



Installation Instructions

John Deere 9R Series

9370R, 9420R, 9470R, 9520R, 9570R & 9620R

Ag Pro Plus or Ag Pro SS

For Models:

9370R, 9420R, 9470R, 9520R, 9570R, 9620R

Purchase Date
Serial Number
Model Number
Tractor Model
Dealer

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 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.

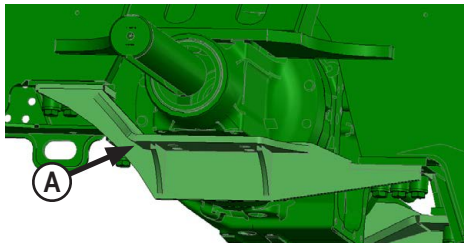


Serial Number Location

Note:

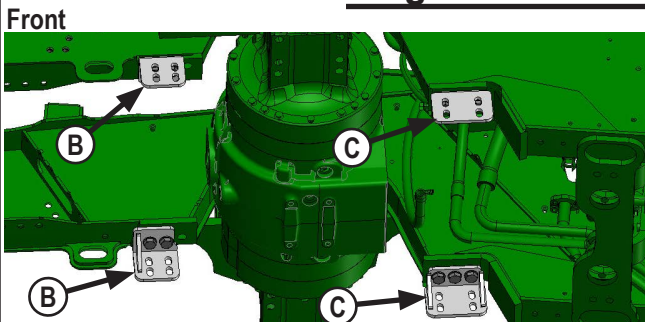
- Read all instructions prior to performing installation.
- When installing hardware, only finger tighten until all hardware is in place.
- A full diagram of the assembly with the full list of parts is on pages 8-13.
- Tractor frame not shown in some diagrams for clarity.
- Unstrap and remove any components that are attached for shipping.
- Refer to Page 14 for a diagram of the undercarriage assembly on the tractor if further clarification of location on the tractor is needed.

Pre-Installation

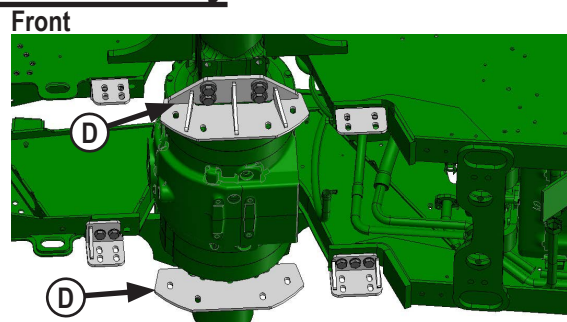


1. If applicable, remove front weights, weight bracket, tow cable, and toolbox from front of tractor.
2. Remove cable holder from behind the front axle if applicable. Keep spacer and washer to reinstall later.
3. If applicable, remove front axle brace (A) on each side.
4. When preparing the tractor for the undercarriage installation, verify there is a minimum of 4" between the tire and tractor frame.

Single Reduction Axle Installation Only:



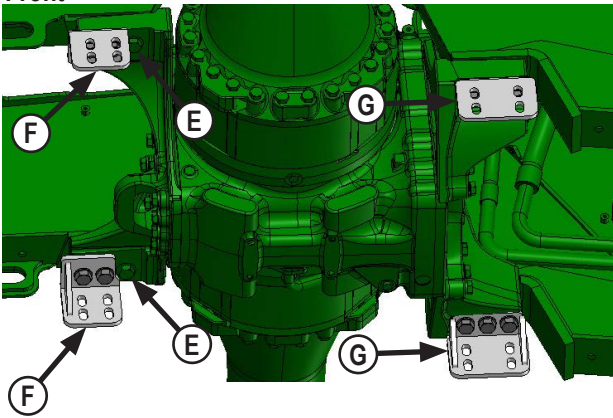
5. Attach the front brackets to the front 2 holes on the tractor frame in front of the axle with 4 - 24mm x 50mm bolts and 4 - 7/8" hardened washers (B). Note the orientation of the brackets.
6. Attach the rear brackets to the 3 holes on the tractor frame behind the axle with 6 - 24mm x 50mm bolts and 6 - 7/8" hardened washers (C).
7. Push the brackets towards the center of the tractor to make room for installing undercarriage.



8. Attach the axle brackets to the front axle vertical holes with 8 - 24mm x 150mm bolts and 8 - 1.05" ID washers (D).
9. Push the brackets outwards, away from the center of the tractor, to make room for installing undercarriage.
10. Continue installation with Step #19.

Double Reduction Axle Installation Only:

Front



NOTE: When removing the front tractor axle frame bolts, always leave the rear bolt in on each side (E).

11. Remove the front 2 tractor axle frame bolts on each side and attach the front brackets to the front 2 holes on the tractor frame in front of the axle with 4 - 24mm x 100mm bolts and 4 - 7/8" hardened washers (F). Note the orientation of the brackets.

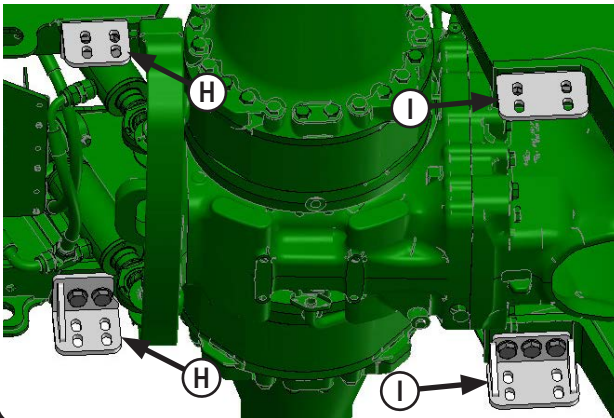
12. Remove the rear 3 tractor axle frame bolts on each side and attach the rear brackets to the 3 holes on the tractor frame behind the axle with 6 - 24mm x 100mm bolts and 6 - 7/8" hardened washers (G).

13. Push the brackets towards the center of the tractor to make room for installing undercarriage.

14. Continue installation with Step #19.

Double Reduction Axle with HydraCushion™ Suspension Installation Only:

Front



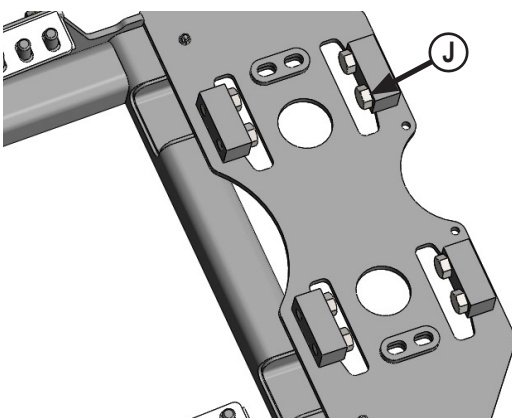
15. Attach the front brackets to the front 2 holes on the tractor frame in front of the axle with 4 - 24mm x 50mm bolts and 4 - 7/8" hardened washers (H). Note the orientation of the brackets.

16. Attach each of the rear brackets to the 3 holes on the tractor frame behind the axle with 6 - 24mm x 50mm bolts and 6 - 7/8" hardened washers (I).

17. Push the brackets towards the center of the tractor to make room for installing undercarriage.

18. Continue installation with Step #19.

Undercarriage Installation

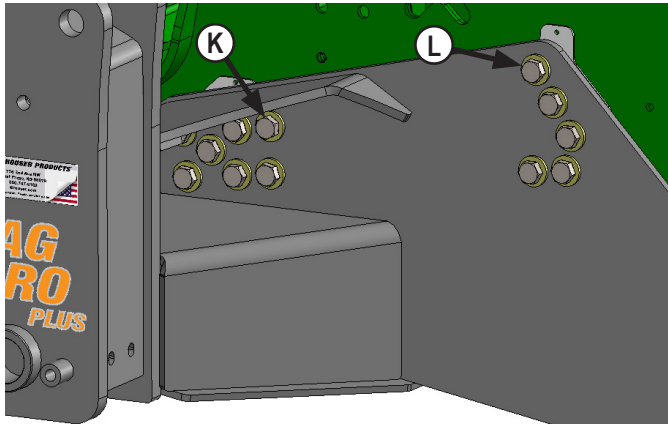


19. Completely thread 8 - 1" x 2" adjustment bolts (J) at rear of undercarriage with heads facing towards each other. The bolts will be adjusted after the undercarriage is installed.

20. Position undercarriage under tractor and center on the frame of the tractor. Lift undercarriage until holes of undercarriage line up with holes in the side of the tractor frame.

NOTE: When lifting the undercarriage, watch for any potential pinching of hoses or any other components to prevent any damage.

NOTE: Add shims between the undercarriage and the tractor frame to reduce any gap if necessary. Use shims until there is a gap of 1/16" or less on the front. See attached diagrams on Pages 8-13 for the proper location and orientation of each shim. Do Not put all of the shims on one side of the undercarriage.

