

4012

Kelly 

Tillage System Model 4012 Assembly Manual

Revision G-0 - August 2022

Serial Number:

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Thank you for choosing a Kelly Tillage product

We trust that you find the following manual clear and easy to follow. If you should require additional customer support or assistance, please do not hesitate to contact us.

Spare parts can be purchased, as required, through your local dealer or by contacting Kelly Tillage directly.

Kelly welcomes feedback. Should you have any difficulties that you wish to raise, suggestions for improvement or modifications that you feel would enhance our products we look forward to hearing from you.

Contact Information

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Europe

Kelly Tillage

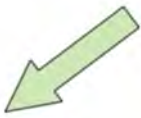
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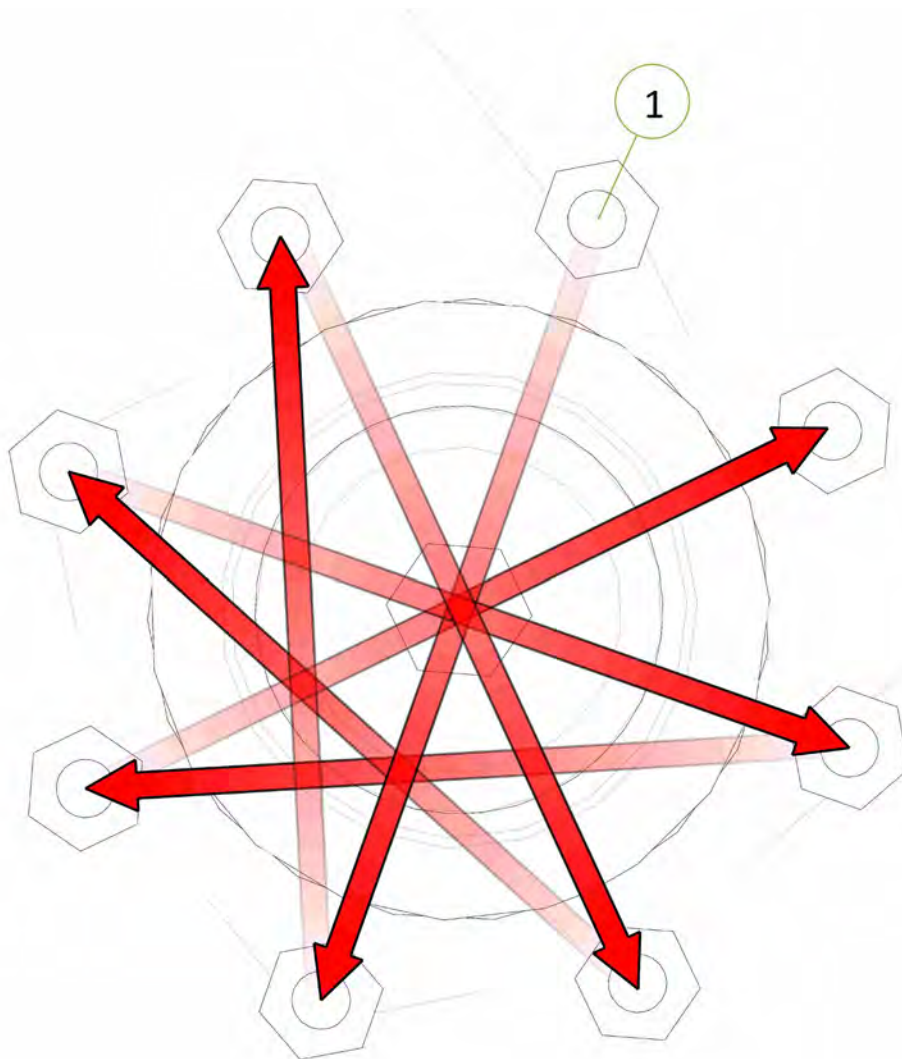
This symbol indicates which way the machine is travelling

Bolt Torque Settings

Bolt Type	Wheel nut	U Bolt			Class 8.8 Bolt							Class 10.9 Bolt
Bolt Size	M18	M12	M16	M20	M6	M8	M10	M12	M16	M20	M24	M20
Spanner	27	19	24	30	10	13	17	19	24	30	36	30
Nm (max)	270	50	75	260	9.9	18.1	28.8	41.9	78.8	127	183	181

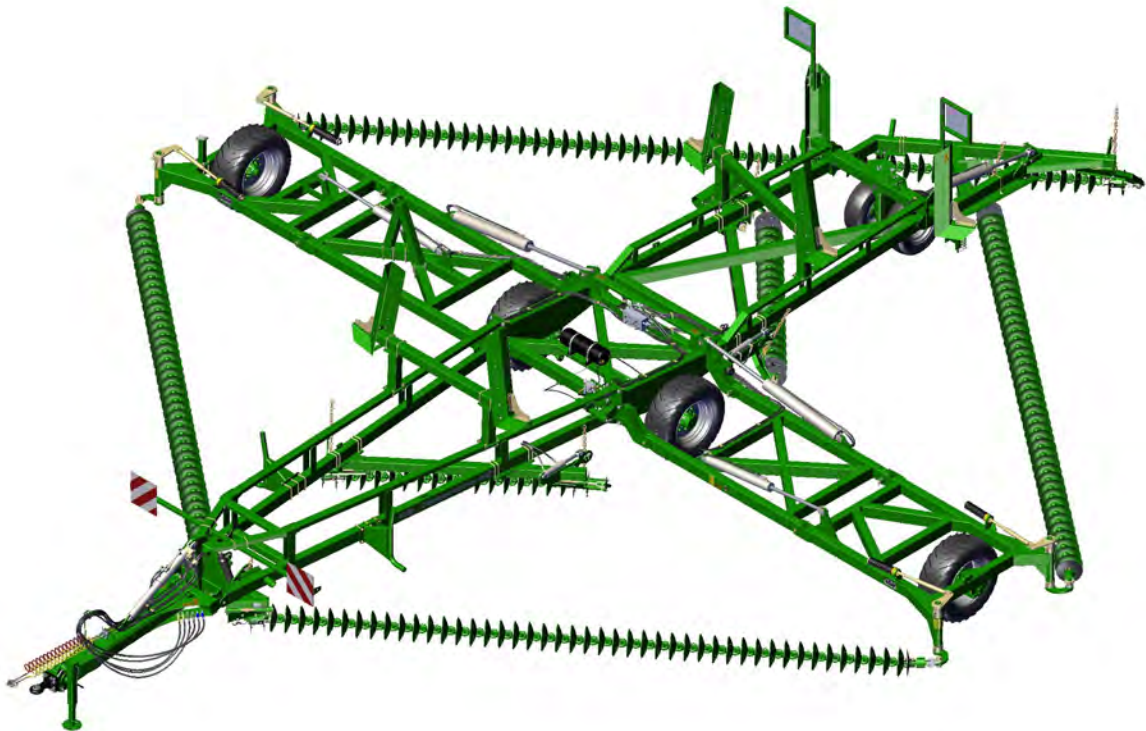
[1] When fitting a wheel & tire to a hub, tighten the wheel nuts in a star pattern to the correct tension. To achieve this choose a wheel nut & tighten, then proceed to the opposite side of the hub to the next wheel nut & tighten & so on until all wheel nuts are tight. Then repeat the procedure to check that all nuts are tight. Do not use impact tools to tighten wheel nuts. For a guide to the correct tension of the wheel nuts please use the appropriate tension for your size wheel nuts from the Bolt Torque Settings table.

Torque values are for dry threads and surfaces however it is permissible to apply a small amount of anti corrosive oil to the threads.

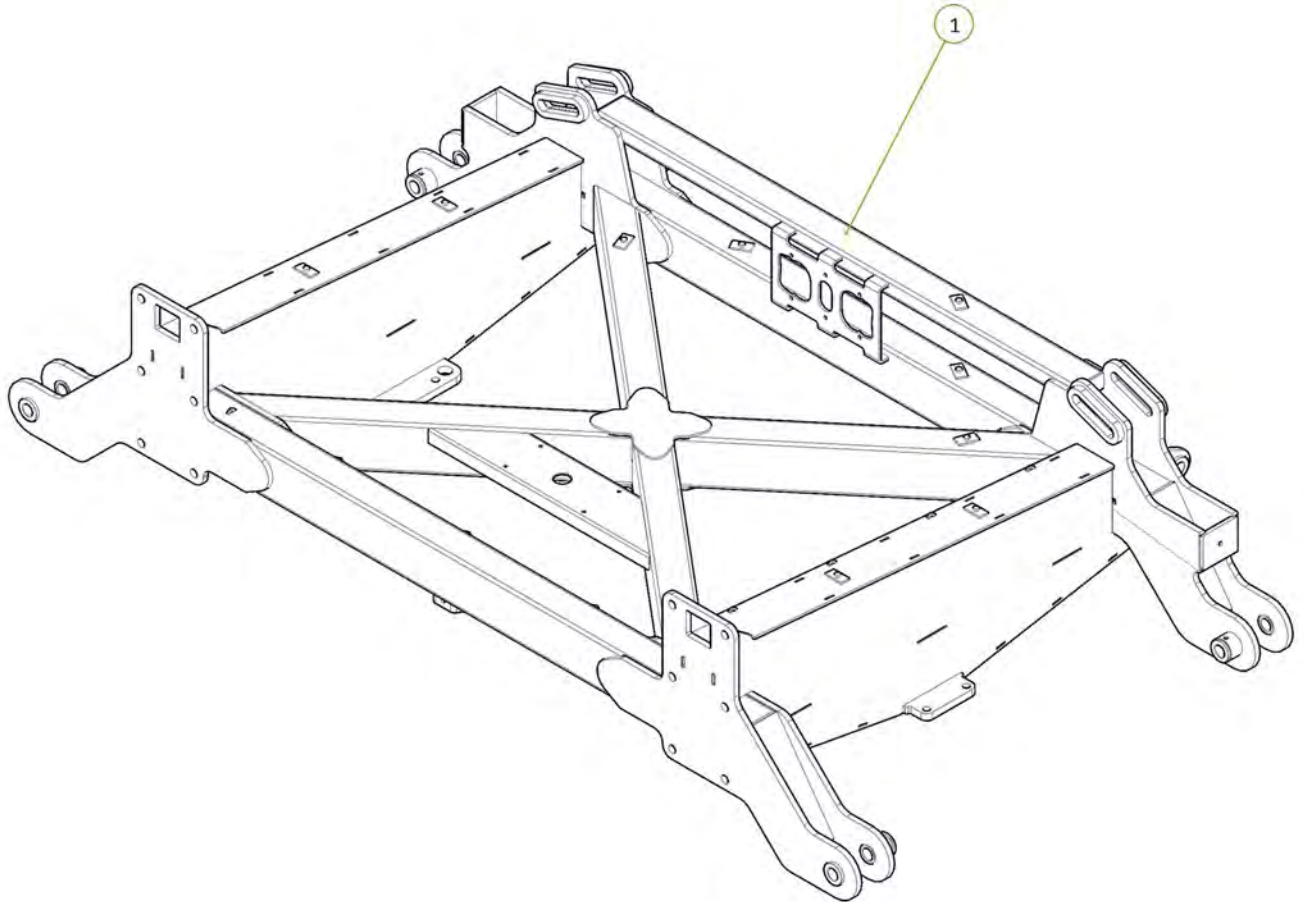


Section 1

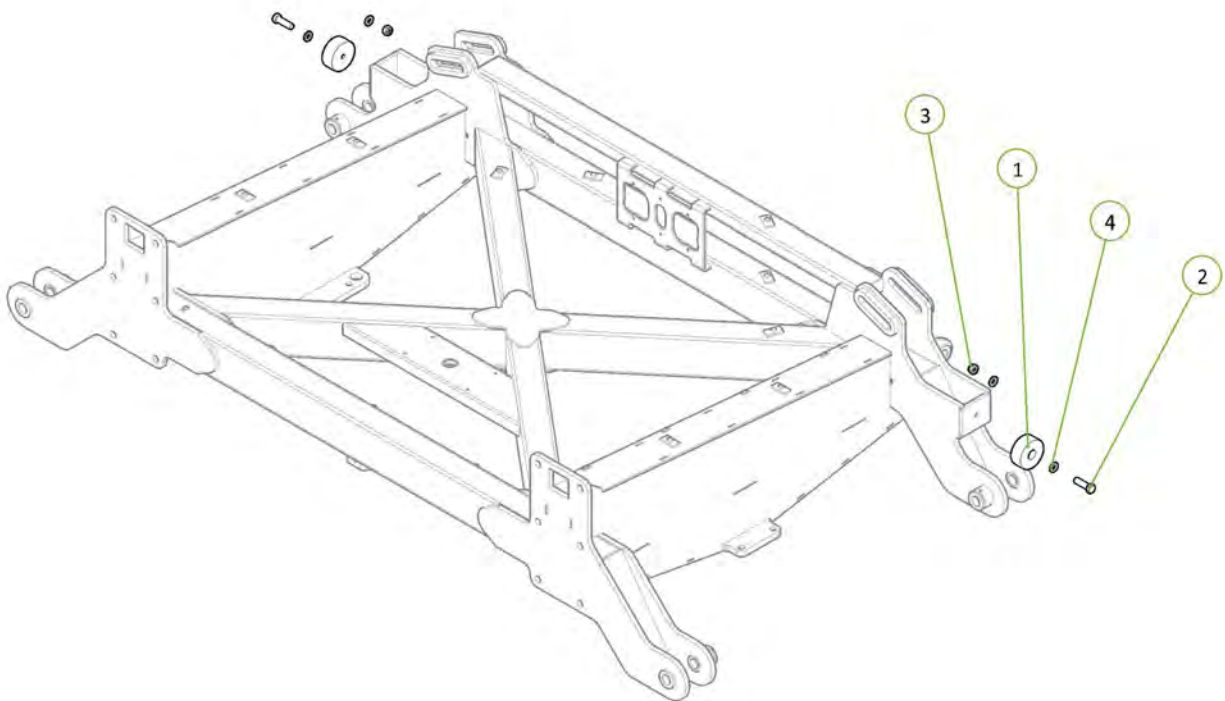
Assembly



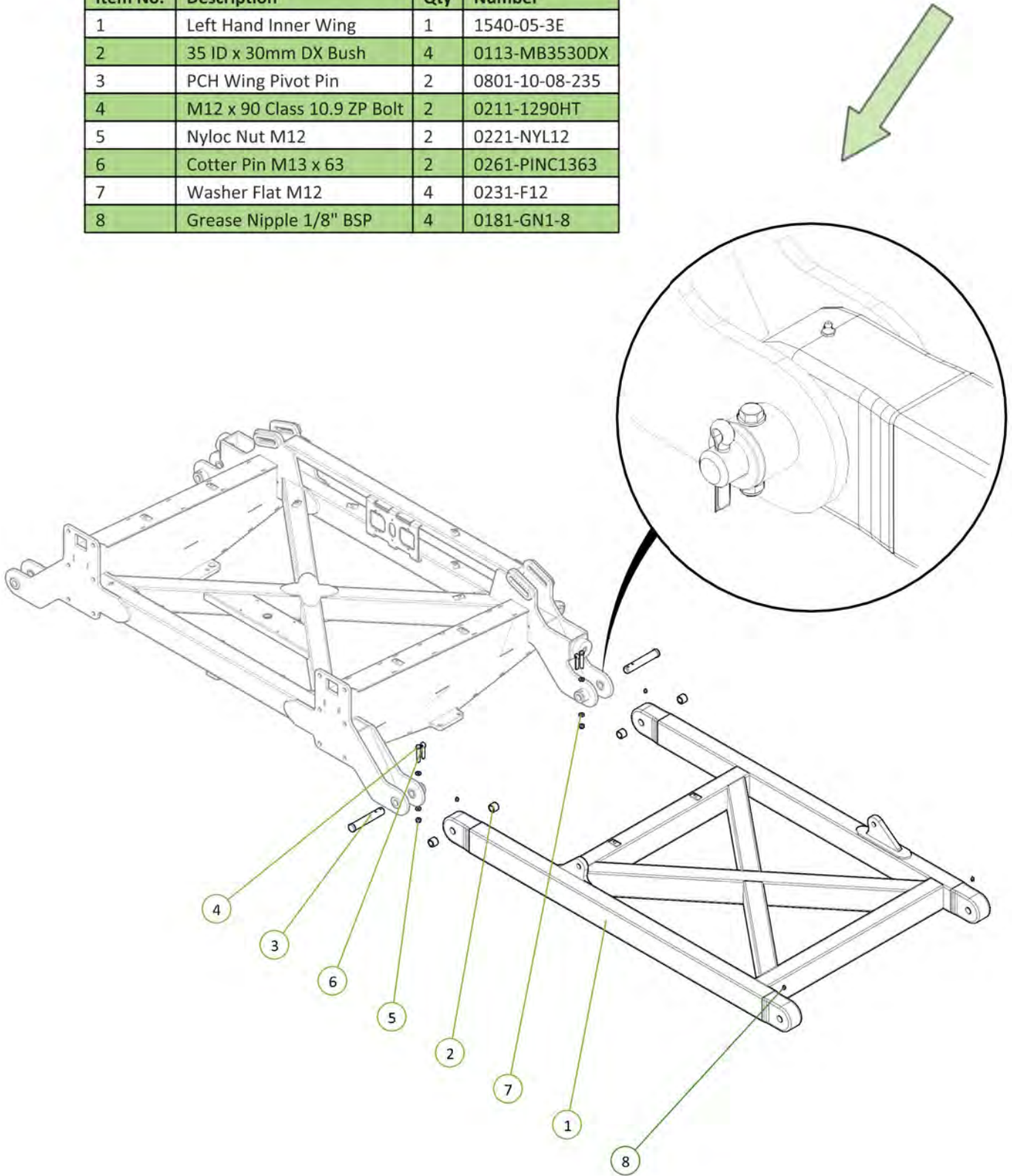
Item No.	Description	Qty	Number
1	Centre Frame	1	1540-01-1E



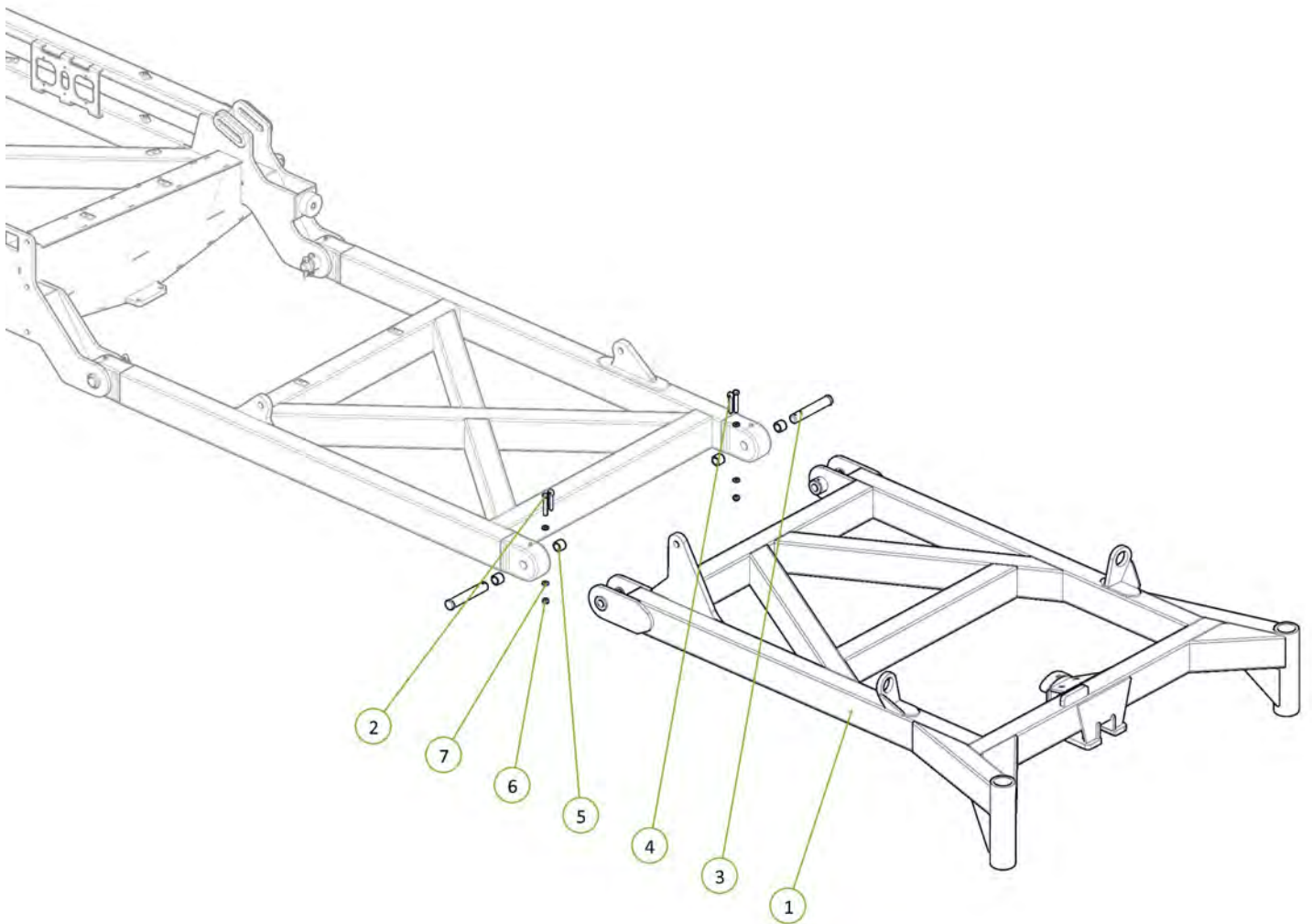
Item No.	Description	Qty	Number
1	Wing Folding Buffer	2	1201-12
2	M16 x 55 grade 8.8 zp Bolt	2	0211-1655
3	Nyloc Nut M16	2	0221-NYL16
4	Washer Flat M16	4	0231-F16



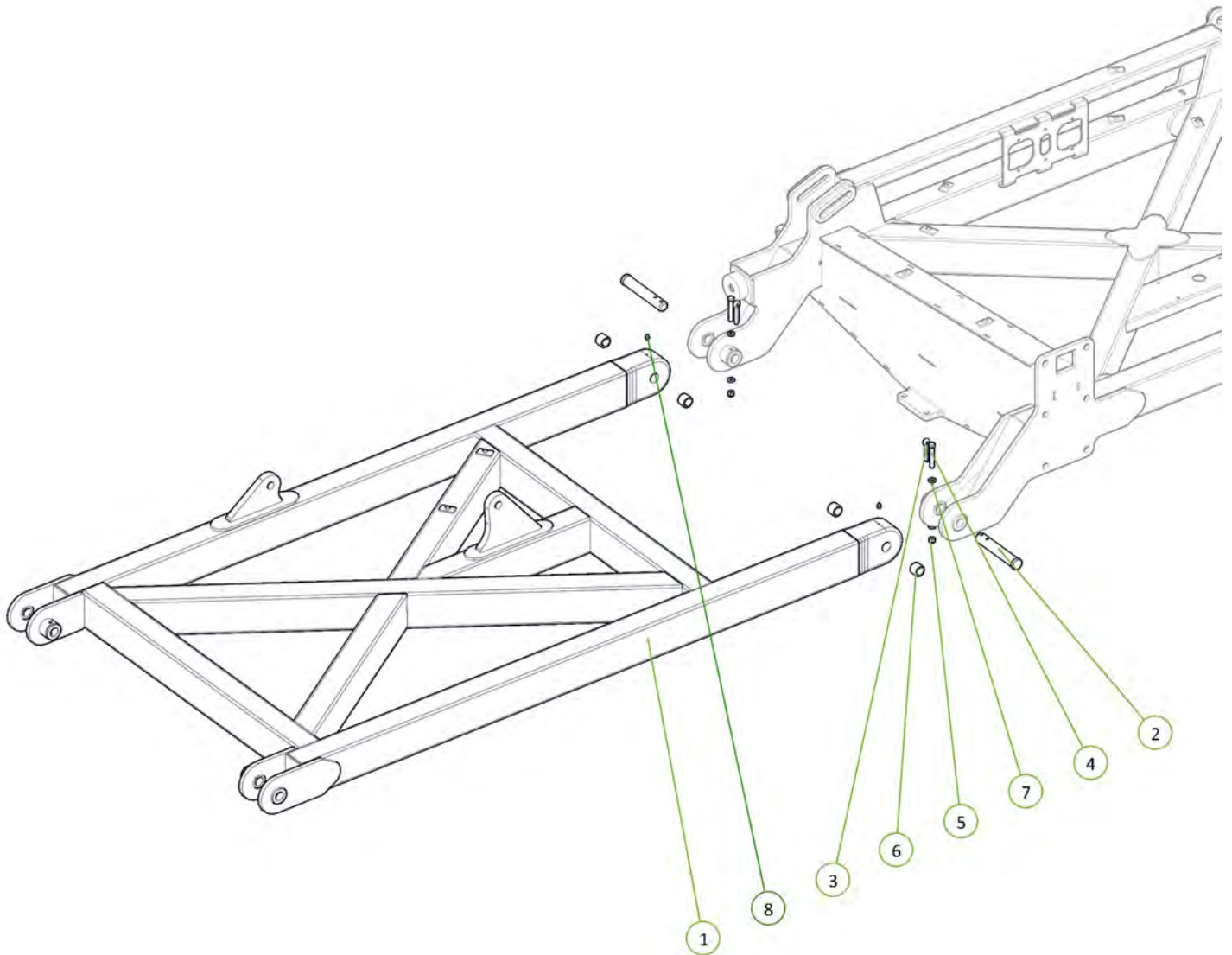
Item No.	Description	Qty	Number
1	Left Hand Inner Wing	1	1540-05-3E
2	35 ID x 30mm DX Bush	4	0113-MB3530DX
3	PCH Wing Pivot Pin	2	0801-10-08-235
4	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
5	Nyloc Nut M12	2	0221-NYL12
6	Cotter Pin M13 x 63	2	0261-PINC1363
7	Washer Flat M12	4	0231-F12
8	Grease Nipple 1/8" BSP	4	0181-GN1-8



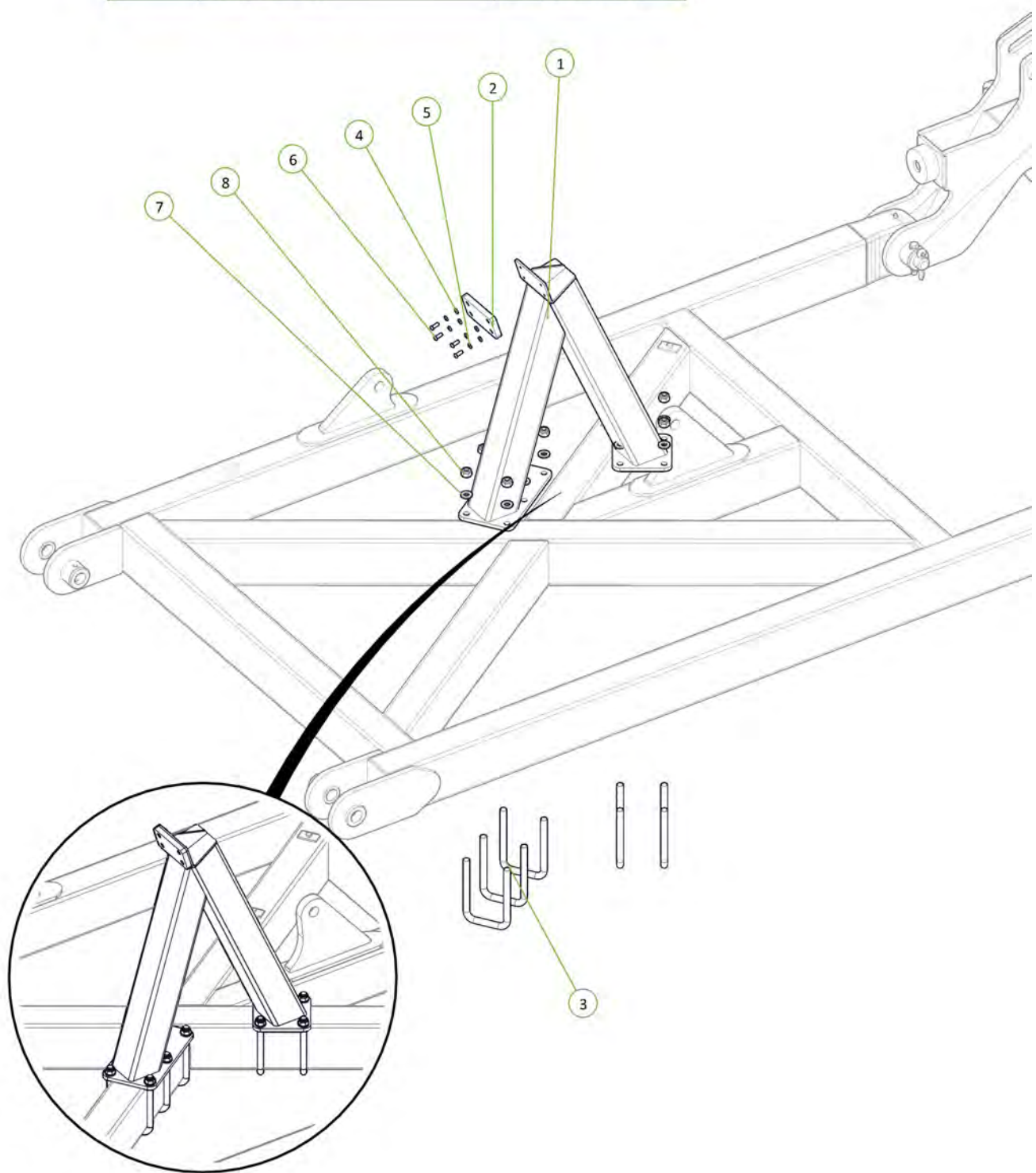
Item No.	Description	Qty	Number
1	Left Hand Outer Wing	1	1540-07-2E
2	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
3	PCH Wing Pivot Pin	2	0801-10-08-235
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	35 ID x 30mm DX Bush	4	0113-MB3530DX
6	Nyloc Nut M12	2	0221-NYL12
7	Washer Flat M12	4	0231-F12



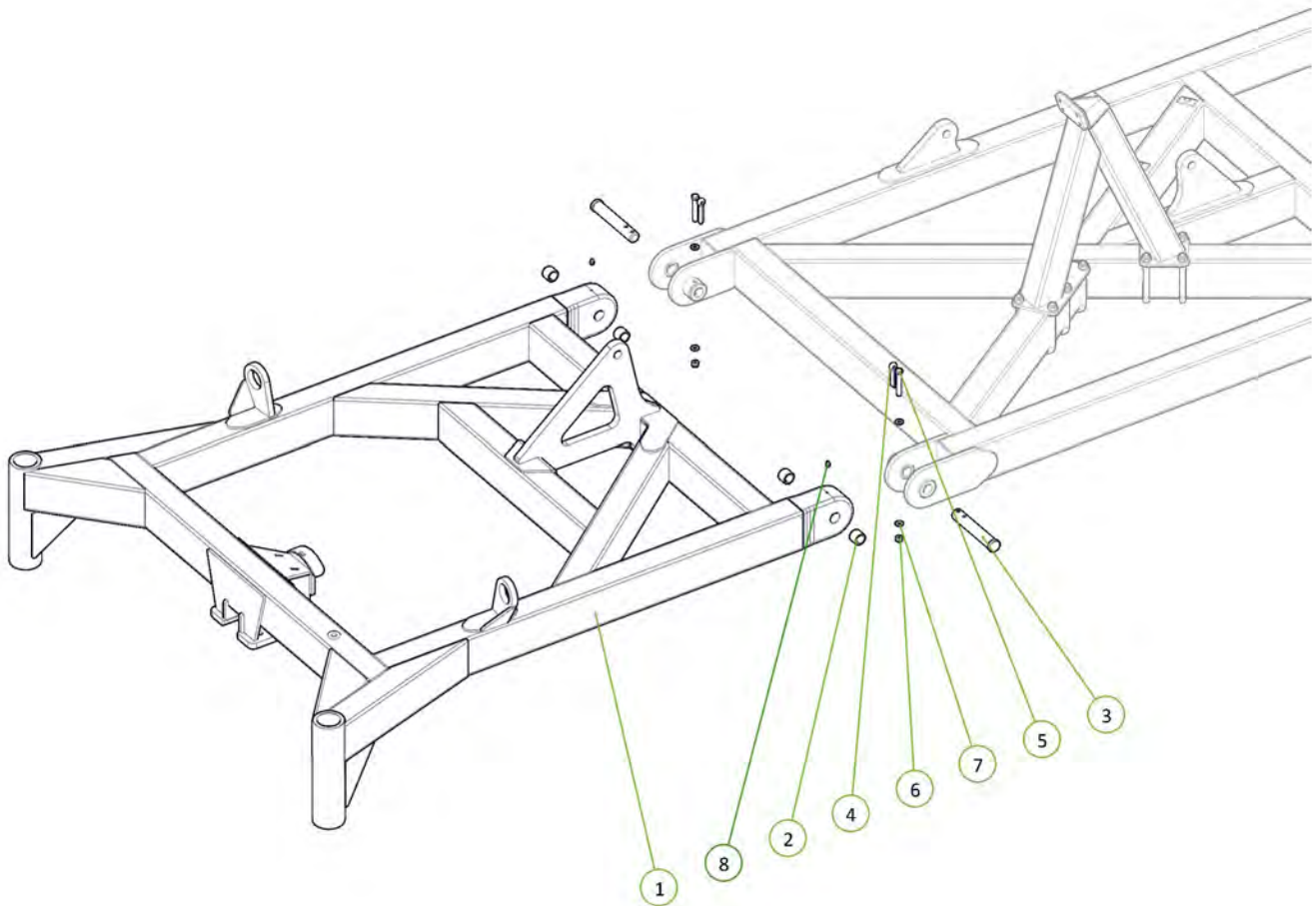
Item No.	Description	Qty	Number
1	Right Hand Inner Wing	1	1540-04-3E
2	PCH Wing Pivot Pin	2	0801-10-08-235
3	Cotter Pin M13 x 63	2	0261-PINC1363
4	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
5	Nyloc Nut M12	2	0221-NYL12
6	35 ID x 30mm DX Bush	4	0113-MB3530DX
7	Washer Flat M12	4	0231-F12
8	Grease Nipple 1/8" BSP	2	0181-GN1-8



Item No.	Description	Qty	Number
1	U-Bolt 12M Inner Wing Post	1	1510-240
2	Wing Buffer Pad	1	1501-27
3	U-Bolt M16 x 190 Deep X 106 Wide	5	0271-16185104
4	Washer Flat M6	4	0231-F6
5	Washer Spring M6	4	0231-S6
6	M6 x 20 Button Head Bolt ZP	4	0211-0620BH
7	Washer Flat M16	10	0231-F16
8	Nyloc Nut M16	10	0221-NYL16



Item No.	Description	Qty	Number
1	Right Hand Outer Wing	1	1540-06-2E
2	35 ID x 30mm DX Bush	4	0113-MB3530DX
3	PCH Wing Pivot Pin	2	0801-10-08-235
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
6	Nyloc Nut M12	2	0221-NYL12
7	Washer Flat M12	4	0231-F12
8	Grease Nipple 1/8" BSP	2	0181-GN1-8

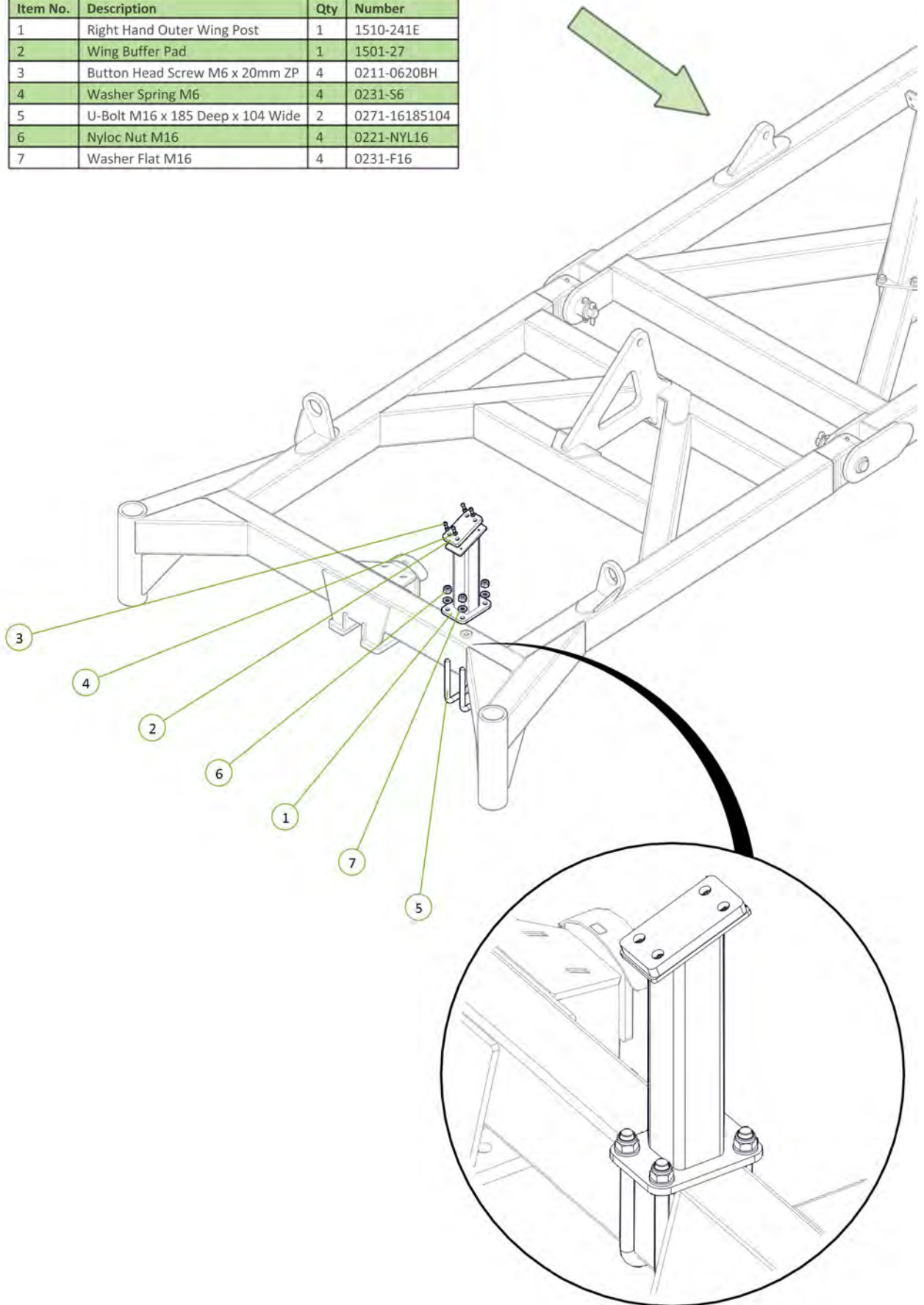


All wing pivot bolts tightened and cotter pins installed

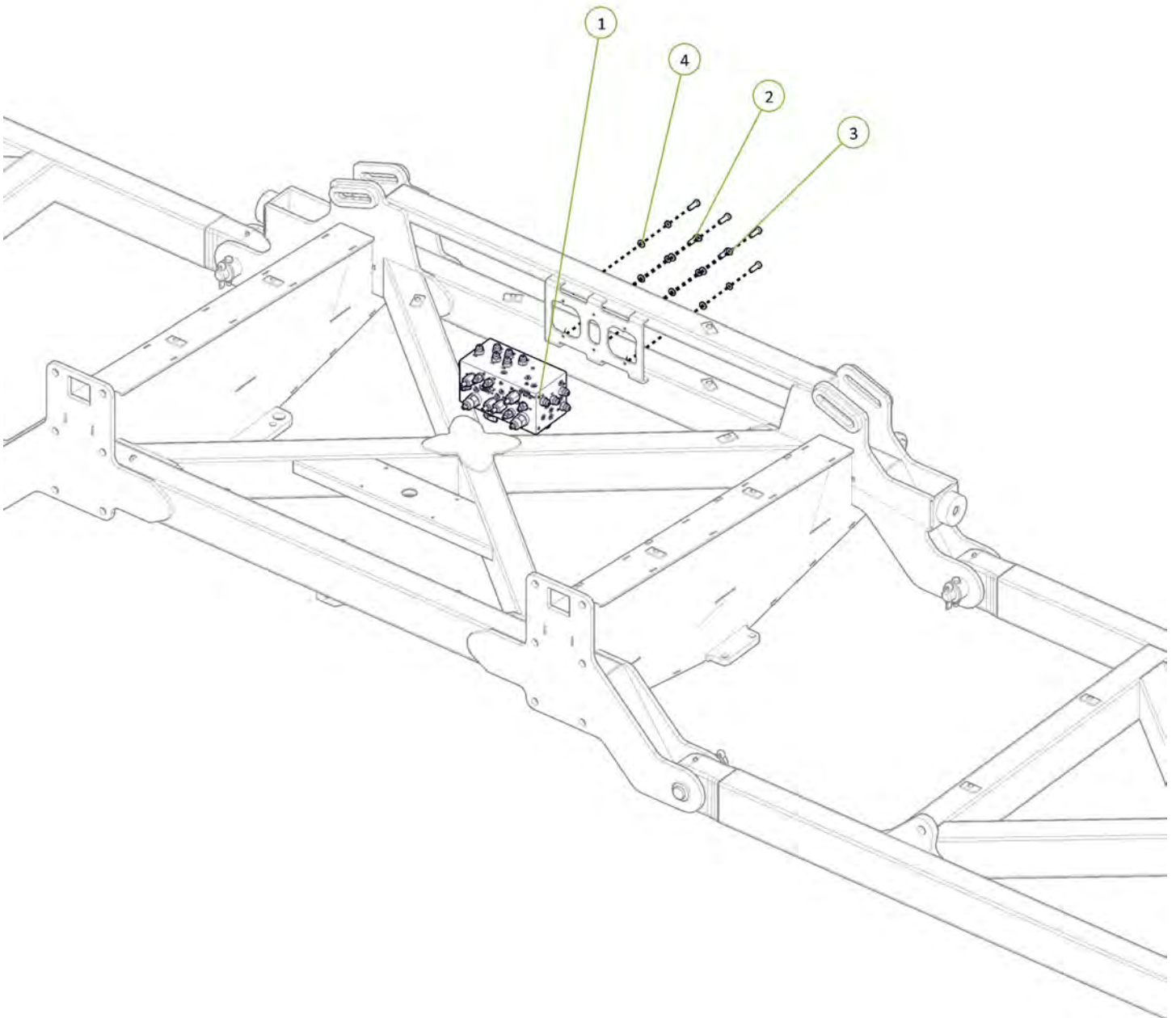


Signed _____ Date ___/___/___
 Unit Serial Number _____

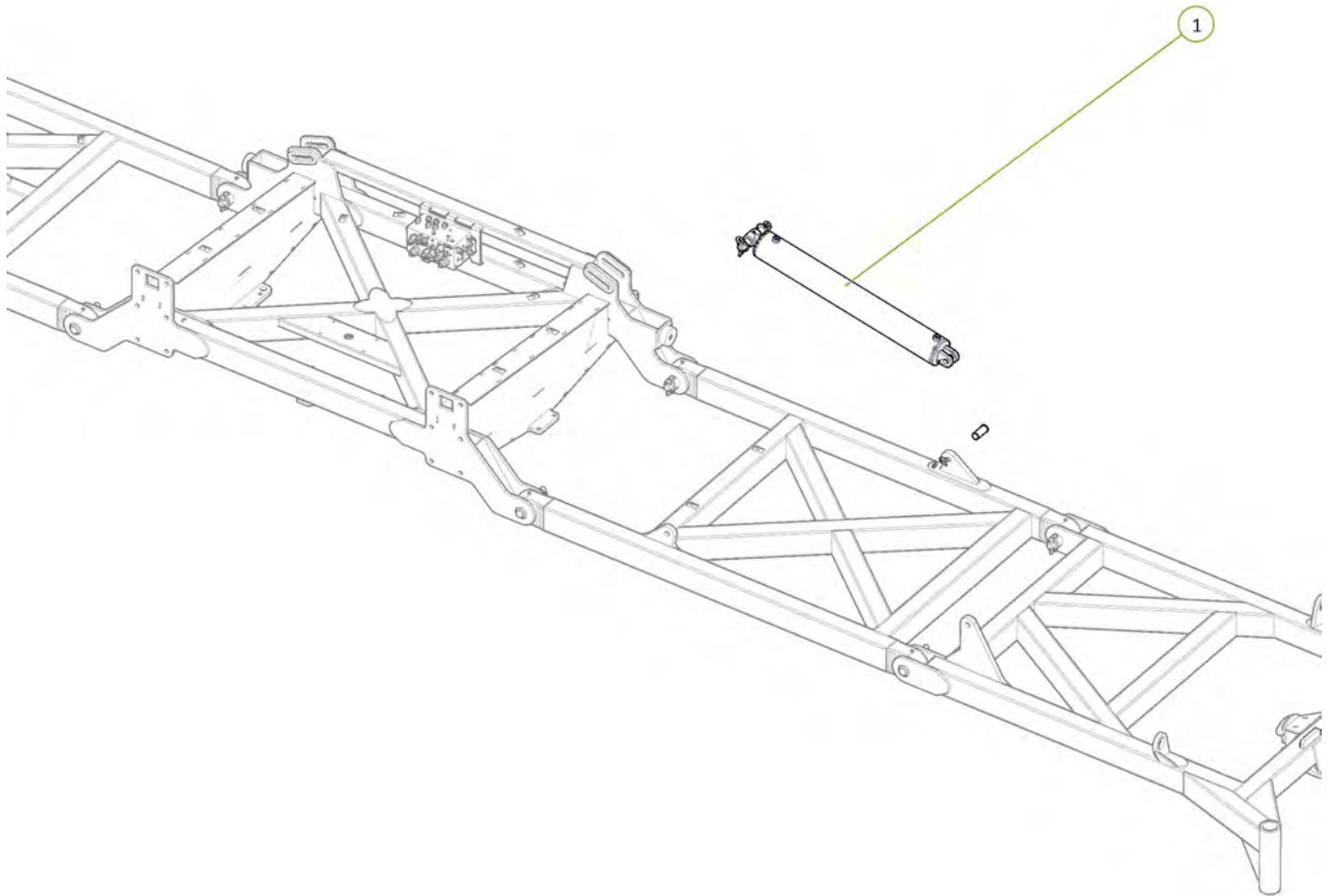
Item No.	Description	Qty	Number
1	Right Hand Outer Wing Post	1	1510-241E
2	Wing Buffer Pad	1	1501-27
3	Button Head Screw M6 x 20mm ZP	4	0211-0620BH
4	Washer Spring M6	4	0231-56
5	U-Bolt M16 x 185 Deep x 104 Wide	2	0271-16185104
6	Nyloc Nut M16	4	0221-NYL16
7	Washer Flat M16	4	0231-F16

