32 - 3/4" x 2-1/4" bolt, 64 - 3/4" hardened HD flat washers, and 32 - 3/4" nuts.

18. Torque rear vertical 7/8" bolts (F) to 600 ft-lbs.  
19. Torque front 24 - 3/4" bolts (G & I) to 380 ft-lbs.  
20. Torque all of 3/4" bolts (J & K) attaching brackets to the undercarriage to 380 ft-lbs. Alternate between groups of bolts when torquing. For example, torque front left bracket bolts, rear right bracket bolts, rear left bracket bolts, front right bracket bolts. Do same routine for final drive bracket bolts.  
21. Torque vertical 24mm bolts (C & D) to 909 ft-lbs., and vertical 20mm bolts (B) to 432 ft-lbs.  
NOTE: If available, John Deere service tool JDG650 (shown below) can be used to torque the vertical 24mm bolts.
1. At pivot area of tractor, remove bolts from top plate that hold the cylinder pins and install hose routing bracket along with original plate and new 12mm flange bolts. Torque 12mm bolts to 105 ft-lbs (P).
2. Route hoses through hose loops on undercarriage until you reach end of undercarriage as shown in Step #3.

Hose Routing

22. Unscrew 1" x 2" bolts (L) at rear of undercarriage until they are tight against tractor frame. Torque 1" bolts to 200 ft-lbs.

NOTE: View is from underneath tractor and undercarriage.

23. Install 2 - 5/16" x 3/4" bolts (M) into blocks at rear of undercarriage to lock each 1" x 2" bolt in place. Torque 5/16" bolts to 19 ft-lbs.

NOTE: View is from underneath tractor and undercarriage.


25. Torque 3/4" bolts (T) to 257 ft-lbs.

NOTE: If applicable, refer to Page 5 to attach front of tow cable.

26. Install hose guard plate to rear of undercarriage with 4 - 1/2" x 1" carriage bolts, 4 - 1/2" washers and 4 - 1/2" nuts (O). Install bolts from top. Torque 1/2" nuts to 78 ft-lbs.

NOTE: To perform John Deere’s 9R Upper Retainer Improvement (PIP #19RW830), remove the hose guard plate from Step #26. After the PIP is complete, reinstall the hose guard plate.

3. Route hoses toward center and attach to undercarriage with a heavy zip tie (Q).

4. Zip tie hoses to this steel line behind undercarriage cross member (R).

5. Route hoses up through hose loops on bracket that was installed in Step #1.
6. Route hoses upward through tractor. Staying away from the driveshaft by attaching hoses to any other steel lines along way. Attach to tractor’s hoses right by hose bracket with zip ties (S).

7. Route hoses through open cavity of back section of tractor. Secure hoses with zip ties where necessary to avoid rubbing and pinch areas. Plug hoses into open SCV’s at back of tractor. **NOTE:** The quantity of hoses may vary depending on blade system.

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### Maintenance

1. After first 8 hours of use, re-torque all bolts.
2. Check all fasteners regularly to ensure proper operation of equipment.
3. Inspect all equipment for existing or potential damages every 10 hours or less.

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### Tow Cable Support Bracket Assembly

**NOTE:** Kit (PN: 41788-A) is required if tractor has a tow cable.


**NOTE:** Original spacers and washers are not shown in picture.

2. Attach tow cable bracket and tow cable as shown below. Torque 7/8” bolts to 600 ft-lbs.

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<td>Tow Cable Bracket</td>
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<td>43-16764</td>
<td>1</td>
<td>7/16” x 1-3/4” Lynch Pin</td>
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<td>44-15585</td>
<td>1</td>
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<tr>
<td>70-20598</td>
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<td>7/8” Hex Nut Gr 8 NC</td>
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Note: Install all bolts before tightening.

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<td>18</td>
<td>1</td>
<td>18-19108-R</td>
<td>Front Bracket, Right</td>
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Use Original Washer, Spacer and Cable Holder from Tractor.

ITEM NO. | QTY. | PART NO. | DESCRIPTION
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19 | 1 | NA | Grouser Dozer Metal Serial Tag
20 | 1 | 27-18882 | Not For Pushing or Pulling Decal
21 | 1 | 27-18887 | Grouser Name Plate Decal
22 | 1 | 27-40983 | Ag Pro Decal
23 | 3 | 44-18141 | Shim, Front 1/8"
24 | 3 | 44-18142 | Shim, Rear 1/8"
25 | 3 | 44-18143 | Shim, Front 1/16"
26 | 3 | 44-18144 | Shim, Rear 1/16"
27 | 2 | 44-18147 | Plate, Front Nut
28 | 2 | 44-18245 | Rear Nut Plate Weldment
29 | 1 | 44-40504 | Plate, Cover
30 | 1 | 44-41875R1 | Plate, Hose Guard
31 | 1 | 54-41865R1 | Undercarriage Weld
32 | 104 | 57-19088 | 3/4" Hardened HD Flat Washer
33 | 2 | 57-20742 | 3/8" Flat Washer
34 | 9 | 57-20744 | 1/2" Washer
35 | 12 | 57-20757 | 3/4" Flat Washer - 1-1/2" OD
36 | 18 | 57-20758 | 7/8" SAE Hardened Flat Washer - 1-3/4" OD
37 | 32 | 70-20597 | 3/4" Hex Nut Gr.8 NC
38 | 4 | 70-20598 | 7/8" Hex Nut Gr 8 NC
39 | 5 | 70-20604 | 1/2" Hex Center Lock Nut Gr 2 NC
40 | 6 | 70-20607 | 3/4" Center Lock Hex Nut Gr 2 NC
41 | 2 | 70-20622 | 3/8" Flange Hex Nut Gr 5 NC
42 | 8 | 70-20627 | 3/4" Flange Hex Nut

Note: Install all bolts before tightening.
Contact Us
As always, if you have any questions about your undercarriage or other products made by Grouser, feel free to contact us.

Grouser Products
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E-mail: info@grouser.com
Website:  www.grouser.com

Improvements
Grouser Products Inc. is continually striving to improve its products. We reserve the right to change prices, specification, or equipment at any time without notice. We also reserve the right to make improvements or changes when it becomes practical and possible to do so without incurring any obligation to make changes or additions to the equipment sold previously.

Warranty
Grouser Products warrants to the original purchaser of each item that the product be free from defects in material and workmanship under normal use and service for a period of two years. If such equipment is found to be defective within two years, it is the obligation of Grouser Products under this warranty to repair or replace (exclusive of the cost of labor and transportation), any equipment or parts, in the judgment of Grouser Products to be defective in material or workmanship.

All equipment or parts claimed to be defective in material or workmanship must be made available for inspection at the place of business of a dealer authorized to handle the equipment covered by this warranty, or, upon request by Grouser Products, shipped to the Grouser Products factory in West Fargo, North Dakota. Grouser Products shall have no obligation to bear the cost of labor or transportation in connection with replacement or repair of any such defective parts in the setup process.

This warranty covers only defects in material and workmanship. It does not cover depreciation or damage caused by normal wear, accident, improper assembly, improper adjustments, improper maintenance including lack of proper lubrication, or improper use. Therefore, Grouser Products liability under this warranty shall not be effective or actionable unless the equipment is assembled, maintained and operated in accordance with the operating instructions accompanying the equipment. Grouser Products shall have no liability if the equipment has been altered or reworked without the written authorization of Grouser Products.

Grouser Products' parts, which are furnished under this warranty and properly installed, shall be warranted to the same extent as the original parts under this warranty if, and only if, such parts are found to be defective within the original warranty period covering the original equipment.