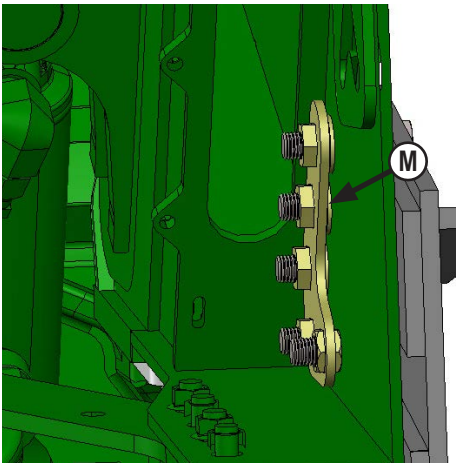


NOTE: Follow Steps #21-24 for the left side. After Step #24, tighten the bolts until they are snug. If necessary, add more shims on right side until a gap of 1/16" or less is on the right side. Proceed with Step #21-24 for the right side.

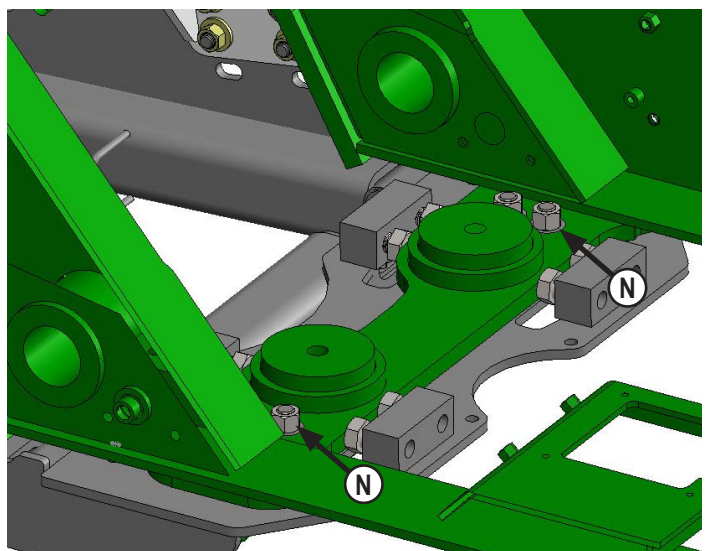
21. Install 7 - 3/4" x 3" bolts and 7 - 3/4" hardened HD flat washers (**K**) through the front holes on each side of the undercarriage, shims, and the tractor frame.

22. Thread each bolt into the front threaded plate. See full assembly diagrams on Pages 8-13 for correct orientation of the plate. The side with the notch should be towards the front.

23. Install 5 - 3/4" x 3" bolts and 5 - 3/4" hardened HD flat washers (**L**) through the slots on each side of the undercarriage, shims, and the tractor frame.

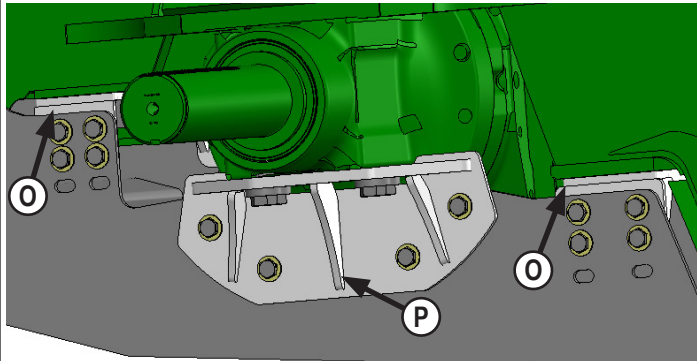


24. Thread a 3/4" flange nut on the top 4 bolts from Step #23. Attach the nut plate to the bottom bolt and line up the top hex nuts to fit in the nut plate (**M**). Note the orientation of the flange nuts.



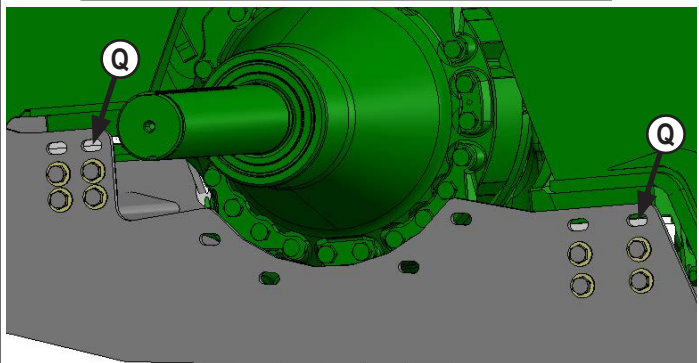
25. Attach the rear of the undercarriage vertically to the cross member on the tractor frame behind the rear axle with 4 - 7/8" x 3" bolts, 8 - 7/8" hardened flat washers, and 4 - 7/8" nuts (**N**).

Single Reduction Installation Only:



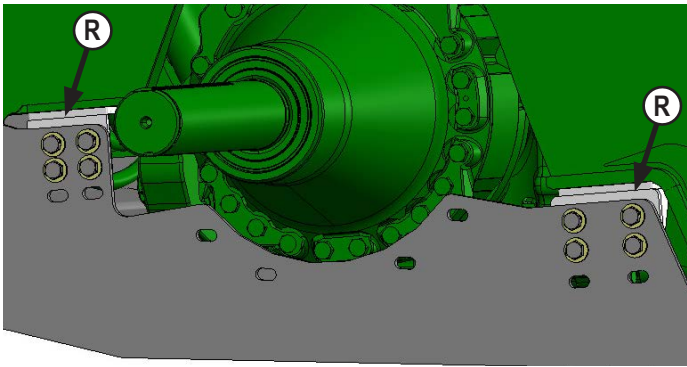
26. Attach the front and rear brackets (**O**) to the inside of the undercarriage and the axle brackets (**P**) to the outside of the undercarriage with a 24 - 3/4" x 2-1/4" bolts, 48 - 3/4" hardened HD flat washers, and 24 - 3/4" nuts. Continue with Step #29.

Double Reduction Installation Only:



27. Attach the front and rear brackets (**Q**) to the inside of the undercarriage with 16 - 3/4" x 2-1/4" bolts, 32 - 3/4" hardened HD flat washers, and 16 - 3/4" nuts. Continue with Step #29.

Double Reduction Axle with HydraCushion™ Suspension Installation Only:



28. Attach the front and rear brackets (R) to the inside of the undercarriage with 16 - 3/4" x 2-1/4" bolts, 32 - 3/4" hardened HD flat washers, and 16 - 3/4" nuts. Continue with Step #29.

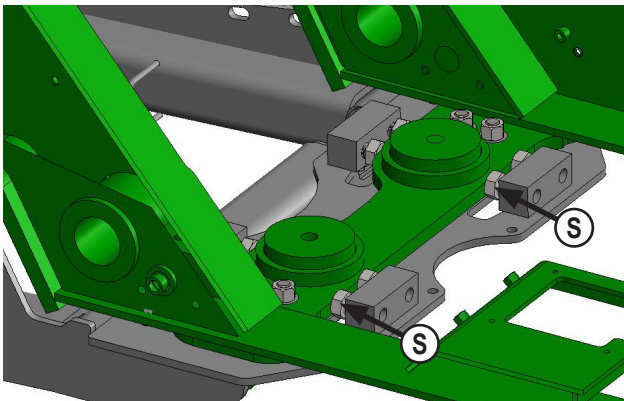
29. Torque the rear vertical 7/8" bolts from Step #25 to 600 ft-lbs.

30. Torque the front 24 - 3/4" bolts from Step #21 and #23 to 380 ft-lbs.

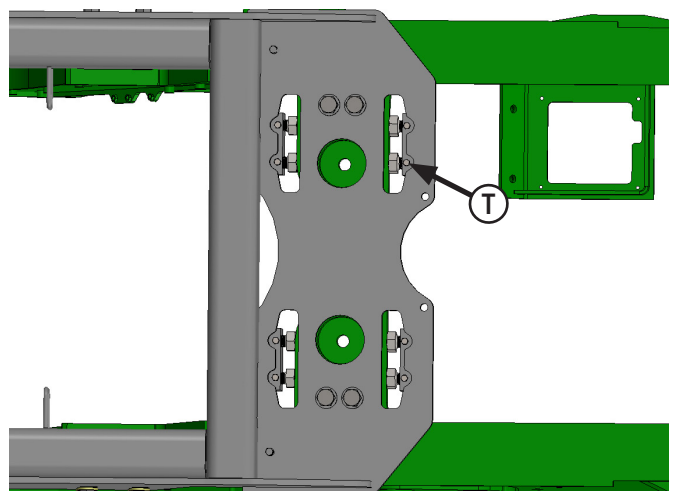
31. Torque all of the 3/4" bolts attaching the brackets to the undercarriage to 380 ft-lbs. Alternate between the groups of bolts when torquing. For example, torque the front left bracket bolts, the rear right bracket bolts, rear left bracket bolts, front right bracket bolts.