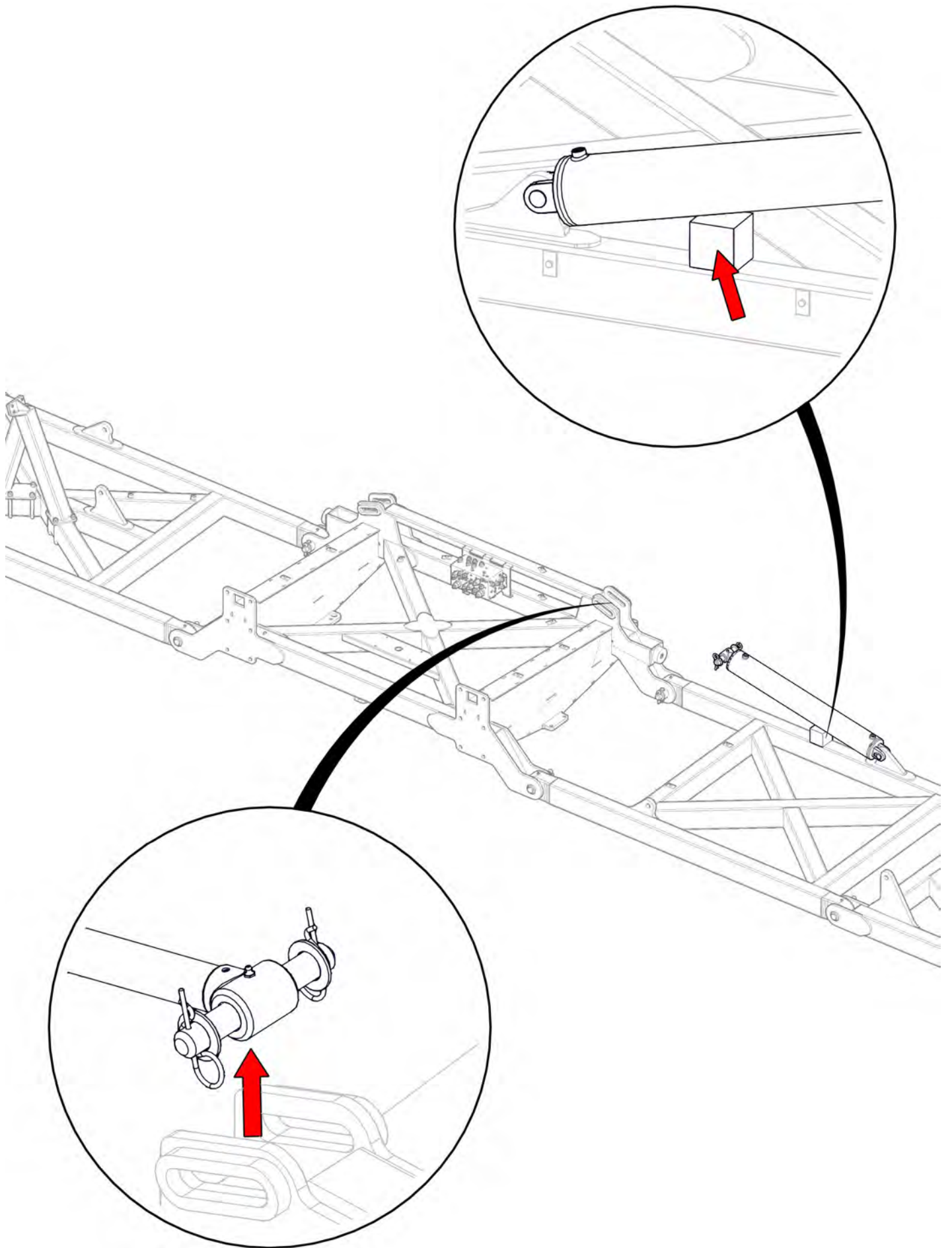


Item No.	Description	Qty	Number
1	Dual Circuit 3 Stage Sequence Manifold V12.5	1	0802-692196
2	M10 x 30 grade 8.8 ZP Bolt	6	0211-1035
3	Washer Spring M10	6	0231-S10
4	Washer Flat M10	6	0231-F10

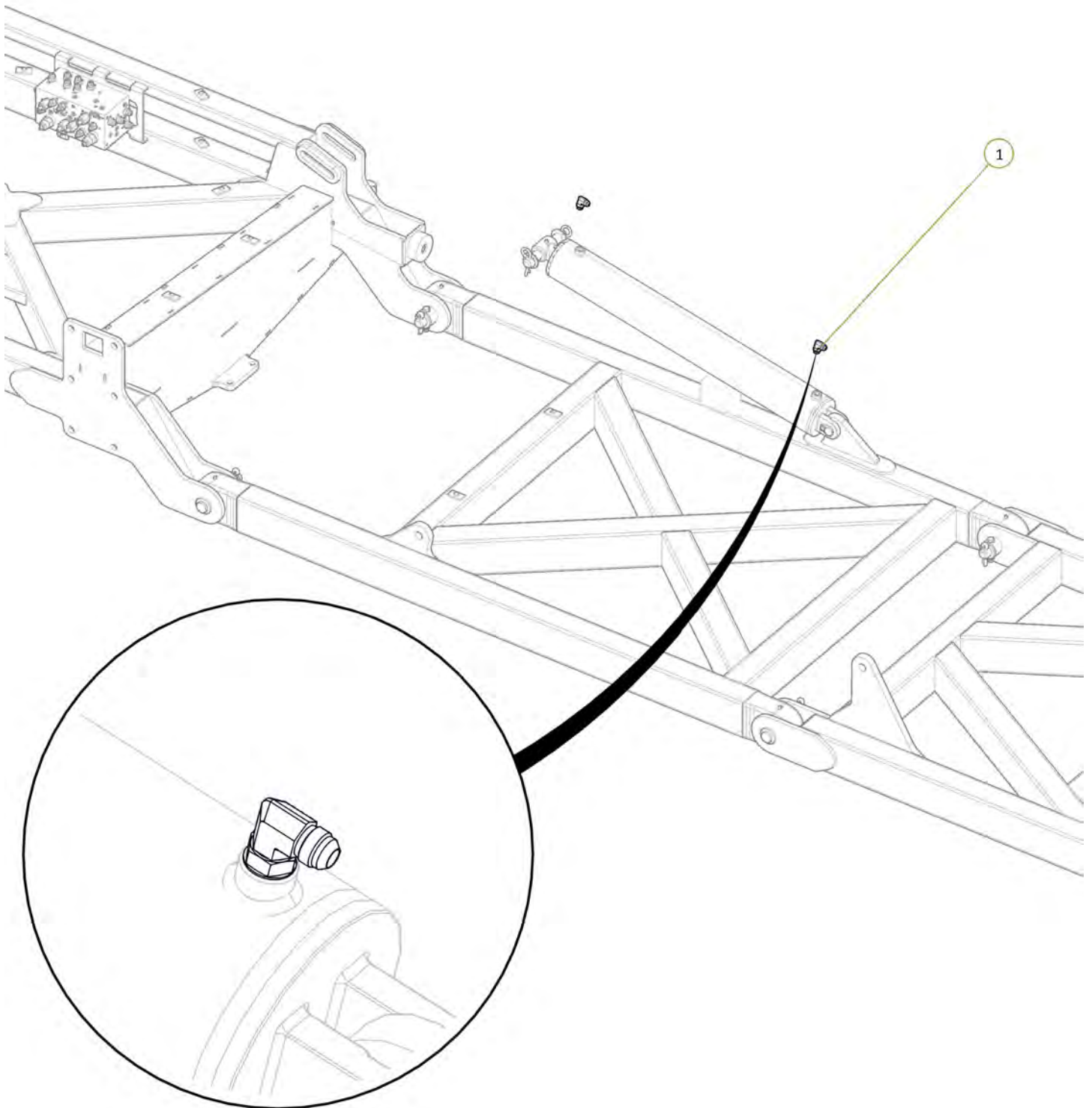


Item No.	Description	Qty	Number
1	5" Bore 36" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder	1	0311-536ST

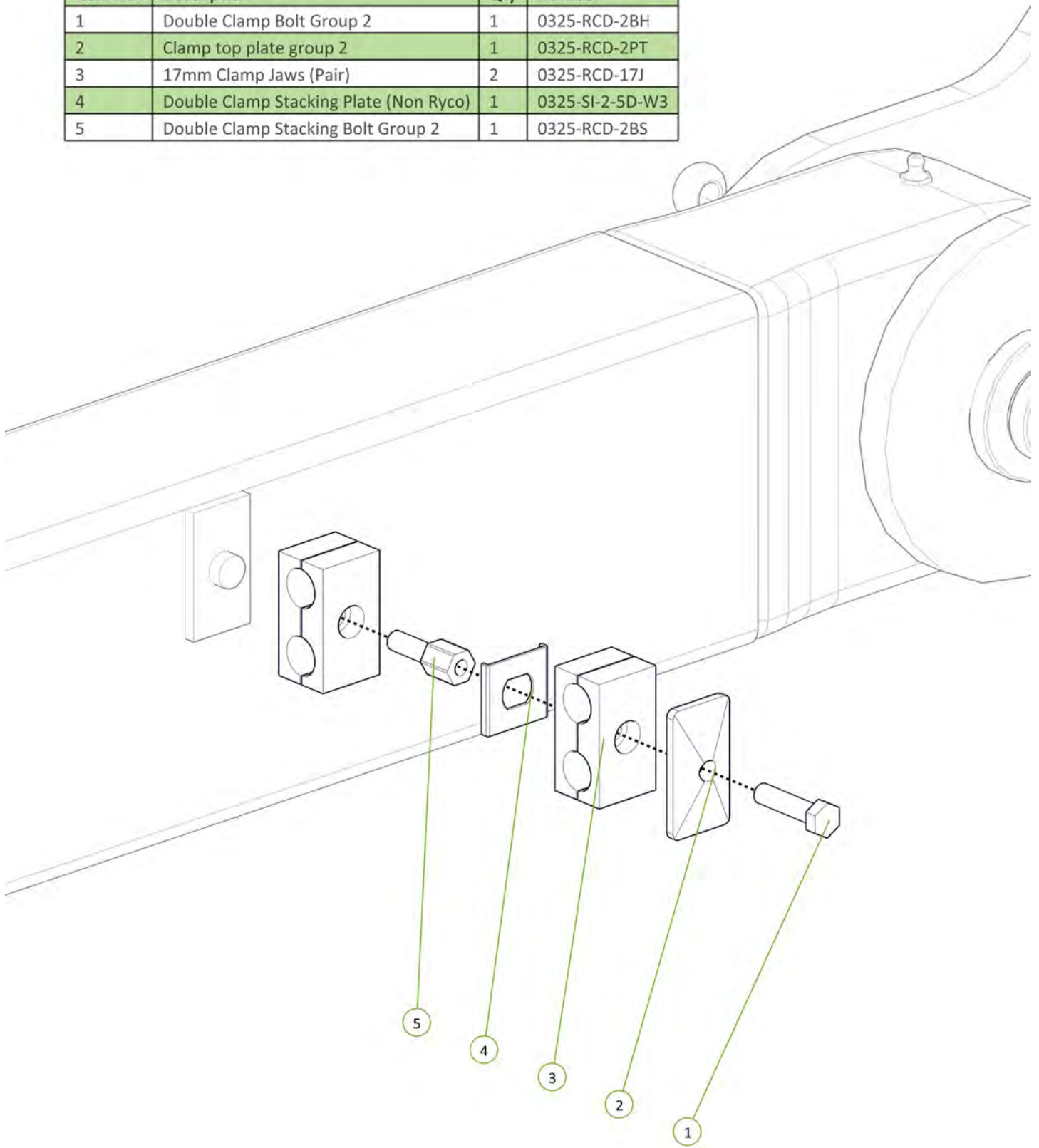




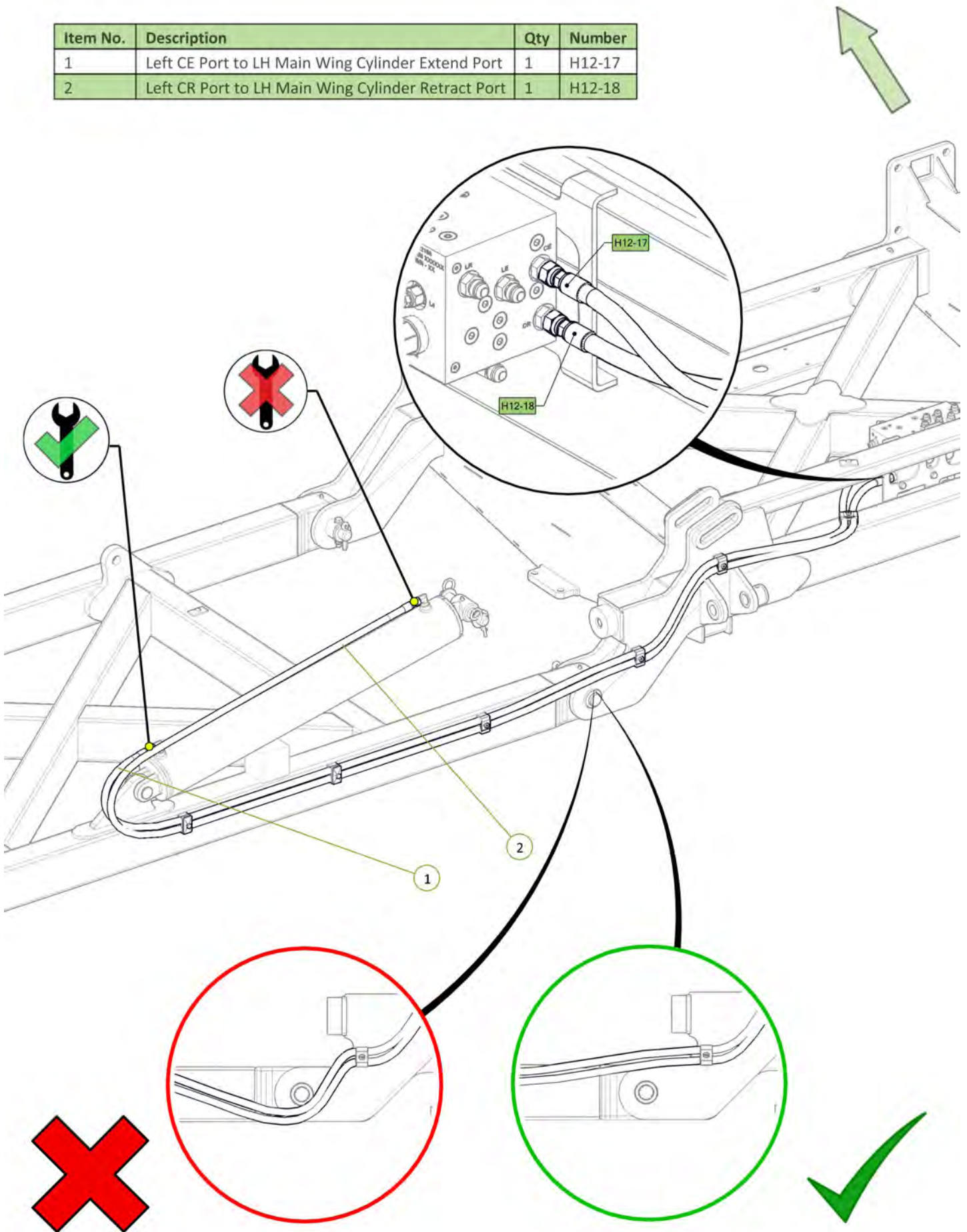
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212



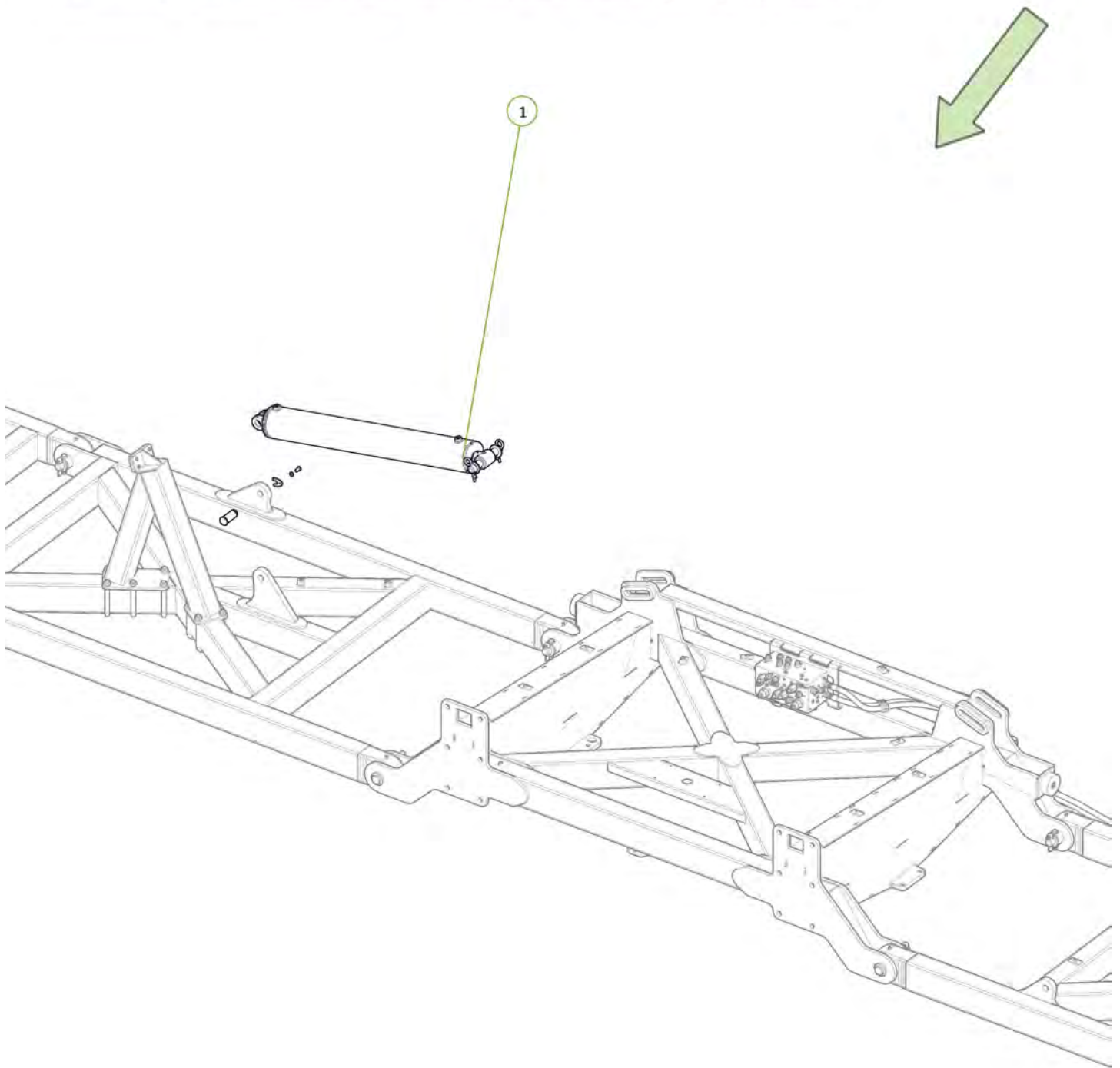
Item No.	Description	Qty	Number
1	Double Clamp Bolt Group 2	1	0325-RCD-2BH
2	Clamp top plate group 2	1	0325-RCD-2PT
3	17mm Clamp Jaws (Pair)	2	0325-RCD-17J
4	Double Clamp Stacking Plate (Non Ryco)	1	0325-SI-2-5D-W3
5	Double Clamp Stacking Bolt Group 2	1	0325-RCD-2BS

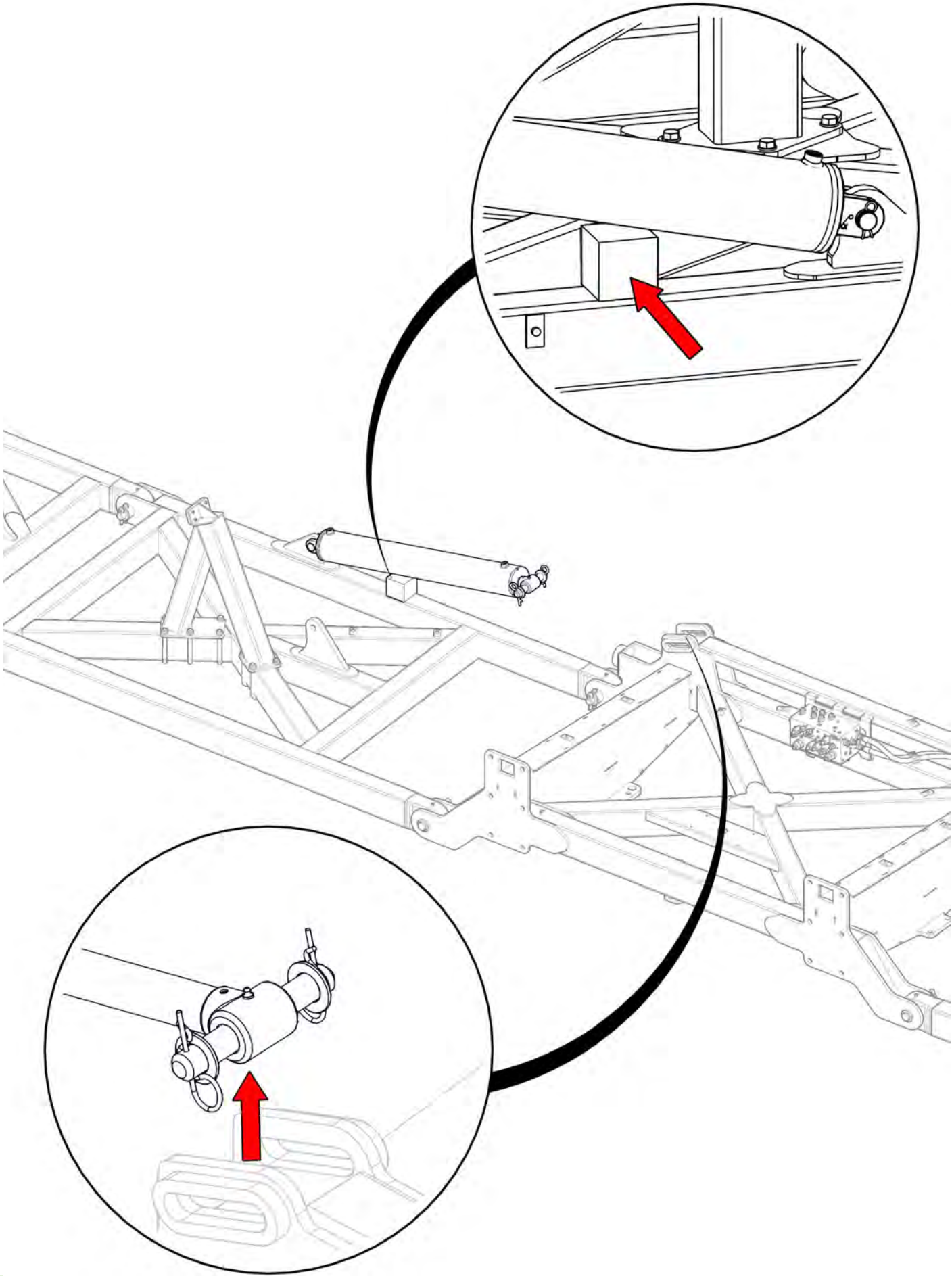


Item No.	Description	Qty	Number
1	Left CE Port to LH Main Wing Cylinder Extend Port	1	H12-17
2	Left CR Port to LH Main Wing Cylinder Retract Port	1	H12-18

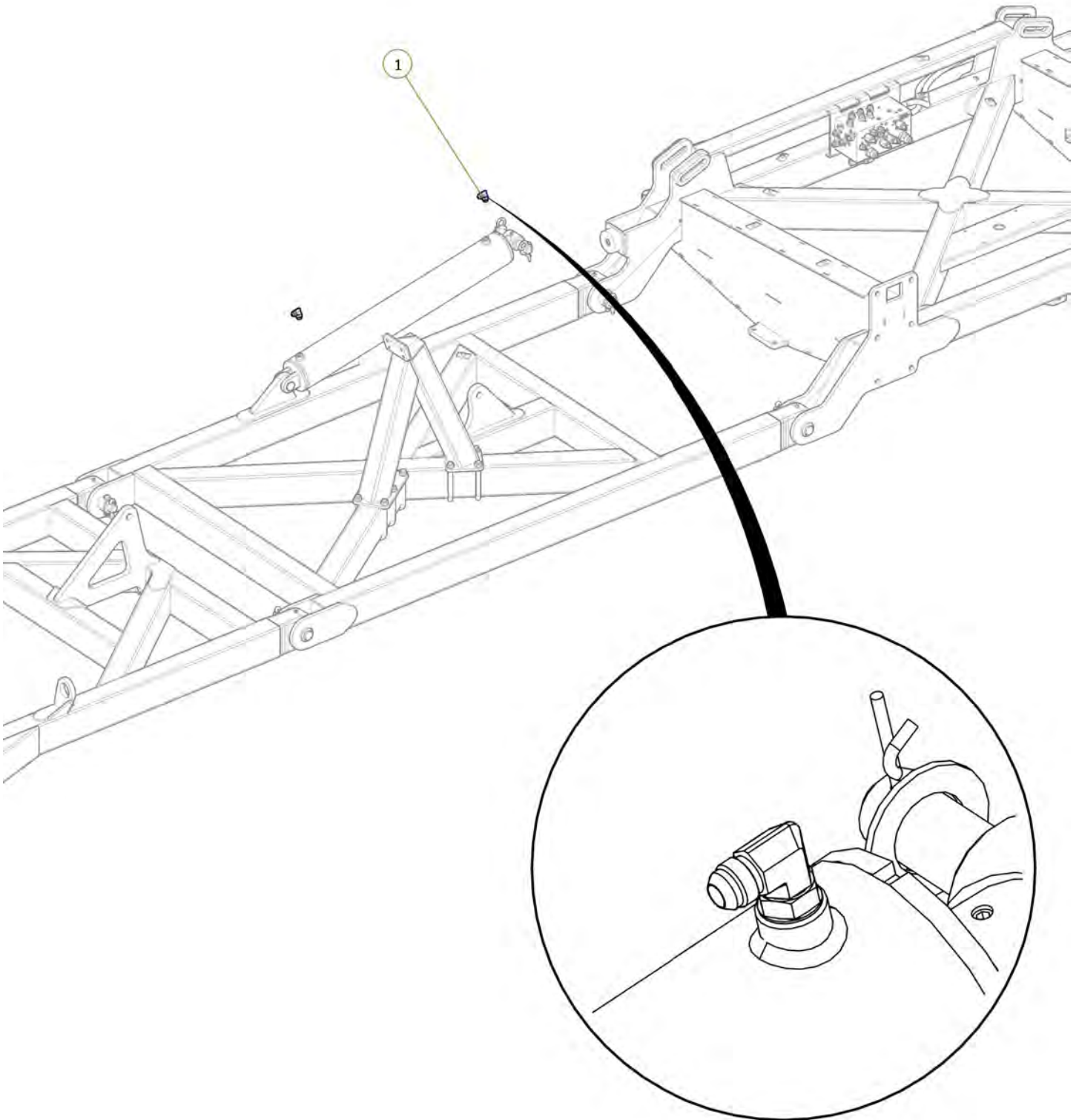


Item No.	Description	Qty	Number
1	5" Bore 36" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder	1	0311-536ST

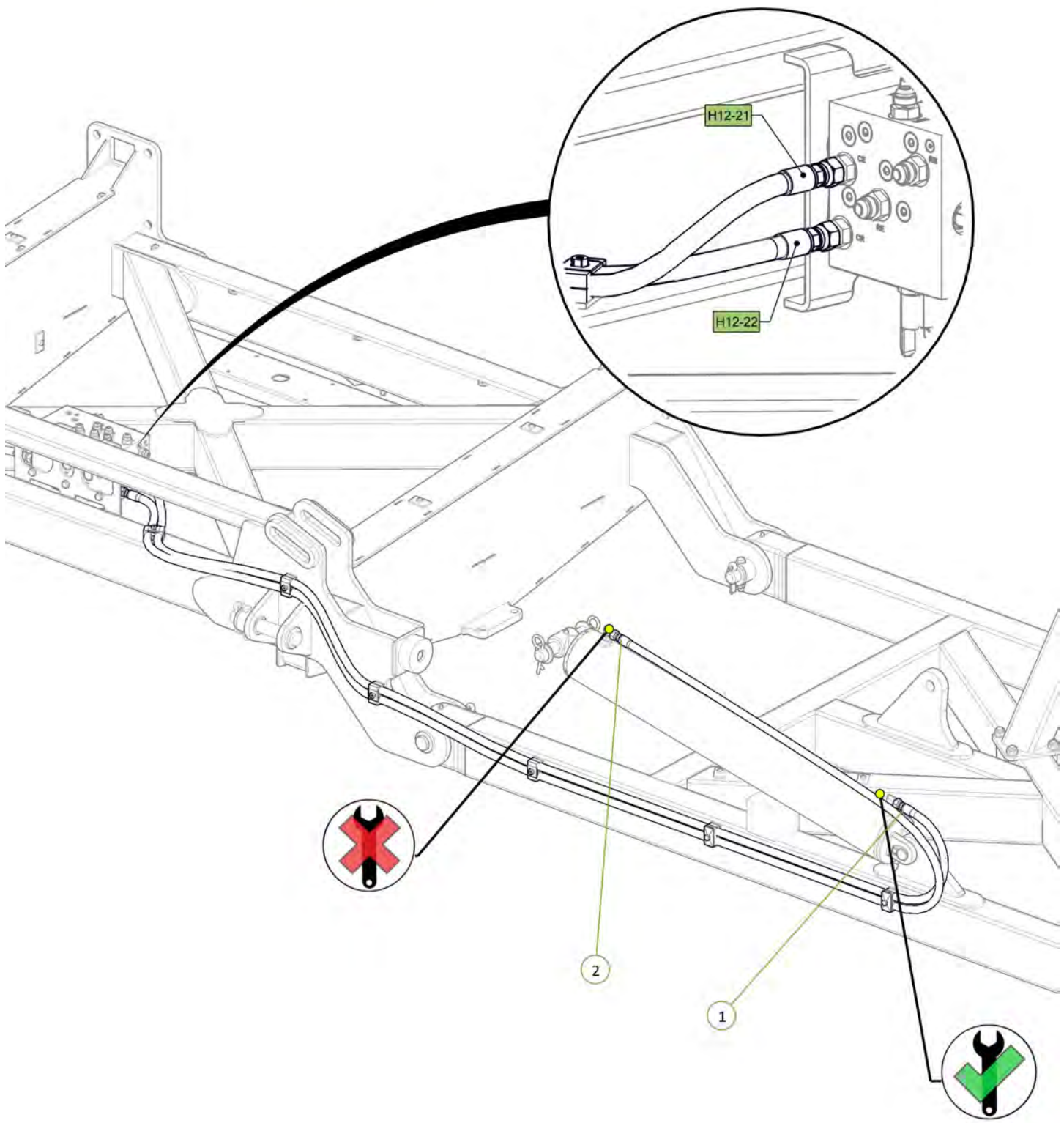




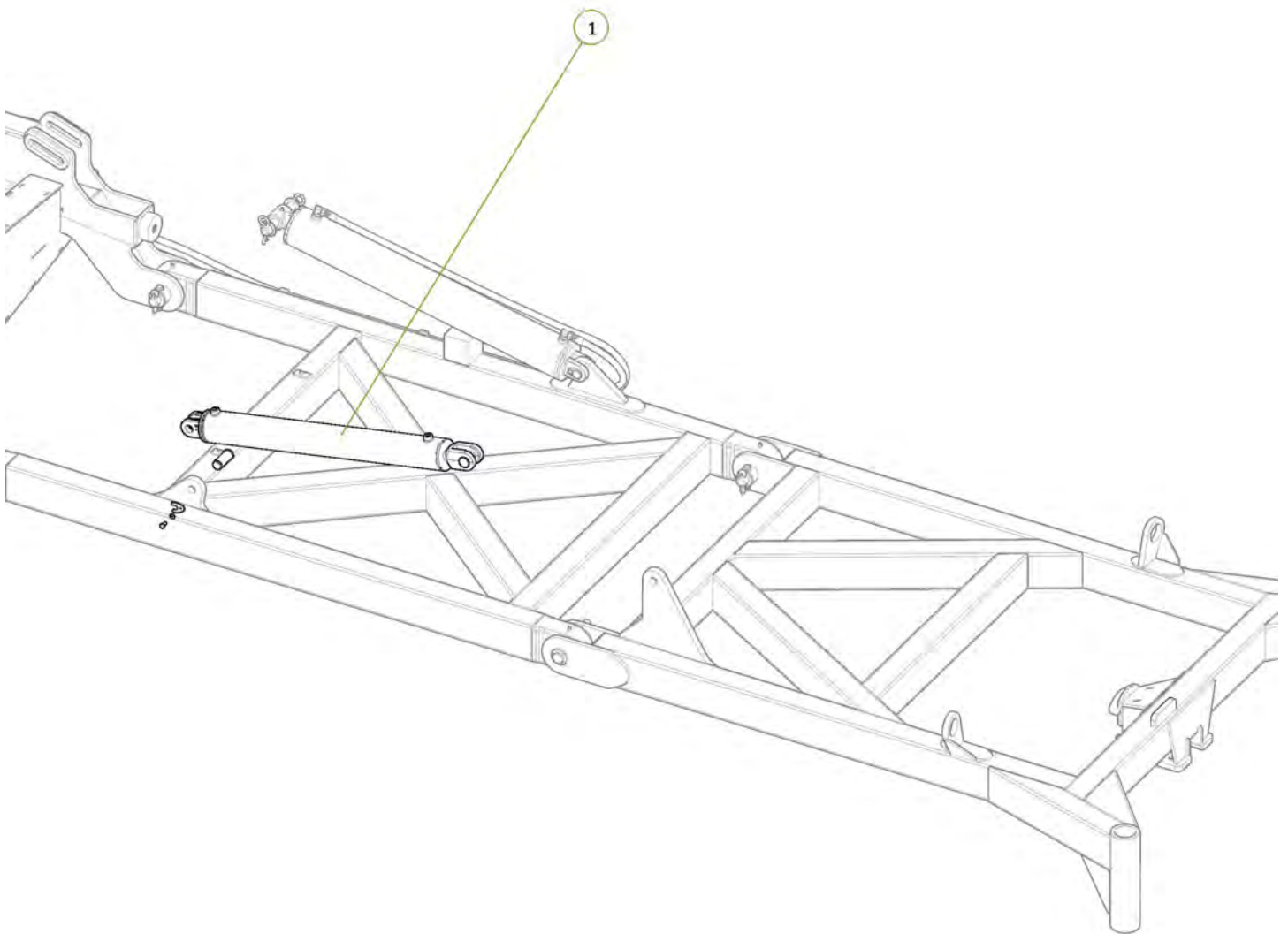
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

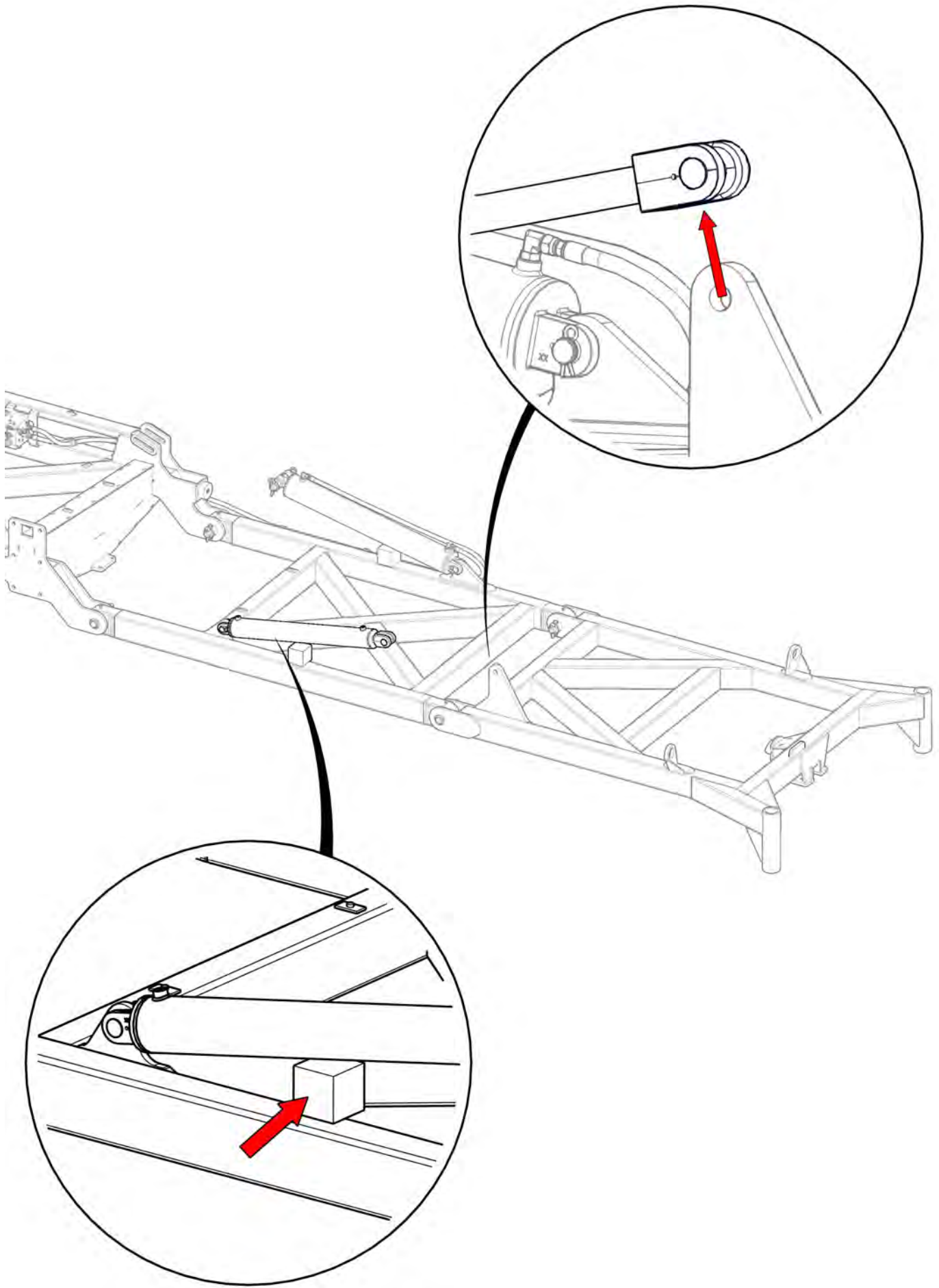


Item No.	Description	Qty	Number
1	Right CE Port to RH Main Wing Cylinder Extend Port	1	H12-21
2	Right CR Port to RH Main Wing Cylinder Retract Port	1	H12-22

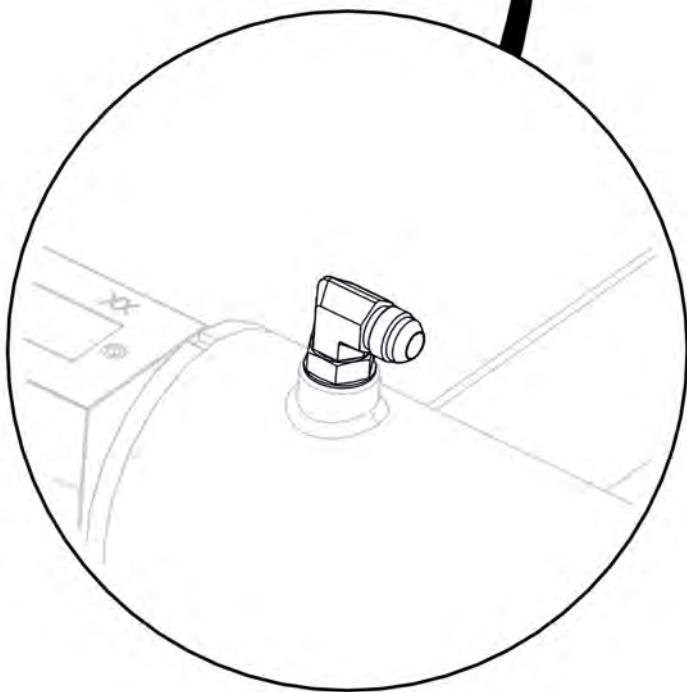
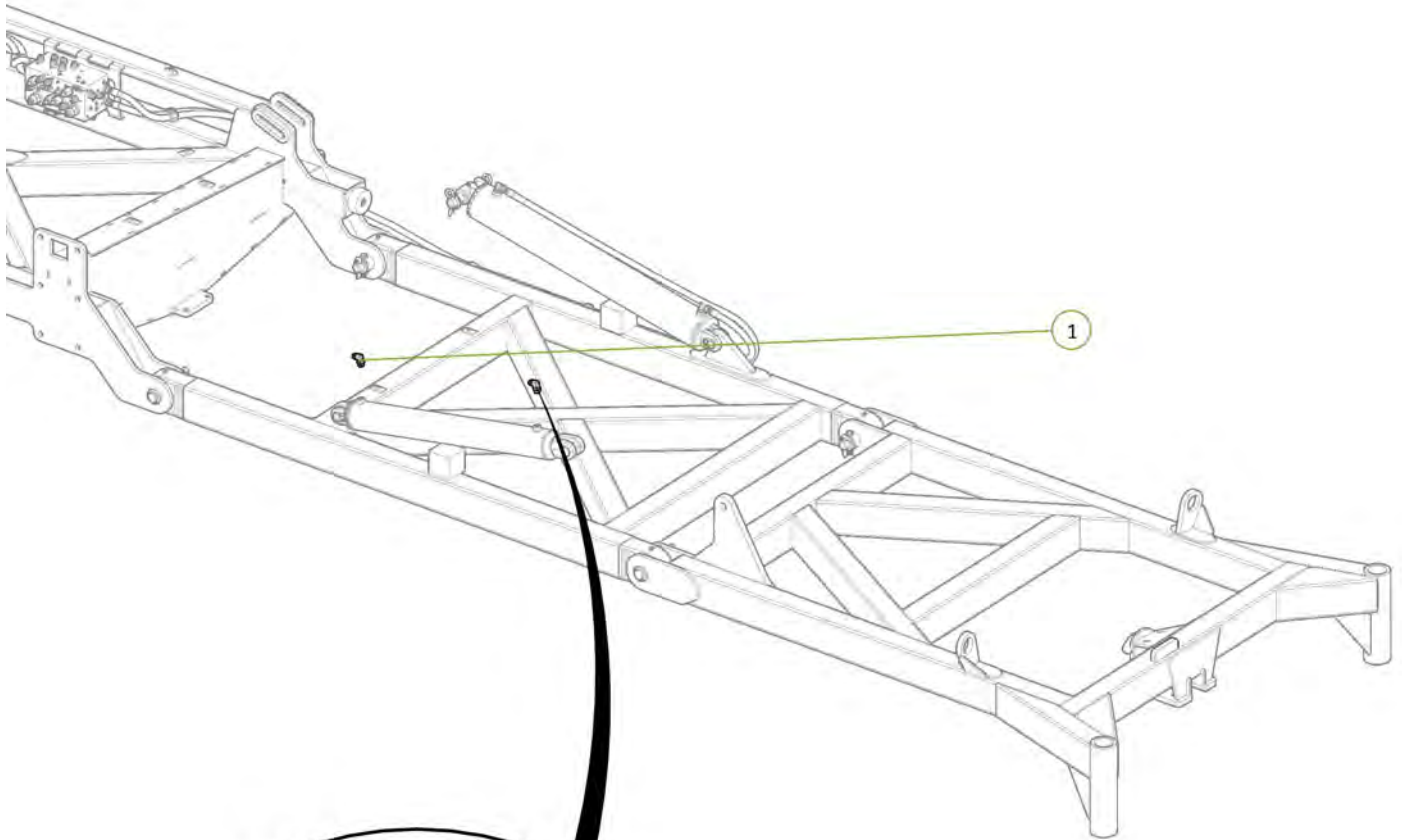