32. Torque the vertical 24mm bolts from Step #8 to 909 ft-lbs.

NOTE: If available, John Deere service tool JDG650 (shown below) can be used to torque the vertical 24mm bolts.

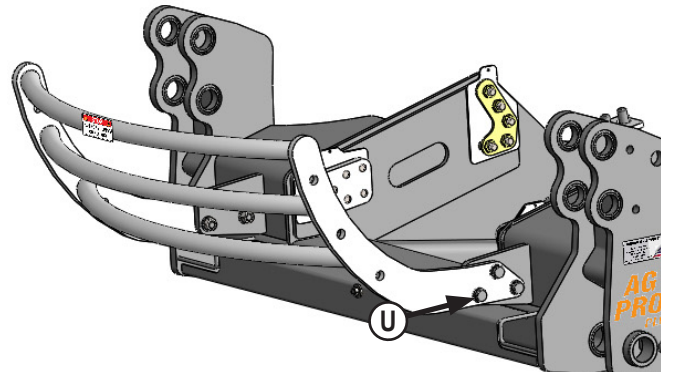


33. Unscrew the 1" x 2" bolts (S) at the rear of the undercarriage until they are tight against the tractor frame. Torque the 1" bolts to 200 ft-lbs.



NOTE: View is from underneath the tractor and undercarriage.

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



35. Install the grill guard to the front of the undercarriage with 3 - 3/4" x 2-1/2" bolts, 6 - 3/4" flat washers and 3 - 3/4" nuts on each side (U).

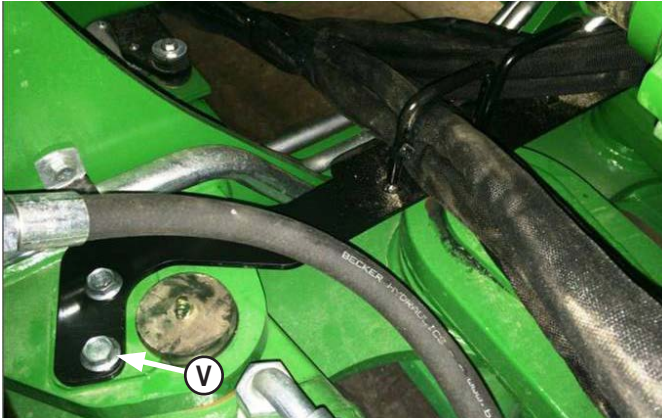
36. Torque the 3/4" bolts to 257 ft-lbs.

NOTE: If applicable, refer to Page 7 to reinstall the tow cable.

38. After first 8 hours of use, re-torque all bolts.

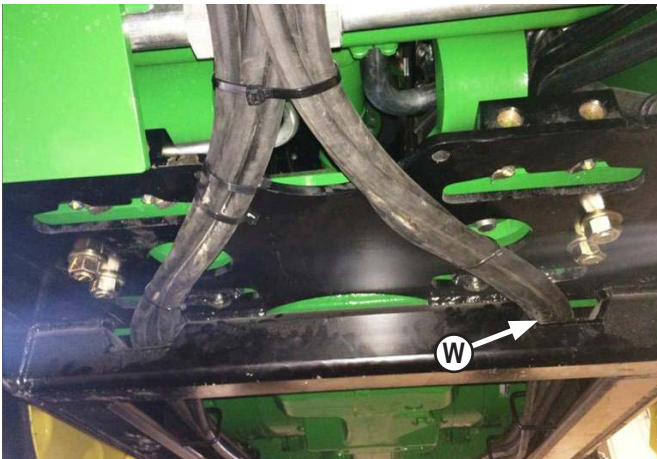
39. Check all fasteners regularly to ensure proper operation of equipment.

Hose Routing

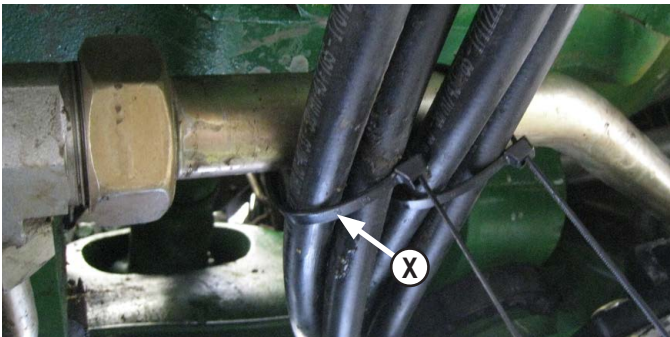


1. At the pivot area of the tractor, remove the bolts from the top plate that hold the cylinder pins and install the hose routing bracket along with the original plate and new 12mm flange bolts. Torque the 12mm bolts to 105 ft-lbs (V).

2. Route hoses through the hose loops on the undercarriage until you reach the end of the undercarriage as shown below.

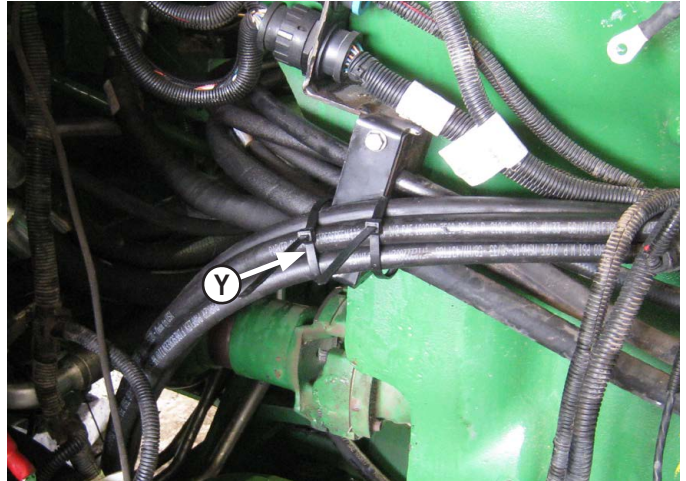


3. Route the hoses toward the center and attach to the undercarriage with a heavy zip tie (W).



4. Zip tie the hoses to the steel line behind the undercarriage cross member (X).

5. Route hoses up through the hose loops on the bracket that was installed in Step #1.



6. Route the hoses upward through the tractor. Staying away from the driveshaft by attaching the hoses to any other steel lines along the way. Attach to the tractor's hoses right by the hose bracket with zip ties (Y).



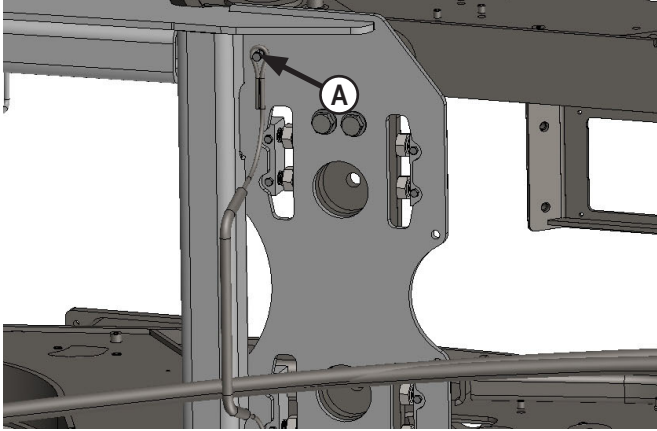
7. Route the hoses through the open cavity of the back section of the tractor. Secure hoses with zip ties where necessary to avoid rubbing and pinch areas. Plug the hoses into the open SCV's at the back of the tractor.

Assembling Lift Components

Refer to the Blade Owner's Manual & Parts Book for instructions on how to assemble the lift components.

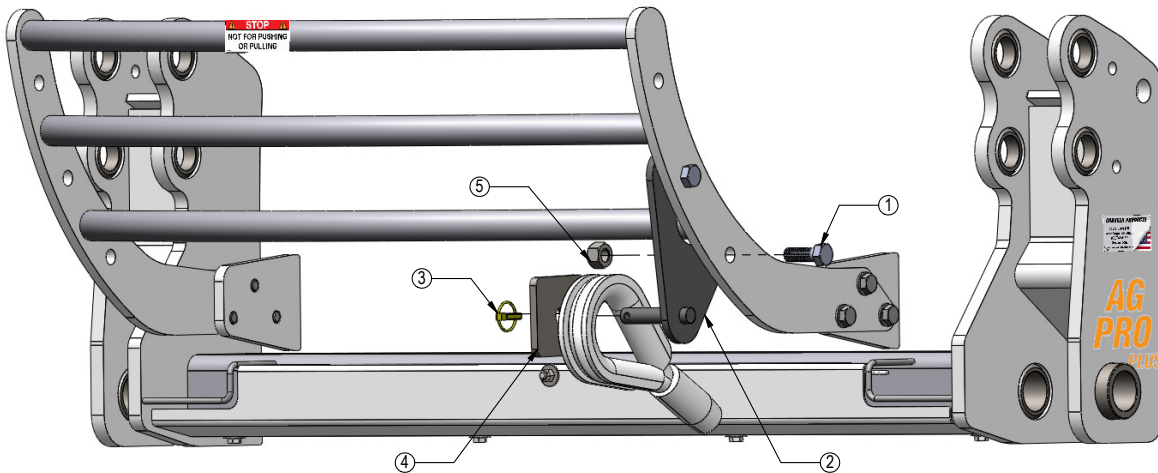
Tow Cable Support Bracket Assembly

NOTE: Kit is required if tractor has a tow cable.



1. Reinstall the cable holder with the original spacers and washers and use the new 2 - 3/8" x 1-3/4" bolts, 2 - 3/8" washers and 2 - 3/8" flange nuts at the rear of the undercarriage (A). Torque the bolts to 47 ft-lbs.

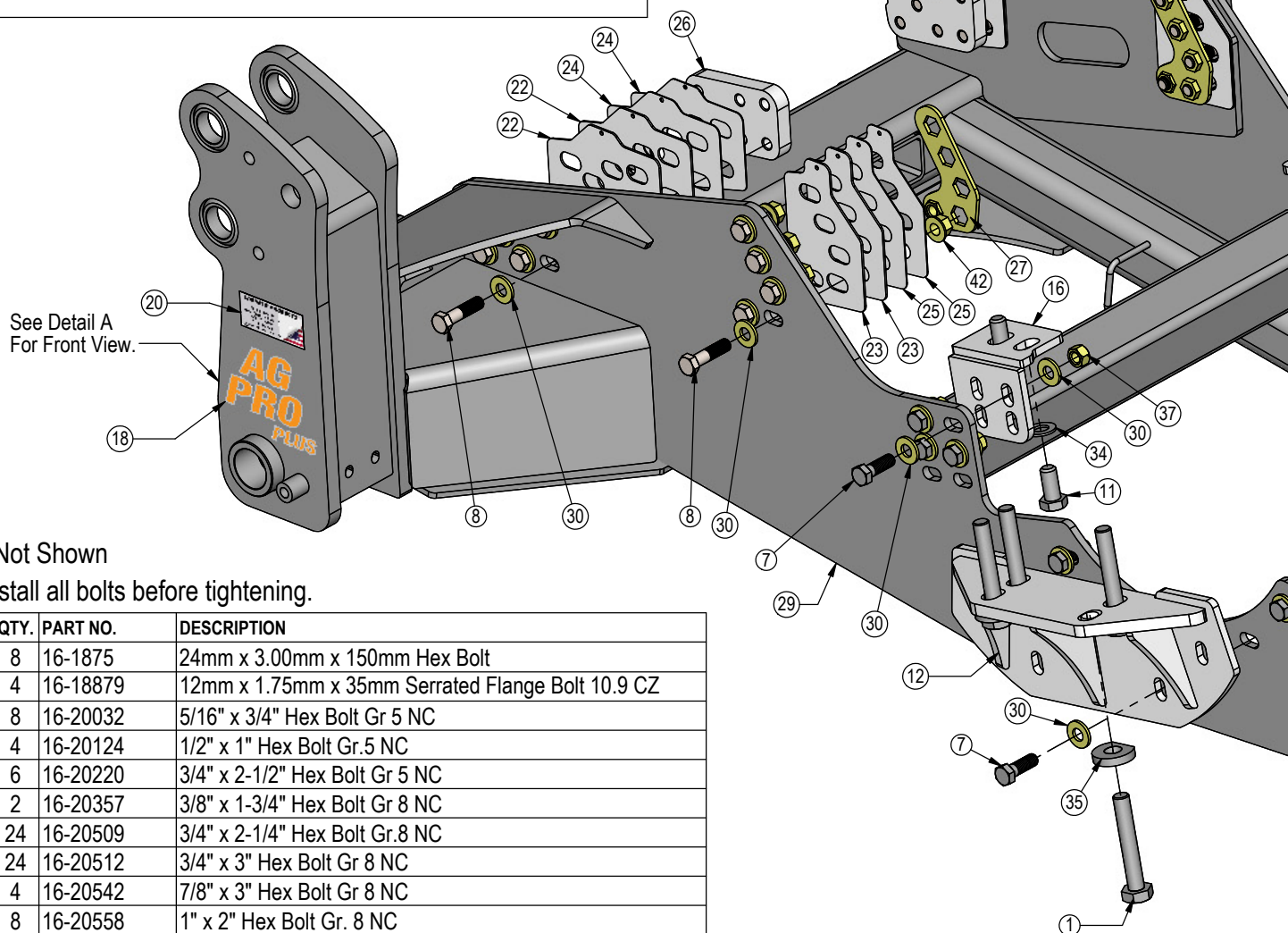
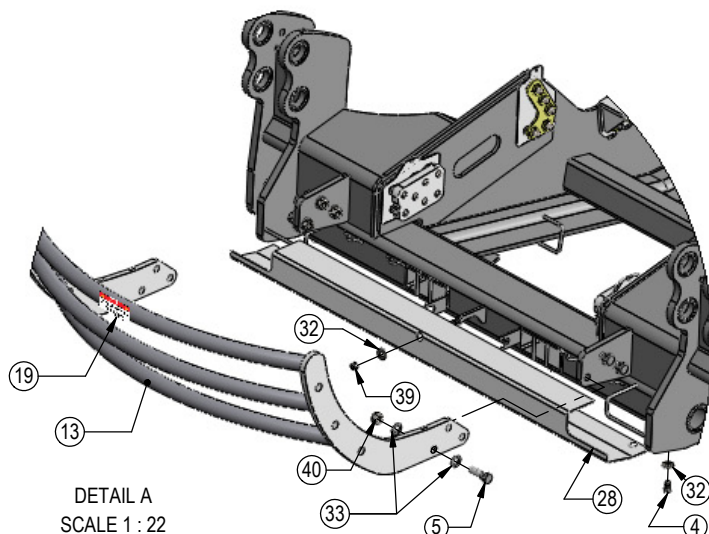
NOTE: Original spacers and washers are not shown in the picture.



Ag Pro Plus - Tow Cable Support Bracket Assy - 18-19095-A

Item No.	Qty.	Part No.	Description
1	2	16-20540	7/8" x 2-1/2" Hex Bolt Gr 8 NC
2	1	18-19095	Tow Cable Support Bracket
3	1	43-16764	7/16" x 1-3/4" Lynch Pin
4	1	44-15585	Tow Cable Holding Plate
5	2	70-20598	7/8" Hex Nut Gr 8 NC