Item No.	Description	Qty	Number
1	4" Bore 30" Stroke 3" S/Tube 1.75" Rod Hydraulic Cylinder with Stop Tube & Clevis	1	0311-430ST-C2

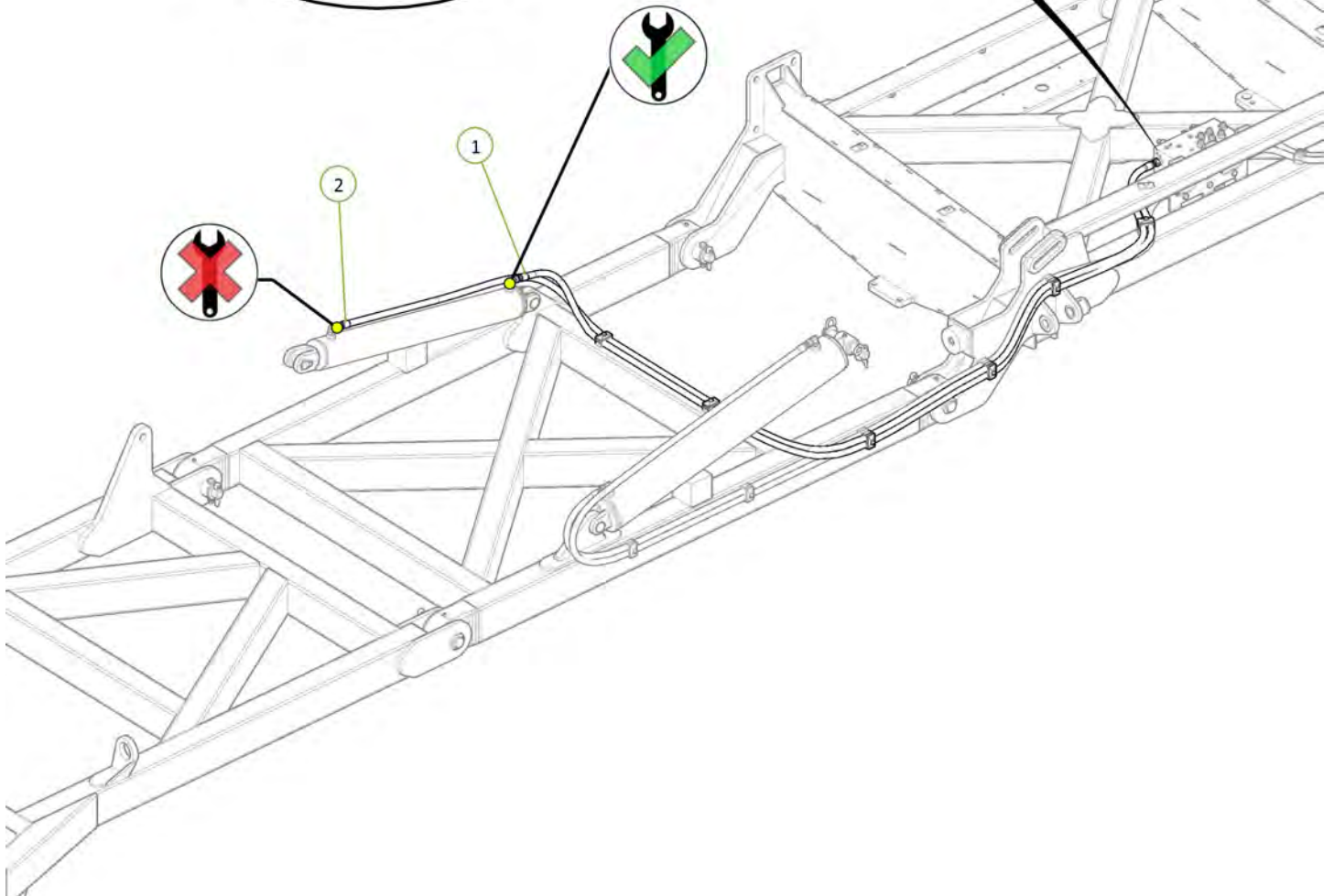
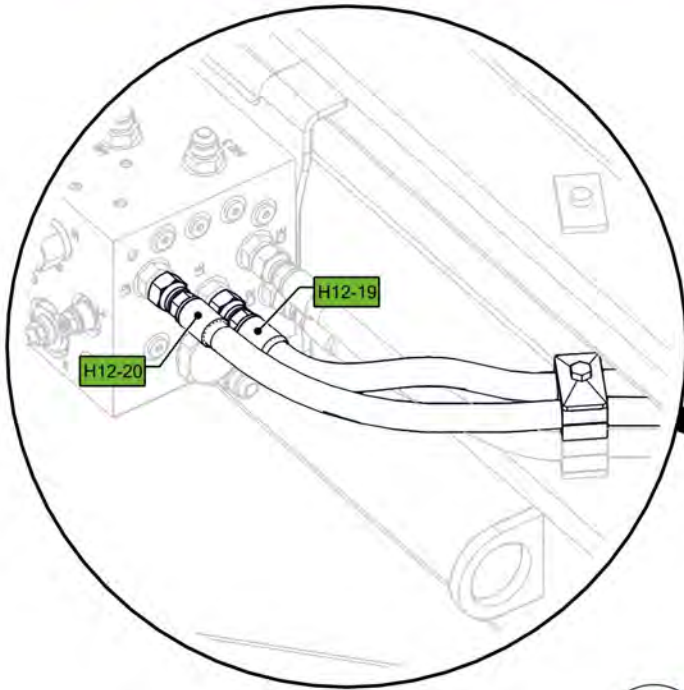




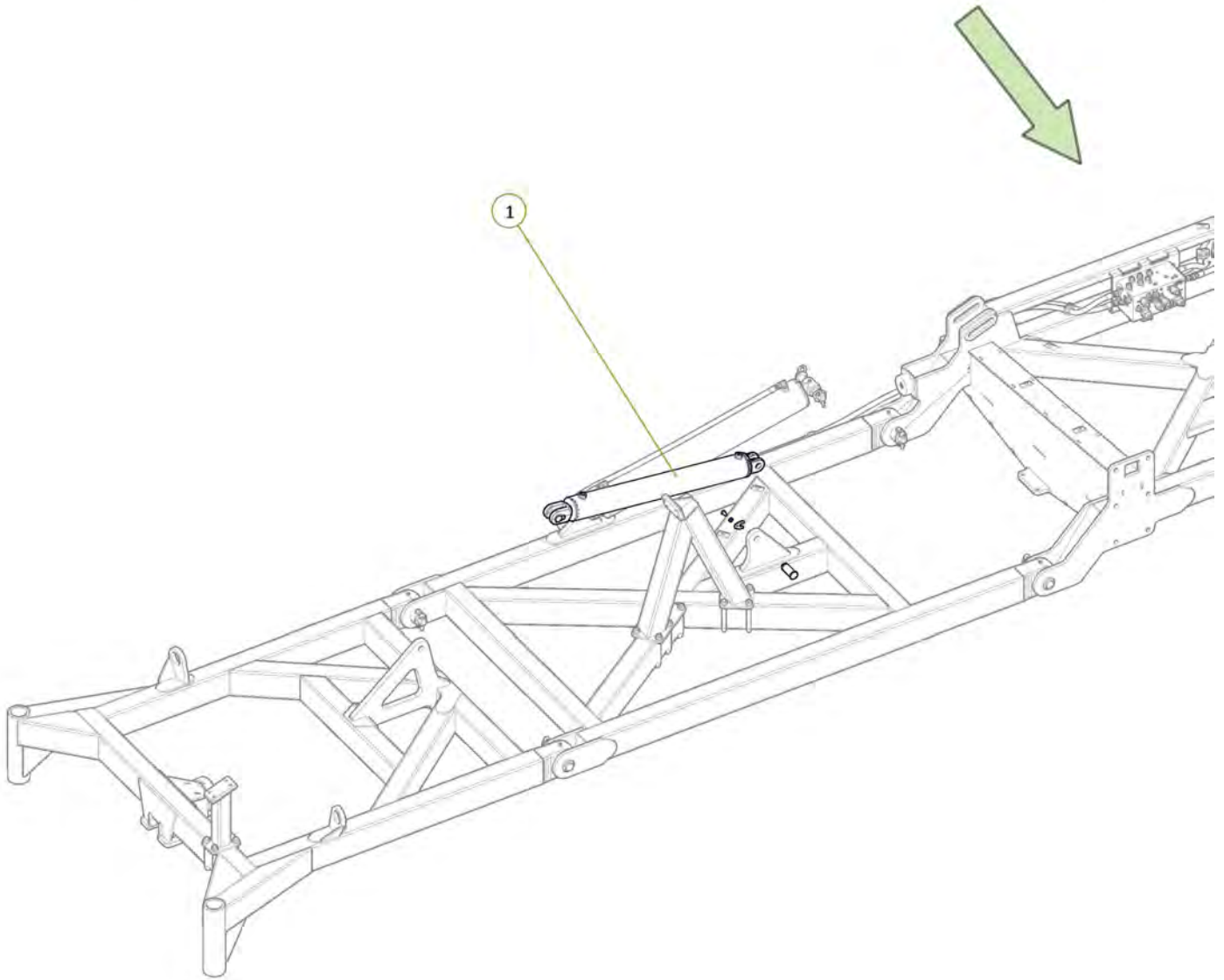
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

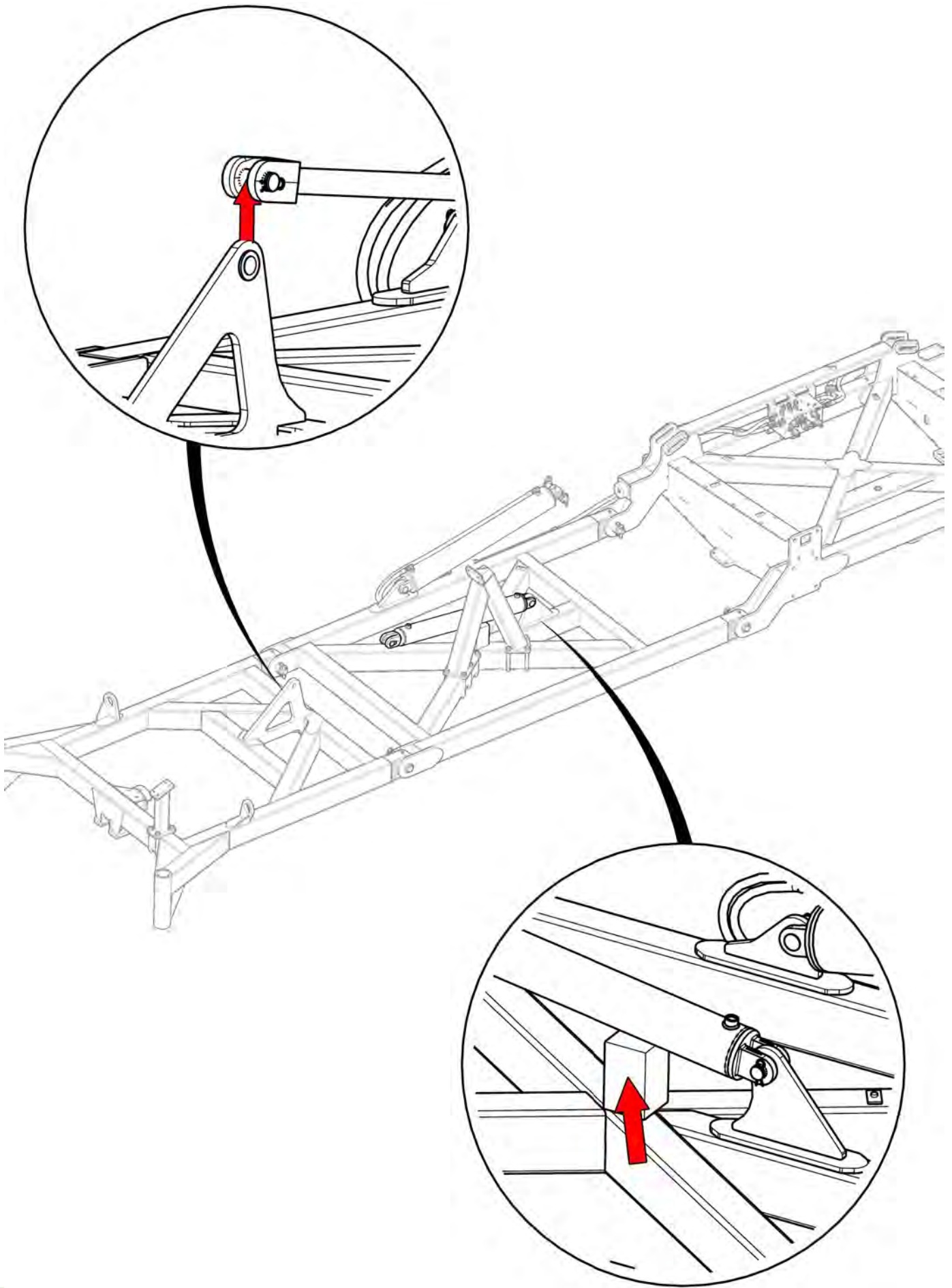


Item No.	Description	Qty	Number
1	LE Port to LH Outer Wing Cylinder Extend Port	1	H12-19
2	LR Port to LH Outer Wing Cylinder Retract Port	1	H12-20

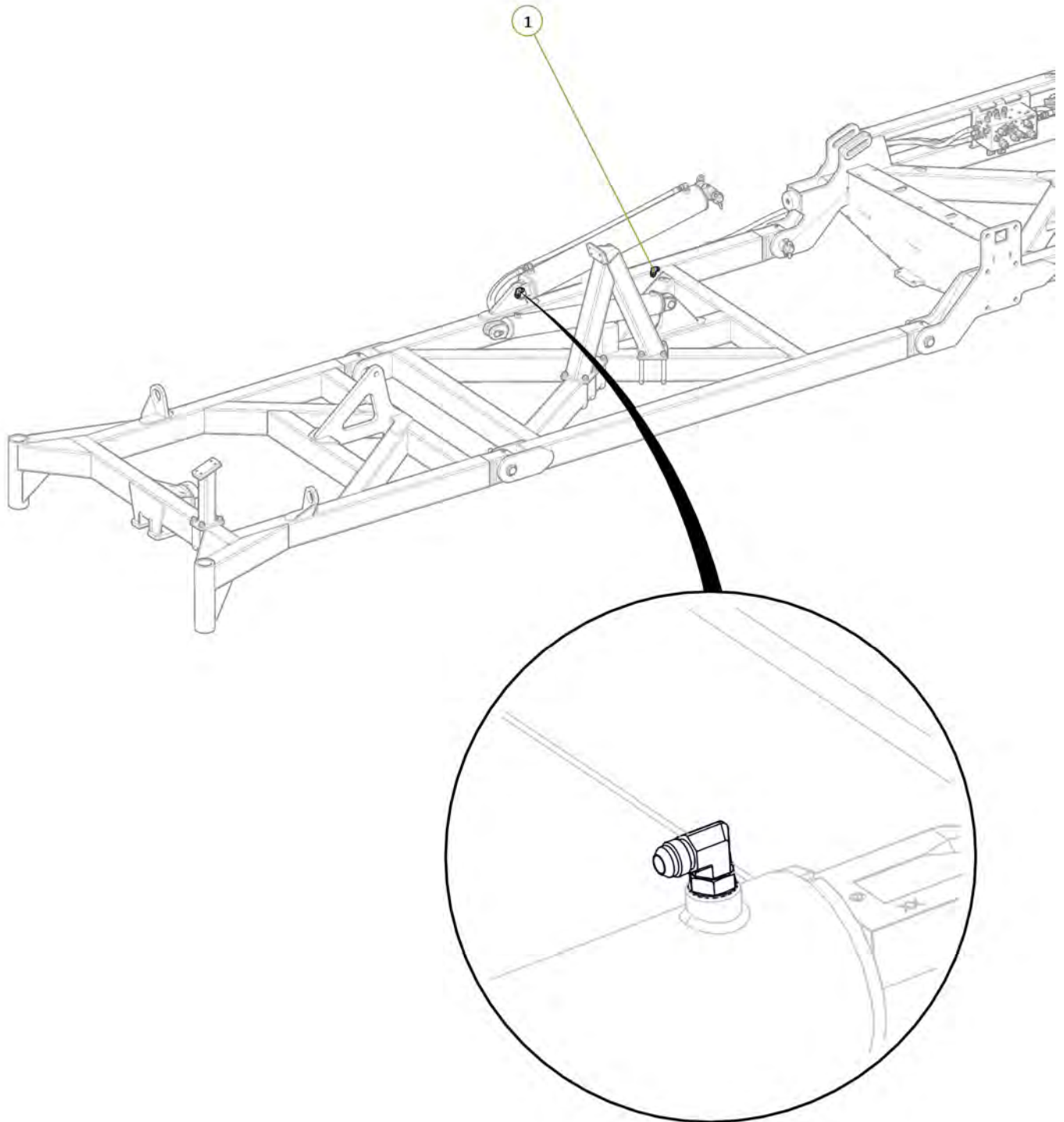


Item No.	Description	Qty	Number
1	4" Bore 30" Stroke 3" S/Tube 1.75" Rod Hydraulic Cylinder with Stop Tube & Clevis	1	0311-430ST-C2

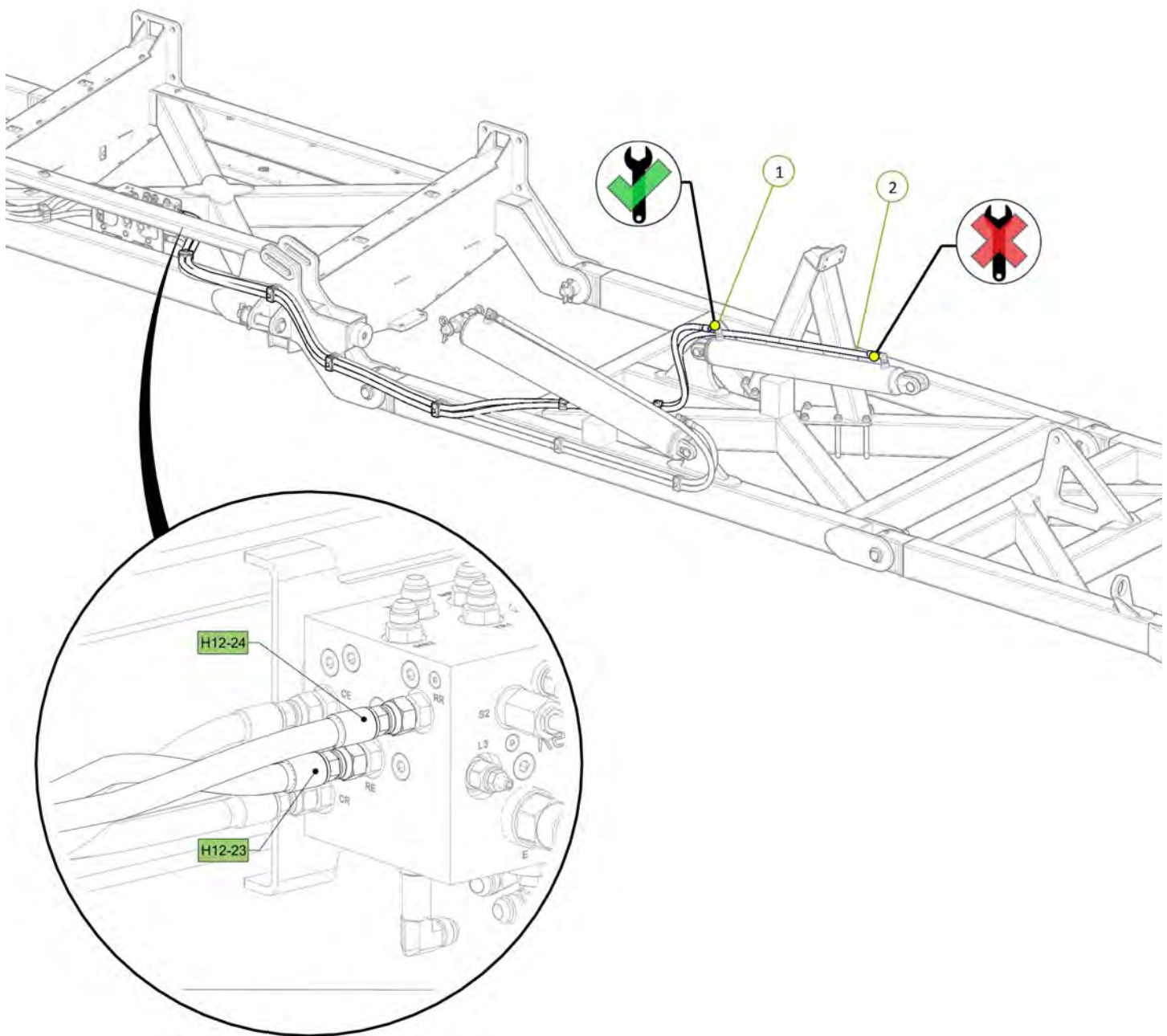




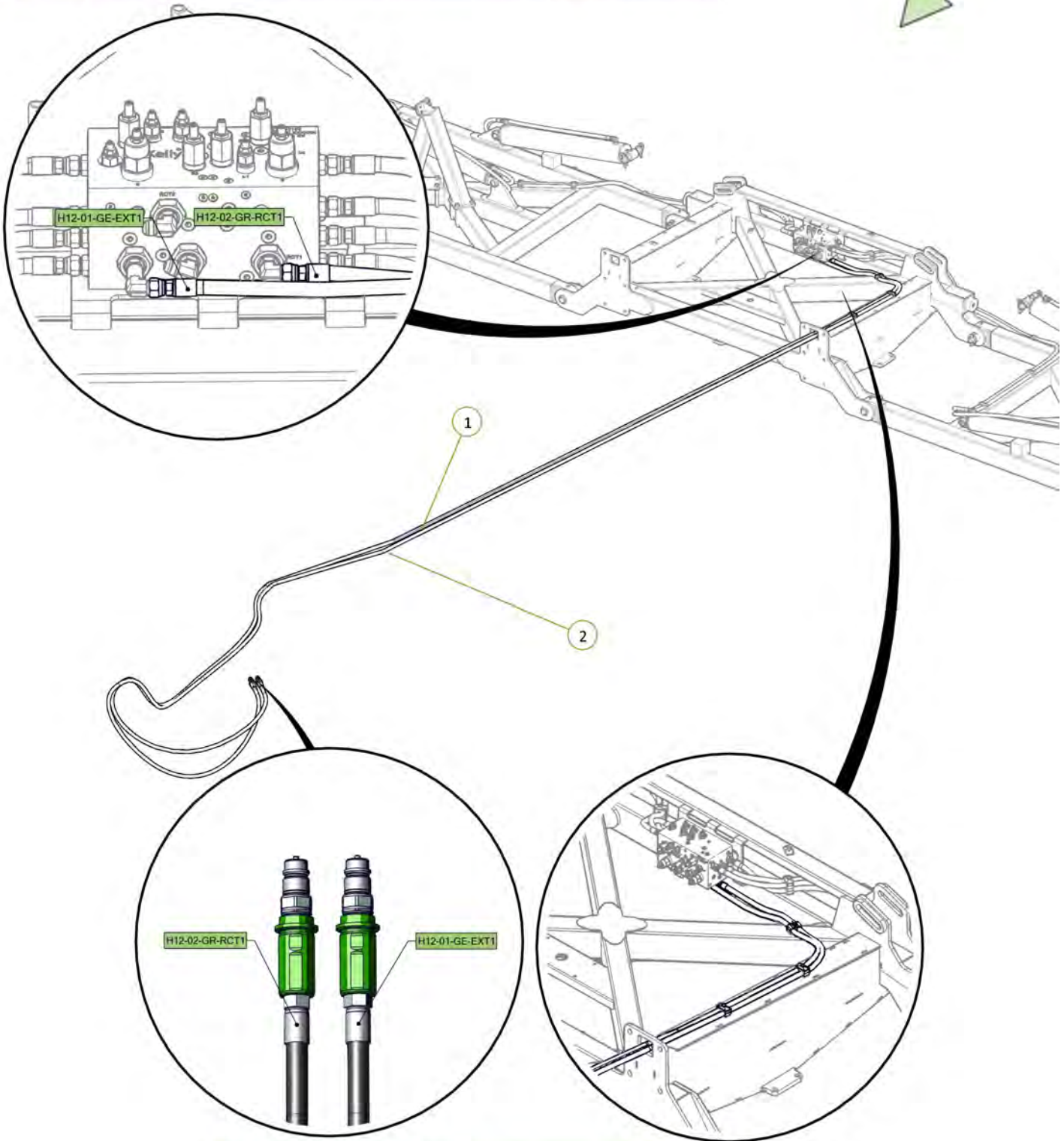
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212



Item No.	Description	Qty	Number
1	RE Port to RH Outer Wing Cylinder Extend Port	1	H12-23
2	RR Port to RH Outer Wing Cylinder Retract Port	1	H12-24



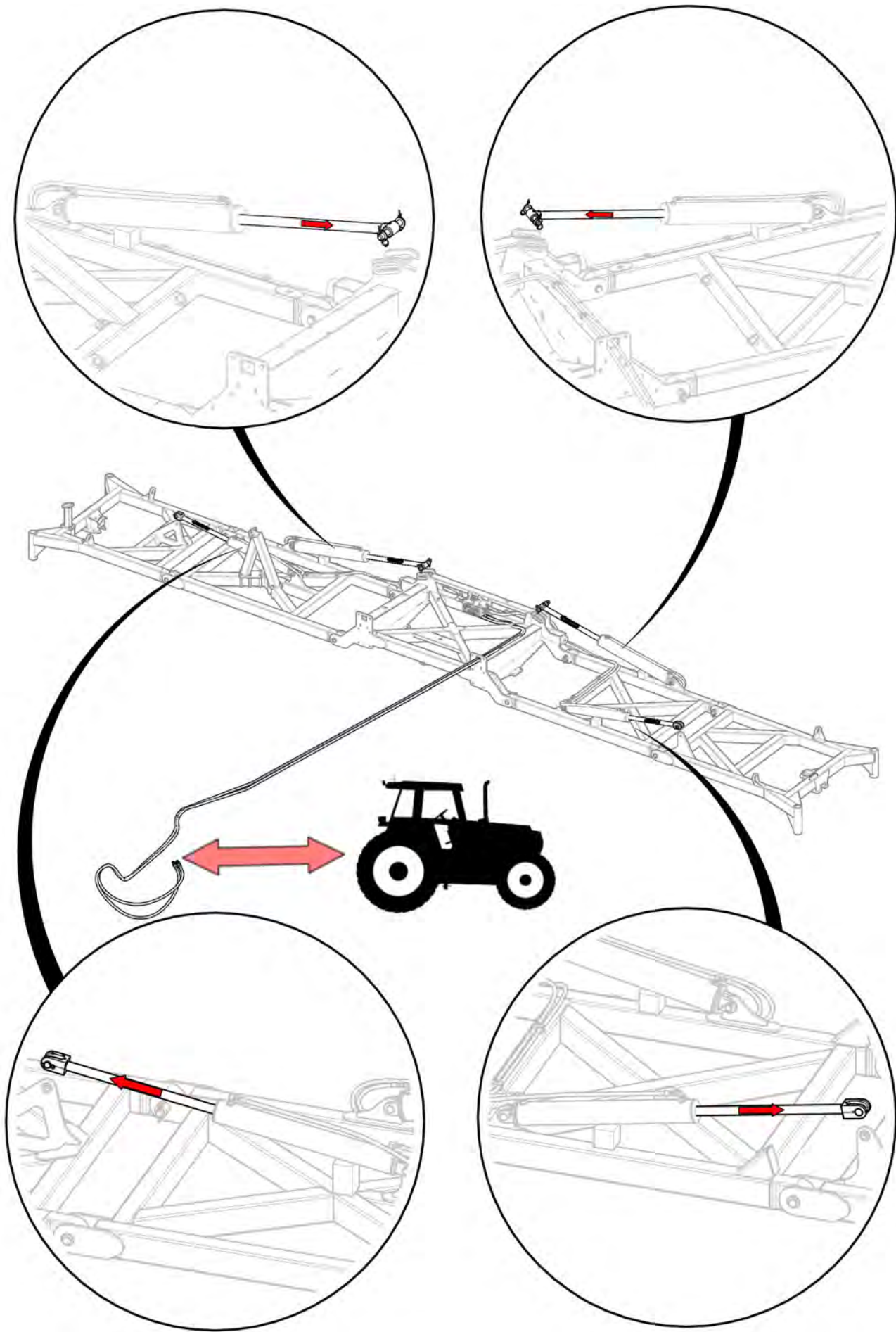
Item No.	Description	Qty	Number
1	Tractor to Sequence Valve EXT1 Port Fitted With Green EXT Decal	1	H12-01-GE-EXT1
2	Tractor to Sequence Valve RCT1 Port Fitted With Green RET Decal	1	H12-02-GR-RCT1

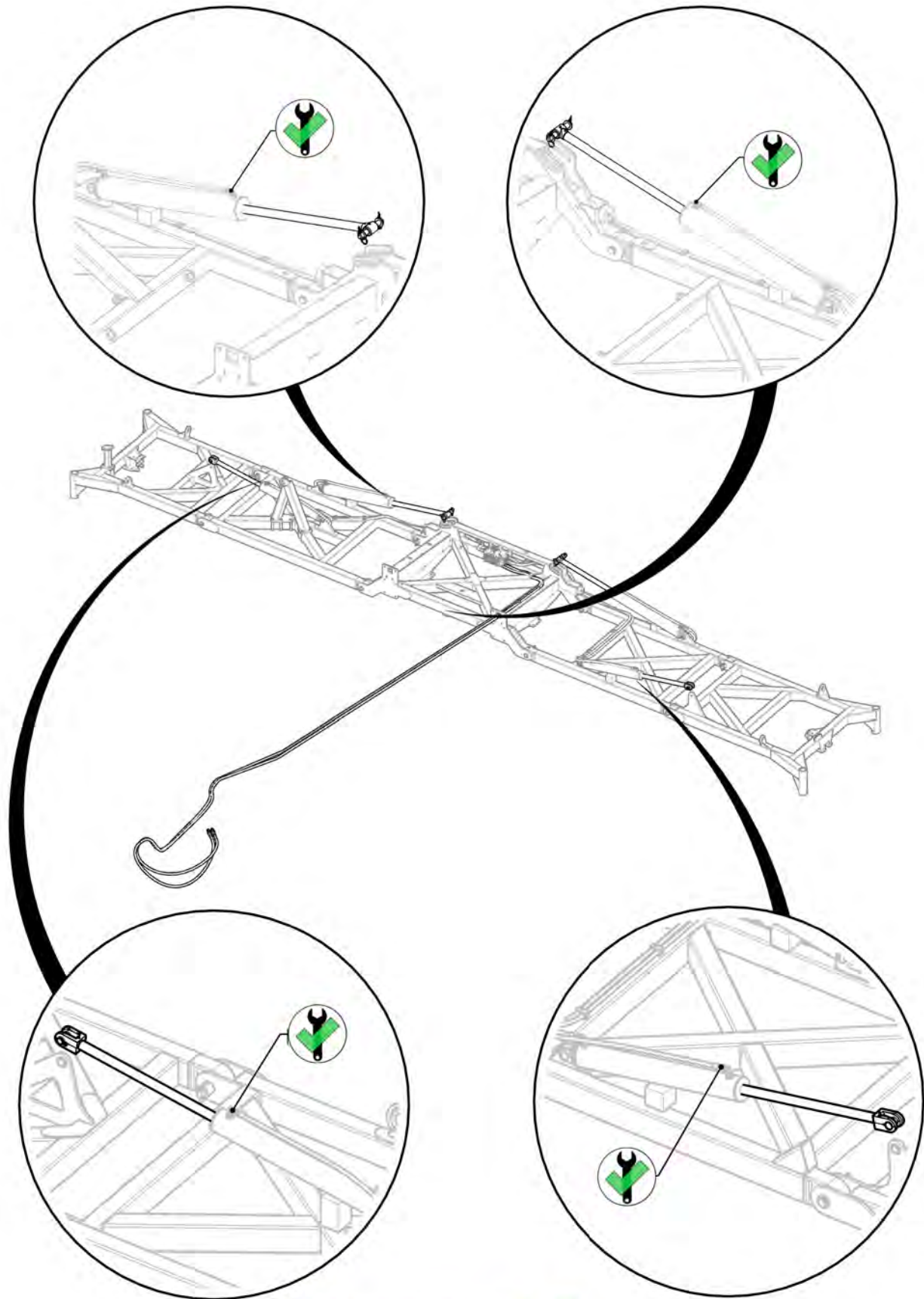


All retract hose fittings loose to allow air to escape

All cylinders chocked up to prevent clash during extend

Signed _____ Date ____/____/____
 Unit Serial Number _____

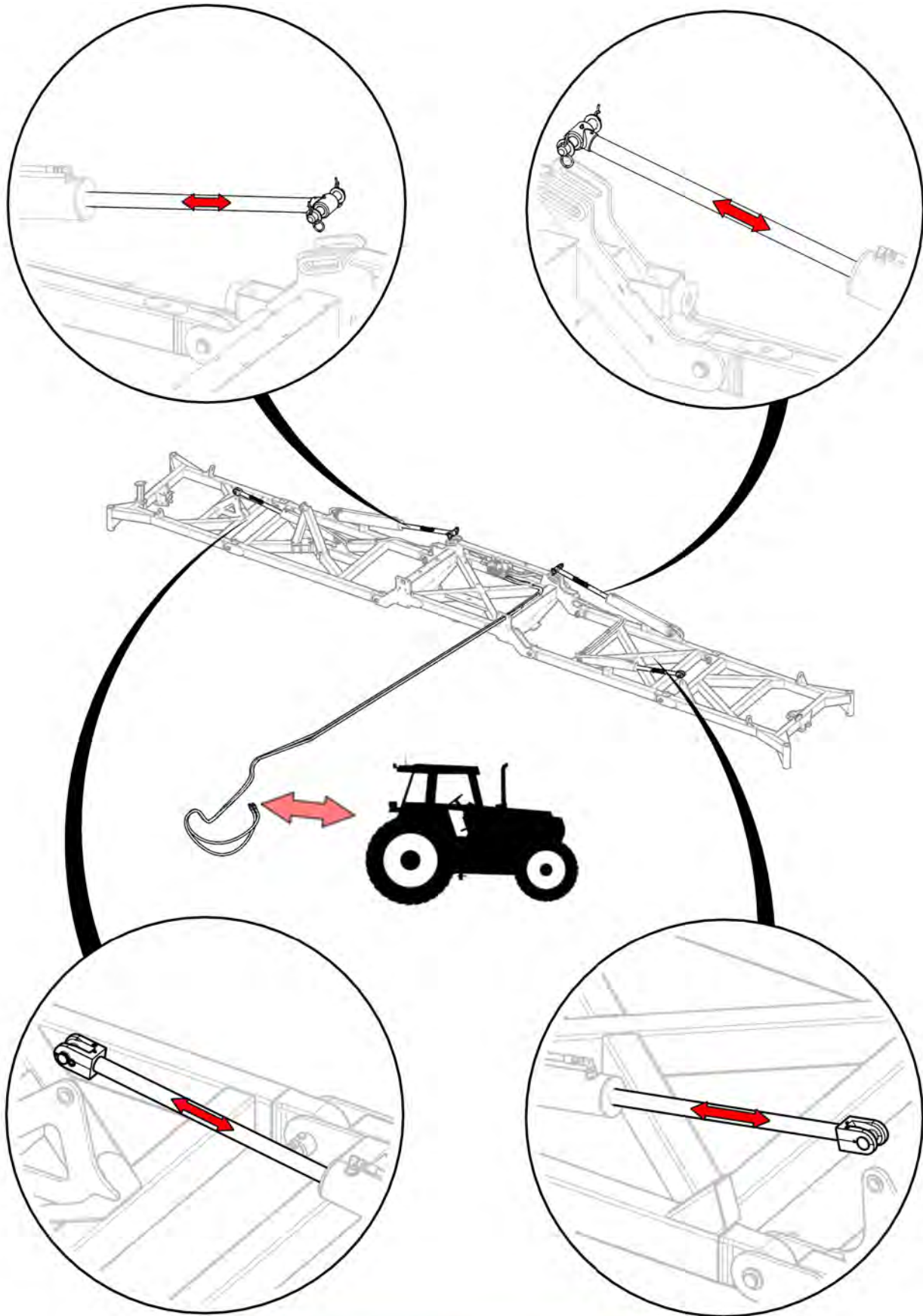




Retract fittings tightened

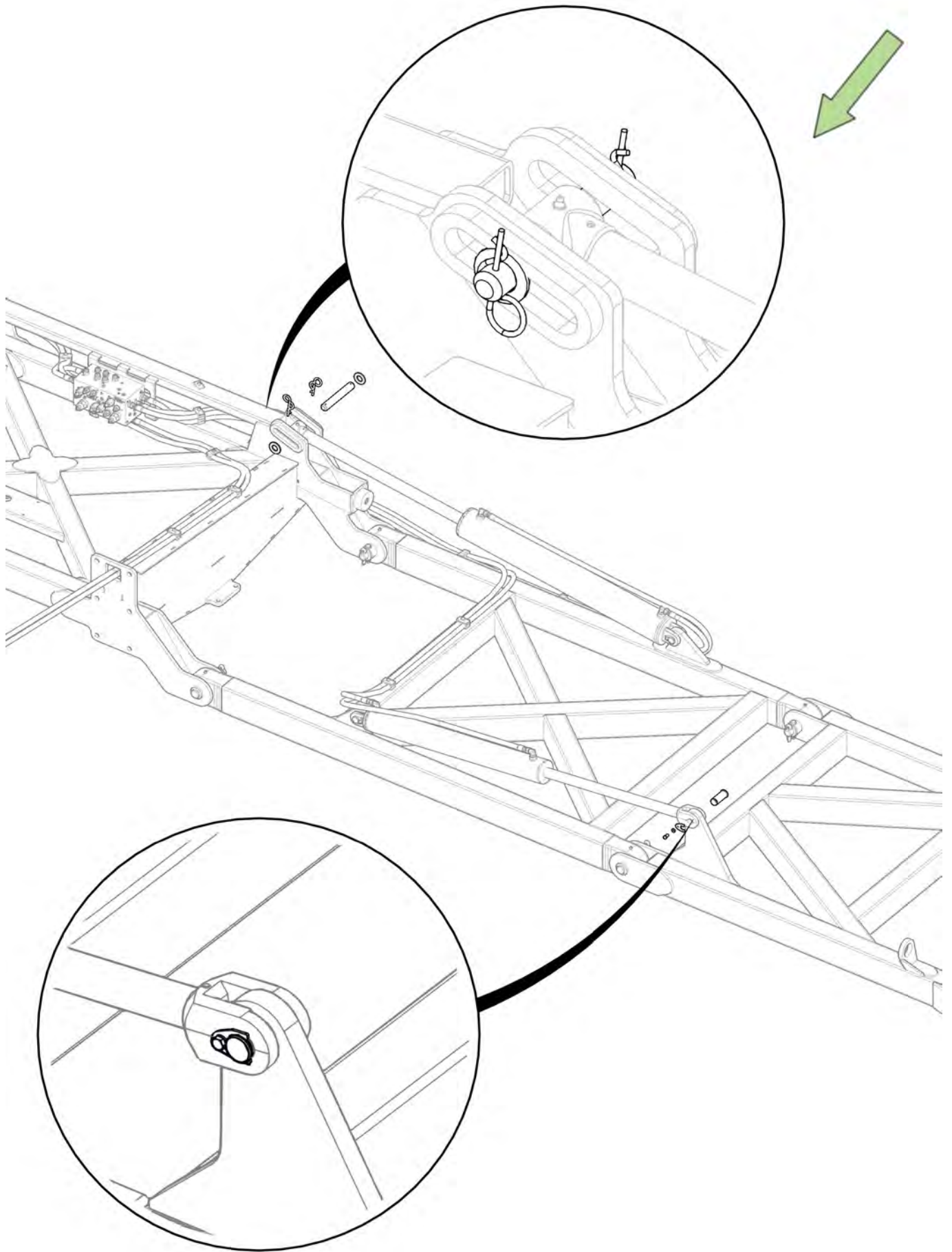


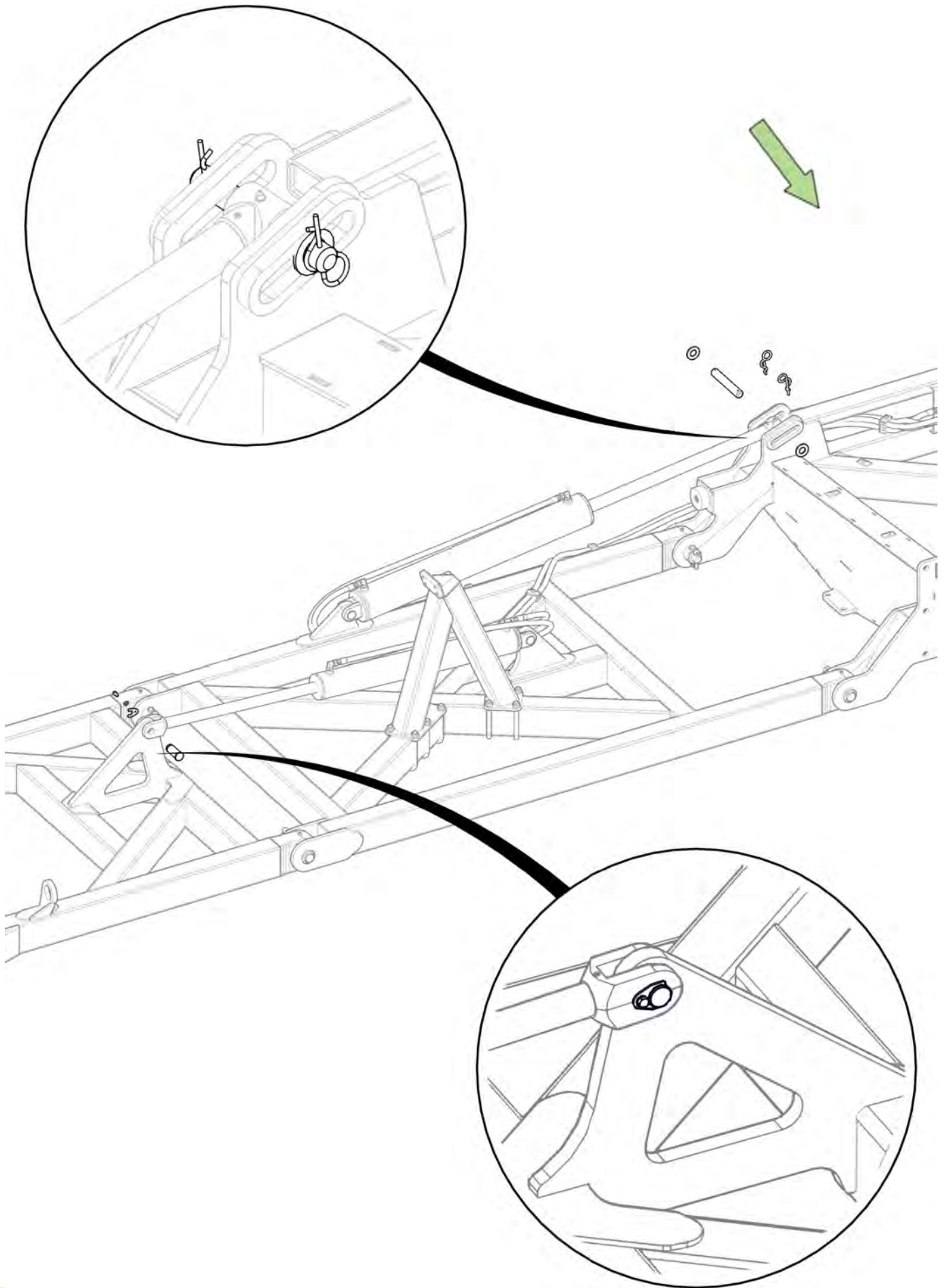
Signed _____ Date ____/____/____
 Unit Serial Number _____