Single Red



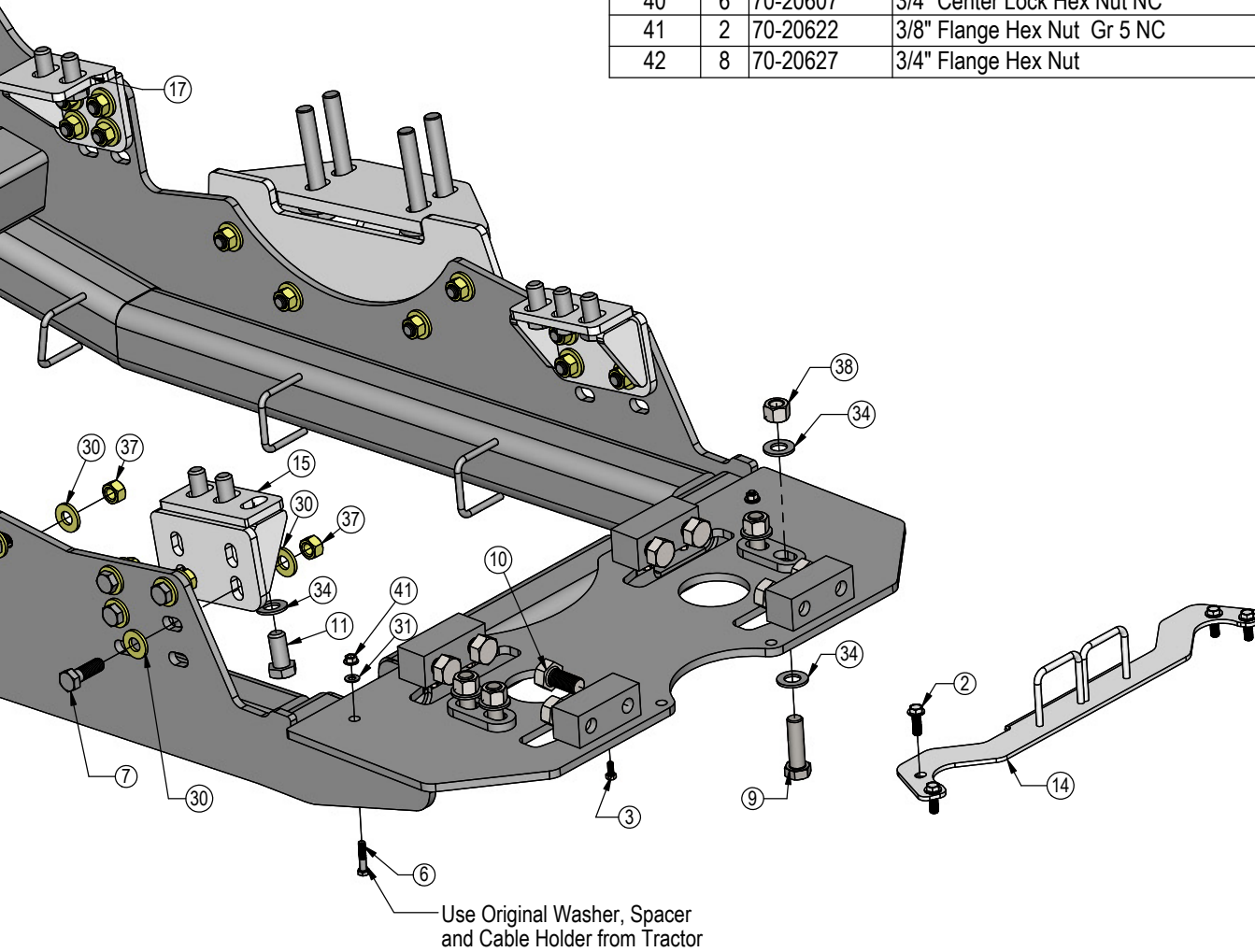
* Parts Not Shown

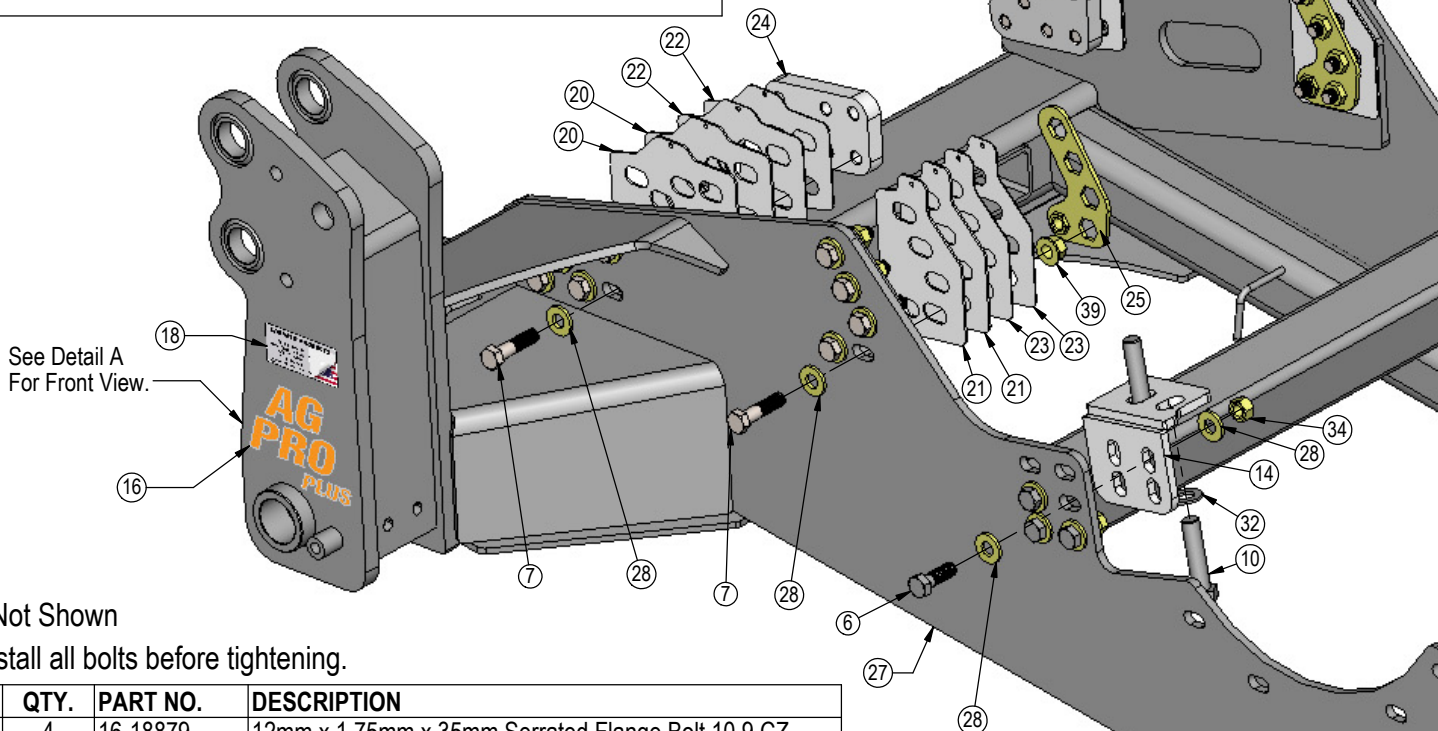
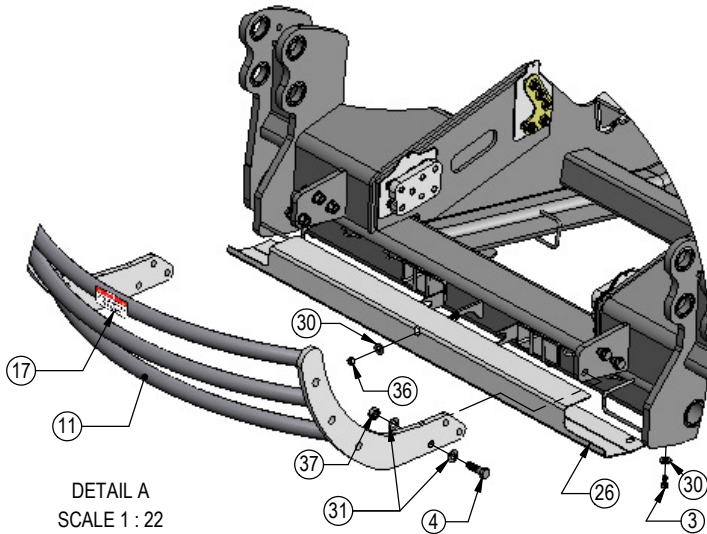
Note: Install all bolts before tightening.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	8	16-1875	24mm x 3.00mm x 150mm Hex Bolt
2	4	16-18879	12mm x 1.75mm x 35mm Serrated Flange Bolt 10.9 CZ
3	8	16-20032	5/16" x 3/4" Hex Bolt Gr 5 NC
4	4	16-20124	1/2" x 1" Hex Bolt Gr.5 NC
5	6	16-20220	3/4" x 2-1/2" Hex Bolt Gr 5 NC
6	2	16-20357	3/8" x 1-3/4" Hex Bolt Gr 8 NC
7	24	16-20509	3/4" x 2-1/4" Hex Bolt Gr.8 NC
8	24	16-20512	3/4" x 3" Hex Bolt Gr 8 NC
9	4	16-20542	7/8" x 3" Hex Bolt Gr 8 NC
10	8	16-20558	1" x 2" Hex Bolt Gr. 8 NC
11	10	16-2492	24mm x 3.0mm x 50mm Hex Bolt
12	2	18-17445R1	Axle Bracket
13	1	18-18059R2	Grill Guard Weld
14	1	18-18415R1	Bracket
15	2	18-19104	Rear Bracket Weld
16	1	18-19108-L	Front Bracket, Left
17	1	18-19108-R	Front Bracket, Right
18	2	27-18880	Ag Pro Plus Decal
		27-19455	Ag Pro SS Decal

uction Axle

ITEM NO.	QTY.	PART NO.	DESCRIPTION
19	1	27-18882	Not For Pushing or Pulling Decal
20	1	27-18887	Grouser Name Plate Decal
21	1	NA	Grouser Dozer Metal Serial Tag
22	3	44-18141	Shim, Front 1/8"
23	3	44-18142	Shim, Rear 1/8"
24	3	44-18143	Shim, Front 1/16"
25	3	44-18144	Shim, Rear 1/16"
26	2	44-18147	Plate, Front Nut
27	2	44-18245	Rear Nut Plate Weldment
28	1	44-40504	Plate, Cover
29	1	54-40525	Undercarriage Weld
30	72	57-19088	3/4" Hardened HD Flat Washer YZ
31	2	57-20742	3/8" Flat Washer
32	5	57-20744	1/2" Flat Washer
33	12	57-20757	3/4" Flat Washer - 1-1/2" OD
34	18	57-20758	7/8" SAE Hardened Flat Washer - 1-3/4" OD
35	8	57-3098	1.05" ID x 2.50" OD - JD Axle Mount Washer
36	1	63-40451-INS	John Deere 9R Undercarriage Installation Instructions
37	24	70-20597	3/4" Hex Nut Gr.8 NC
38	4	70-20598	7/8" Hex Nut Gr 8 NC
39	1	70-20604	1/2" Center Lock Hex Nut
40	6	70-20607	3/4" Center Lock Hex Nut NC
41	2	70-20622	3/8" Flange Hex Nut Gr 5 NC
42	8	70-20627	3/4" Flange Hex Nut