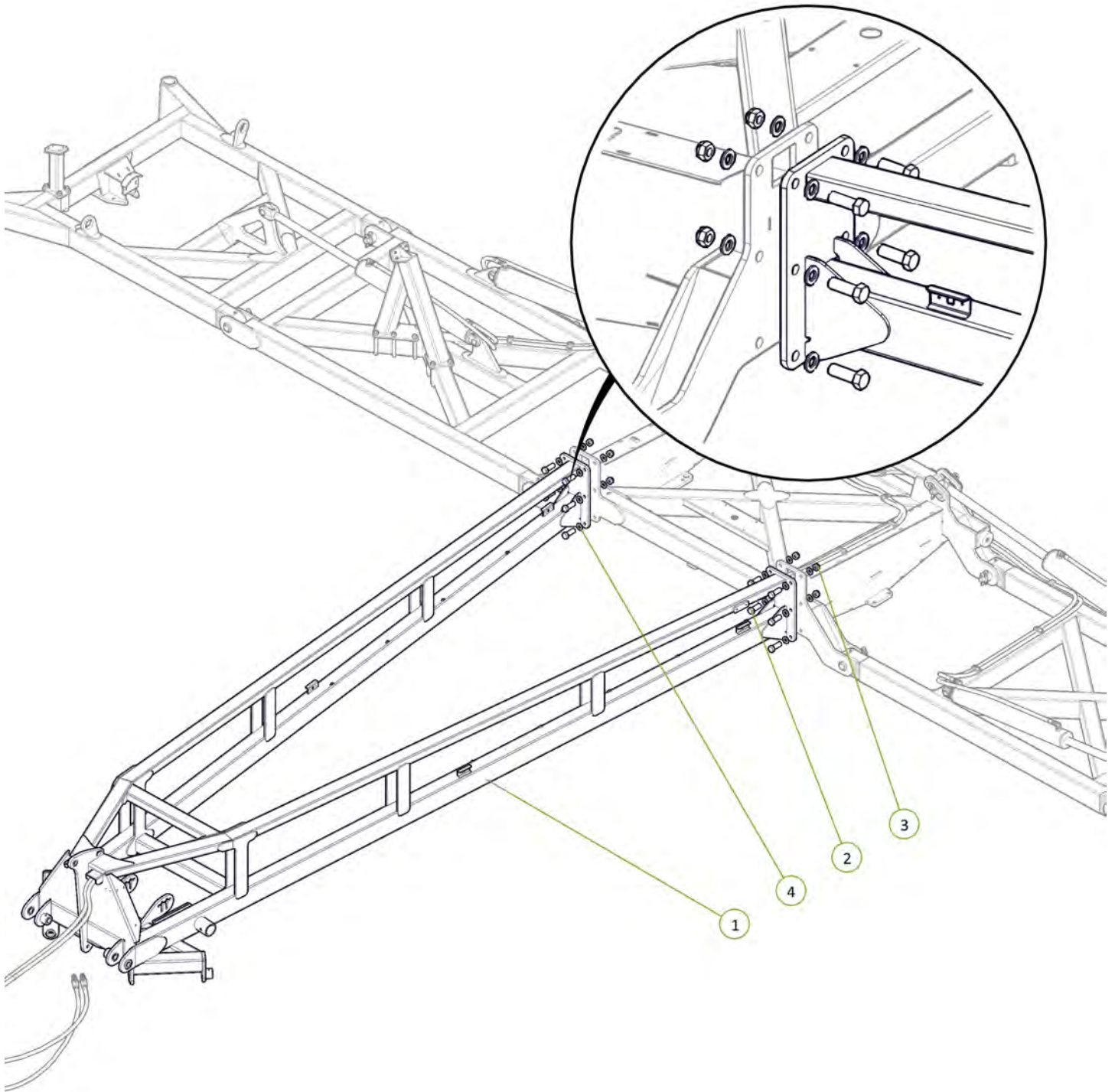
Cylinders cycled to expel air from system

Signed _____ Date __/__/__
 Unit Serial Number _____

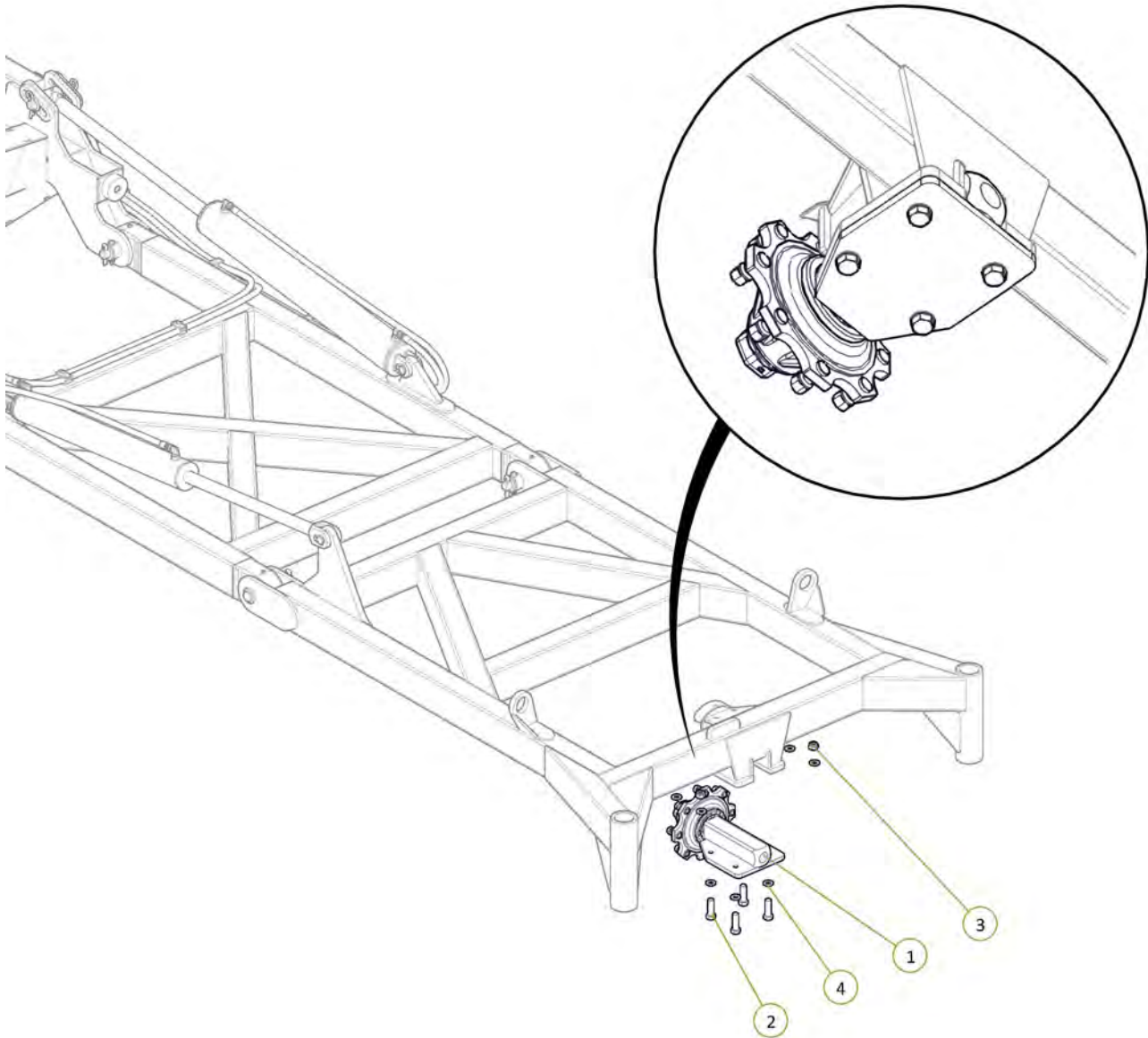




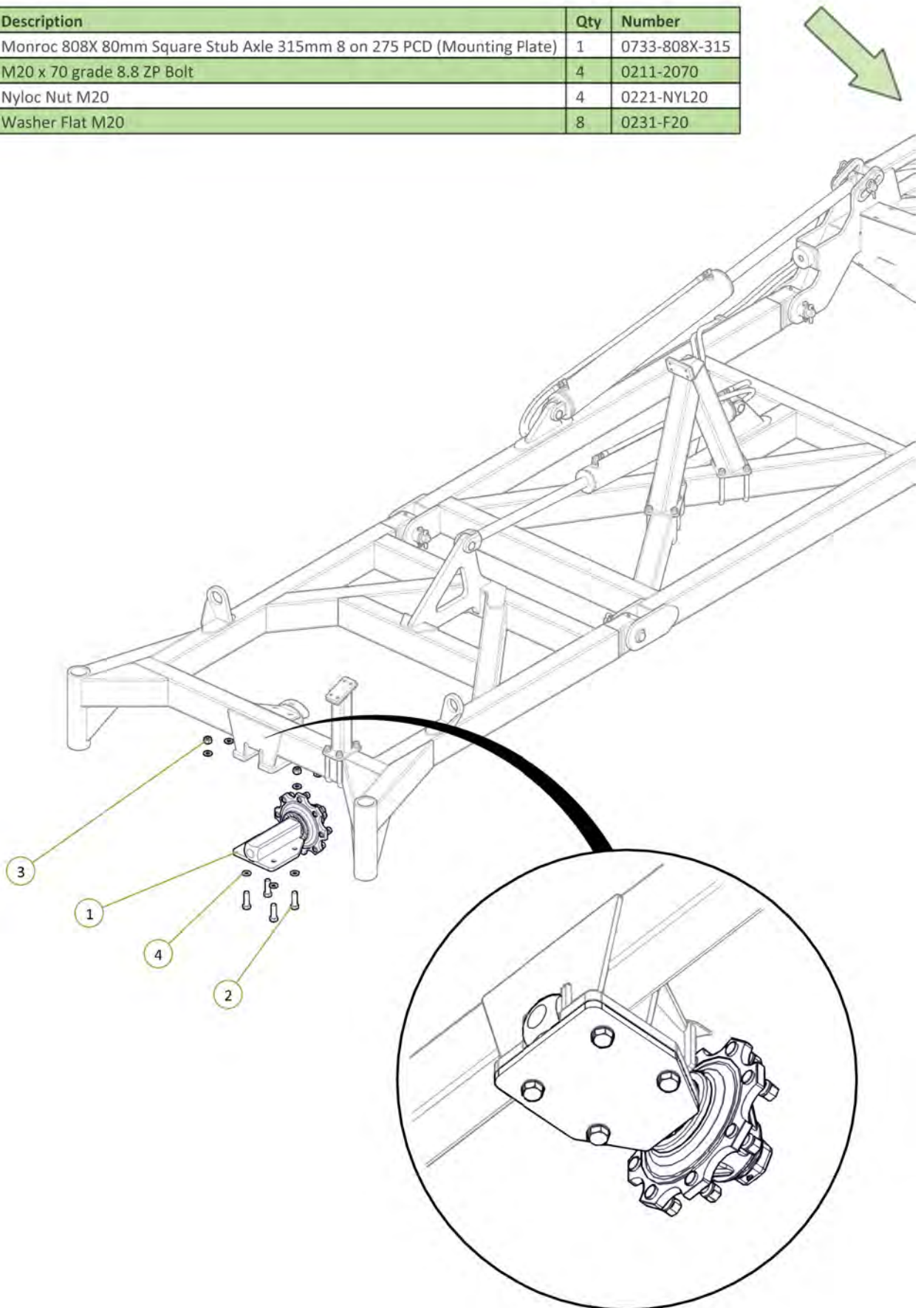
Item No.	Description	Qty	Number
1	Front A Frame	1	1540-02
2	M24 x 65 grade 8.8 zp Bolt	12	0211-2465
3	Nyloc Nut M24	12	0221-NYL24
4	Washer Flat M24	24	0231-F24



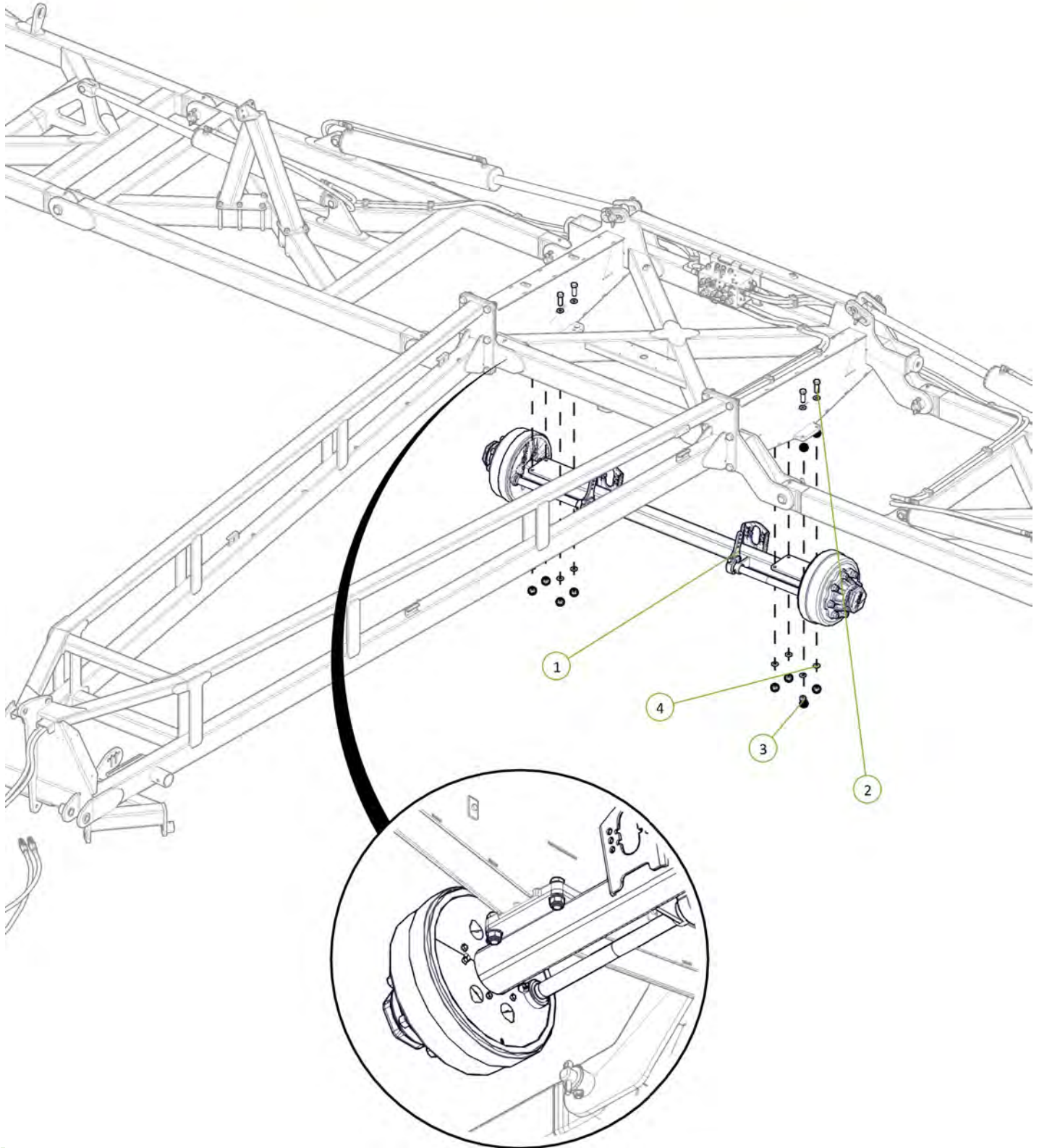
Item No.	Description	Qty	Number
1	Monroc 808X 80mm Square Stub Axle 315mm 8 on 275 PCD (Mounting Plate)	1	0733-808X-315
2	M20 x 70 grade 8.8 ZP Bolt	4	0211-2070
3	Nyloc Nut M20	4	0221-NYL20
4	Washer Flat M20	8	0231-F20



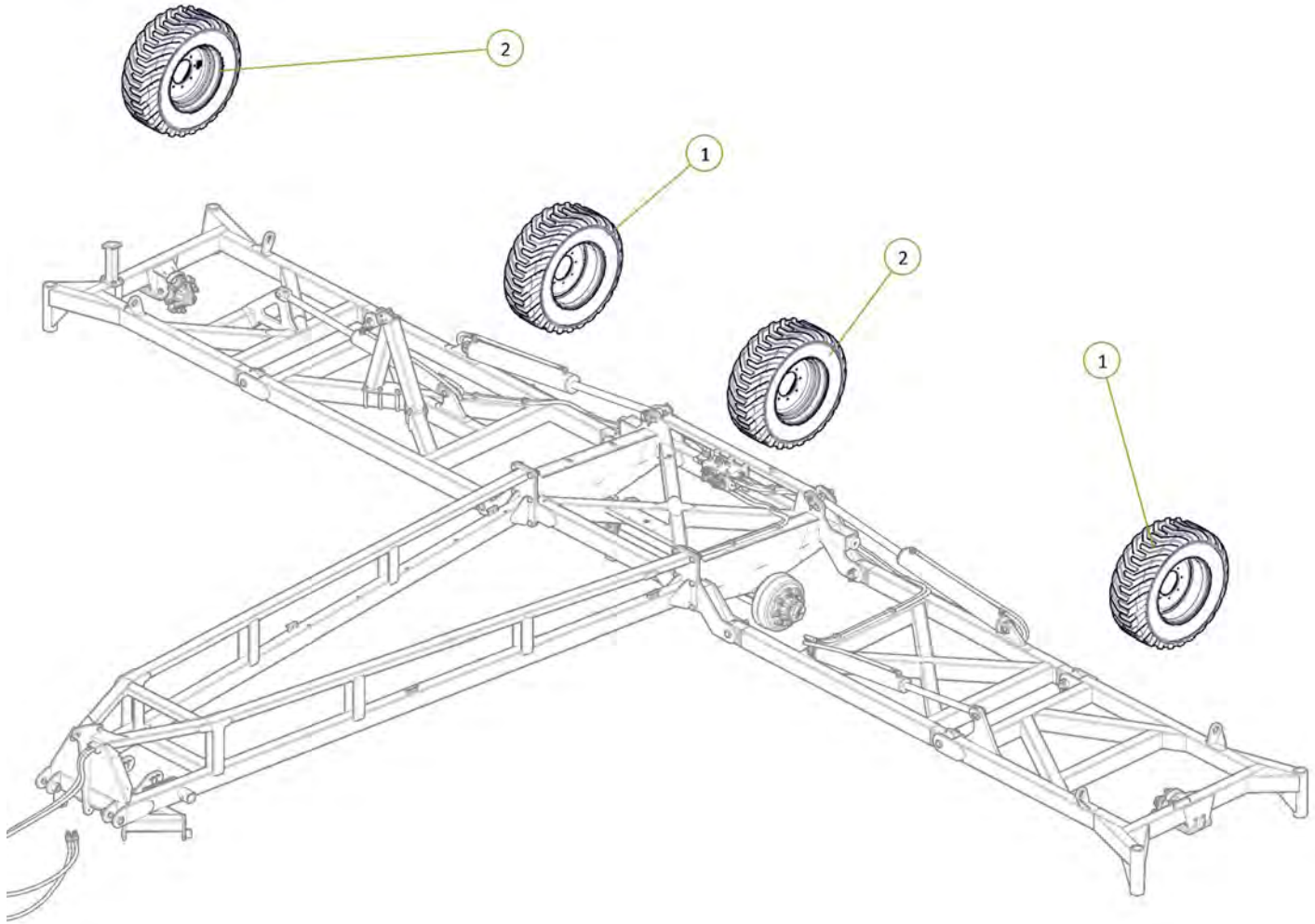
Item No.	Description	Qty	Number
1	Monroc 808X 80mm Square Stub Axle 315mm 8 on 275 PCD (Mounting Plate)	1	0733-808X-315
2	M20 x 70 grade 8.8 ZP Bolt	4	0211-2070
3	Nyloc Nut M20	4	0221-NYL20
4	Washer Flat M20	8	0231-F20



Item No.	Description	Qty	Number
1	Monroc Beam Axle 9 & 12m with mount plates	1	0733-908XFR406X120-V2570J
2	M20 x 65 grade 8.8 ZP Bolt	8	0211-2065
3	Nyloc Nut M20	8	0221-NYL20
4	Washer Flat M20	16	0231-F20



Item No.	Description	Qty	Number
1	400/55-22.5 Tyre on 8 on 275mm PCD Zero Offset Rim (Left Hand)	2	0751-400-55-22.5-8-275-0-L
2	400/55-22.5 Tyre on 8 on 275mm PCD Zero Offset Rim (Right Hand)	2	0751-400-55-22.5-8-275-0-R

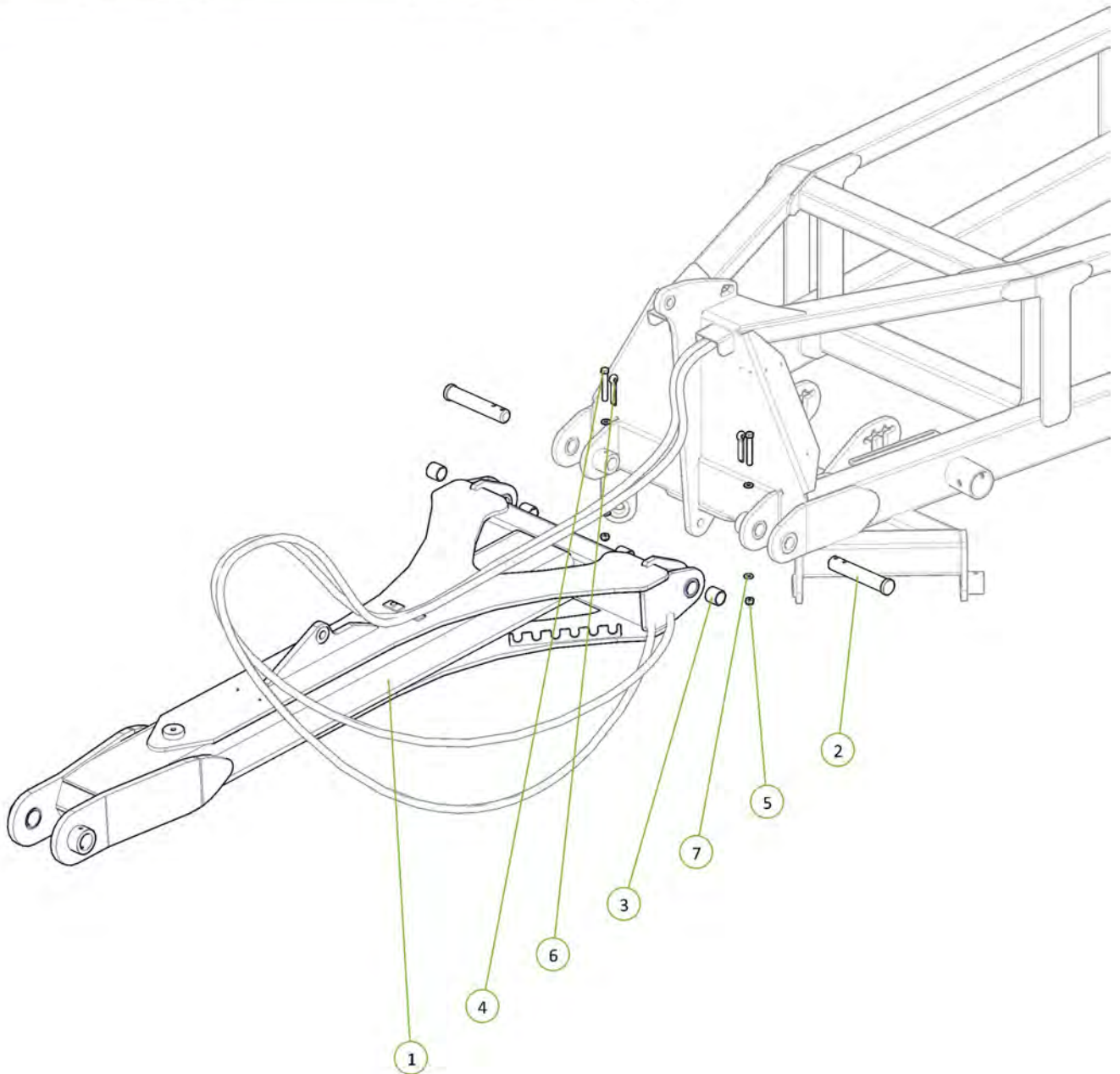


All wheel nuts tightened to 100ft-lb / 140Nm

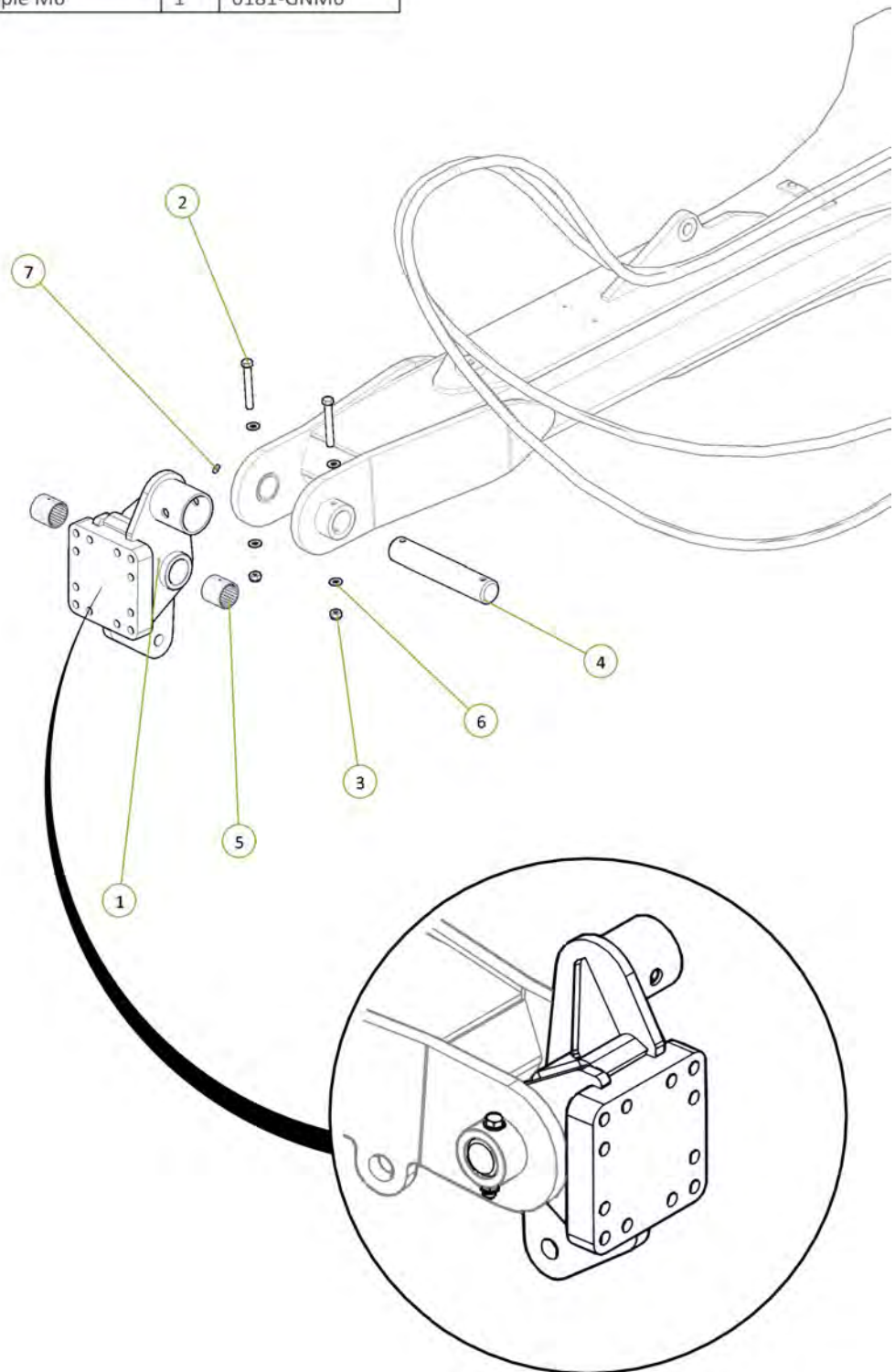


Signed _____ Date ___/___/___
 Unit Serial Number _____

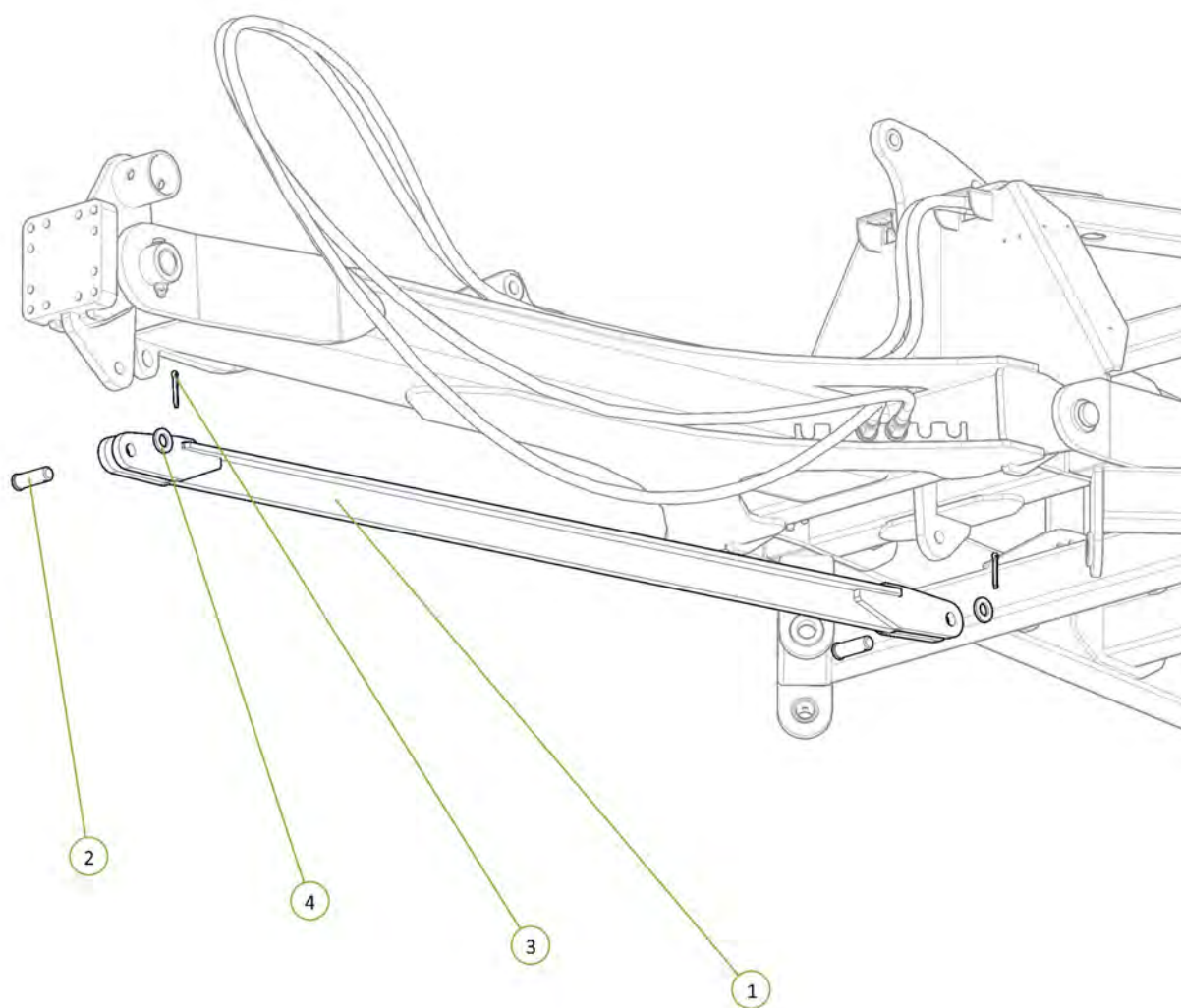
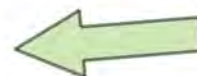
Item No.	Description	Qty	Number
1	Drawbar - 50mm Hitch Pin Europe	1	0810-65E
2	Walking Axle Linkage Pivot Pin	2	1601-P38-220
3	Drawbar Pivot Bush	4	0801-B423838
4	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
5	Nyloc Nut M12	2	0221-NYL12
6	Cotter Pin M13 x 63	2	0261-PINC1363
7	Washer Flat M12	4	0231-F12



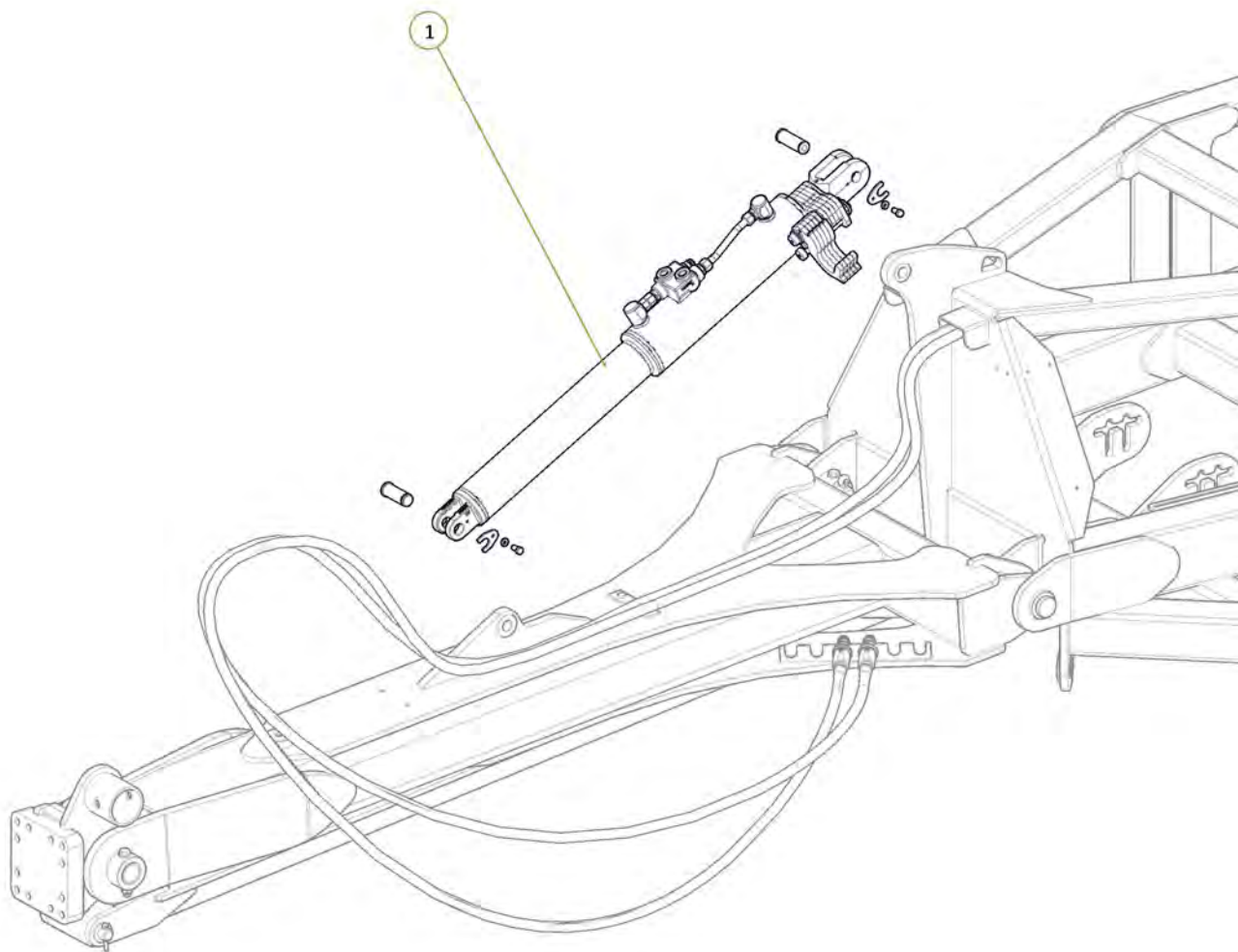
Item No.	Description	Qty	Number
1	Flange Mount Tow Hitch	1	1510-09-3
2	M12 x 100 Class 8.8 ZP Bolt	2	0211-12100
3	Nyloc Nut M12	2	0221-NYL12
4	50mm Tow Hitch Pin	1	0801-008
5	50 ID x 50mm DX Bush	2	0113-MB5050DX
6	Washer Flat M12	4	0231-F12
7	Grease Nipple M6	1	0181-GNM6



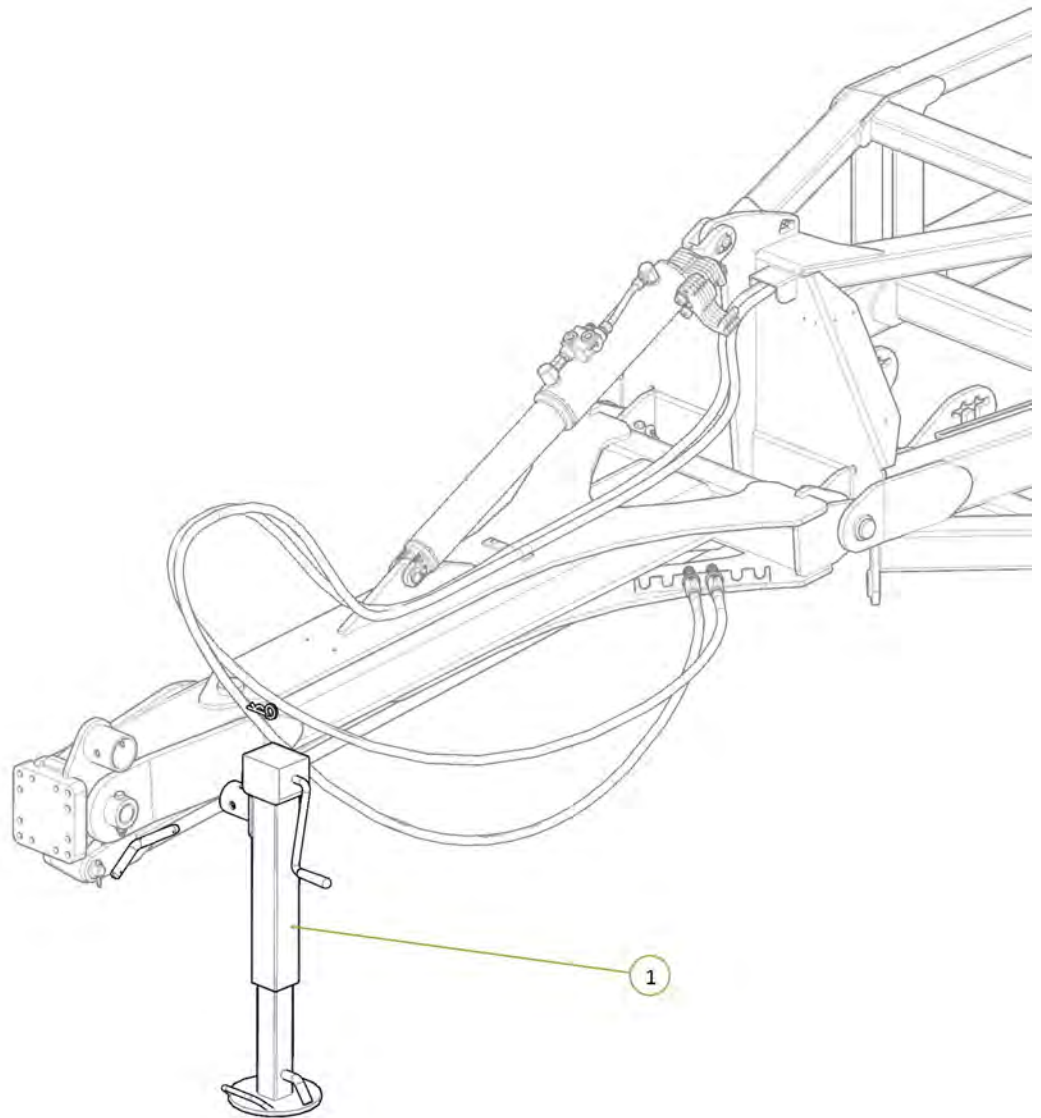
Item No.	Description	Qty	Number
1	Parallel Arm	1	0810-58E
2	Clevis Pin 25mm x 75mm	2	0801-KE0307-1
3	Cotter Pin M6 x 50mm	2	0261-PINC650
4	Washer Flat M24	2	0231-F24



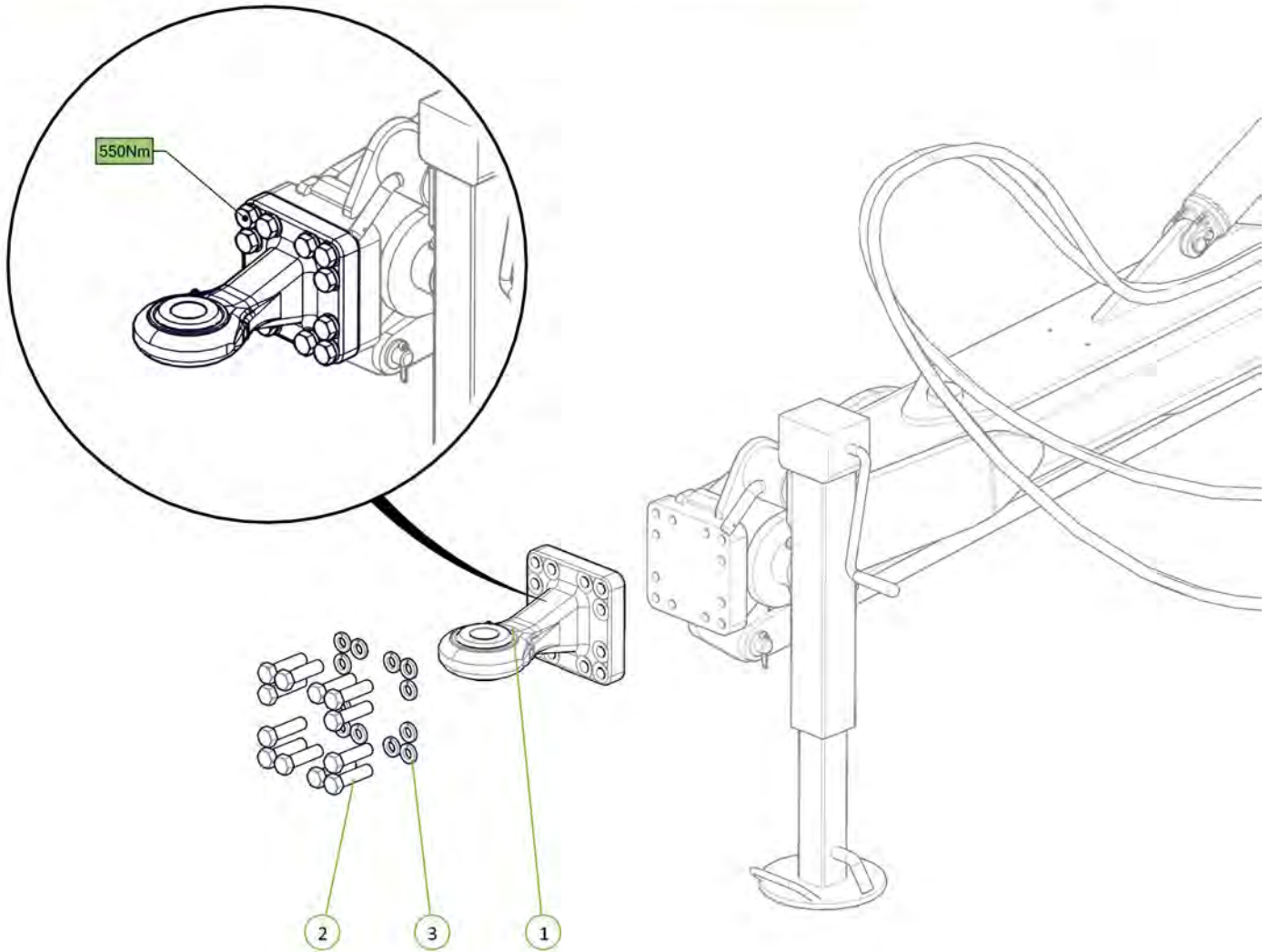
Item No.	Description	Qty	Number
1	4" Bore 12" Stroke 2" Rod Extended Hydraulic Cylinder	1	0311-412EXT-2



Item No.	Description	Qty	Number
1	Jack Assembly EU	1	0810-31AE









Item No.	Description	Qty	Number
1	Ball Joint Towing Eye, with flange CAT 4 Scharmüller	1	0801-00.665.17.1-A02
2	M20 x 80 Class 10.9 ZP Bolt	12	0211-2080HT
3	Washer Spring M20	12	0231-S20



Hitch is fastened as per manufacturer specifications

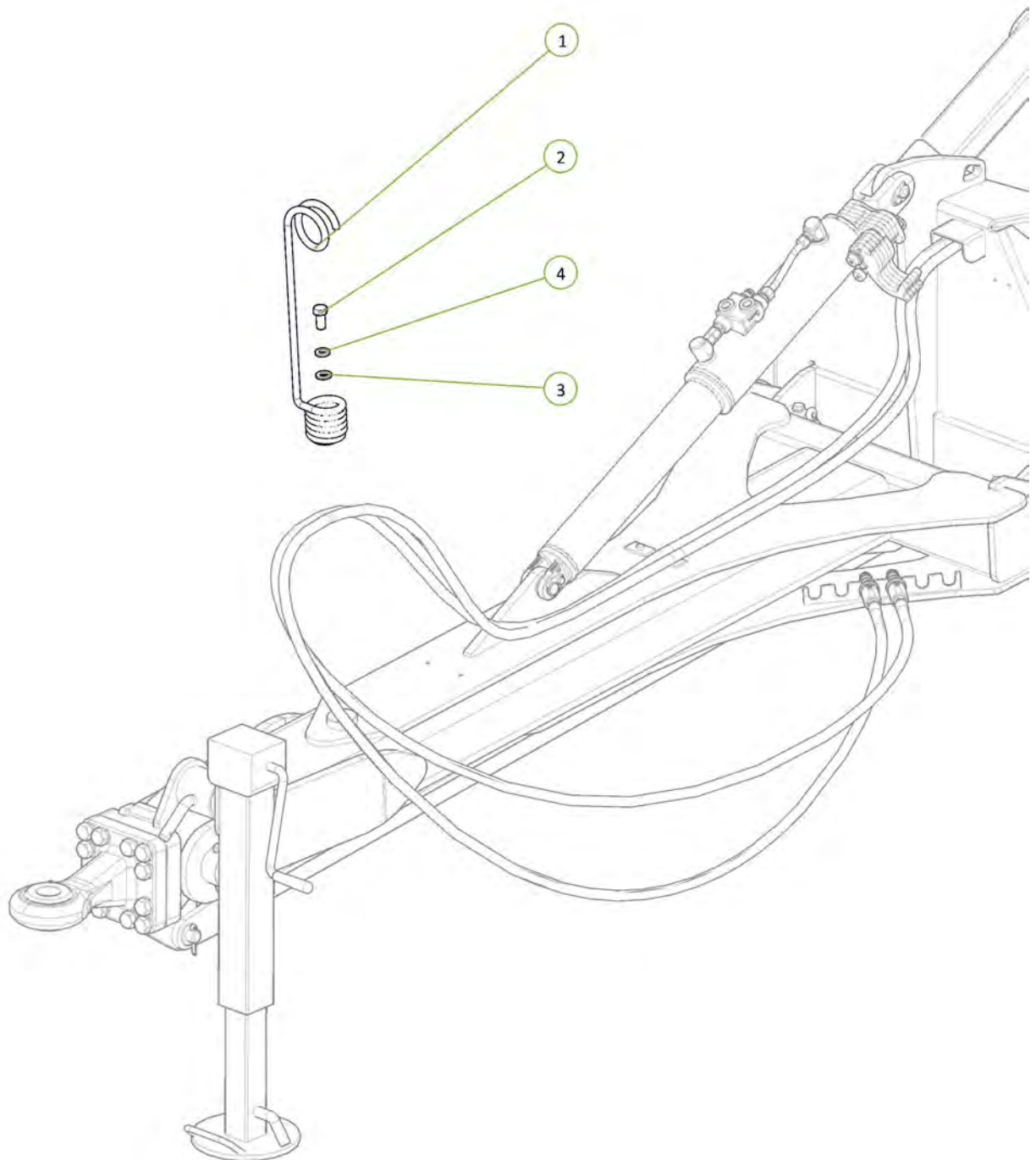


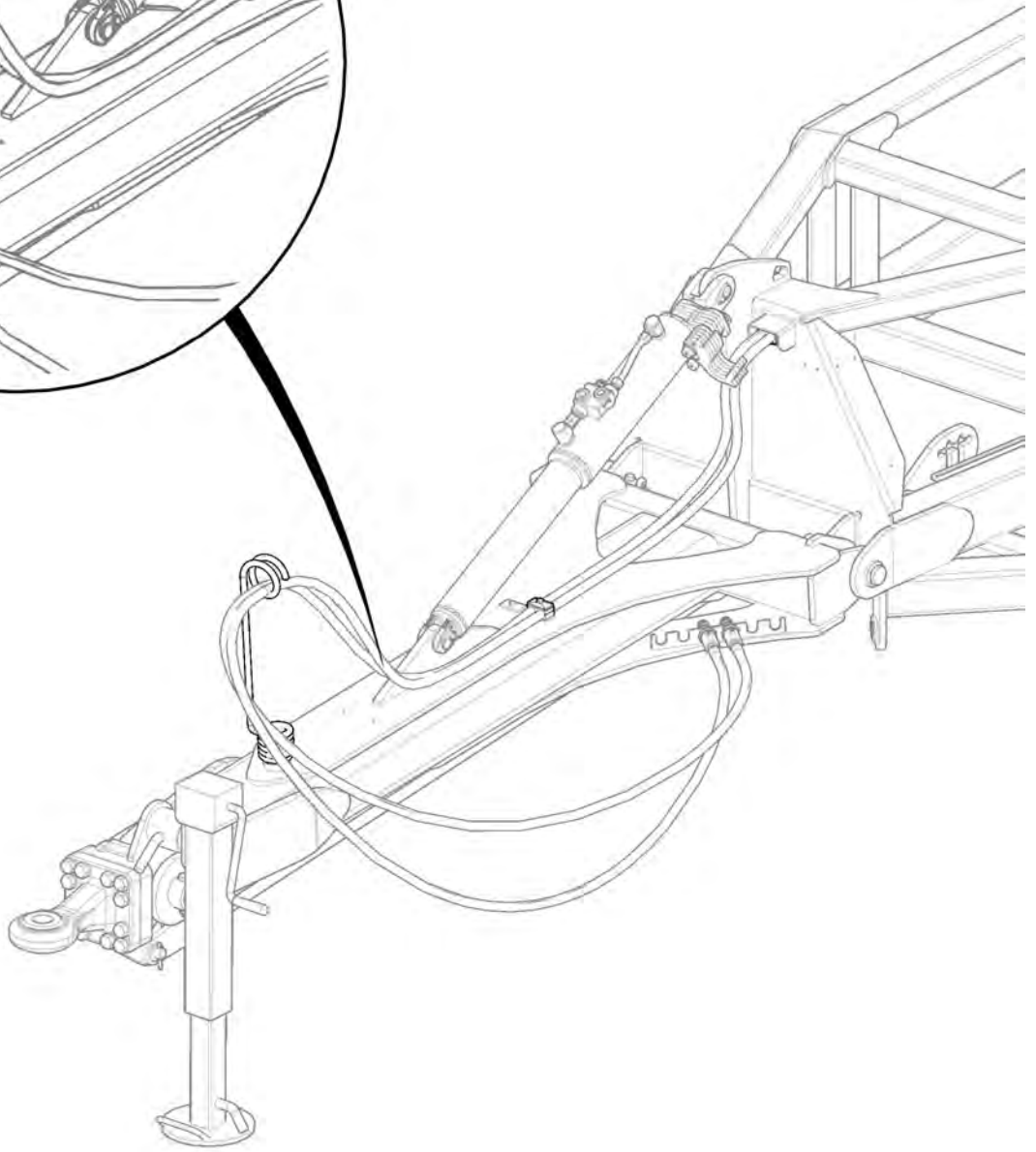
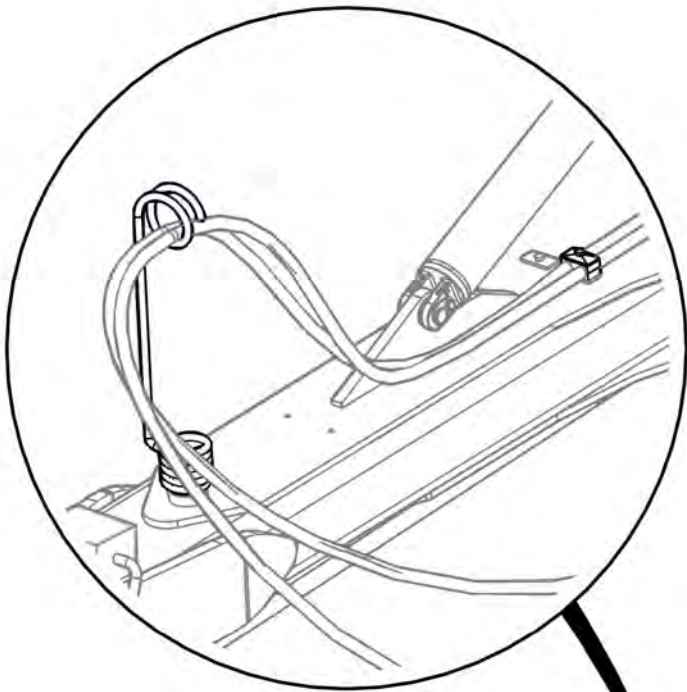
Signed _____ Date __/__/__
 Unit Serial Number _____

<p>0801-00.665.15.0-A02 Ball Joint Towing Eye, with flange CAT 2 Scharmüller</p>	<p>Flange Hole Pattern (mm): 160x160 Connection: Ball Joint Towing Eye Cat. 2 DØ33mm Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 250 Max. Permissible D-Value (kN): 120 Max. Permissible Vertical Load (kg): 3000</p>	
<p>0801-00.665.16.0-A02 Ball Joint Towing Eye, with flange CAT 3 Scharmüller</p>	<p>Flange Hole Pattern (mm): 160x160 Connection: Ball Joint Towing Eye Cat. 3 DØ42mm Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 250 Max. Permissible D-Value (kN): 120 Max. Permissible Vertical Load (kg): 3000</p>	
<p>0801-00.665.17.1-A02 Ball Joint Towing Eye, with flange CAT 4 Scharmüller</p>	<p>Flange Hole Pattern (mm): 160x160 Connection: Ball Joint Towing Eye Cat 4 DØ51mm Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 246 Max. Permissible D-Value (kN): 120,2 Max. Permissible Vertical Load (kg): 3000</p>	
<p>0801-00.665.901.0-A02 K80 Ball Coupling System, with flange Scharmüller</p>	<p>Flange Hole Pattern (mm): 160x160 Connection: K80® Towing Eye Ball Coupling System Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 250 Max. Permissible D-Value (kN): 120 Max. Permissible Vertical Load (kg): 4000</p>	
<p>1510-54A 2 Point Hitch CAT 3</p>	<p>Flange Hole Pattern (mm): 160x160 Connection: Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 285</p>	
<p>1510-55A 2 Point Hitch CAT 4</p>	<p>Flange Hole Pattern (mm): 160x160 Connection: Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 276</p>	

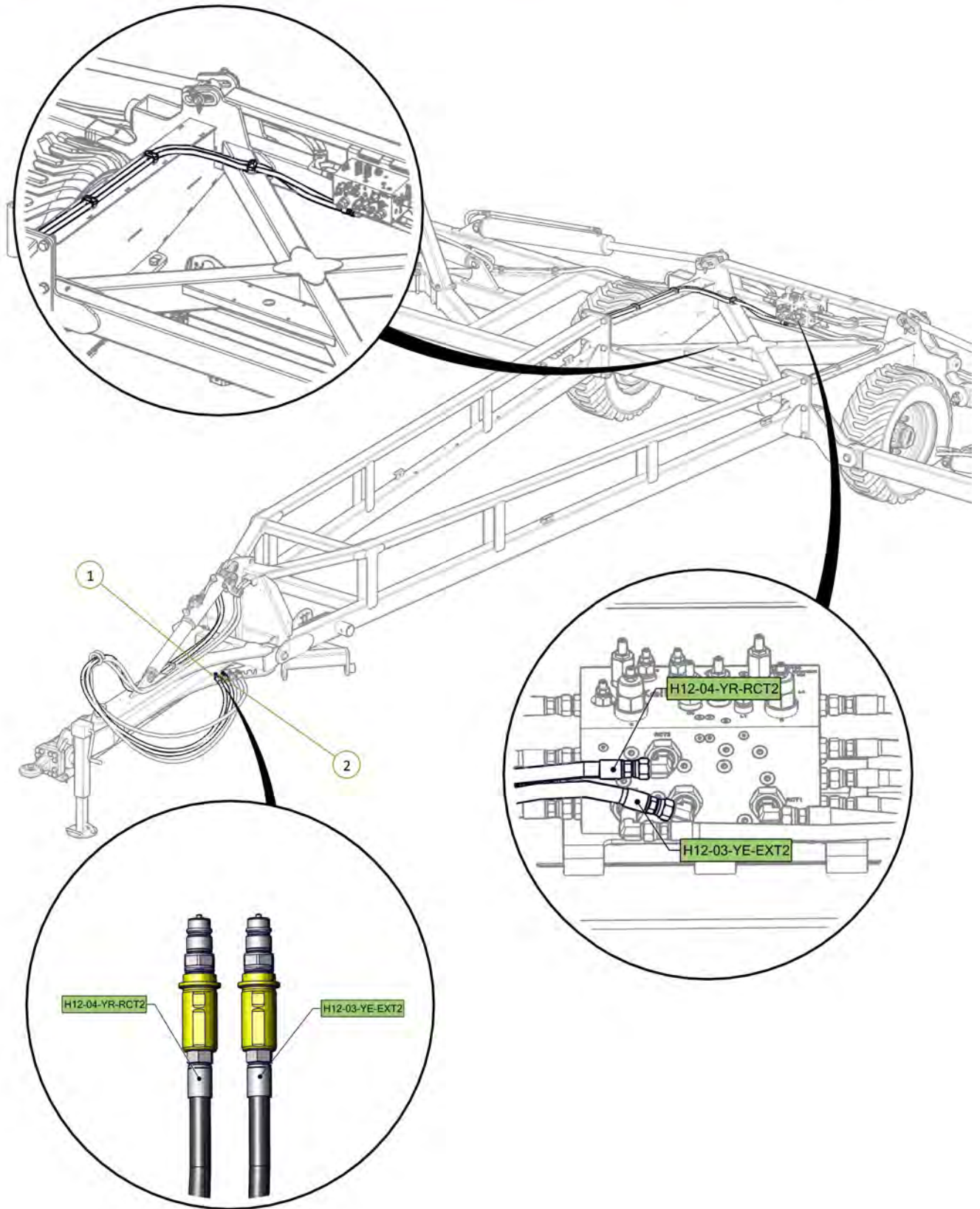


Item No.	Description	Qty	Number
1	Hose Post Spring	1	1601-CDB-00-0012
2	M16 x 35 Class 8.8 ZP Bolt	1	0211-1635
3	Washer Flat M16	1	0231-F16
4	Washer Spring M16	1	0231-S16

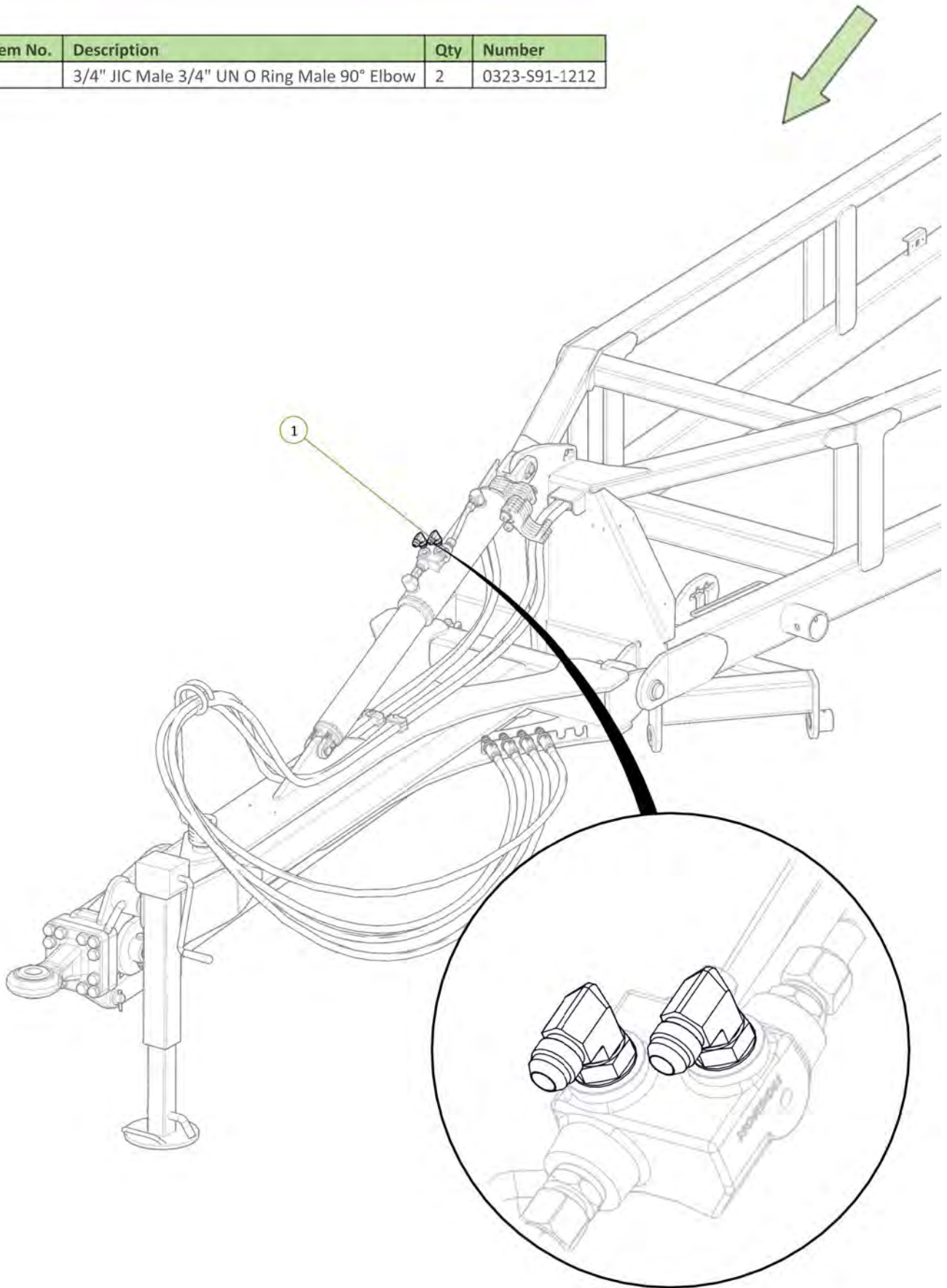




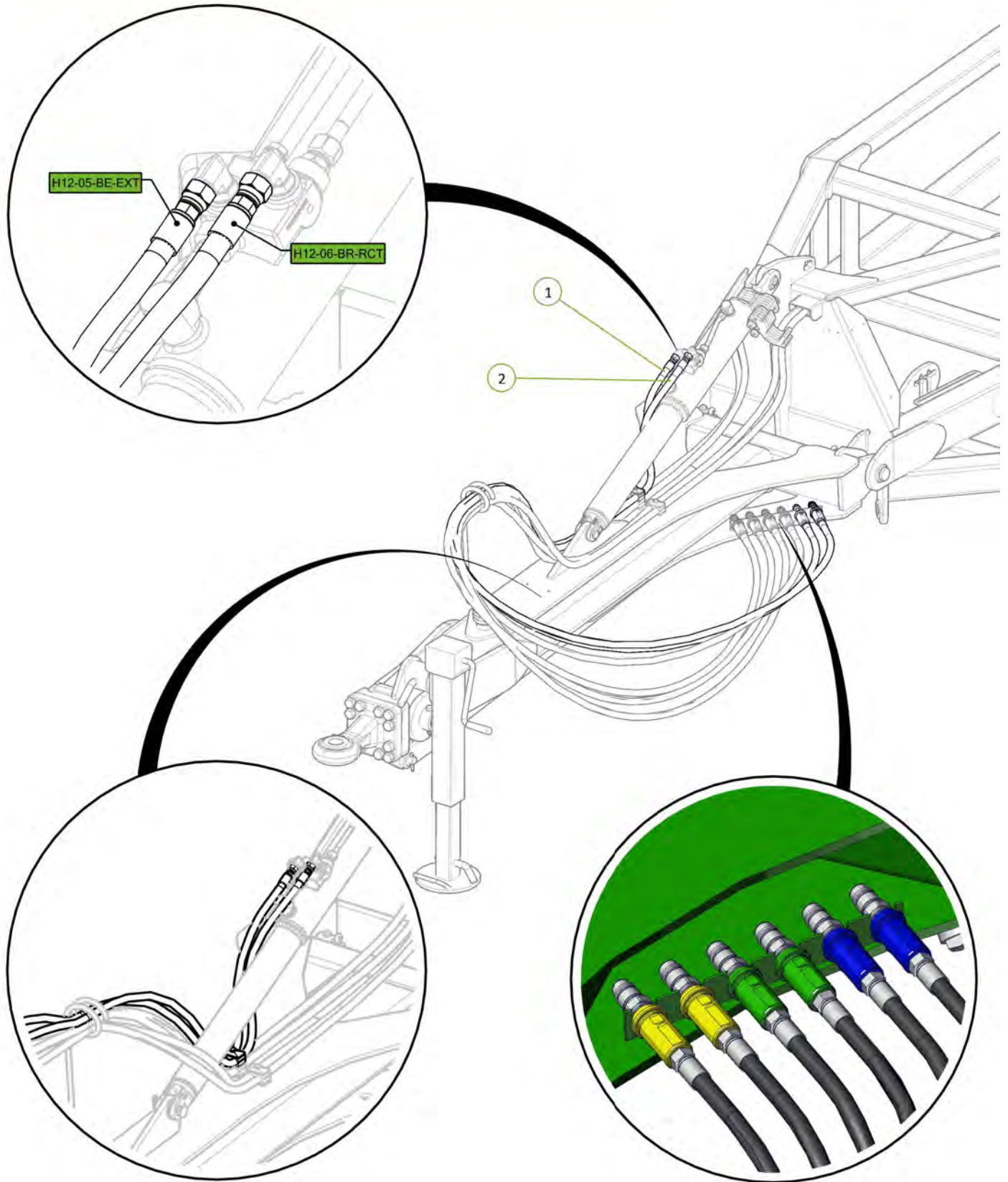
Item No.	Description	Qty	Number
1	Tractor to Sequence Valve EXT2 Port Fitted With Yellow EXT Decal	1	H12-03-YE-EXT2
2	Tractor to Sequence Valve RTC2 Port Fitted With Yellow RTC Decal	1	H12-04-YR-RCT2



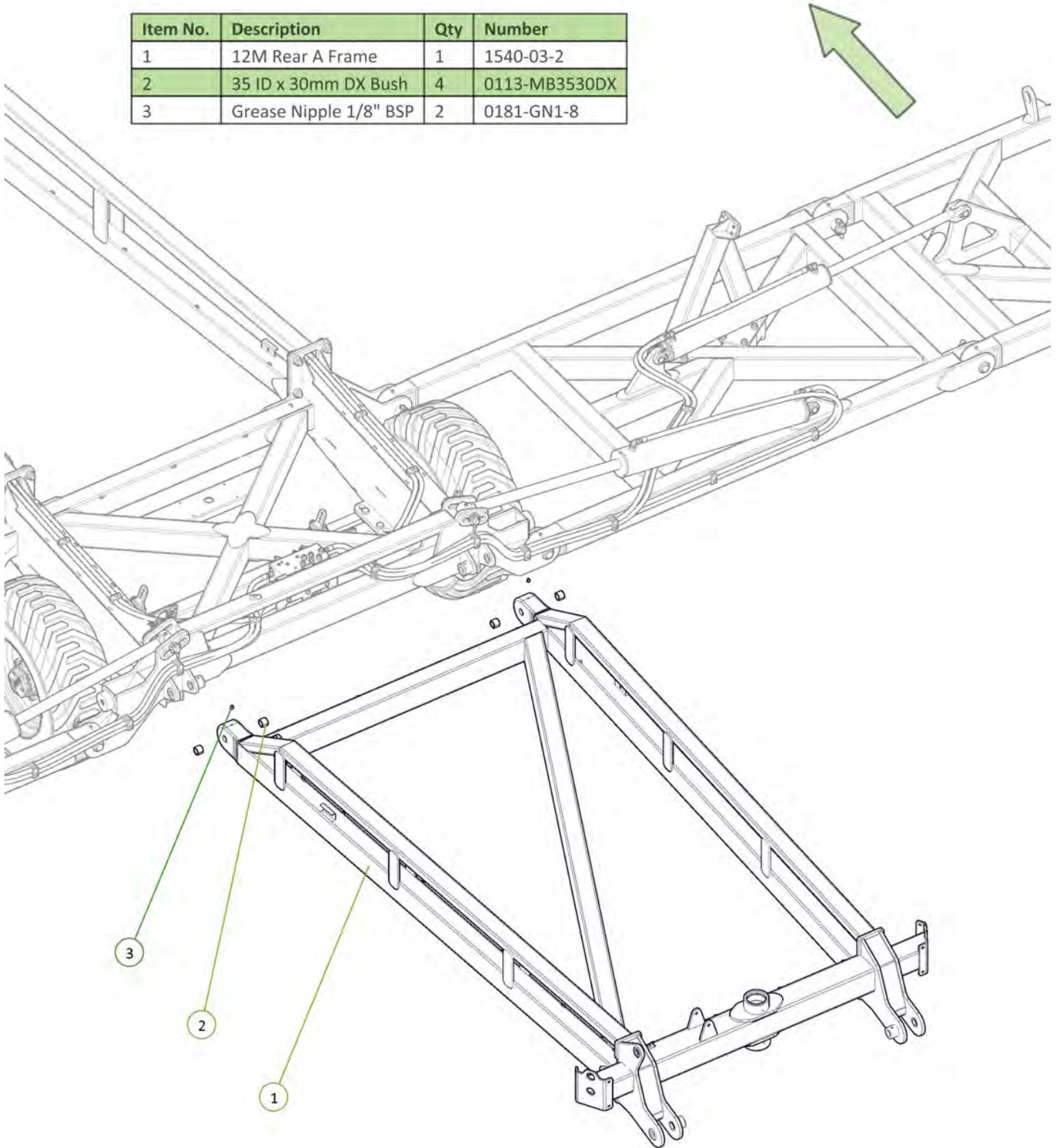
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212



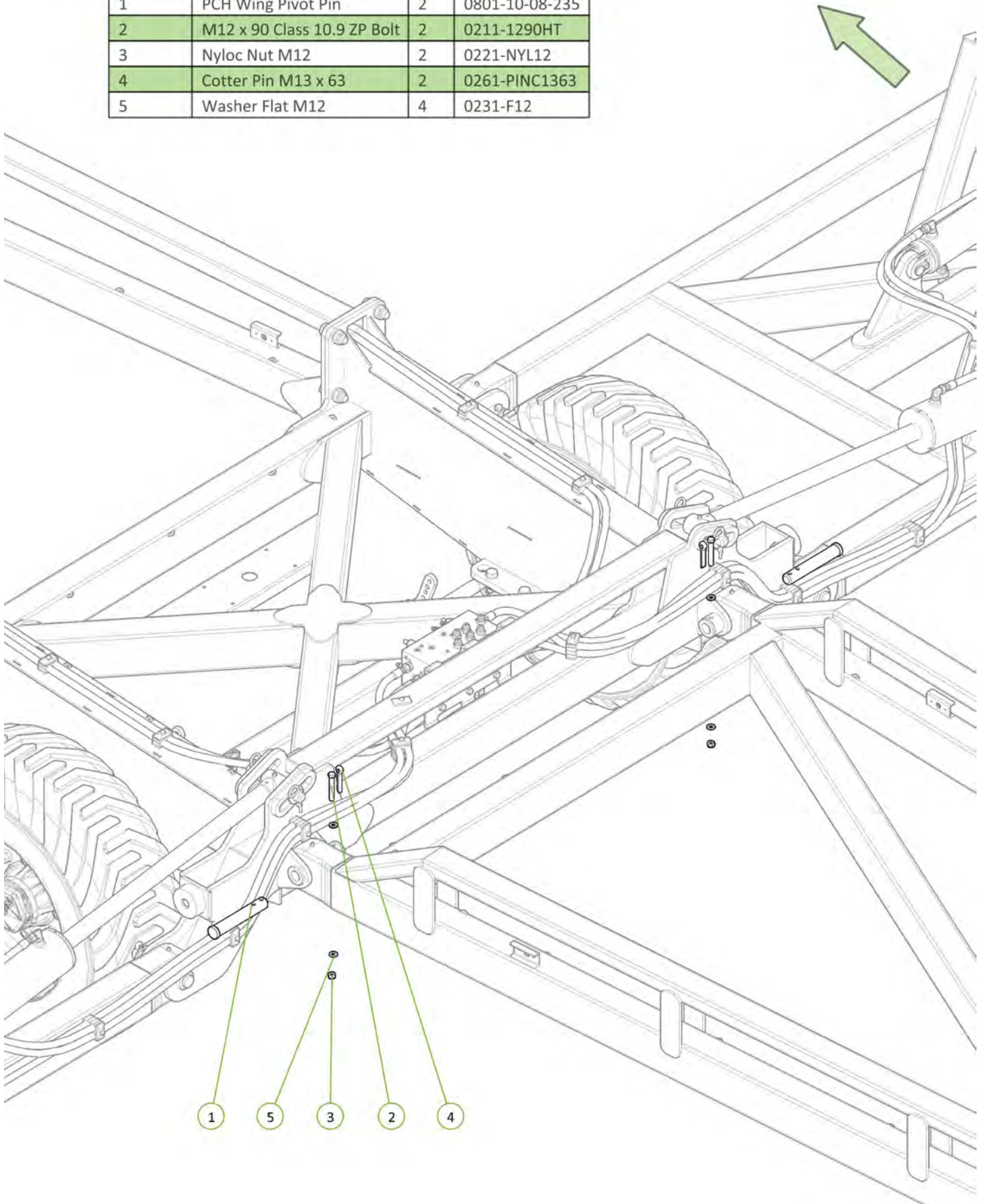
Item No.	Description	Qty	Number
1	Tractor to Front Lift Cylinder Extend Port Fitted With Blue EXT Grip	1	H12-05-BE-EXT
2	Tractor to Front Lift Cylinder Extend Port Fitted With Blue RTC Grip	1	H12-06-BR-RCT



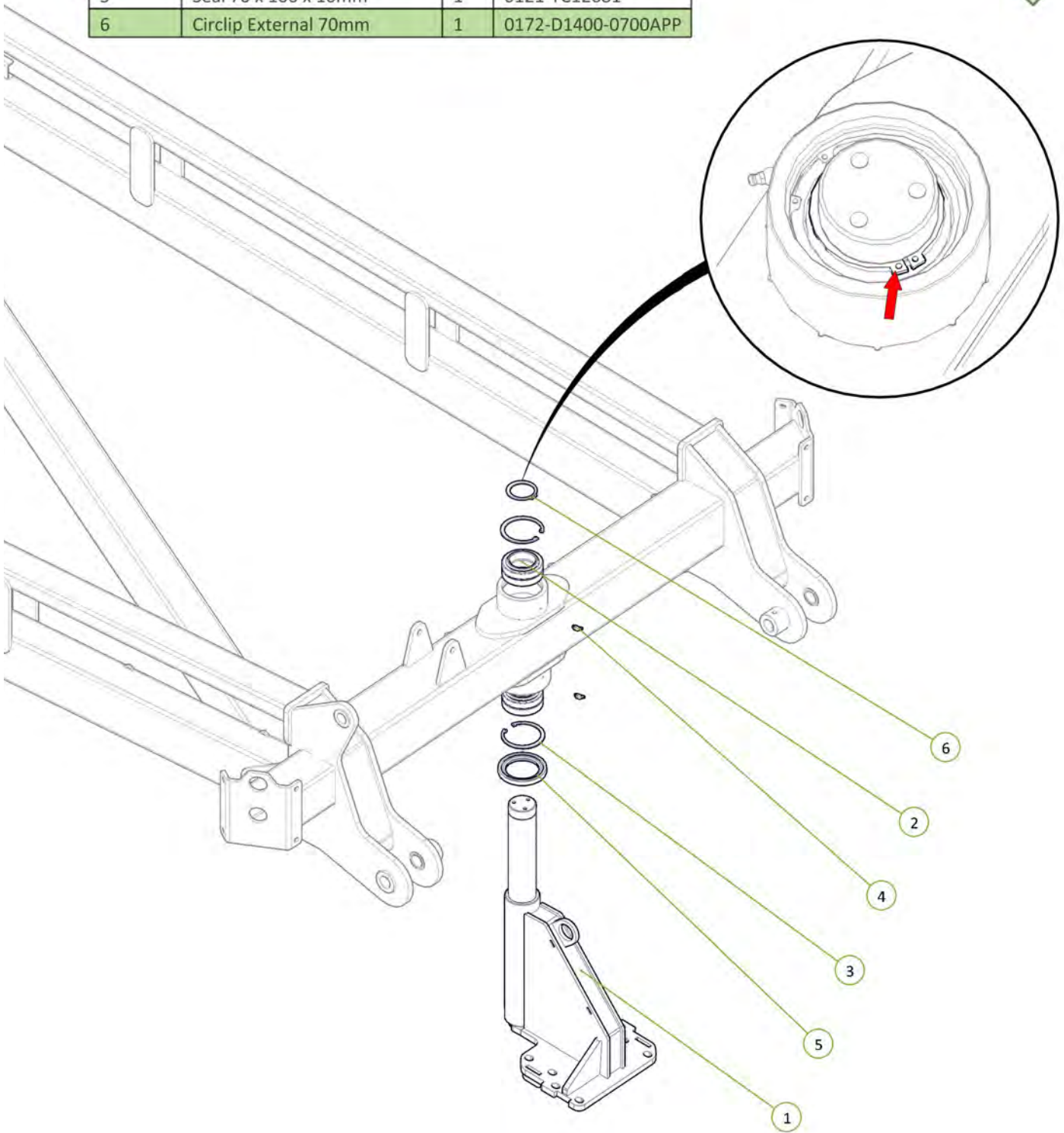
Item No.	Description	Qty	Number
1	12M Rear A Frame	1	1540-03-2
2	35 ID x 30mm DX Bush	4	0113-MB3530DX
3	Grease Nipple 1/8" BSP	2	0181-GN1-8



Item No.	Description	Qty	Number
1	PCH Wing Pivot Pin	2	0801-10-08-235
2	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
3	Nyloc Nut M12	2	0221-NYL12
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	Washer Flat M12	4	0231-F12



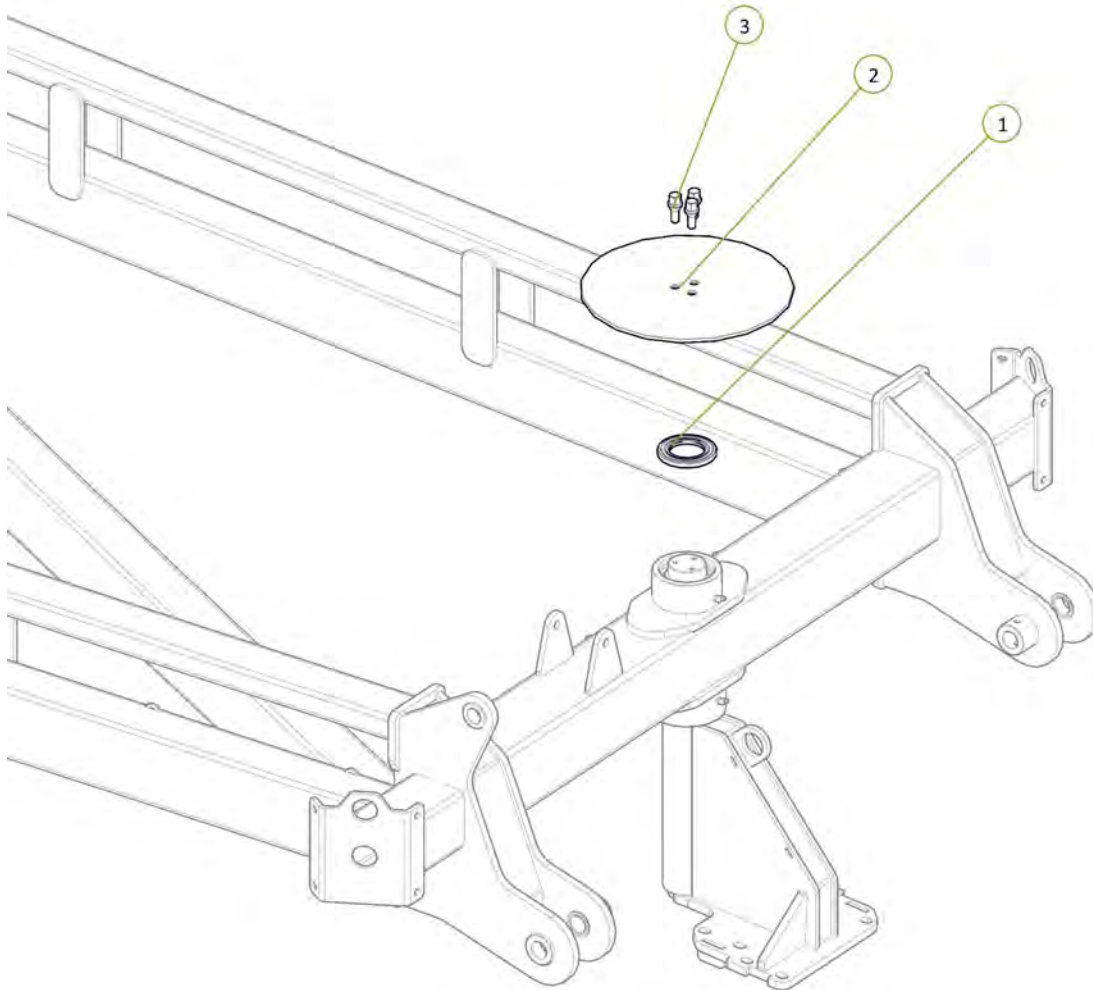
1	Jockey Wheel (Europe)	1	1610-12-70E
2	Plain Spherical Bearing 70mm	2	0113-GE70DO-2RS
3	Circlip Internal 105mm	2	0171-J105
4	Grease Nipple 1/4" UNF 45°	2	0181-GN1/445
5	Seal 70 x 100 x 10mm	1	0121-TC12681
6	Circlip External 70mm	1	0172-D1400-0700APP



Circlip fitted to Jockey Wheel shaft

Signed _____ Date _ / _ / _
 Unit Serial Number _____

Item No.	Description	Qty	Number
1	TC Seal 70mm x 110mm x 10mm	1	0121-TC12654
2	Brake Disc	1	1600-405
3	Wheel Stud One Piece M12 x 1.75	3	0216-WB1224



- Ensure disc tapers are free from paint.
- Apply thread locker compound to bolt threads.