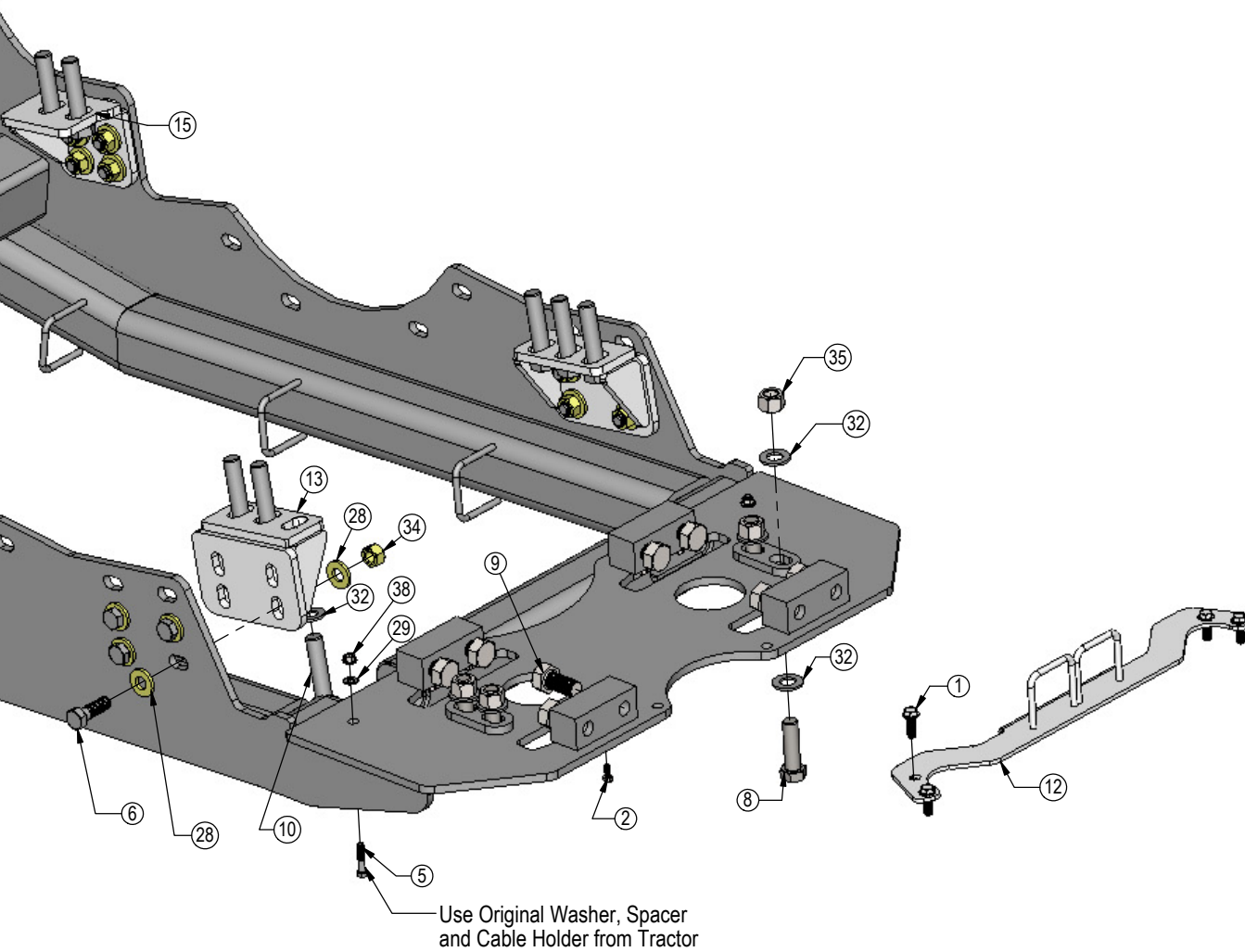
* Parts Not Shown

Note: Install all bolts before tightening.

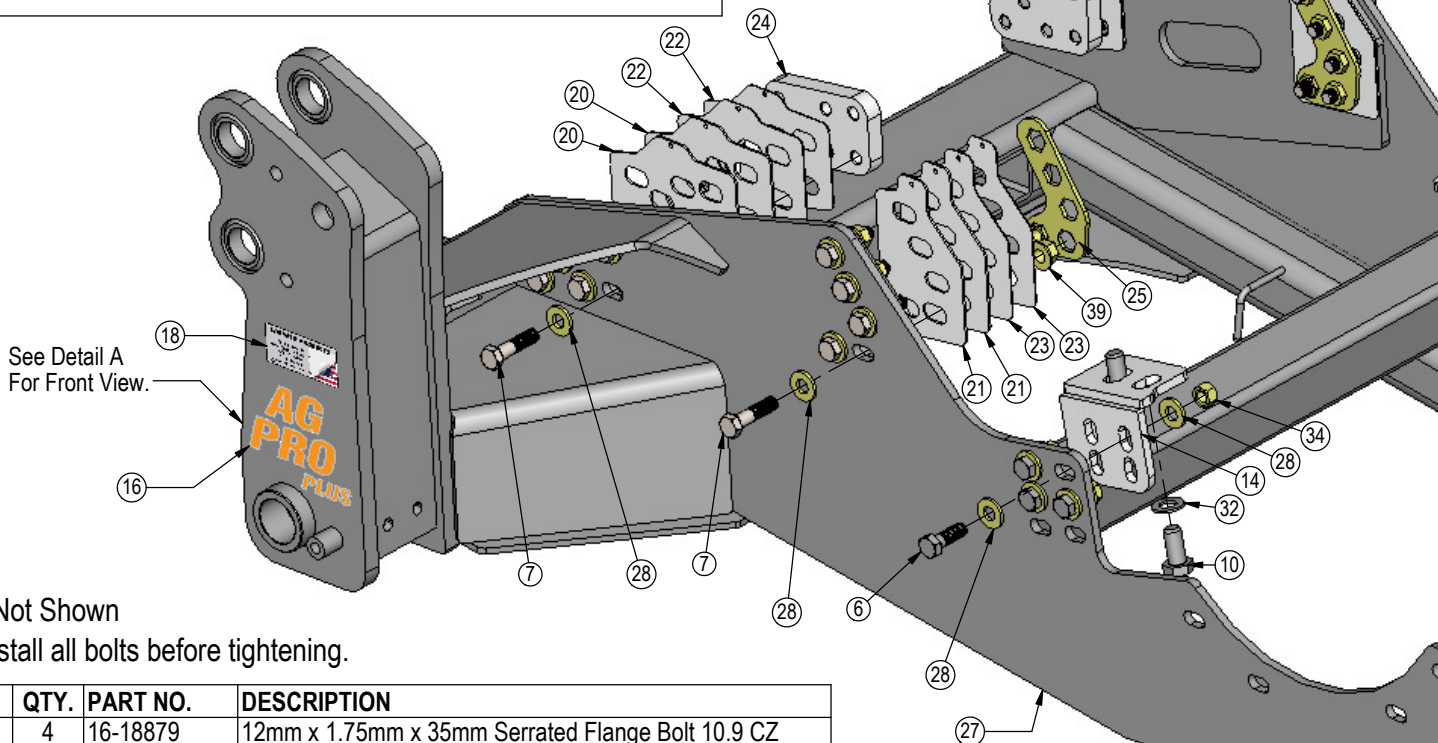
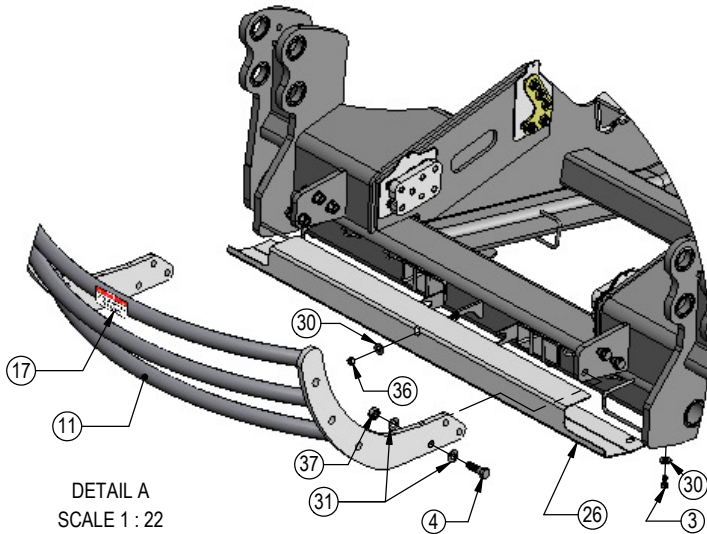
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4	6	16-20220	3/4" x 2-1/2" Hex Bolt Gr 5 NC
5	2	16-20357	3/8" x 1-3/4" Hex Bolt Gr 8 NC
6	16	16-20509	3/4" x 2-1/4" Hex Bolt Gr.8 NC
7	24	16-20512	3/4" x 3" Hex Bolt Gr 8 NC
8	4	16-20542	7/8" x 3" Hex Bolt Gr 8 NC
9	8	16-20558	1" x 2" Hex Bolt Gr. 8 NC
10	10	16-2486	24mm x 3.0mm x 100mm Hex Bolt
11	1	18-18059R2	Grill Guard Weld
12	1	18-18415R1	Bracket
13	2	18-19104	Rear Bracket Weld
14	1	18-19108-L	Front Bracket, Left
15	1	18-19108-R	Front Bracket, Right
16	2	27-18880	Ag Pro Plus Decal
16*	2	27-19455	Ag Pro SS Decal
17	1	27-18882	Not For Pushing or Pulling Decal
18	1	27-18887	Grouser Name Plate Decal