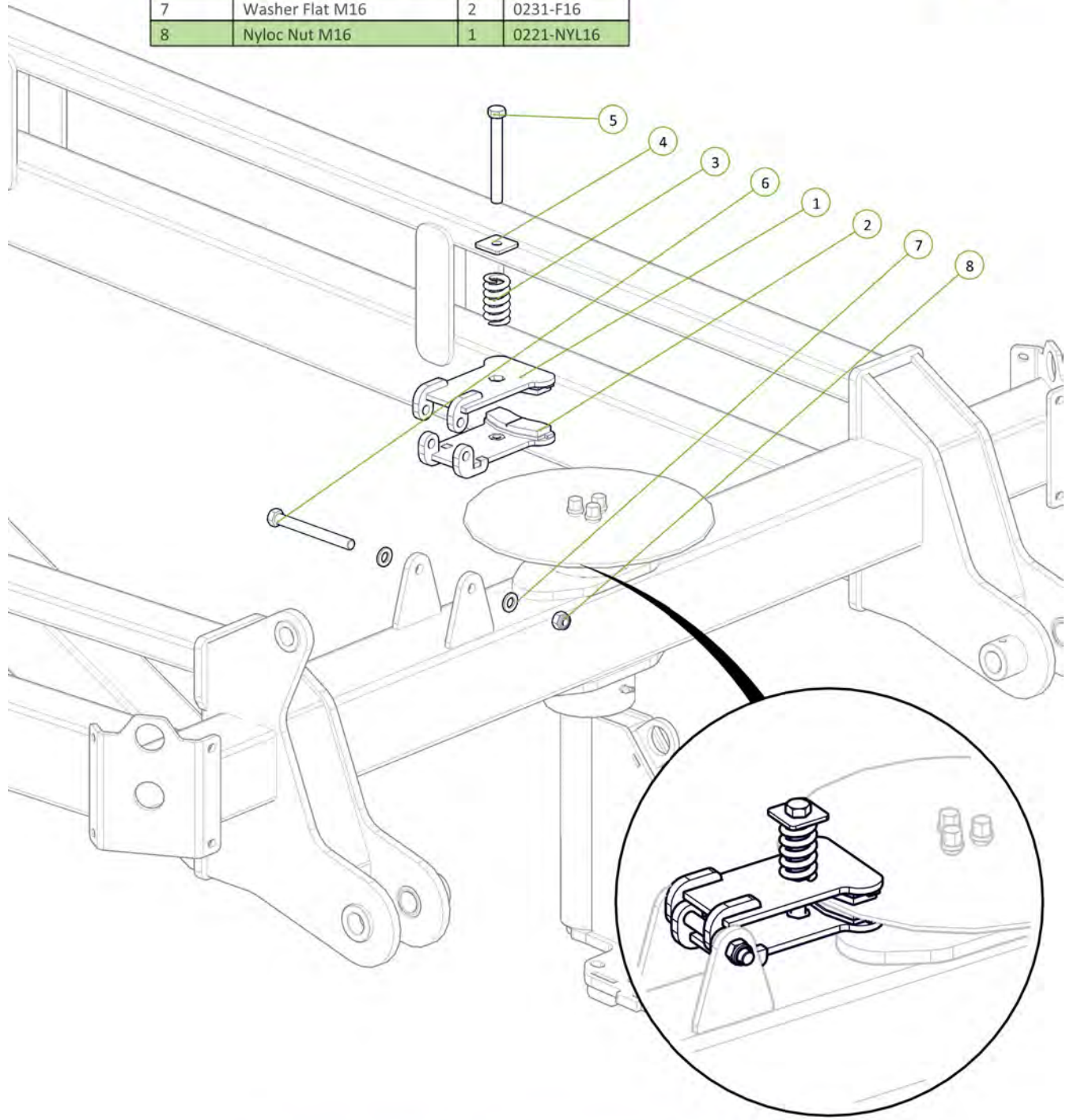
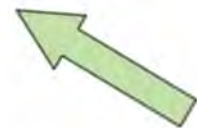


Wheel bolts torqued to 88Nm



Signed _____ Date __/__/__
 Unit Serial Number _____

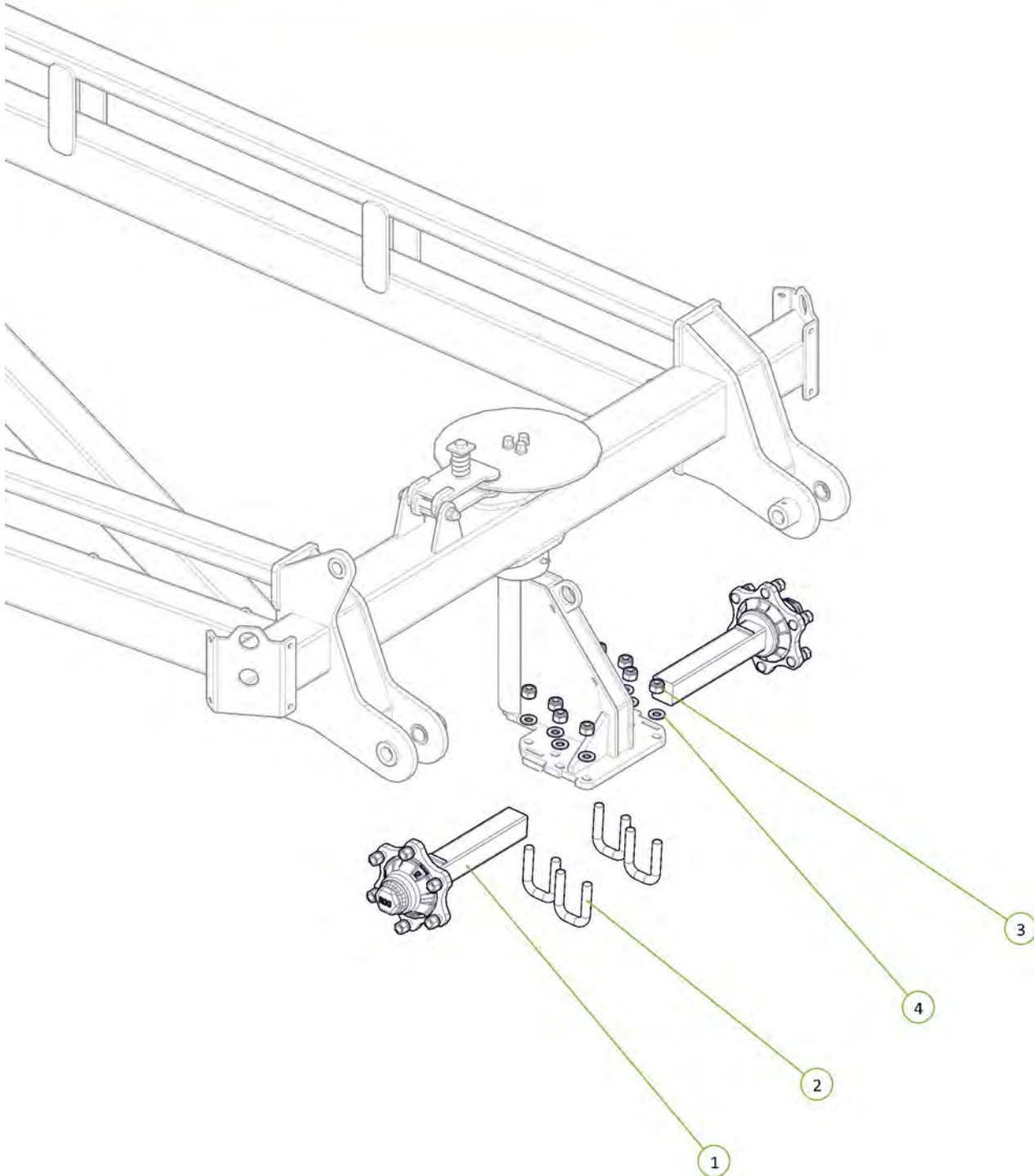
Item No.	Description	Qty	Number
1	Brake Caliper Part 1	1	0810-12.1
2	Brake Caliper Part 2	1	0810-12.2
3	Brake Compression Spring	1	0801-KE009
4	Washer Square M16 x 50 x 5	1	0231-SQ16505
5	M16 x 150 Class 8.8 ZP Bolt	1	0211-16150
6	M16 x 160 Class 8.8 ZP Bolt	1	0211-16160
7	Washer Flat M16	2	0231-F16
8	Nyloc Nut M16	1	0221-NYL16



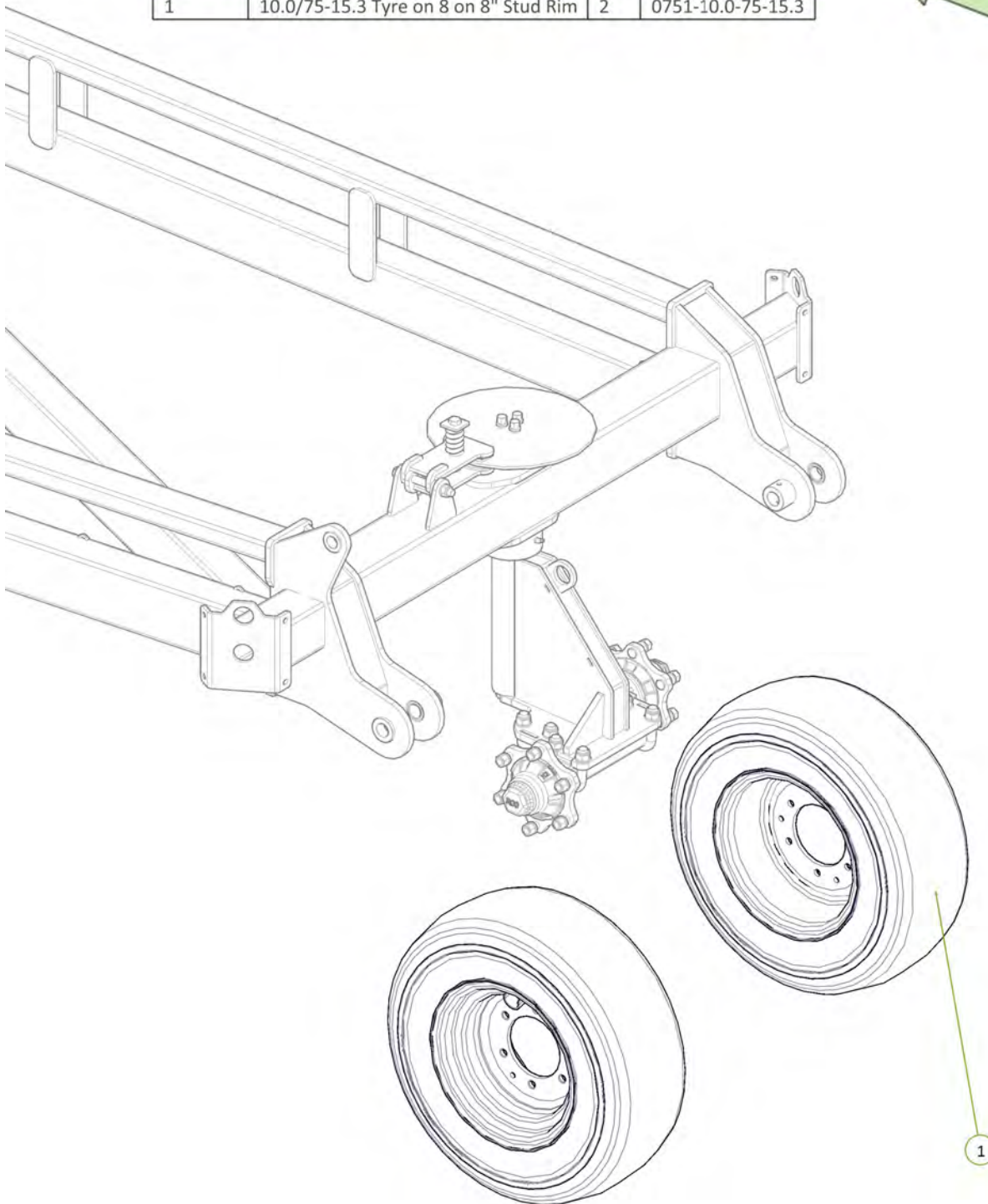
Check tension of brake calliper spring (50-63mm road transport)

Signed _____ Date __/__/__
 Unit Serial Number _____

Item No.	Description	Qty	Number
1	Monroc 606XR Stub Axle (VAR)	2	0733-606XRVAR
2	U-Bolt M20 x 105 Deep x 62 Wide	4	0271-2010562
3	Nyloc Nut M20	8	0221-NYL20
4	Washer Flat M20	8	0231-F20



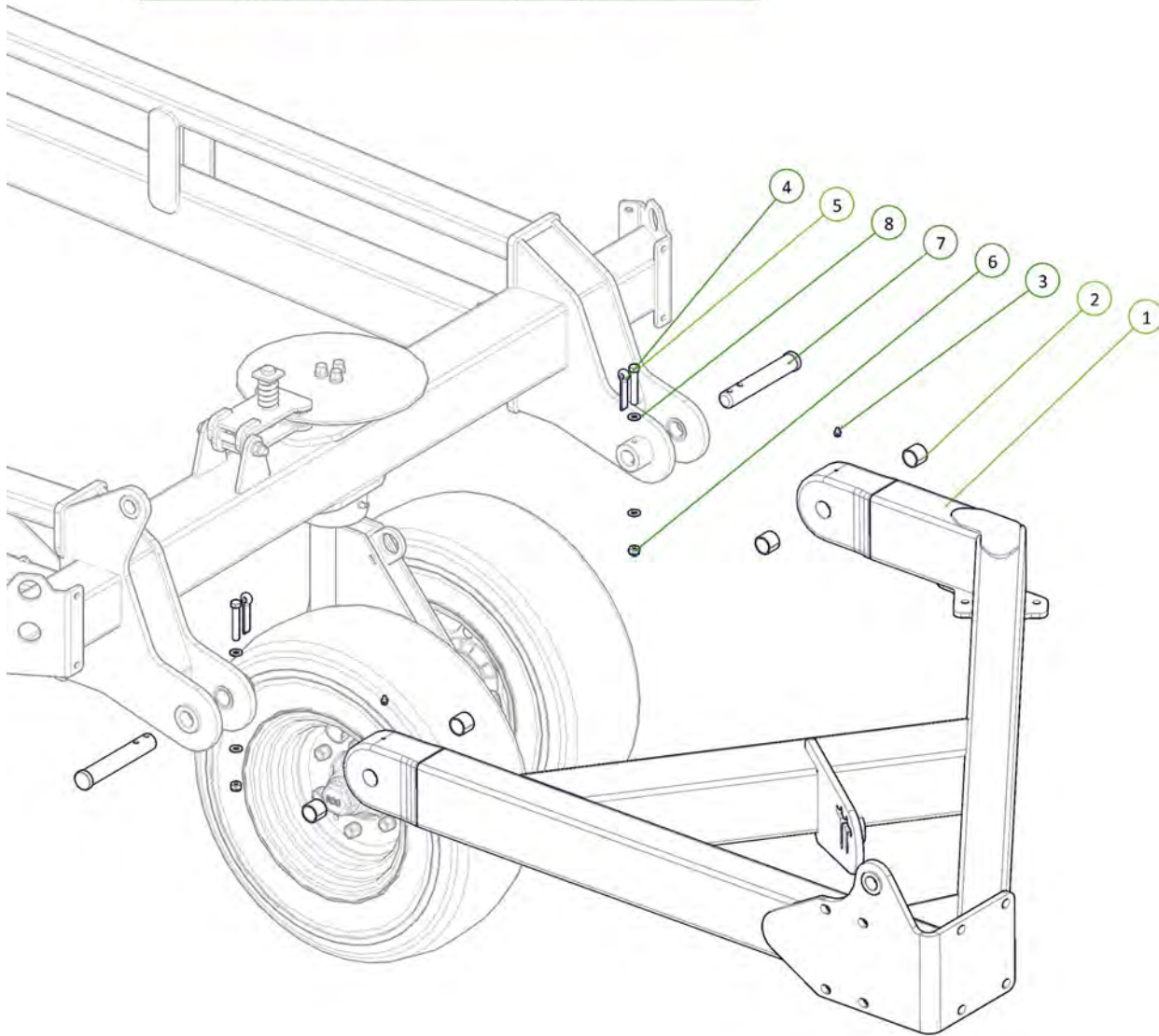
Item No.	Description	Qty	Number
1	10.0/75-15.3 Tyre on 8 on 8" Stud Rim	2	0751-10.0-75-15.3



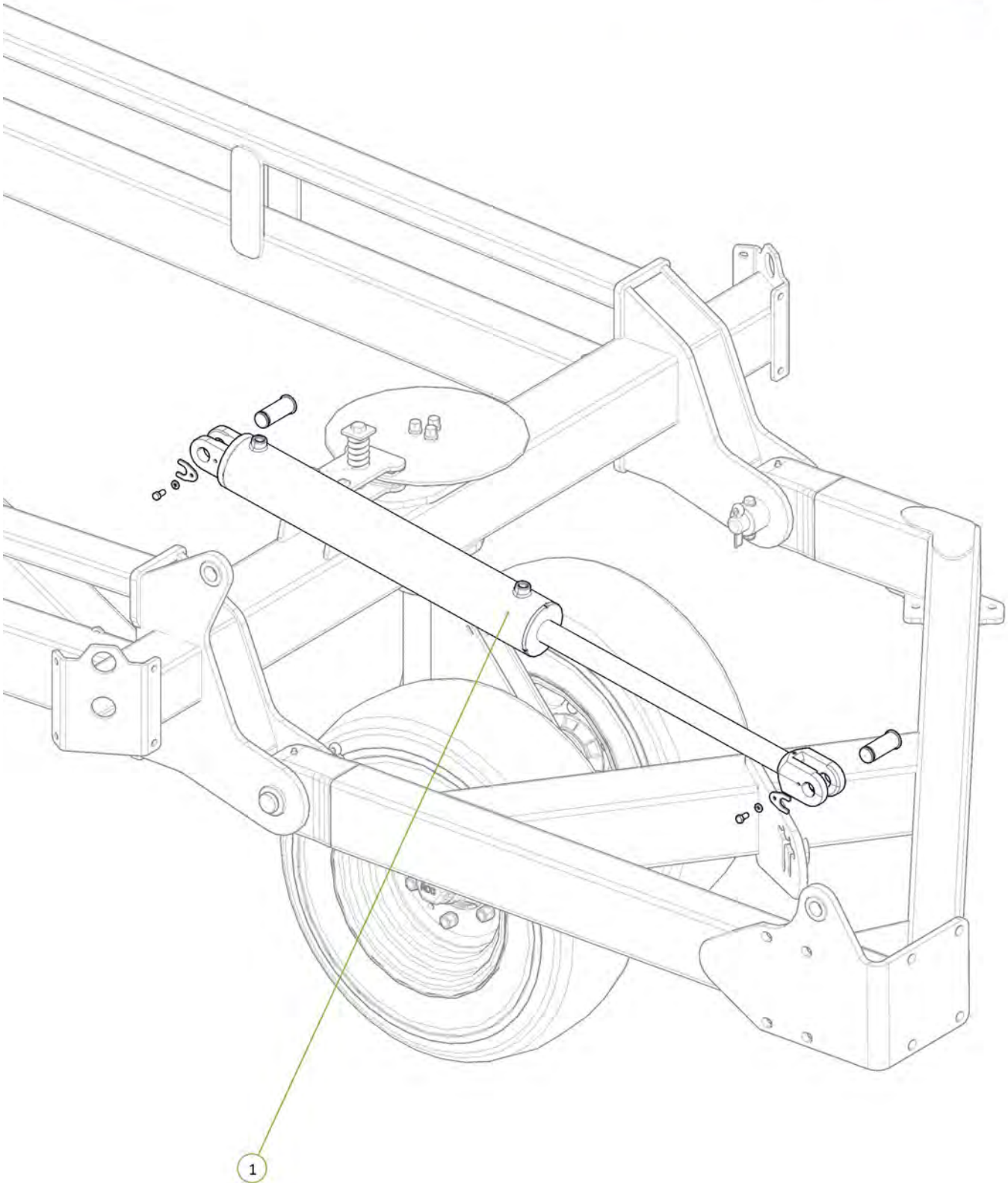
All wheel nuts tightened to 125Nm 

Signed _____ Date __/__/__
 Unit Serial Number _____

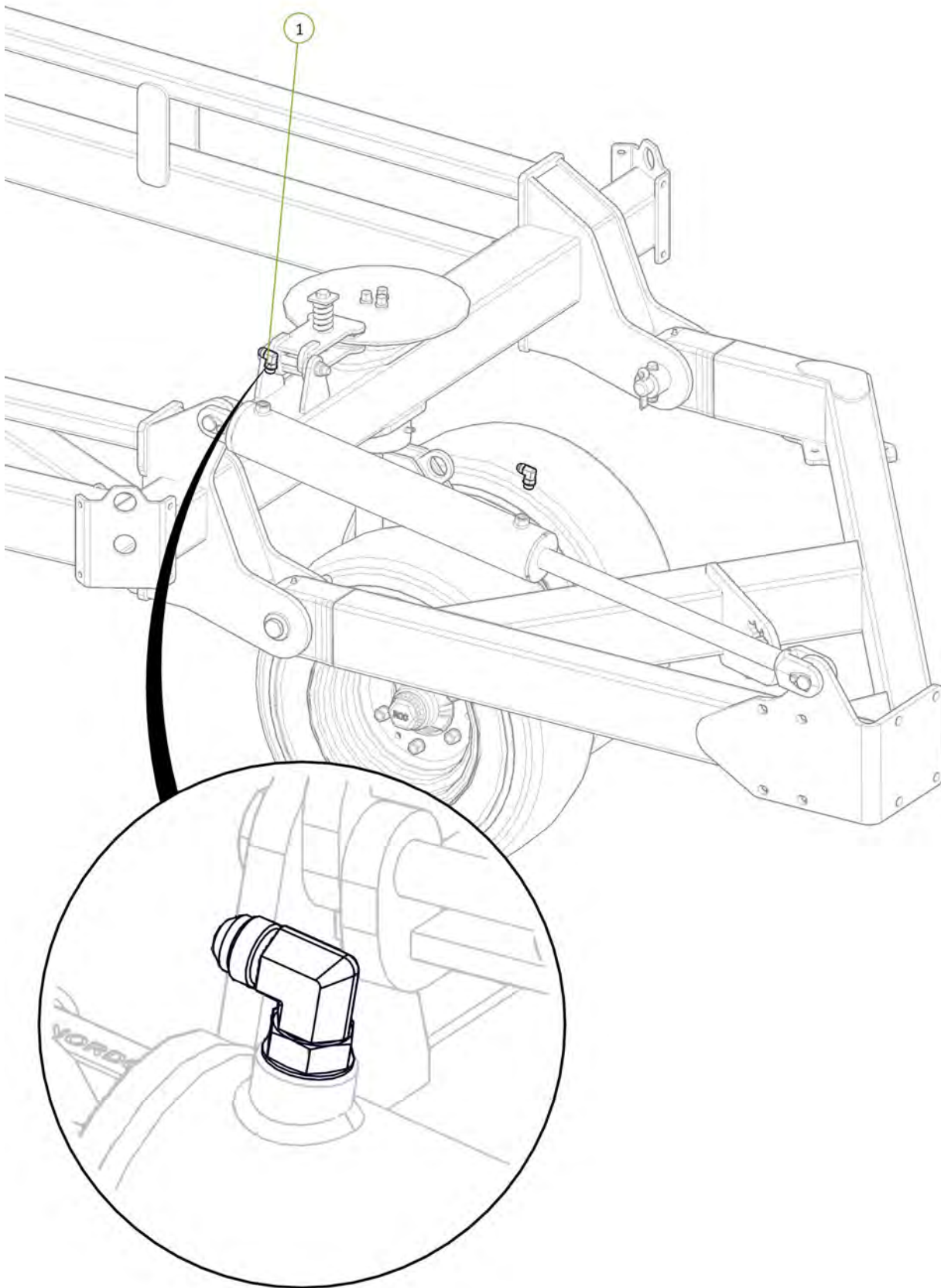
Item No.	Description	Qty	Number
1	Rear Tail	1	1510-40SE
2	35 ID x 30mm DX Bush	4	0113-MB3530DX
3	Grease Nipple 1/8" BSP	2	0181-GN1-8
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	M12 x 80 Class 8.8 ZP Bolt	2	0211-1280
6	Nyloc Nut M12	2	0221-NYL12
7	PCH Wing Pivot Pin	2	0801-10-08-235
8	Washer Flat M12	4	0231-F12



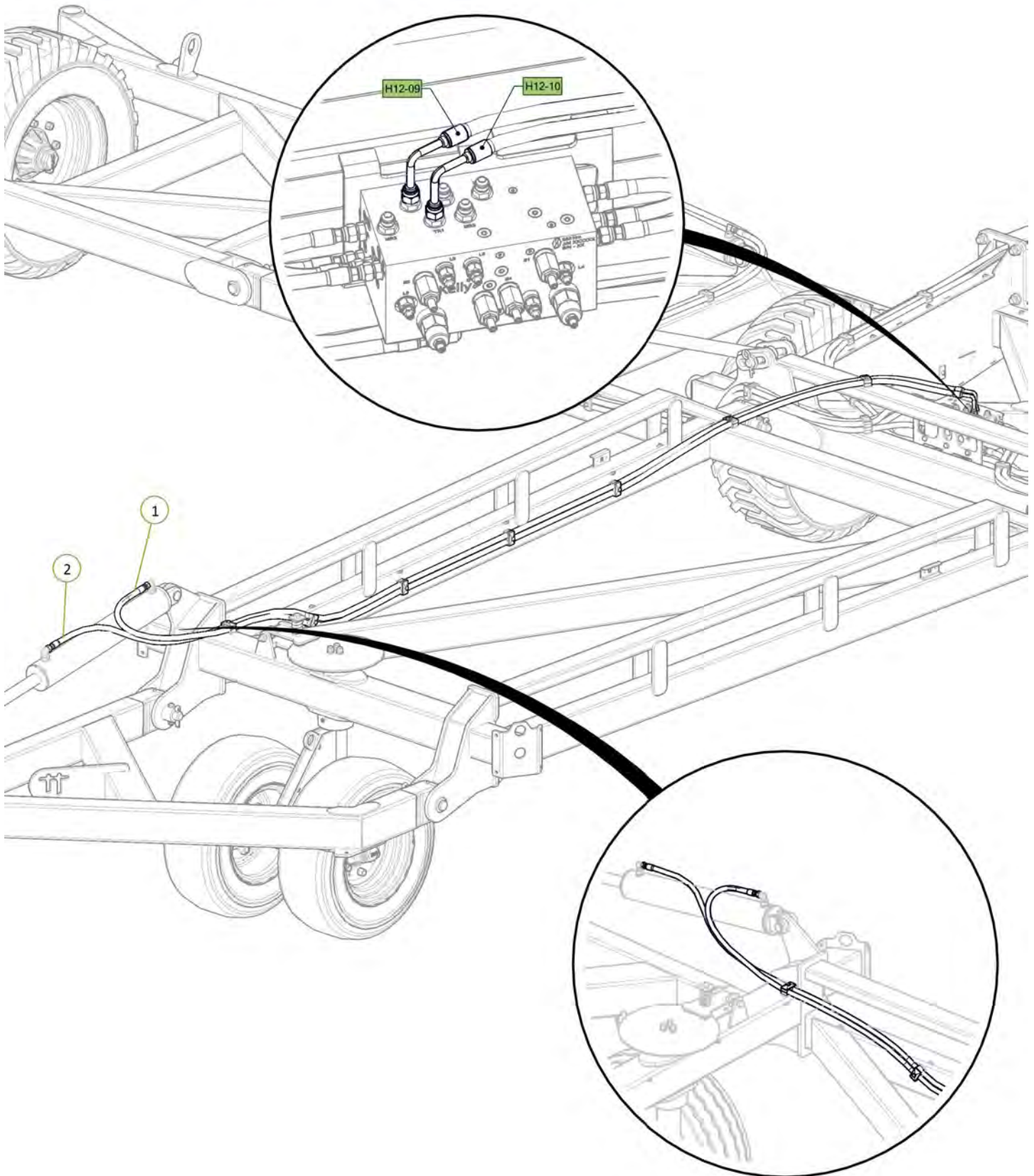
Item No.	Description	Qty	Number
1	4" Bore 24" Stroke 1.75" Rod Hydraulic Cylinder	1	0311-424



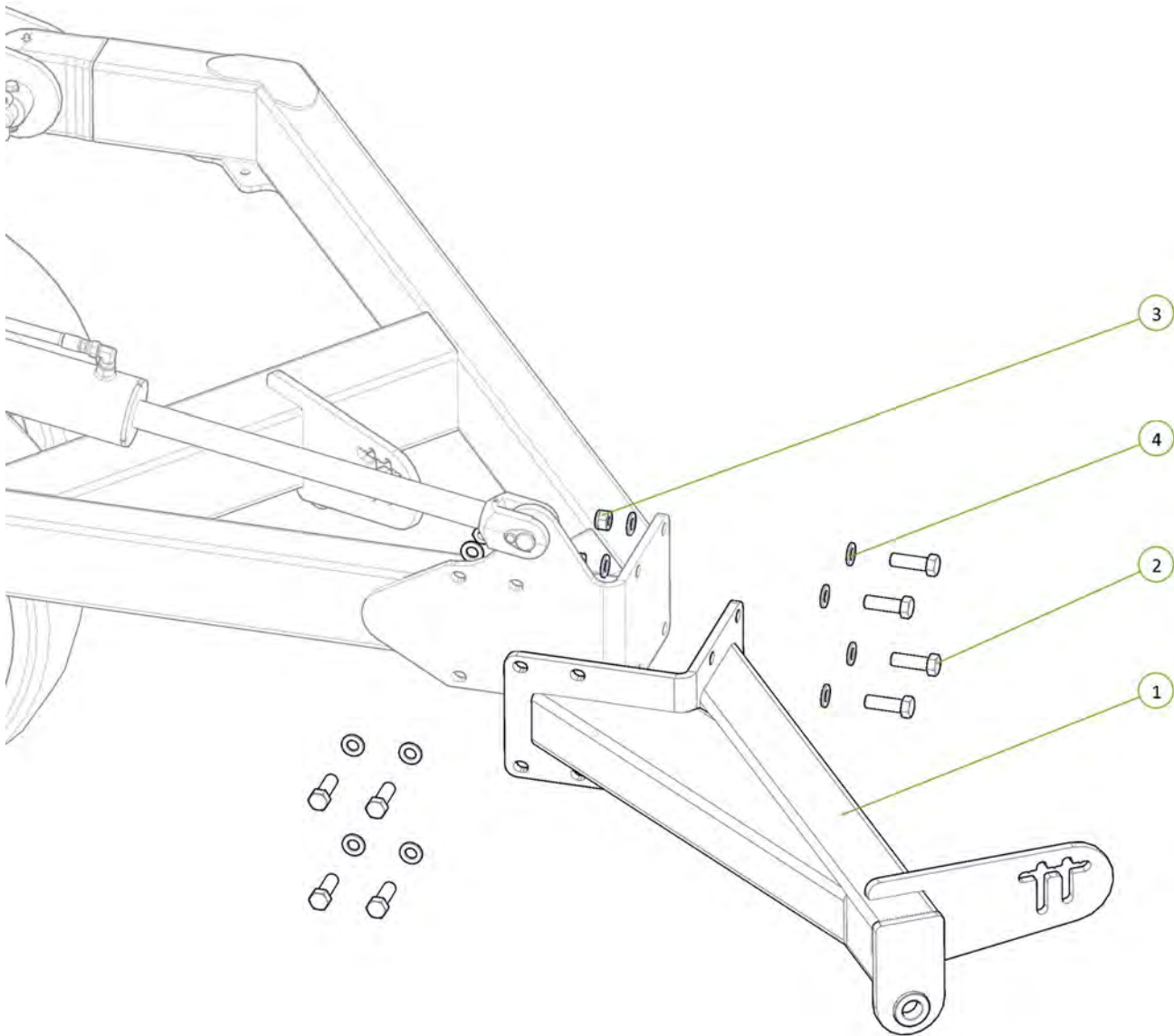
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212



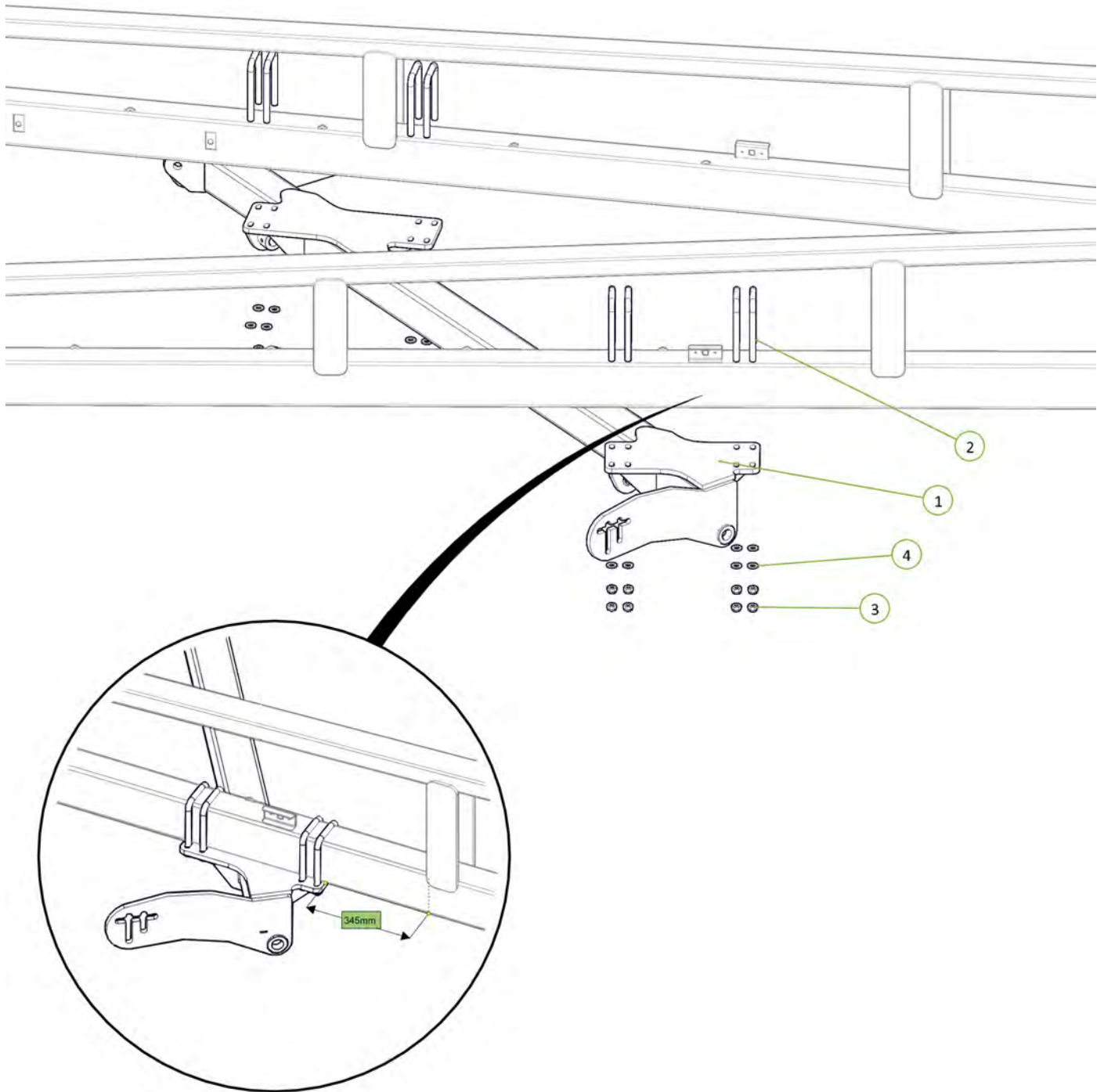
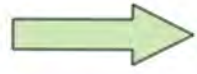
Item No.	Description	Qty	Number
1	TE1 Port to Tail Lift Cylinder Extend Port	1	H12-09
2	TR1 Port to Tail Lift Cylinder Retract Port	1	H12-10



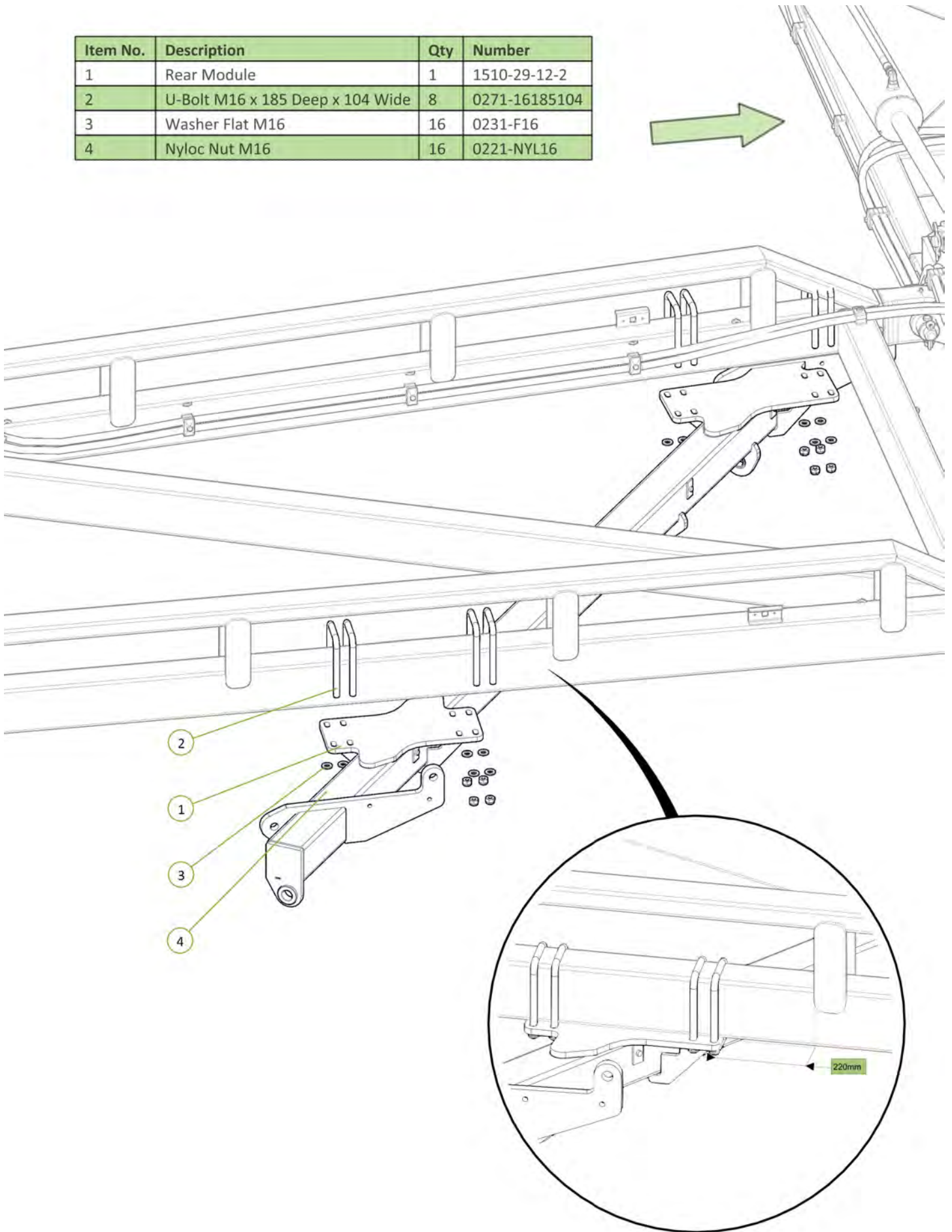
Item No.	Description	Qty	Number
1	Tail Extension	1	1510-40STE
2	M20 x 65 grade 8.8 ZP Bolt	8	0211-2065
3	Nyloc Nut M20	8	0221-NYL20
4	Washer Flat M20	16	0231-F20



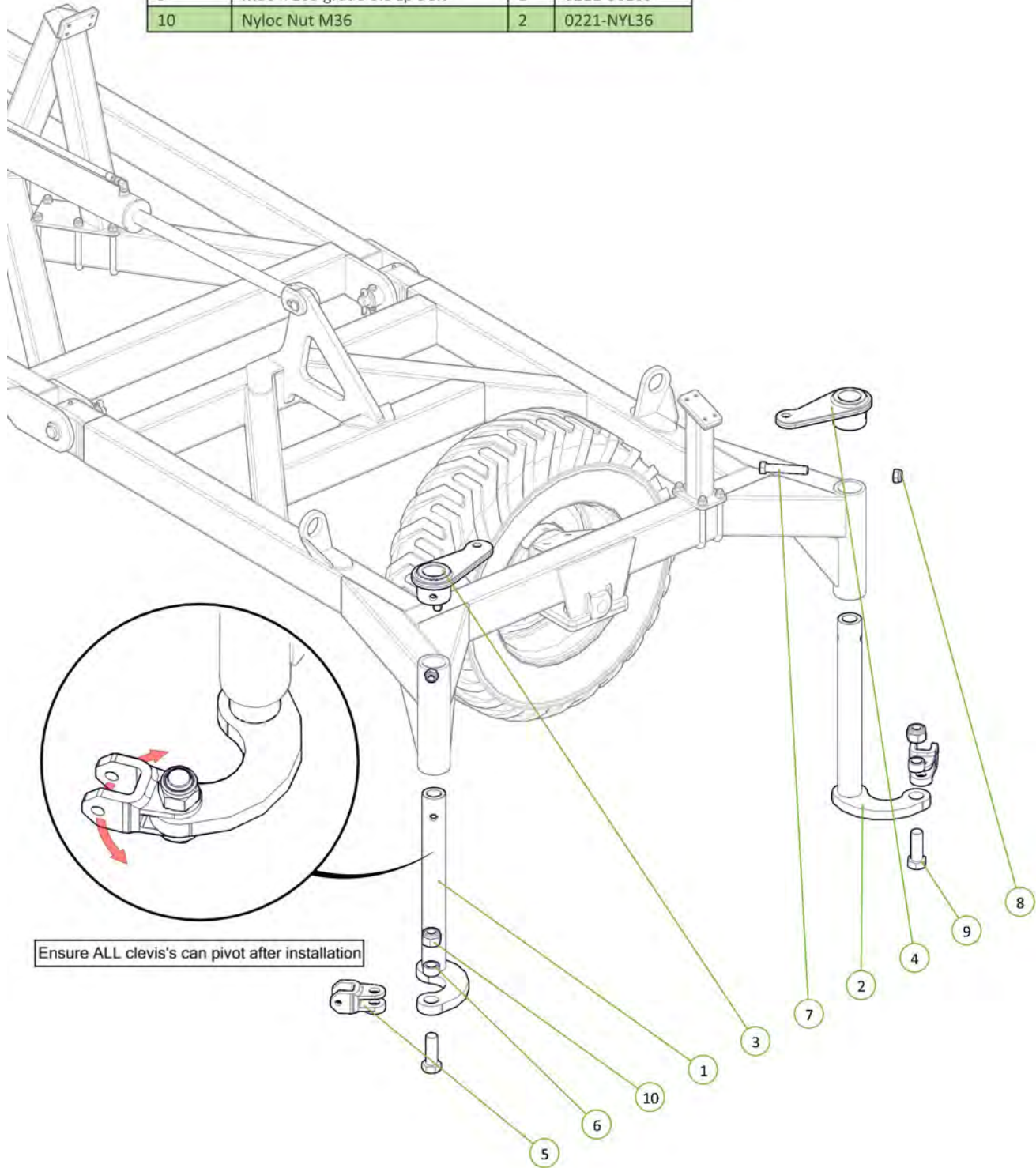
Item No.	Description	Qty	Number
1	Front Module	1	1510-28-12E
2	U-Bolt M16 x 185 Deep x 104 Wide	8	0271-16185104
3	Nyloc Nut M16	16	0221-NYL16
4	Washer Flat M16	16	0231-F16



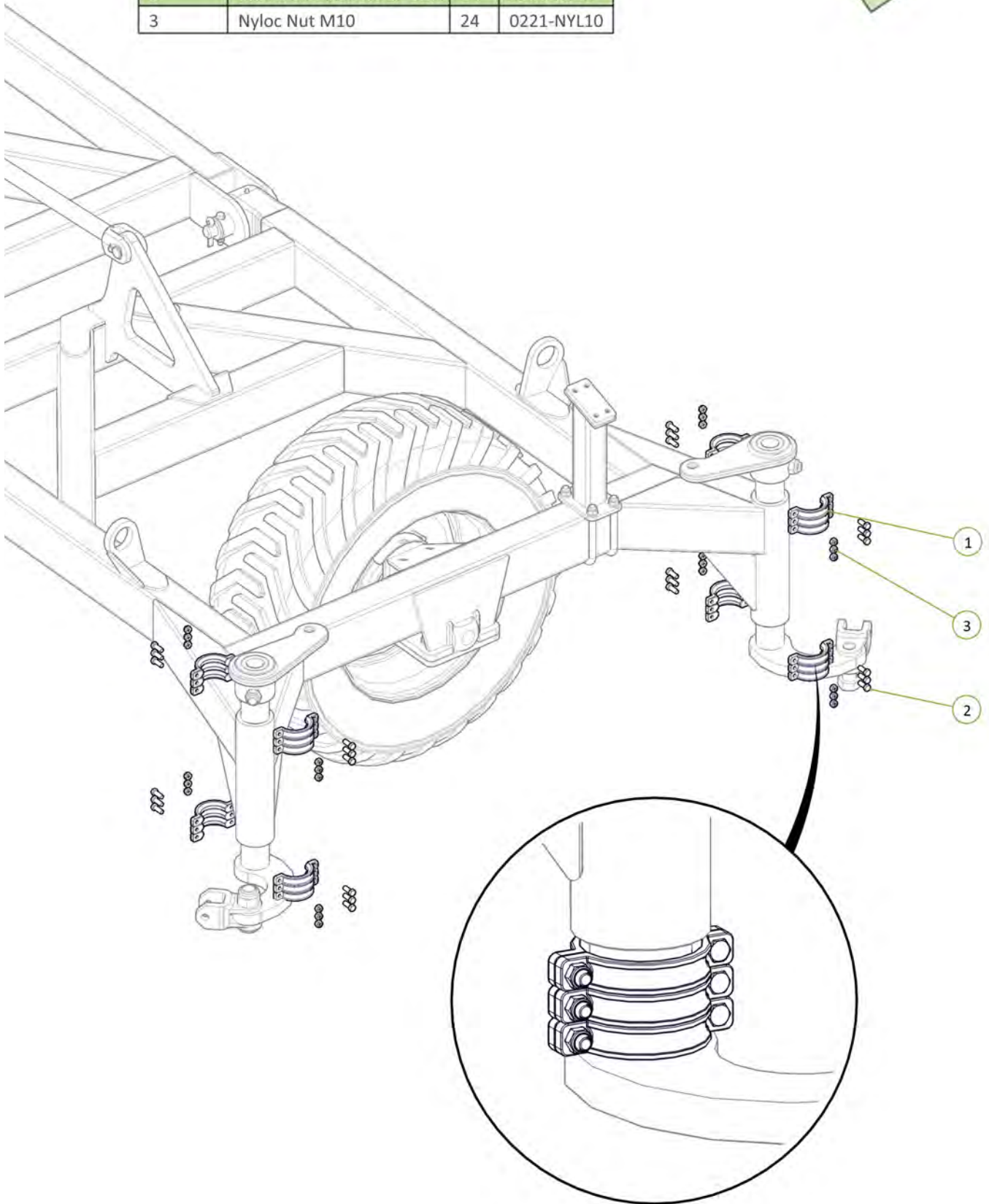
Item No.	Description	Qty	Number
1	Rear Module	1	1510-29-12-2
2	U-Bolt M16 x 185 Deep x 104 Wide	8	0271-16185104
3	Washer Flat M16	16	0231-F16
4	Nyloc Nut M16	16	0221-NYL16



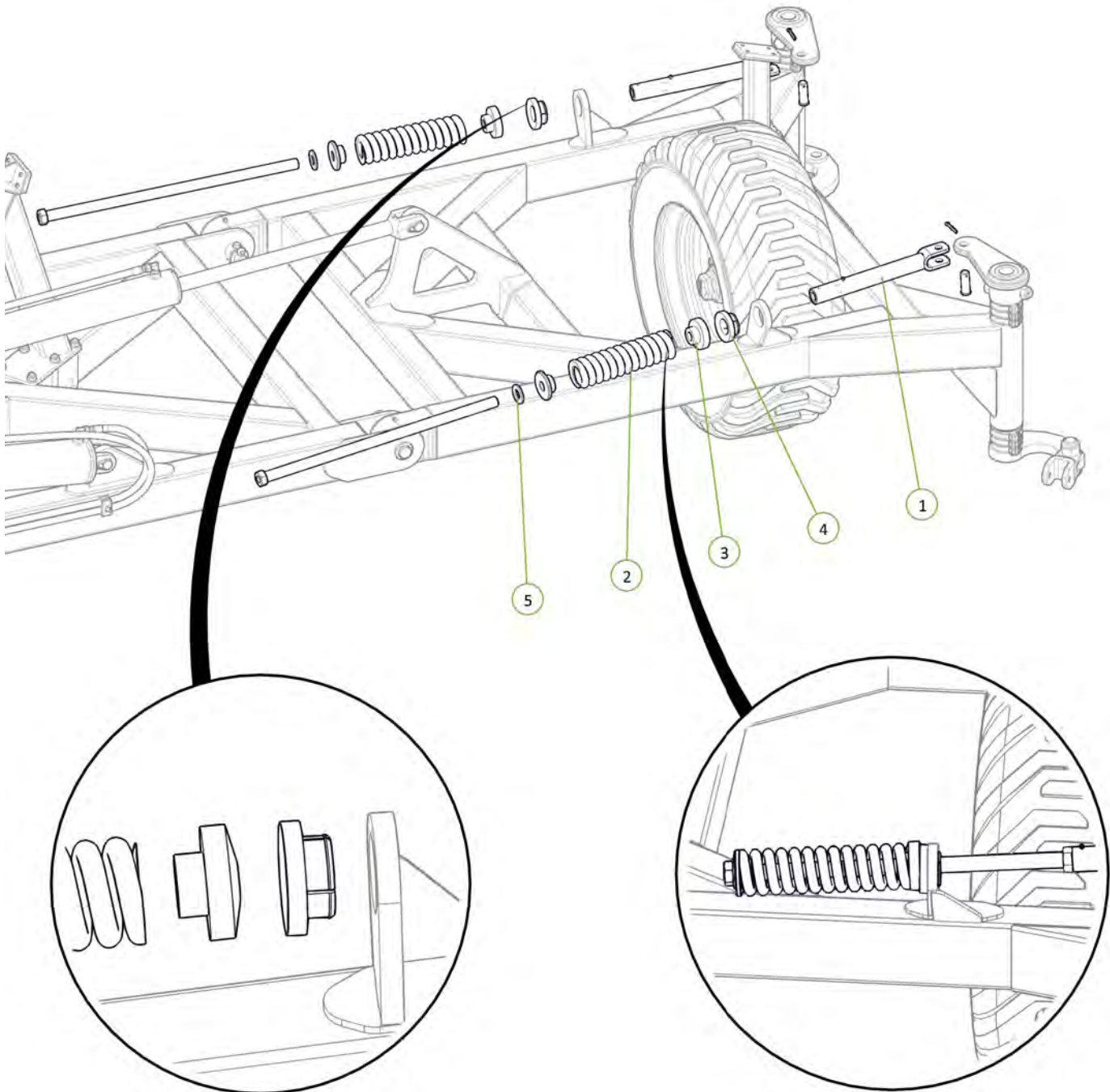
Item No.	Description	Qty	Number
1	Super Single LH Drop Leg No Clevis	1	0810-24SF
2	Super Single RH Drop Leg No Clevis	1	0810-25SF
3	LH Chain Adjusting Lug	1	0810-26
4	RH Chain Adjusting Lug	1	0810-27
5	Forged Clevis 21mm Bolt Hole	2	0801-FC21
6	Stainless Steel Wear Bush	2	1501-365033-SS
7	M24 x 140 grade 8.8 zp Bolt	2	0211-24140
8	Nyloc Nut M24	2	0221-NYL24
9	M36 x 105 grade 8.8 zp Bolt	2	0211-36105
10	Nyloc Nut M36	2	0221-NYL36



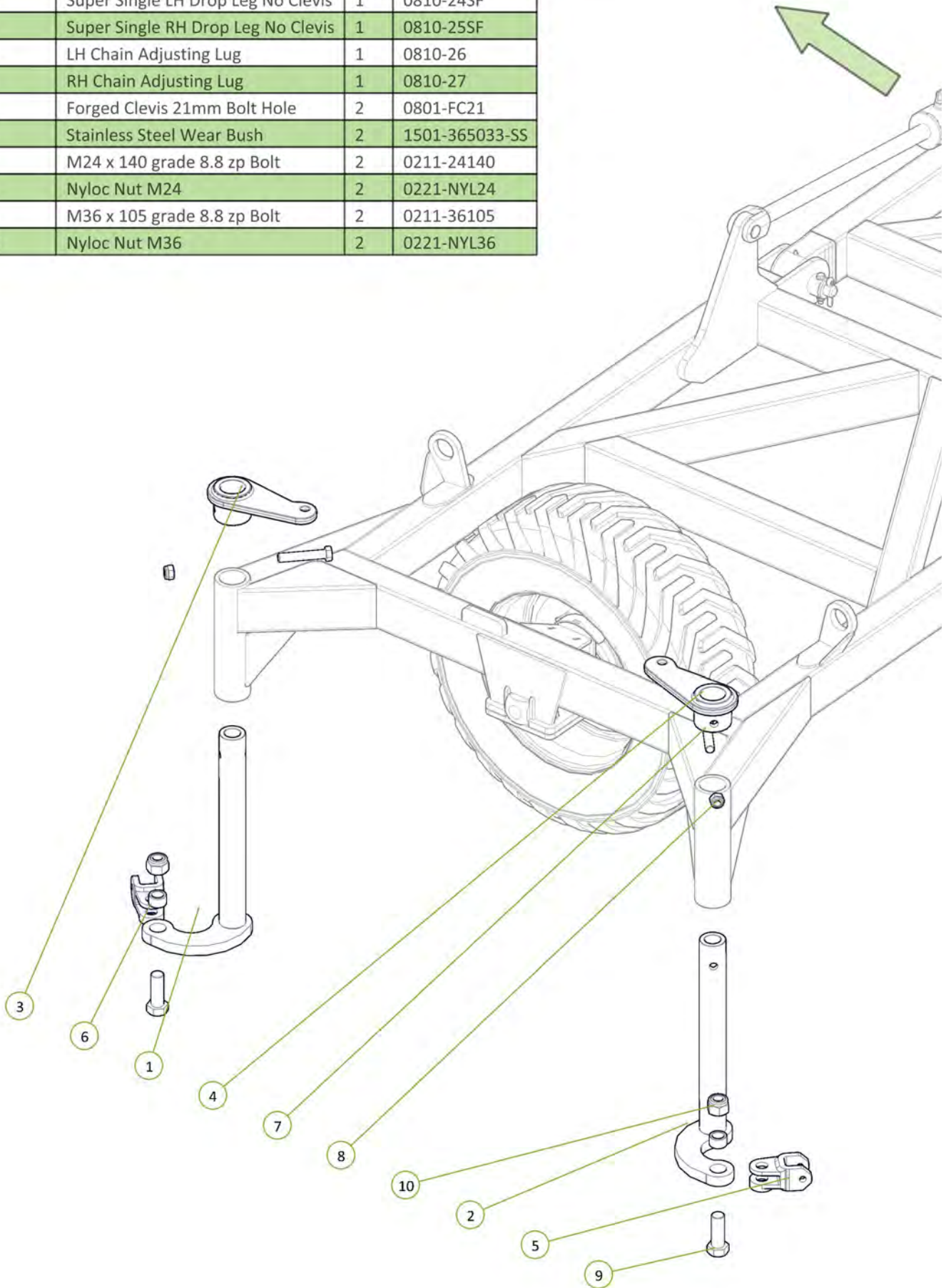
Item No.	Description	Qty	Number
1	Cast 25mm Spacing	24	0801-CS25
2	M10 x 30 Class 8.8 ZP Bolt	24	0211-1030
3	Nyloc Nut M10	24	0221-NYL10



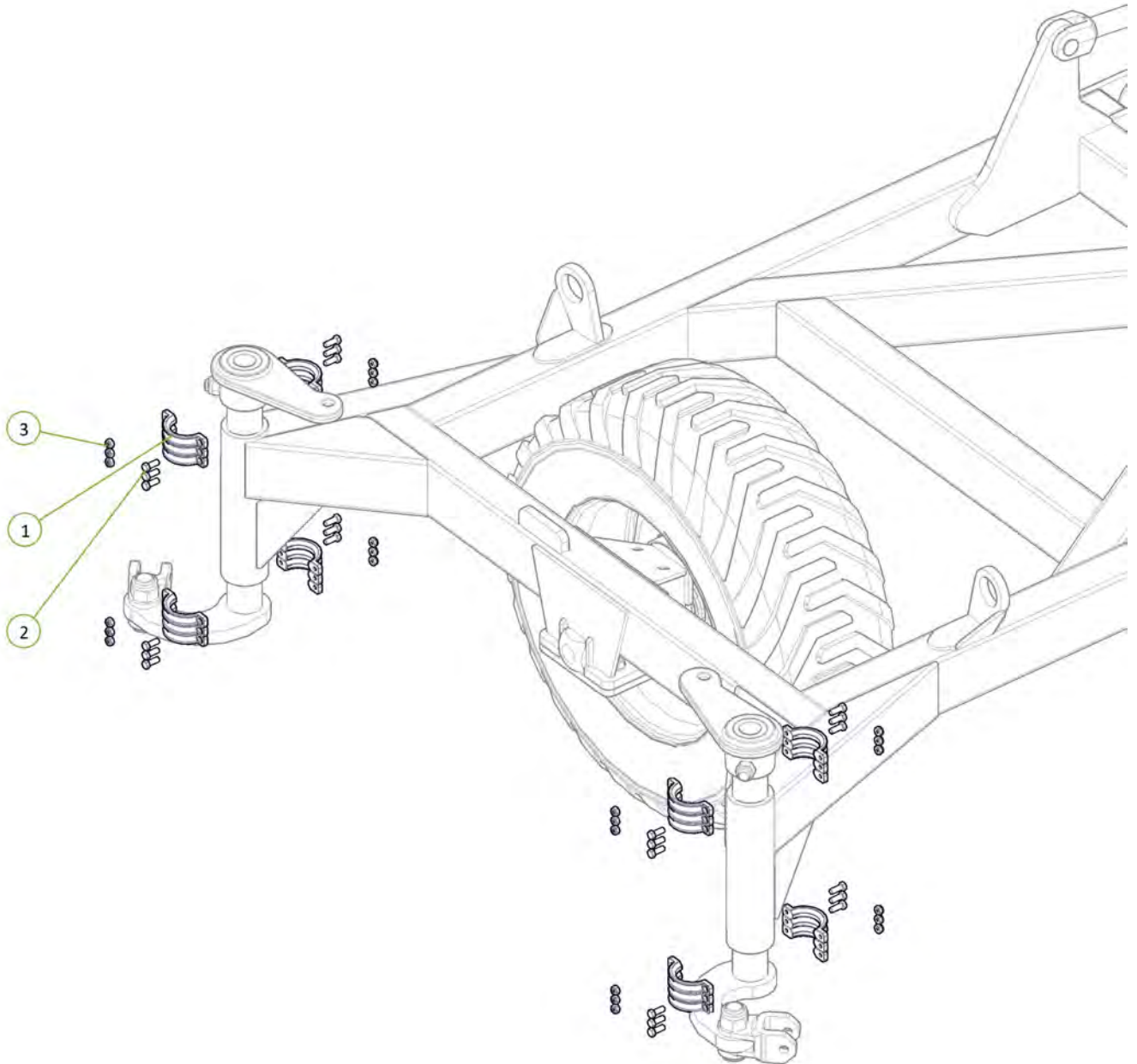
Item No.	Description	Qty	Number
1	Chain Tension Adjustor	2	0802-PCHTA
2	20mm Compression Spring	2	0801-XK9261S
3	Tensioner Cup - Male	2	0801-KE0805-3
4	Tensioner Cup - Female	2	0801-KE0805-4
5	Washer High Tensile 1 1/4"	2	0232-HT11-4



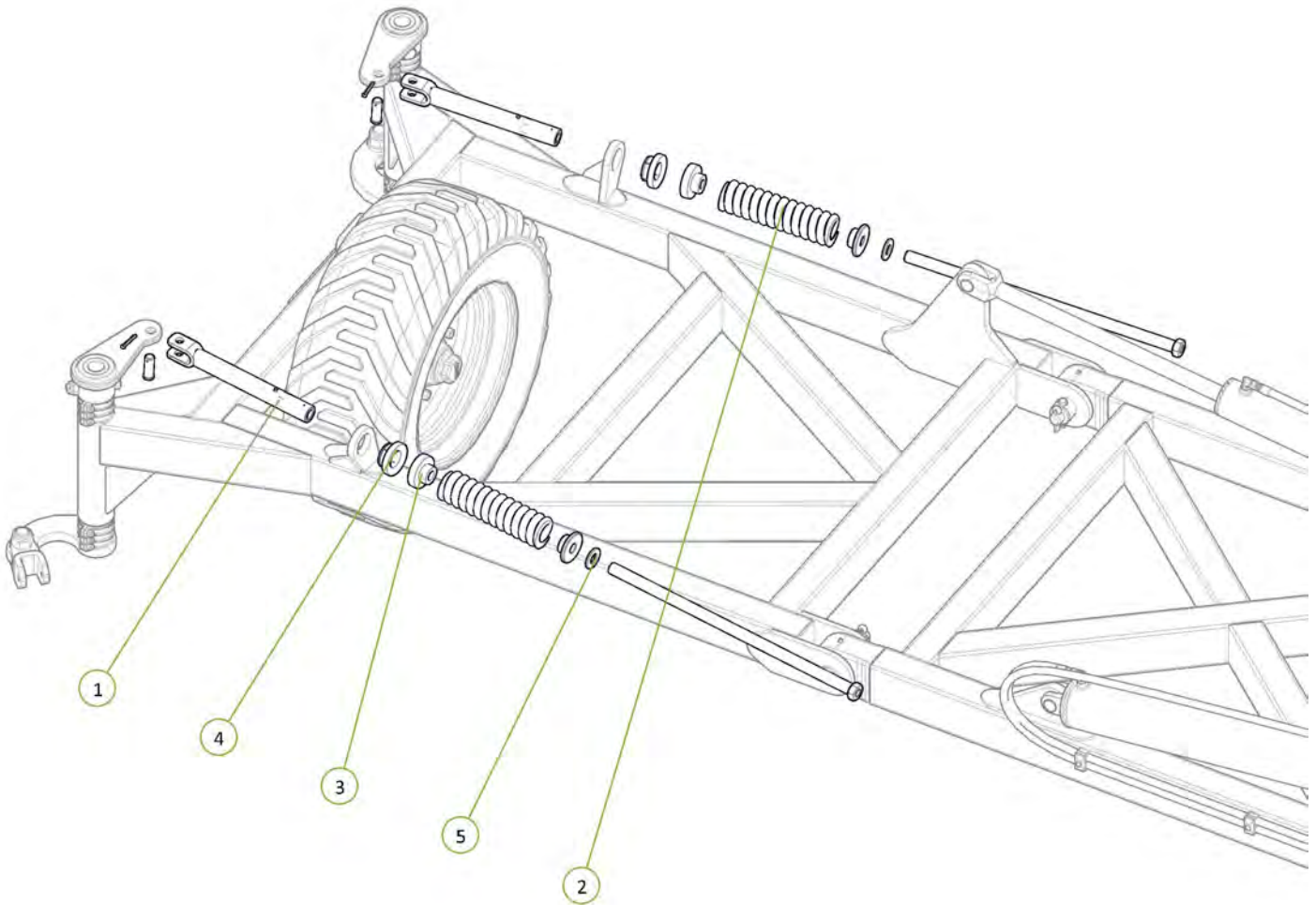
1	Super Single LH Drop Leg No Clevis	1	0810-24SF
2	Super Single RH Drop Leg No Clevis	1	0810-25SF
3	LH Chain Adjusting Lug	1	0810-26
4	RH Chain Adjusting Lug	1	0810-27
5	Forged Clevis 21mm Bolt Hole	2	0801-FC21
6	Stainless Steel Wear Bush	2	1501-365033-SS
7	M24 x 140 grade 8.8 zp Bolt	2	0211-24140
8	Nyloc Nut M24	2	0221-NYL24
9	M36 x 105 grade 8.8 zp Bolt	2	0211-36105
10	Nyloc Nut M36	2	0221-NYL36

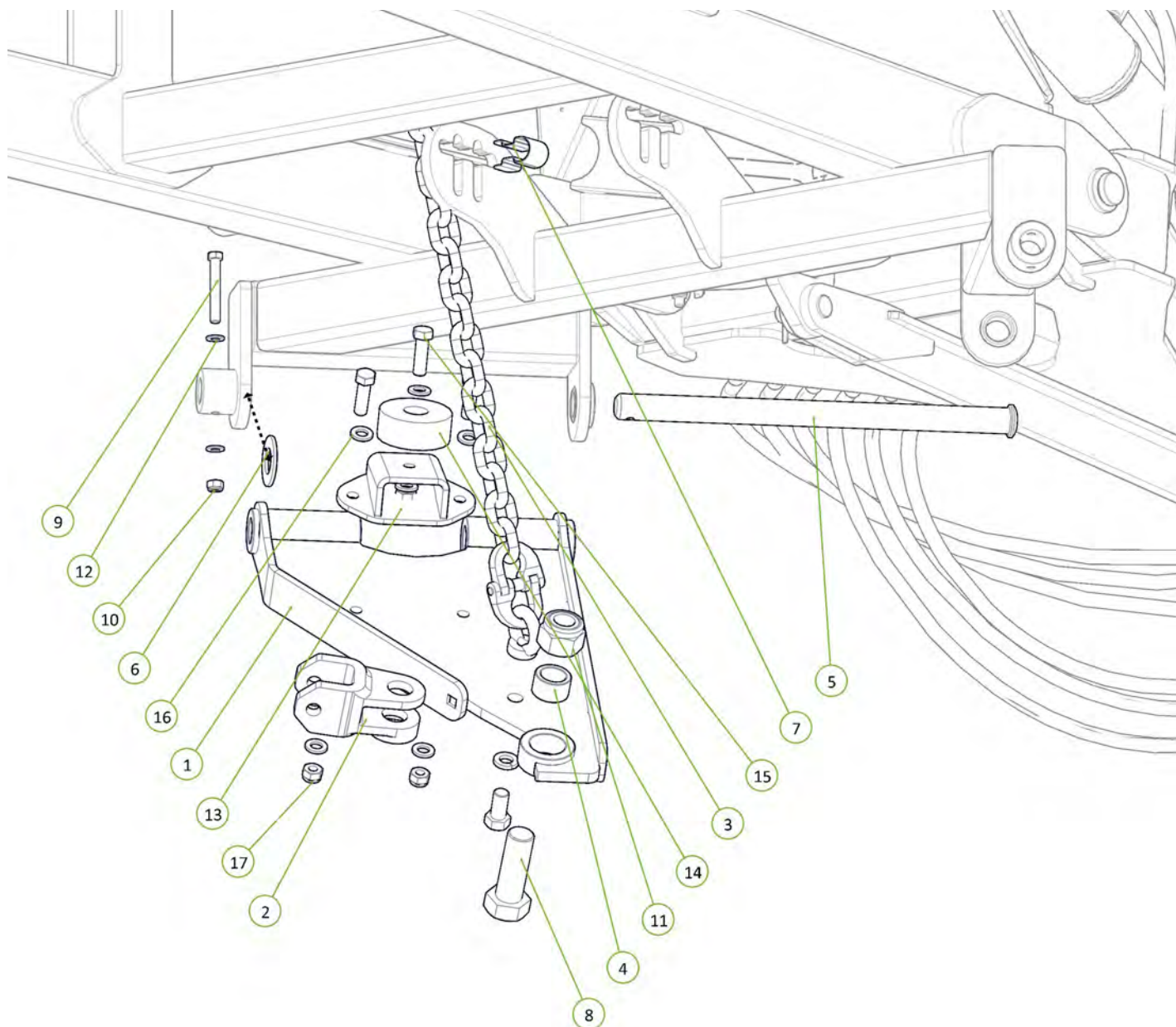


Item No.	Description	Qty	Number
1	Cast 25mm Spacing	24	0801-CS25
2	M10 x 30 Class 8.8 ZP Bolt	24	0211-1030
3	Nyloc Nut M10	24	0221-NYL10



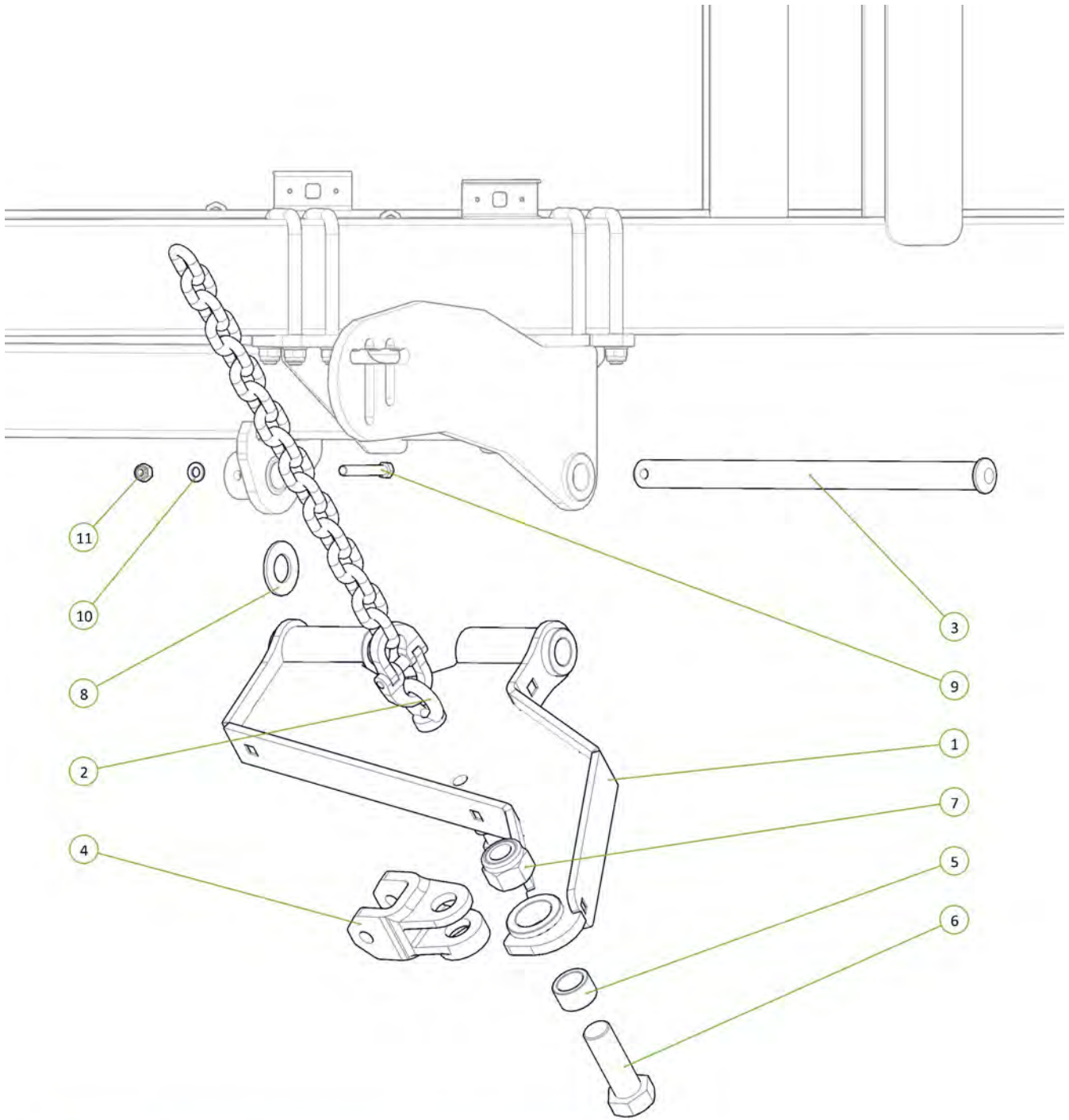
Item No.	Description	Qty	Number
1	Chain Tension Adjustor	2	0802-PCHTA
2	20mm Compression Spring	2	0801-XK9261S
3	Tensioner Cup - Male	2	0801-KE0805-3
4	Tensioner Cup - Female	2	0801-KE0805-4
5	Washer High Tensile 1 1/4"	2	0232-HT11-4





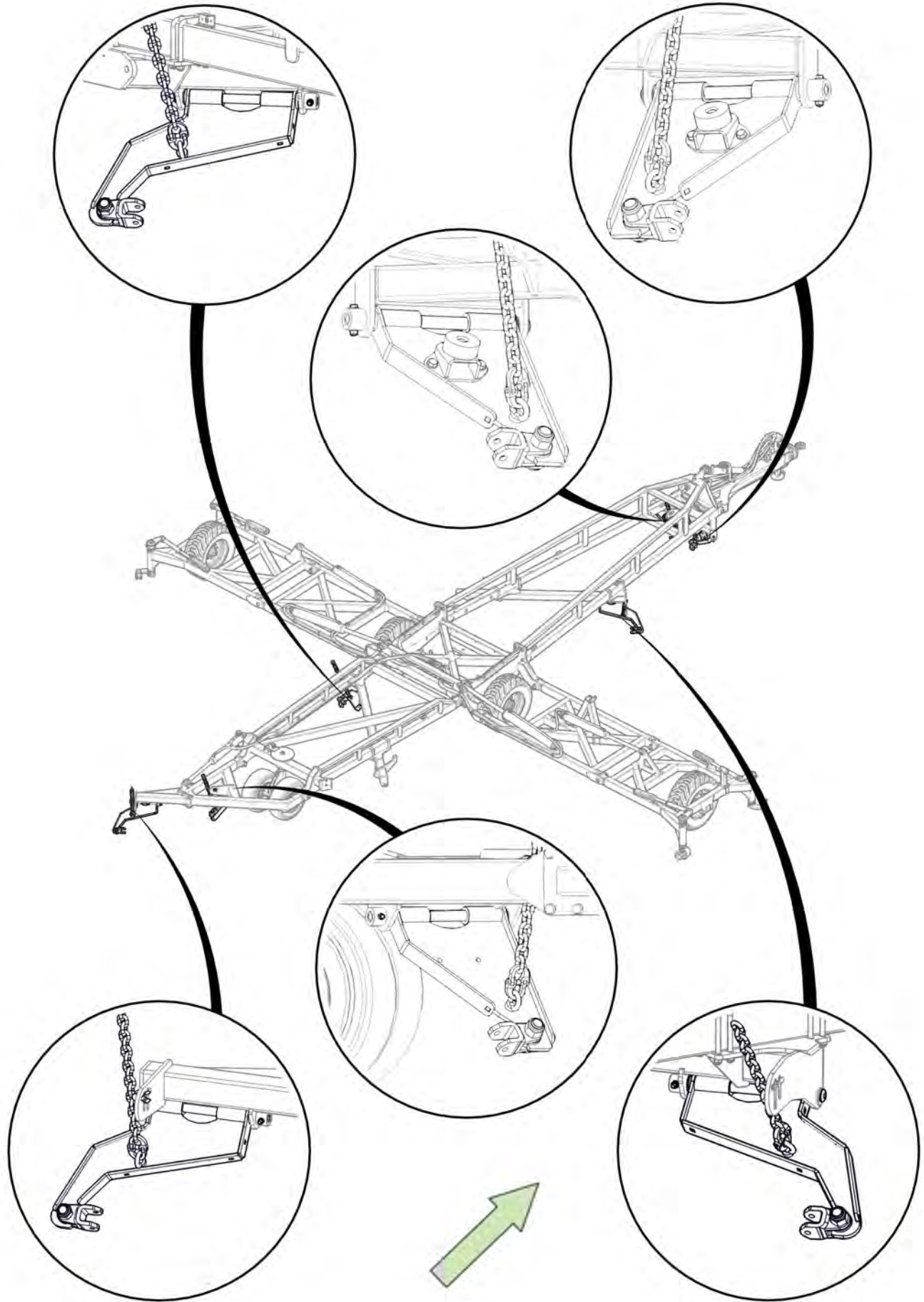
Item No.	Description	Qty	Number
1	Standard Chain Mount Plate	1	0810-20
2	Forged Clevis 21mm Bolt Hole	1	0801-FC21
3	Height Adjusting Chain Assembly 17 Link	1	0801-20MCA-17
4	Stainless Steel Wear Bush	1	1501-365033-SS
5	Chain Mount Pivot Pin	1	0801-10-51
6	Washer High Tensile 1 3/8"	1	0232-HT13-8
7	Height Adjustor Retaining Clip	1	0801-KE014
8	M36 Grade 8.8 ZP Bolt	1	0211-36105
9	M12 x 90 Class 10.9 ZP Bolt	1	0211-1290HT
10	Nyloc Nut M12	1	0221-NYL12
11	Nyloc Nut M36	1	0221-NYL36
12	Washer Flat M12	2	0231-F12
13	Buffer Mount	1	0810-43
14	Wing Folding Buffer	1	1201-12
15	M16 x 55 Class 8.8 ZP Bolt	3	0211-1655
16	Washer Flat M16	6	0231-F16
17	Nyloc Nut M16	3	0221-NYL16

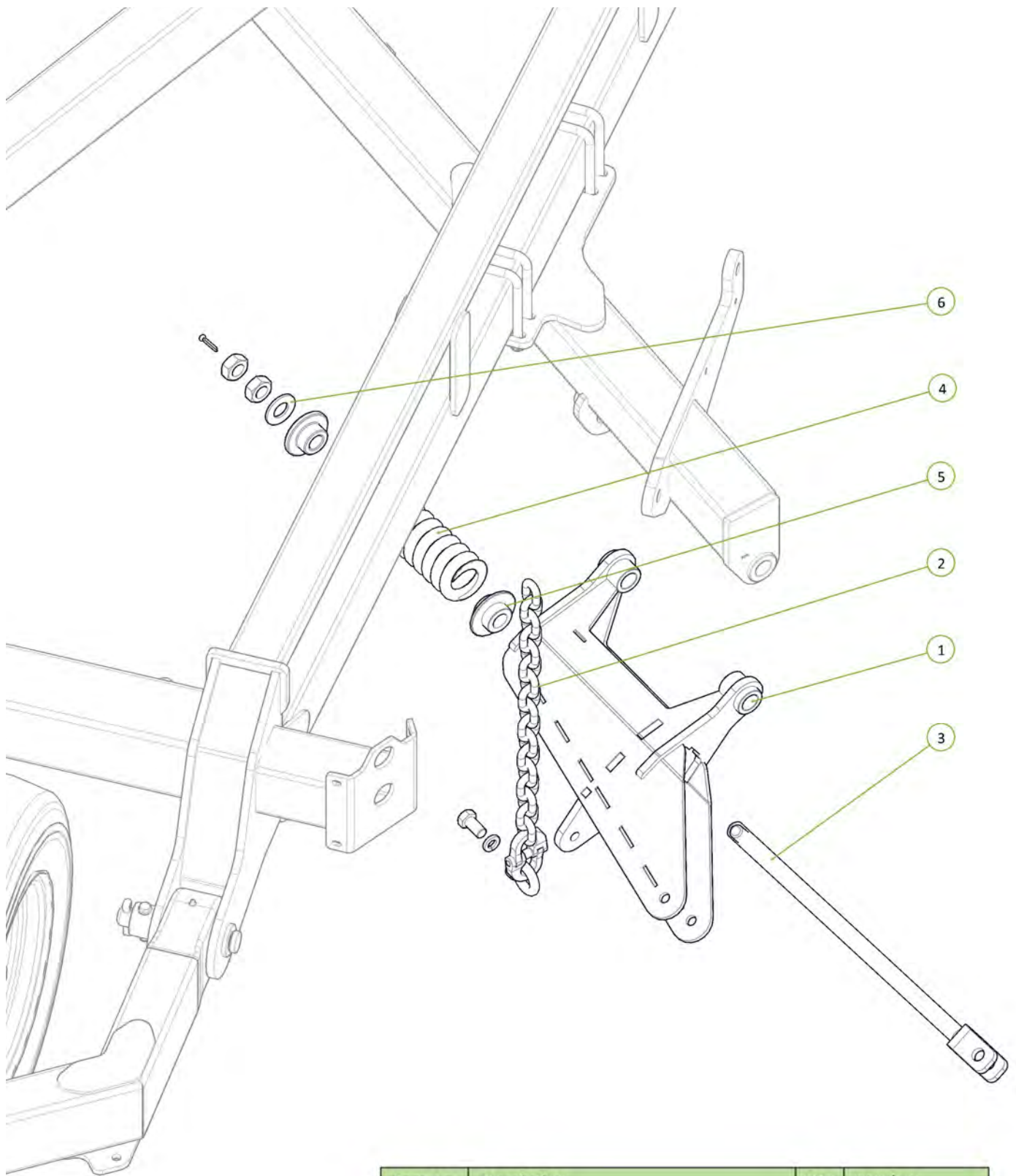




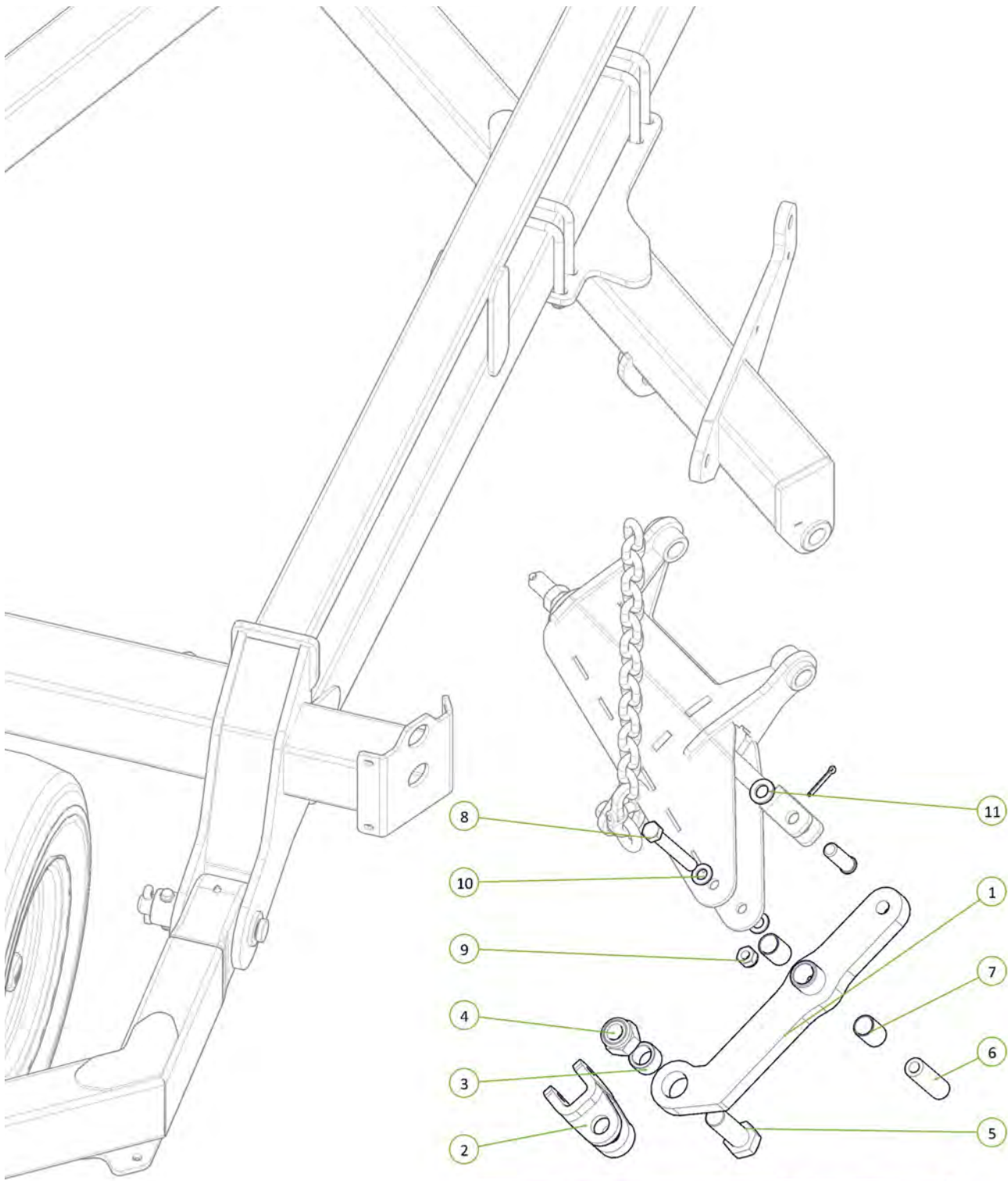
Item No.	Description	Qty	Number
1	Extended Chain Mount Plate	1	0810-69
2	Height Adjusting Chain Assembly 17 Link	1	0801-20MCA-17
3	Chain Mount Pivot Pin	1	0801-10-51
4	Forged Clevis 21mm Bolt Hole	1	0801-FC21
5	Wear Bush	1	1501-365033-SS
6	M36 x 105 Class 8.8 ZP Bolt	1	0211-36105
7	Nyloc Nut M36	1	0221-NYL36
8	Washer High Tensile 1 3/8"	1	0232-HT13-8
9	M12 x 90 Class 10.9 ZP Bolt	1	0211-1290HT
10	Washer Flat M12	2	0231-F12
11	Nyloc Nut M12	1	0221-NYL12



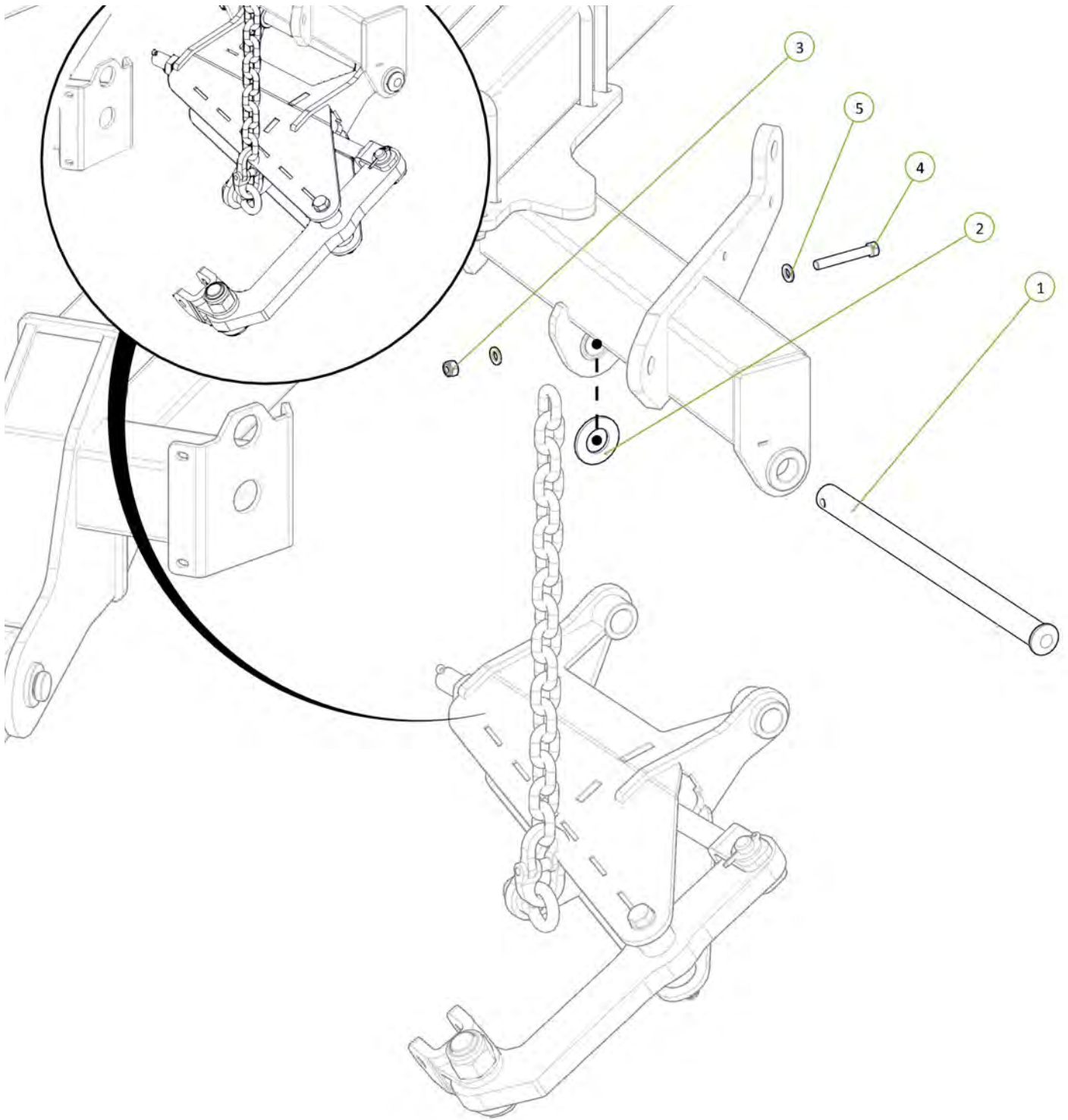




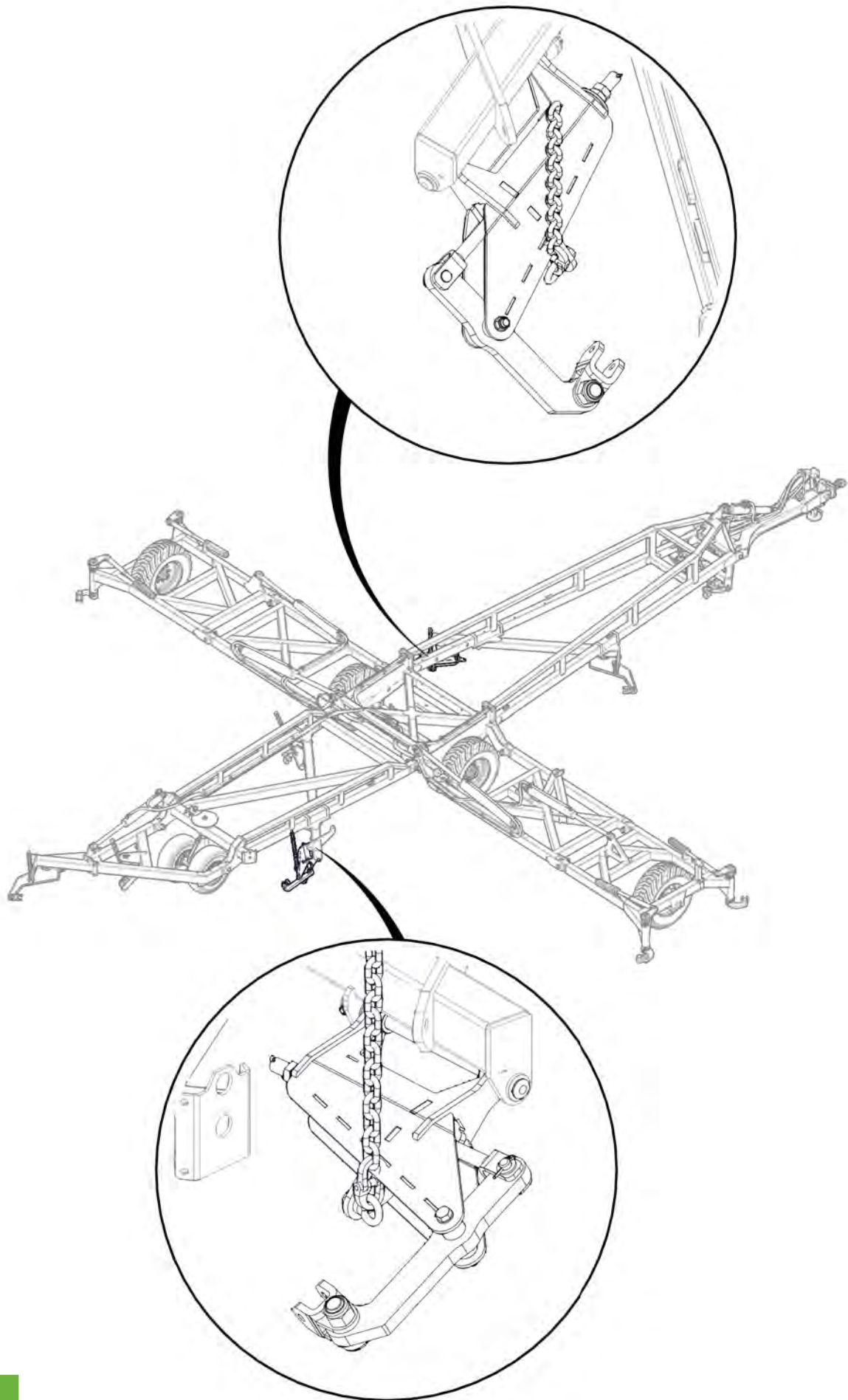
Item No.	Description	Qty	Number
1	Tension Box	1	0810-57
2	Height Adjusting Chain Assembly 17 Link	1	0801-20MCA-17
3	Module Tension Rod Assembly	1	0810-105A
4	20mm Compression Spring	1	0801-XK9261S
5	Rigid Spring Locator	1	0801-10-S2L
6	Washer High Tensile 1 1/4"	1	0232-HT11-4



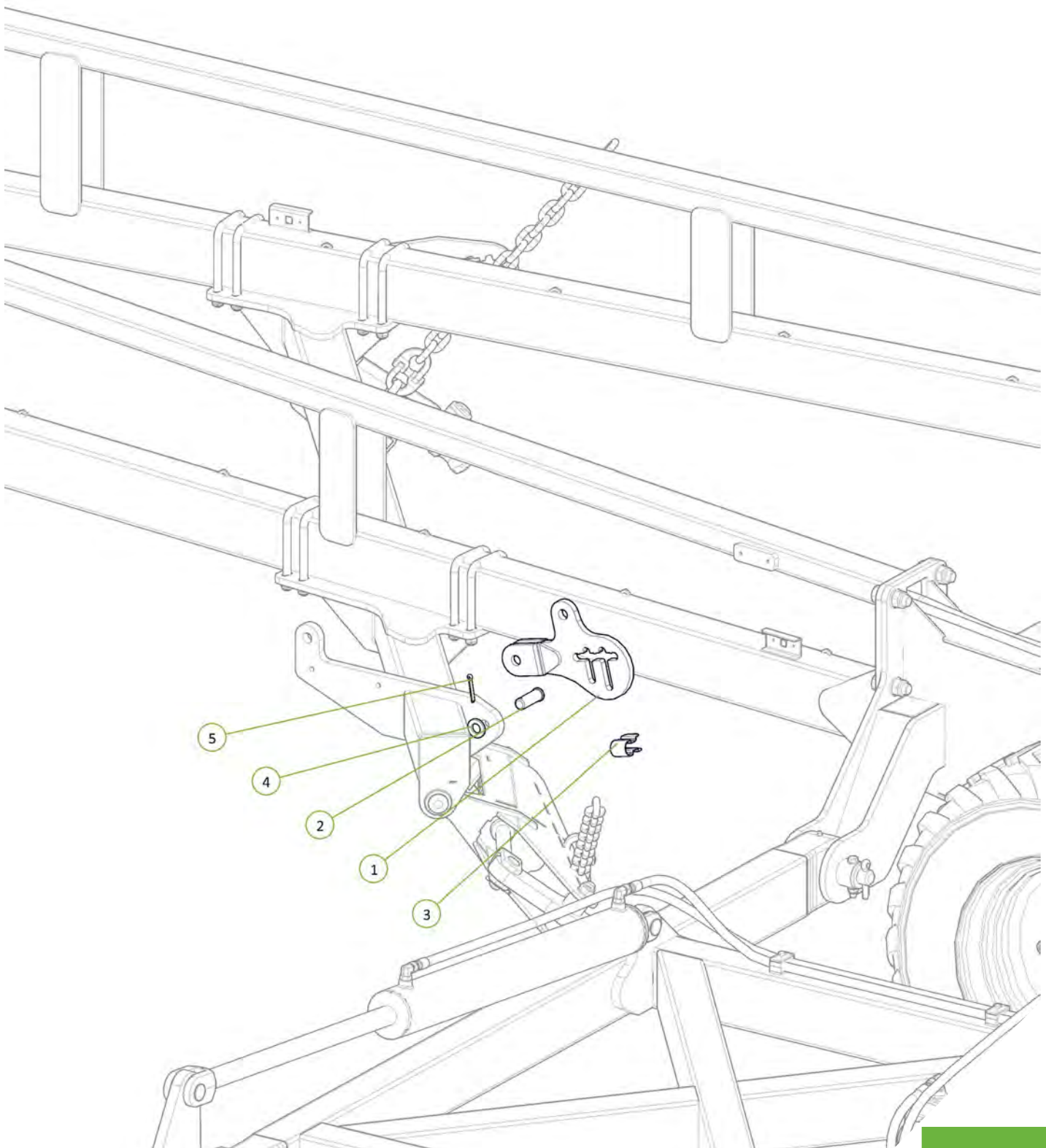
Item No.	Description	Qty	Number
1	Module Tension Arm No Clevis	1	0810-104F
2	Forged Clevis 21mm Bolt Hole	1	0801-FC21
3	Wear Bush	1	1501-365033-SS
4	Nyloc Nut M36	1	0221-NYL36
5	M36 x 105 Class 8.8 ZP Bolt	1	0211-36105
6	Module Pivot Arm Bush	1	0801-10-110
7	35 ID x 50mm DU Bush	2	0113-MB3550DU
8	M20 x 160 Class 8.8 ZP Bolt	1	0211-20160
9	Nyloc Nut M20	1	0221-NYL20
10	Washer Flat M20	2	0231-F20
11	Washer Flat M24	1	0231-F24