uction Axle

ITEM NO.	QTY.	PART NO.	DESCRIPTION
19	1	NA	Grouser Dozer Metal Serial Tag
20	3	44-18141	Shim, Front 1/8"
21	3	44-18142	Shim, Rear 1/8"
22	3	44-18143	Shim, Front 1/16"
23	3	44-18144	Shim, Rear 1/16"
24	2	44-18147	Plate, Front Nut
25	2	44-18245	Rear Nut Plate Weldment
26	1	44-40504	Plate, Cover
27	1	54-40525	Undercarriage Weld
28	56	57-19088	3/4" Hardened HD Flat Washer YZ
29	2	57-20742	3/8" Flat Washer
30	5	57-20744	1/2" Flat Washer
31	12	57-20757	3/4" Flat Washer - 1-1/2" OD
32	18	57-20758	7/8" SAE Hardened Flat Washer - 1-3/4" OD
33*	1	63-40451-INS	John Deere 9R Undercarriage Installation Instructions
34	16	70-20597	3/4" Hex Nut Gr.8 NC
35	4	70-20598	7/8" Hex Nut Gr 8 NC
36	1	70-20604	1/2" Center Lock Hex Nut
37	6	70-20607	3/4" Center Lock Hex Nut NC
38	2	70-20622	3/8" Flange Hex Nut Gr 5 NC
39	8	70-20627	3/4" Flange Hex Nut



Double Rear with HydraCushion



* Parts Not Shown

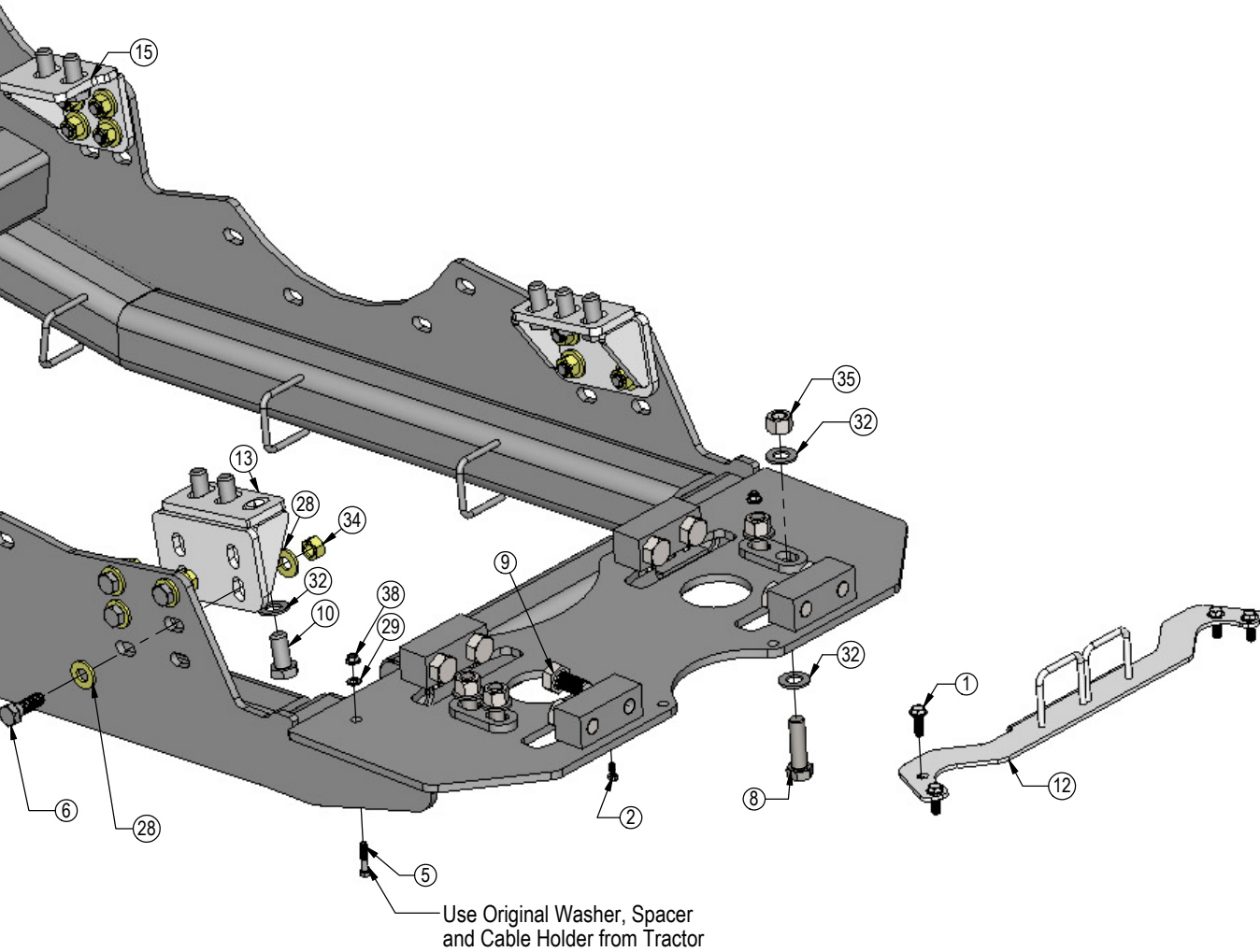
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5	2	16-20357	3/8" x 1-3/4" Hex Bolt Gr 8 NC
6	16	16-20509	3/4" x 2-1/4" Hex Bolt Gr.8 NC
7	24	16-20512	3/4" x 3" Hex Bolt Gr 8 NC
8	4	16-20542	7/8" x 3" Hex Bolt Gr 8 NC
9	8	16-20558	1" x 2" Hex Bolt Gr. 8 NC
10	10	16-2492	24mm x 3.0mm x 50mm Hex Bolt
11	1	18-18059R2	Grill Guard Weld
12	1	18-18415R1	Bracket
13	2	18-19104	Rear Bracket Weld
14	1	18-19108-L	Front Bracket, Left
15	1	18-19108-R	Front Bracket, Right
16	2	27-18880	Ag Pro Plus Decal
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17	1	27-18882	Not For Pushing or Pulling Decal
18	1	27-18887	Grouser Name Plate Decal

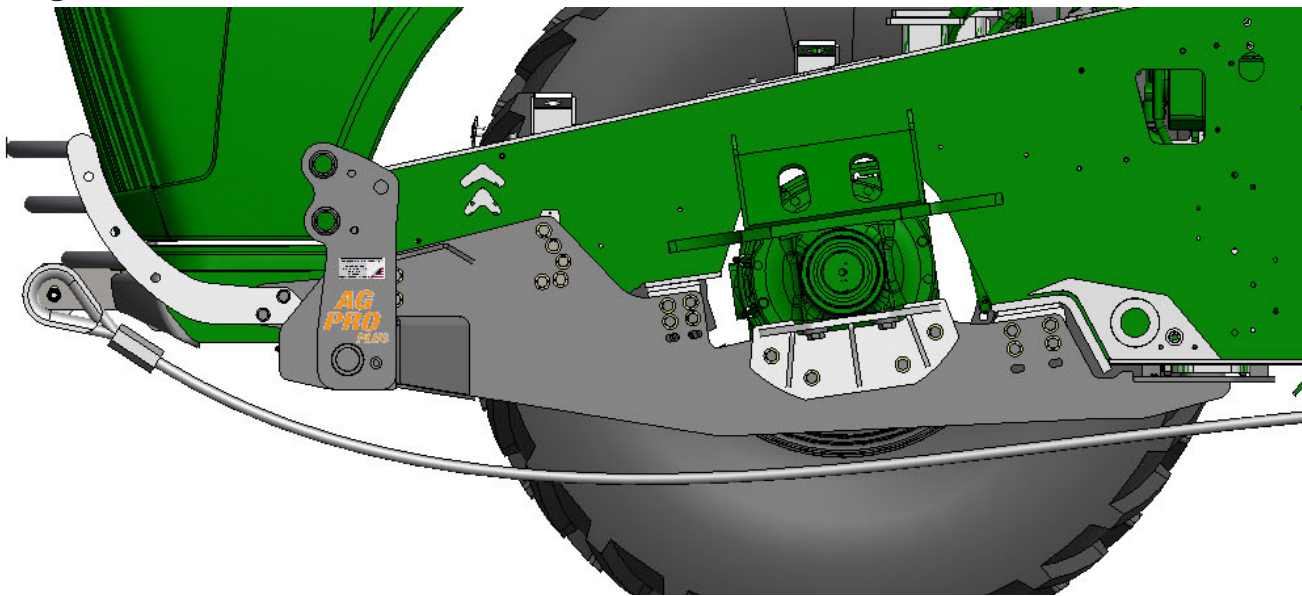
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on™ Suspension

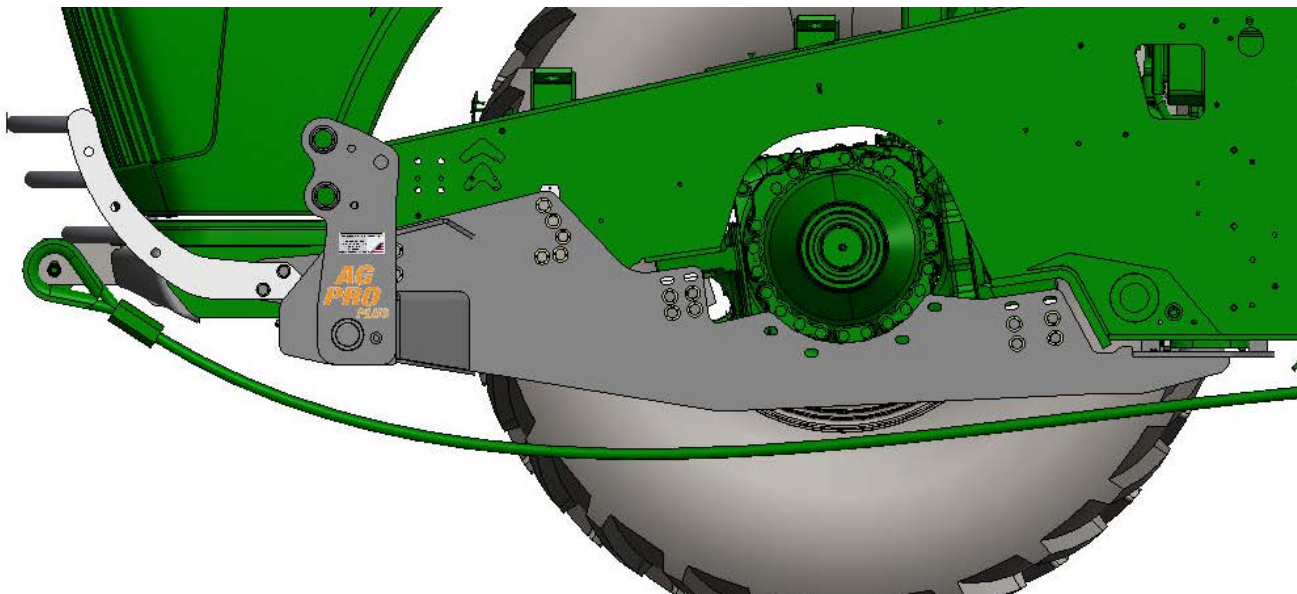
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23	3	44-18144	Shim, Rear 1/16"
24	2	44-18147	Plate, Front Nut
25	2	44-18245	Rear Nut Plate Weldment
26	1	44-40504	Plate, Cover
27	1	54-40525	Undercarriage Weld
28	56	57-19088	3/4" Hardened HD Flat Washer YZ
29	2	57-20742	3/8" Flat Washer
30	5	57-20744	1/2" Flat Washer
31	12	57-20757	3/4" Flat Washer - 1-1/2" OD
32	18	57-20758	7/8" SAE Hardened Flat Washer - 1-3/4" OD
33*	1	63-40451-INS	John Deere 9R Undercarriage Installation Instructions
34	16	70-20597	3/4" Hex Nut Gr.8 NC
35	4	70-20598	7/8" Hex Nut Gr 8 NC
36	1	70-20604	1/2" Center Lock Hex Nut
37	6	70-20607	3/4" Center Lock Hex Nut NC
38	2	70-20622	3/8" Flange Hex Nut Gr 5 NC
39	8	70-20627	3/4" Flange Hex Nut



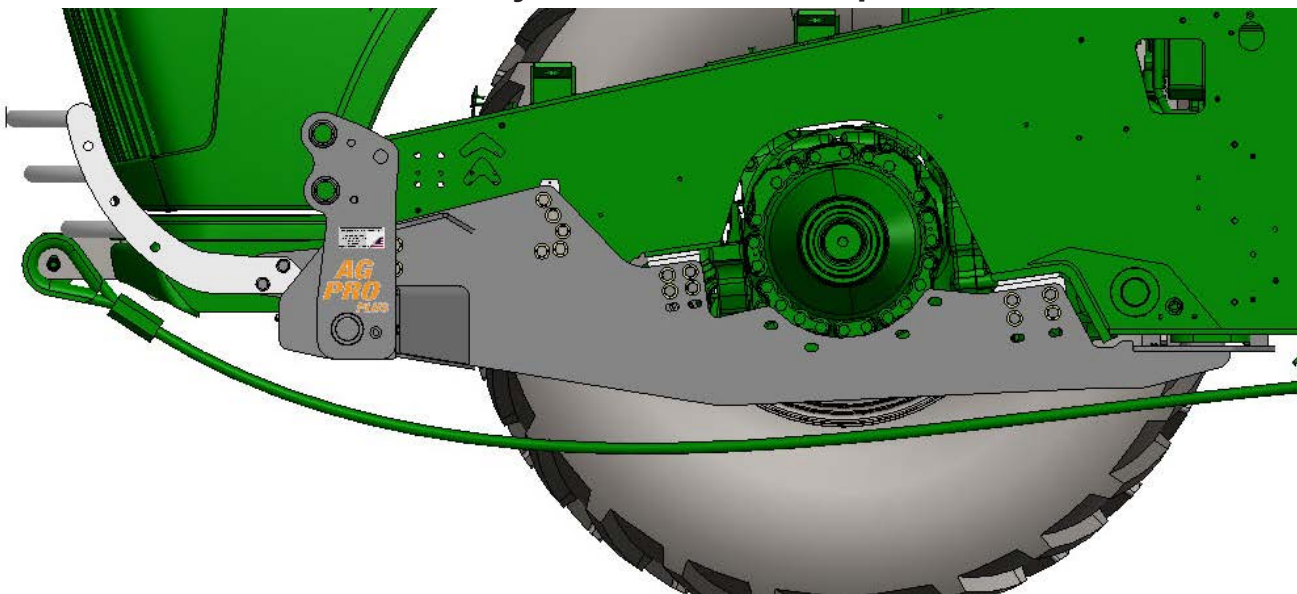
Single Reduction Axle



Double Reduction Axle



Double Reduction Axle with HydraCushion™ Suspension



Notes

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 (2) years for Agriculture Series Blades and one (1) year for Heavy Duty Series from date of original retail delivery.**

The obligation of the consumer under this warranty:

1. To read the operators manual and to operate, lubricate, maintain and store equipment in accordance with the instructions listed in the operators manual.
2. To inspect equipment and if any part needs repair or replacement when continued use would cause damage or wear to other parts or safety.
3. 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.

The obligation of the dealer under this warranty:

1. Complete warranty registration form and submit within 30 days of sale.
2. Contact Grouser Products for authorization prior to performing any warranty repairs or part replacement.
3. Complete warranty request form and submit with photos and supporting documentation.

The obligation of Grouser Products under this warranty:

1. Repair or replace, any equipment or parts, in the judgment of Grouser Products to be defective in material or workmanship.
2. Grouser Products will cover the cost of parts and ground shipping at dealer invoice only.
3. 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.

This warranty does not cover:

1. Depreciation or damage caused by normal wear, accident, improper assembly, improper adjustments.
2. Improper maintenance including lack of proper lubrication, or improper use. Including loose bolts, nuts, or fitting due to over tightening or vibration after 20 hours of operation.
3. Repairs or alterations without authorization from a Grouser Products representative.
4. 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.

NO EMPLOYEE OR REPRESENTATIVE OF GROUSER PRODUCTS IS AUTHORIZED TO CHANGE THE WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY.

Contact Us

As always, if you have any questions about your system or other products made by Grouser, feel free to contact us.



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