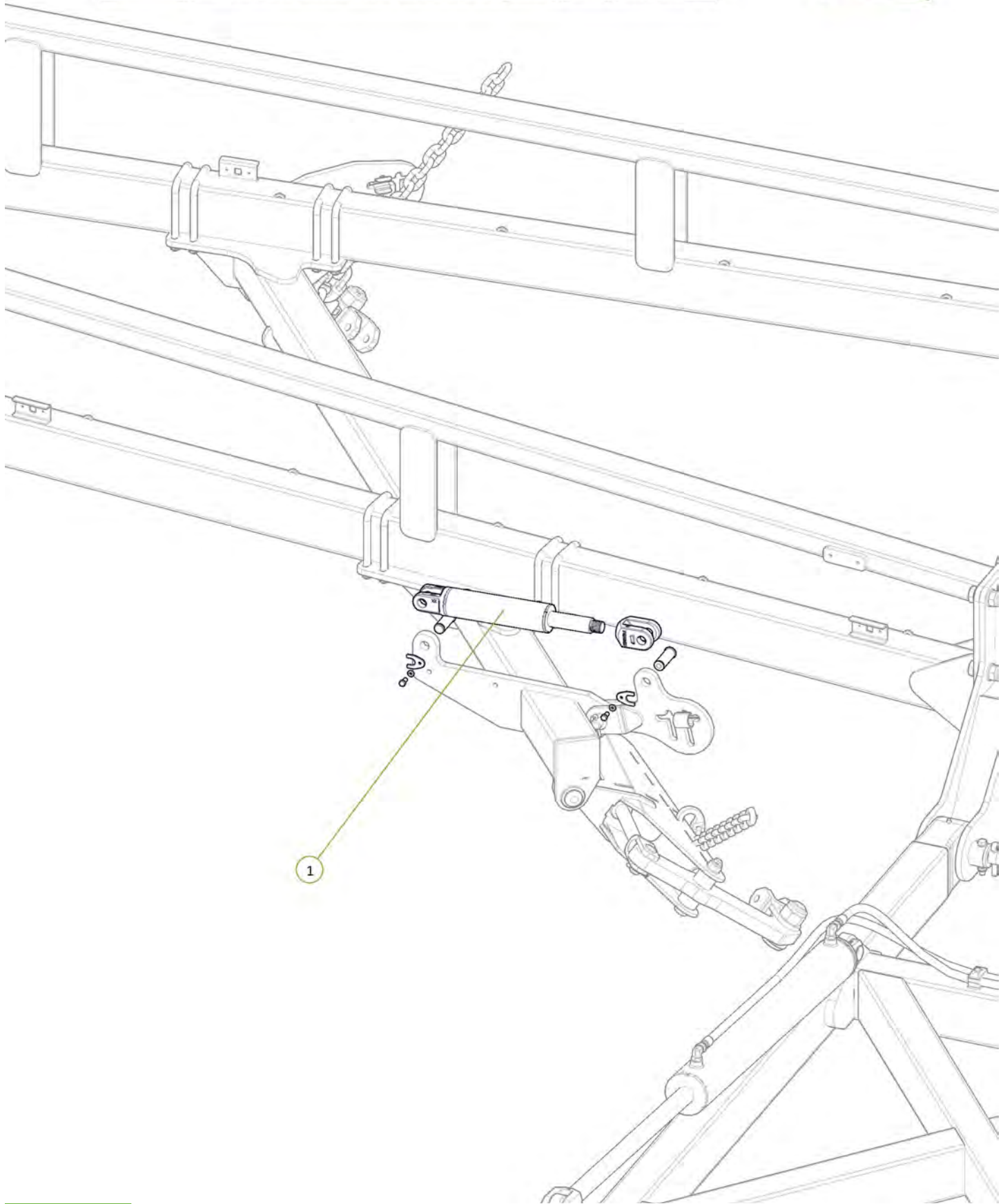
Item No.	Description	Qty	Number
1	Chain Mount Pivot Pin	1	0801-10-51
2	Washer High Tensile 1 3/8"	1	0232-HT13-8
3	Nyloc Nut M12	1	0221-NYL12
4	M12 x 90 Class 10.9 ZP Bolt	1	0211-1290HT
5	Washer Flat M12	2	0231-F12



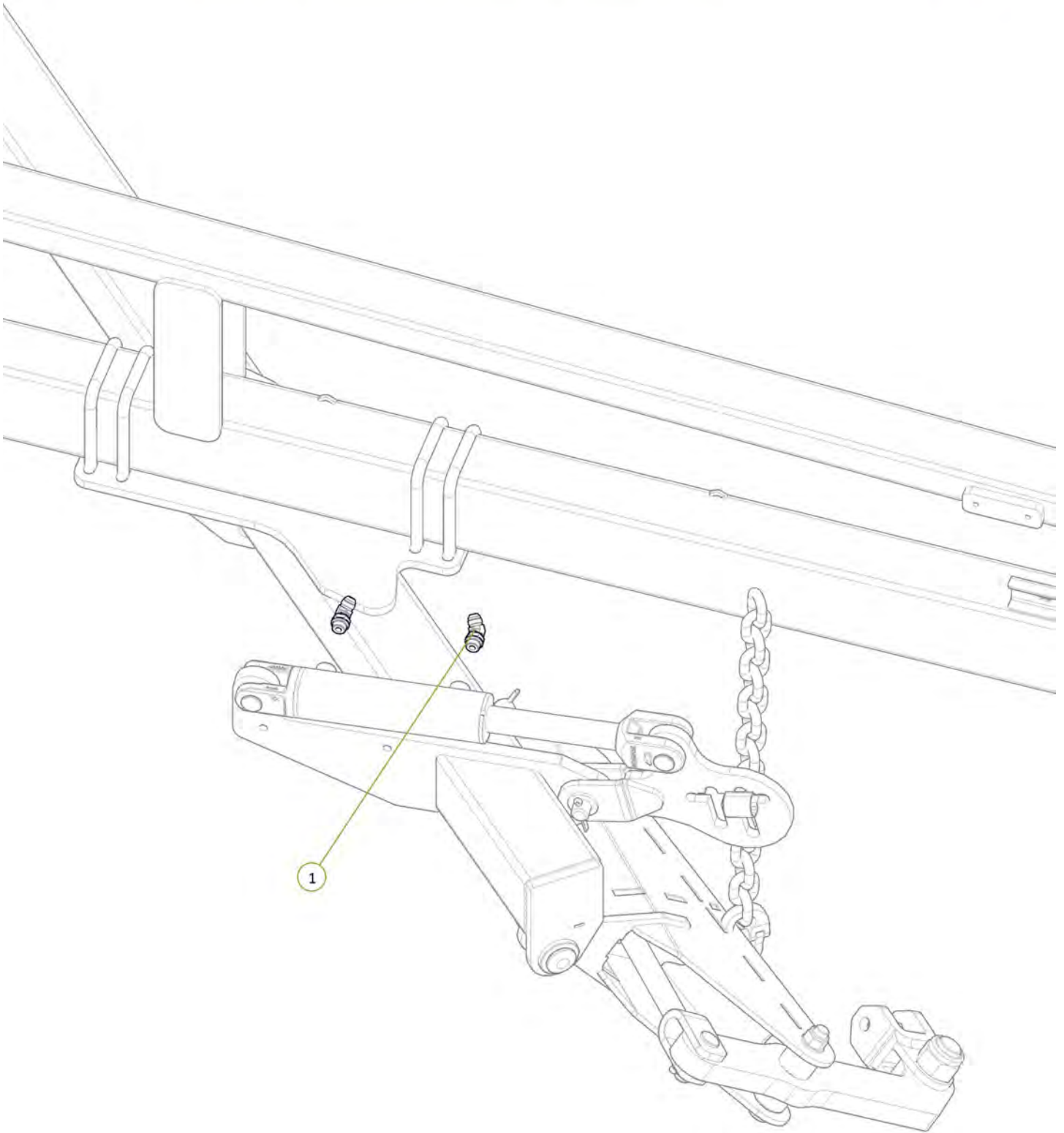
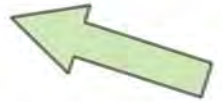
Item No.	Description	Qty	Number
1	Compact Module Lift Arm	1	0810-51E
2	Clevis Pin 25mm x 75mm	1	0801-KE0307-1
3	Height Adjustor Retaining Clip	1	0801-KE014
4	Washer Flat M24	1	0231-F24
5	Cotter Pin M5 x 50	1	0261-PINC550



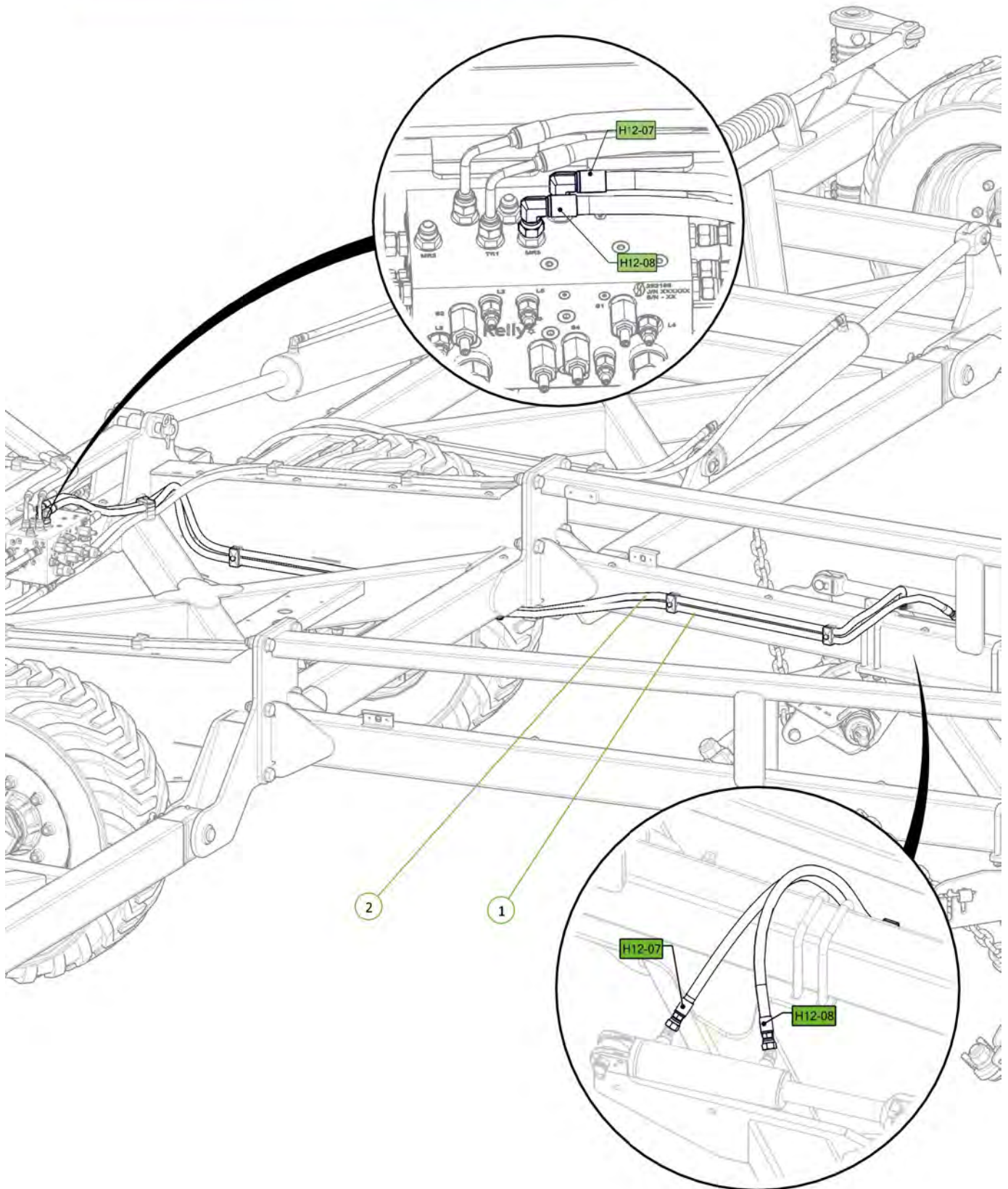
Item No.	Description	Qty	Number
1	2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder	1	0311-256SP



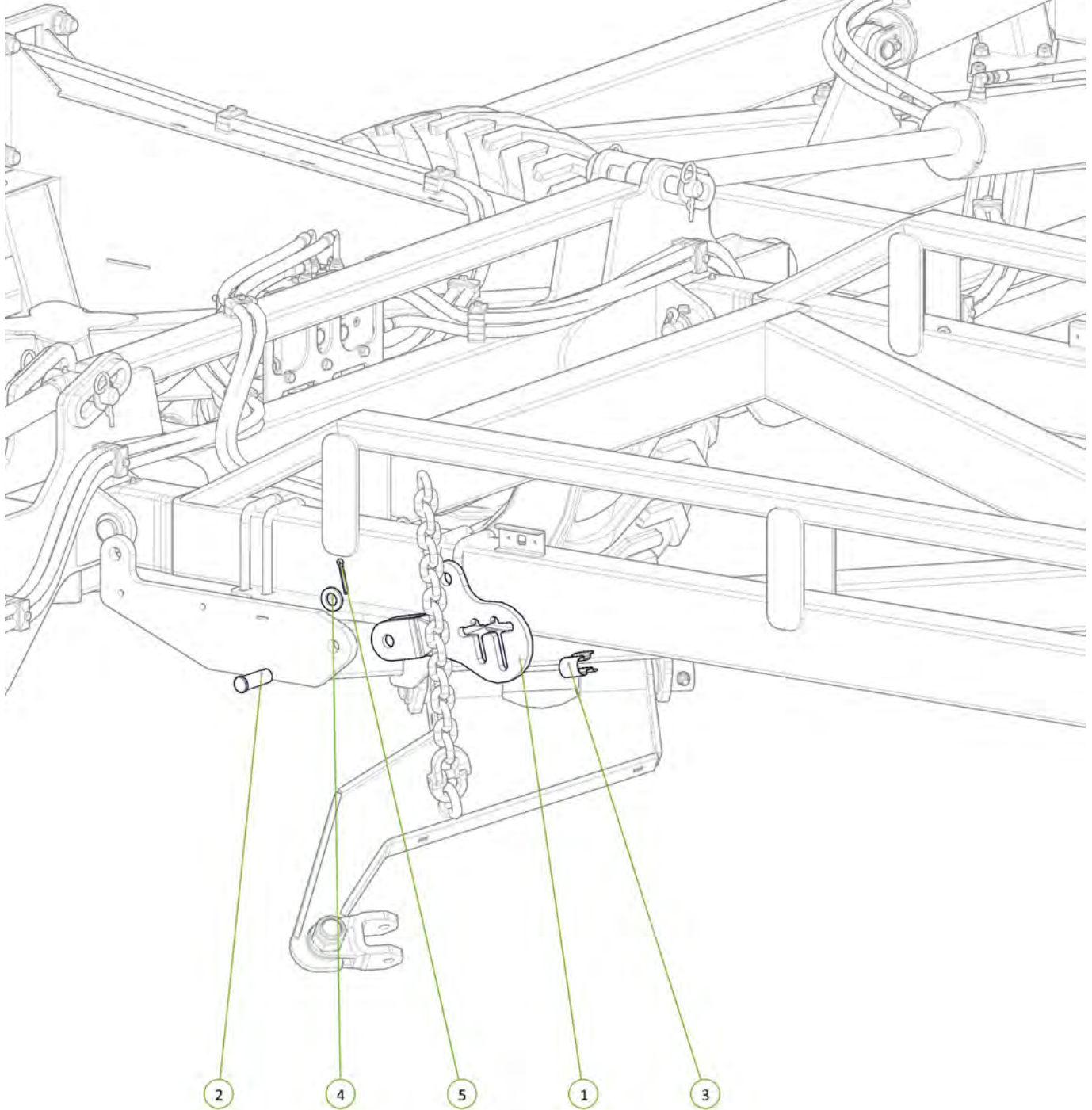
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 45° Elbow	2	0323-S88-1212



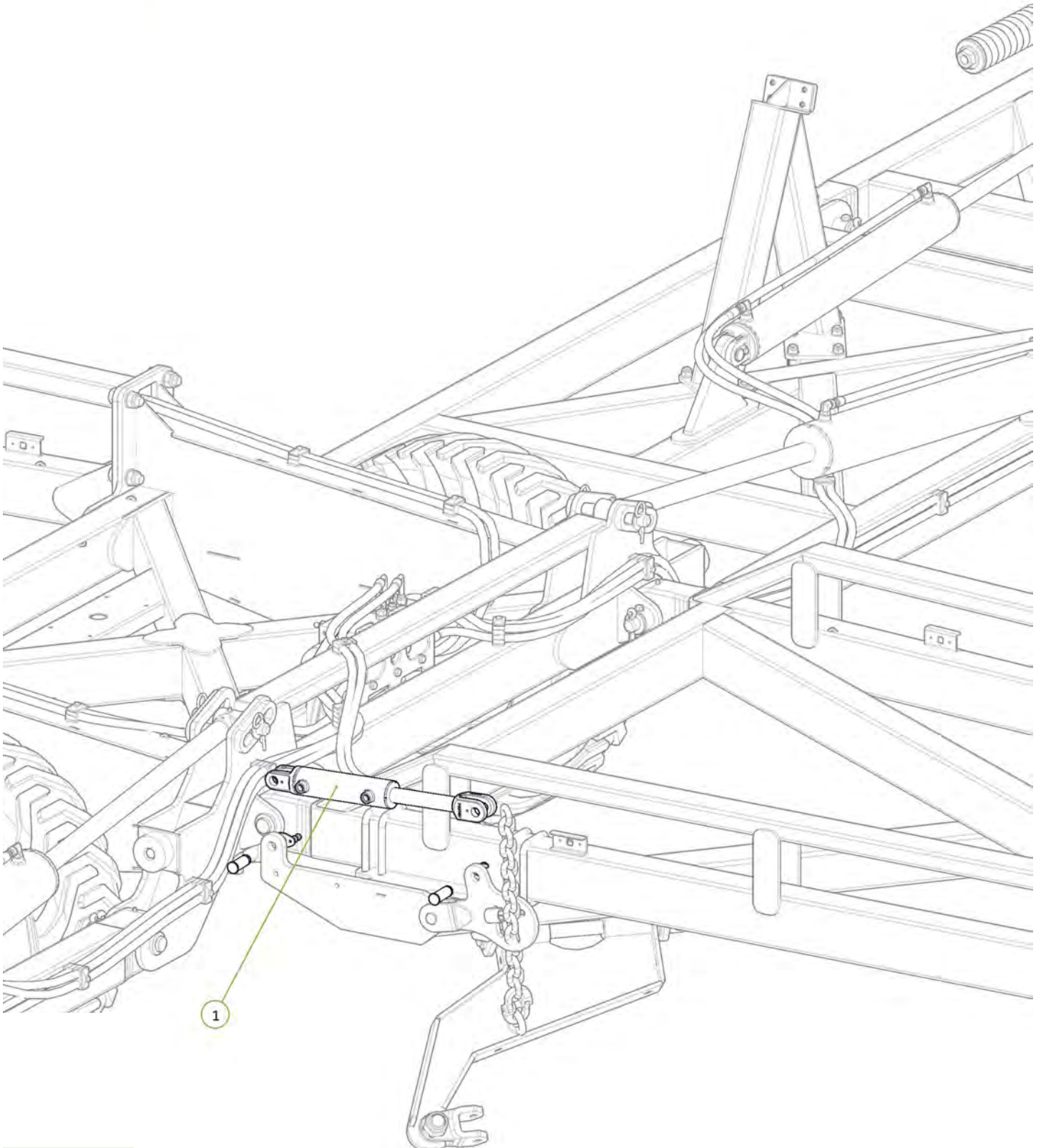
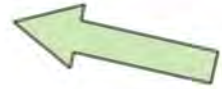
Item No.	Description	Qty	Number
1	ME3 to Front Cylinder Extend Port	1	H12-07
2	MR3 to Front Module Retract Port	1	H12-08

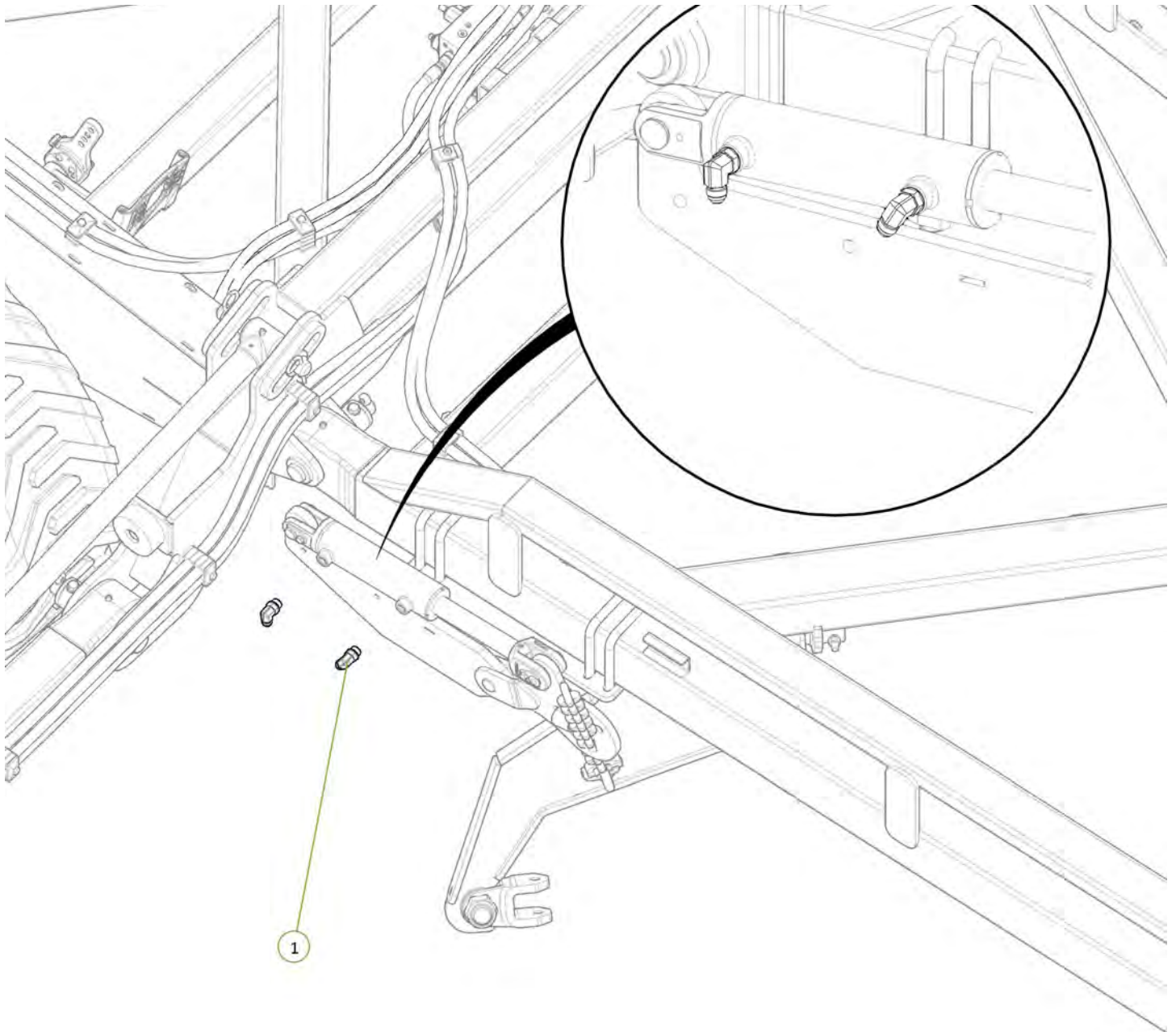


Item No.	Description	Qty	Number
1	Compact Module Lift Arm	1	0810-51E
2	Clevis Pin 25mm x 75mm	1	0801-KE0307-1
3	Height Adjustor Retaining Clip	1	0801-KE014
4	Washer Flat M24	1	0231-F24
5	Cotter Pin M5 x 50	1	0261-PINC550



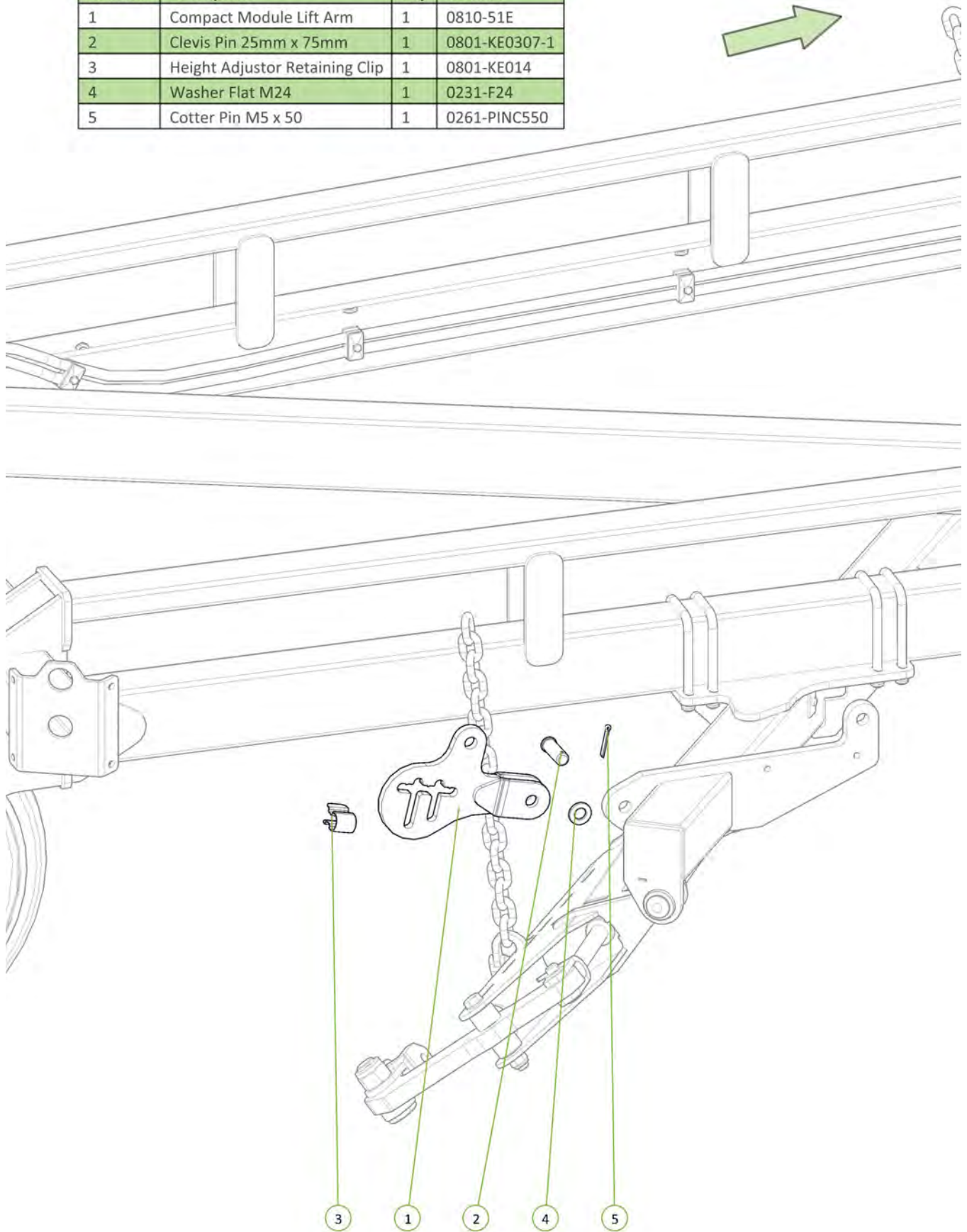
Item No.	Description	Qty	Number
1	2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder	1	0311-256SP



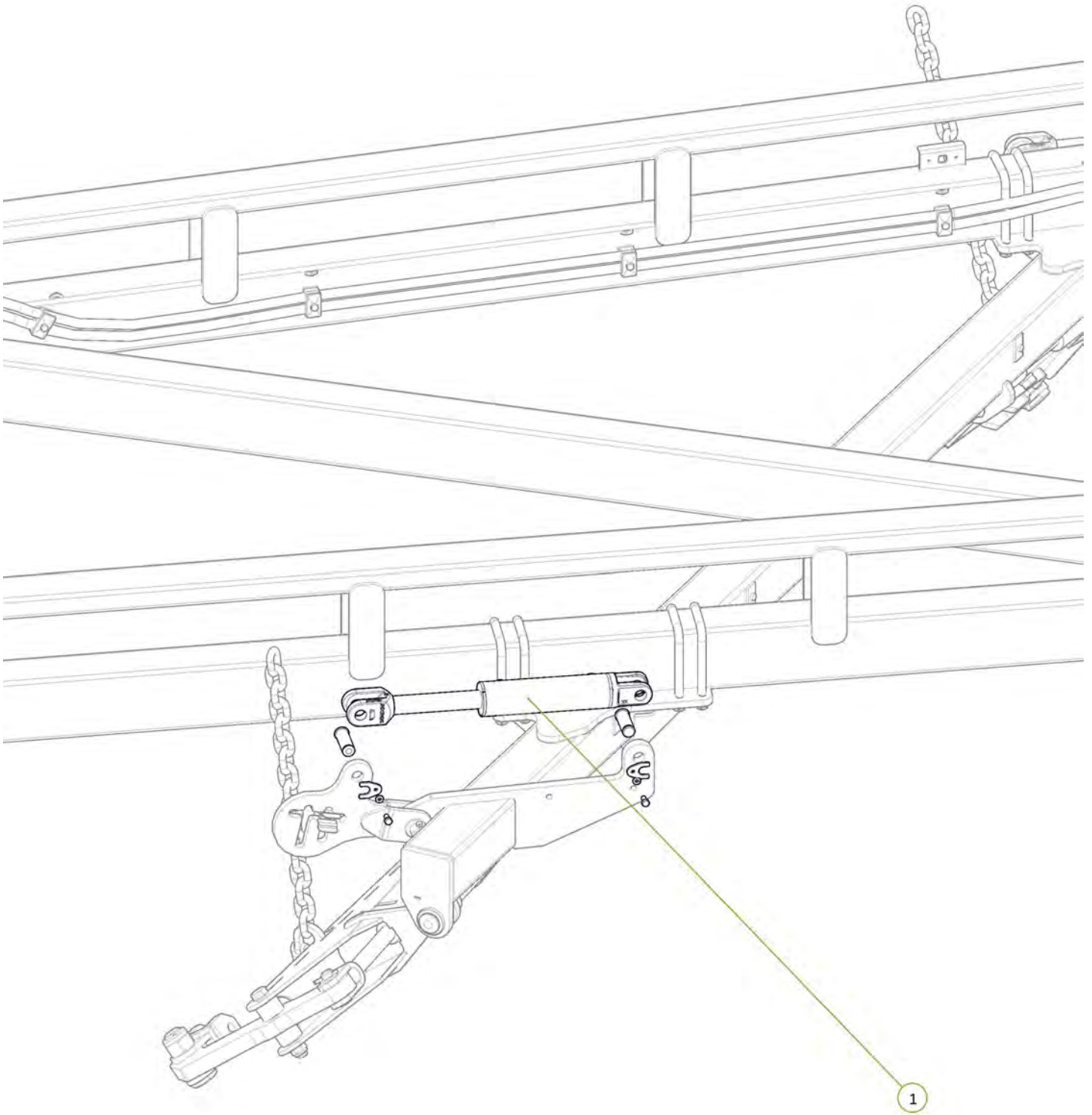
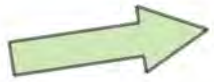


Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

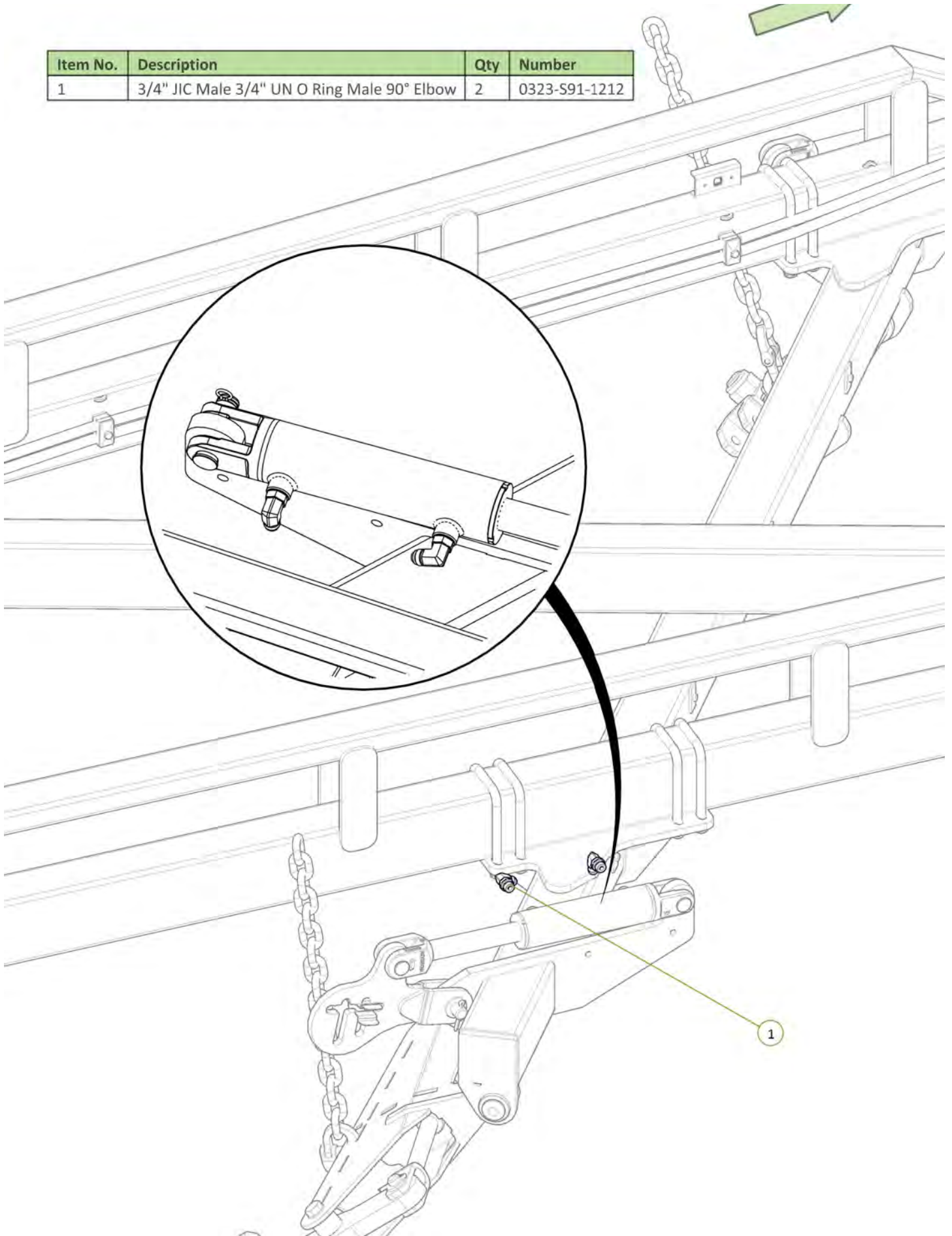
Item No.	Description	Qty	Number
1	Compact Module Lift Arm	1	0810-51E
2	Clevis Pin 25mm x 75mm	1	0801-KE0307-1
3	Height Adjustor Retaining Clip	1	0801-KE014
4	Washer Flat M24	1	0231-F24
5	Cotter Pin M5 x 50	1	0261-PINC550



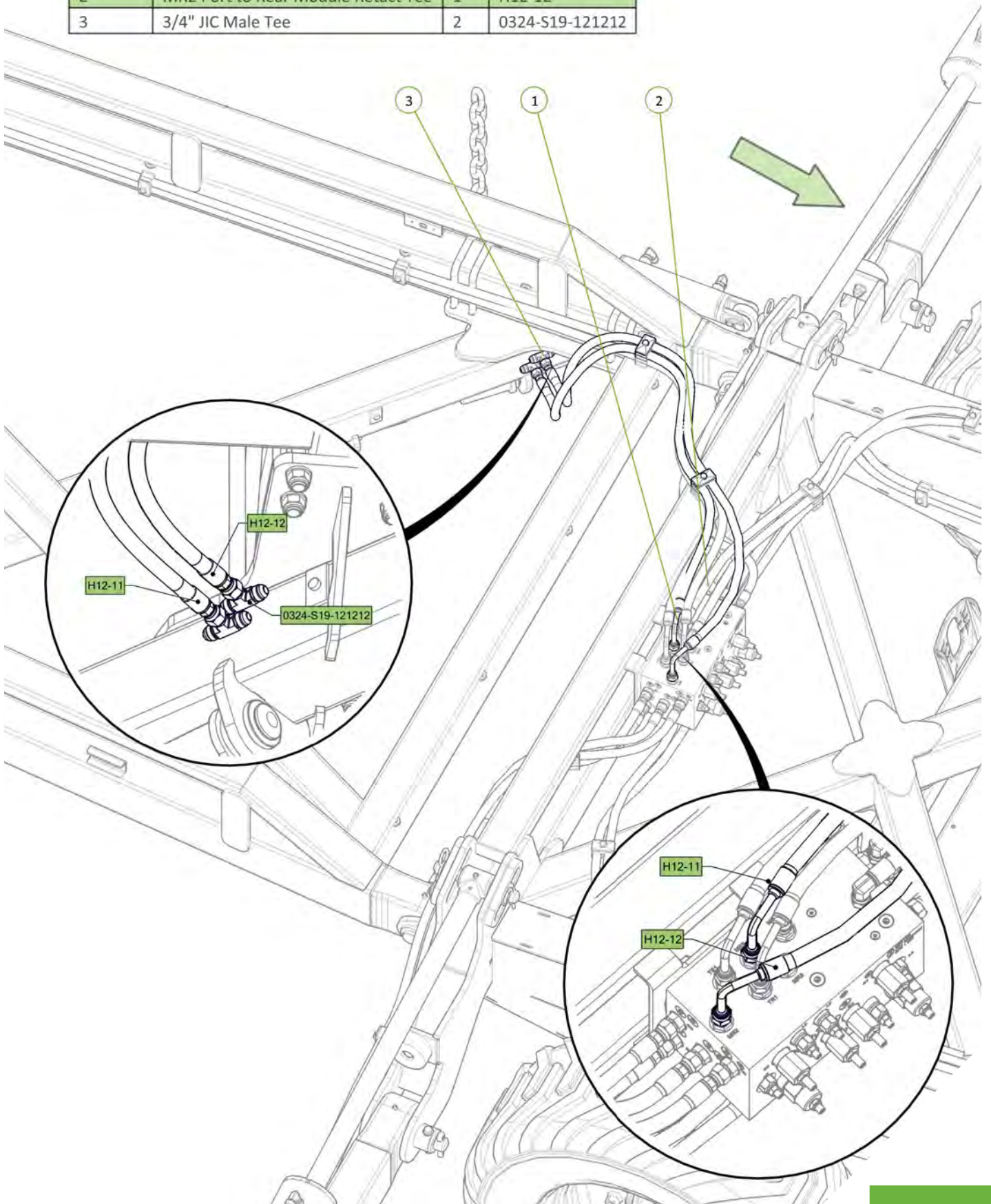
Item No.	Description	Qty	Number
1	2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder	1	0311-256SP

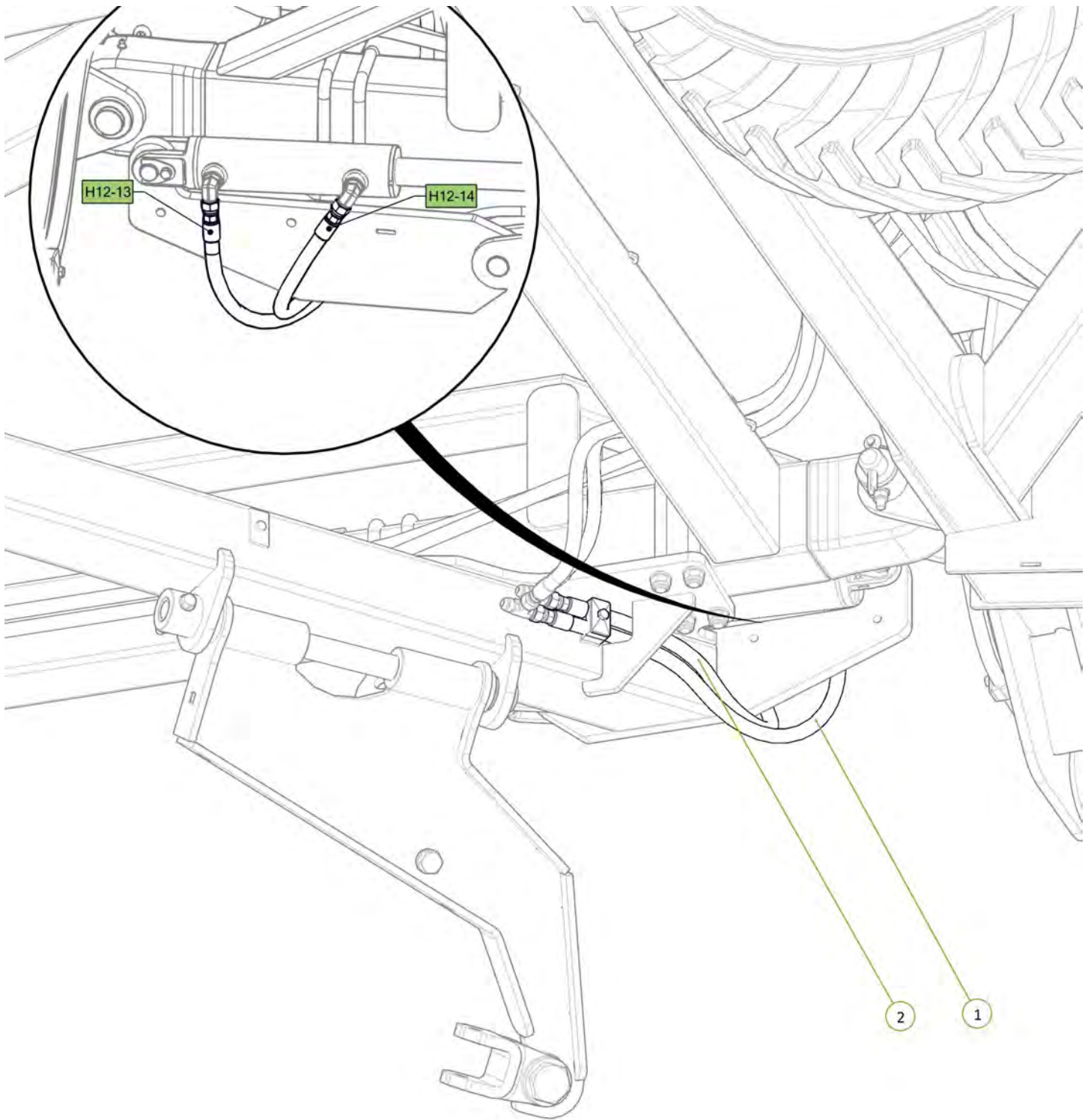


Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

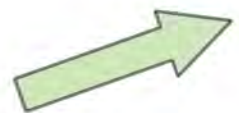


Item No.	Description	Qty	Number
1	ME2 Port to Rear Module Extend Tee	1	H12-11
2	MR2 Port to Rear Module Retract Tee	1	H12-12
3	3/4" JIC Male Tee	2	0324-S19-121212

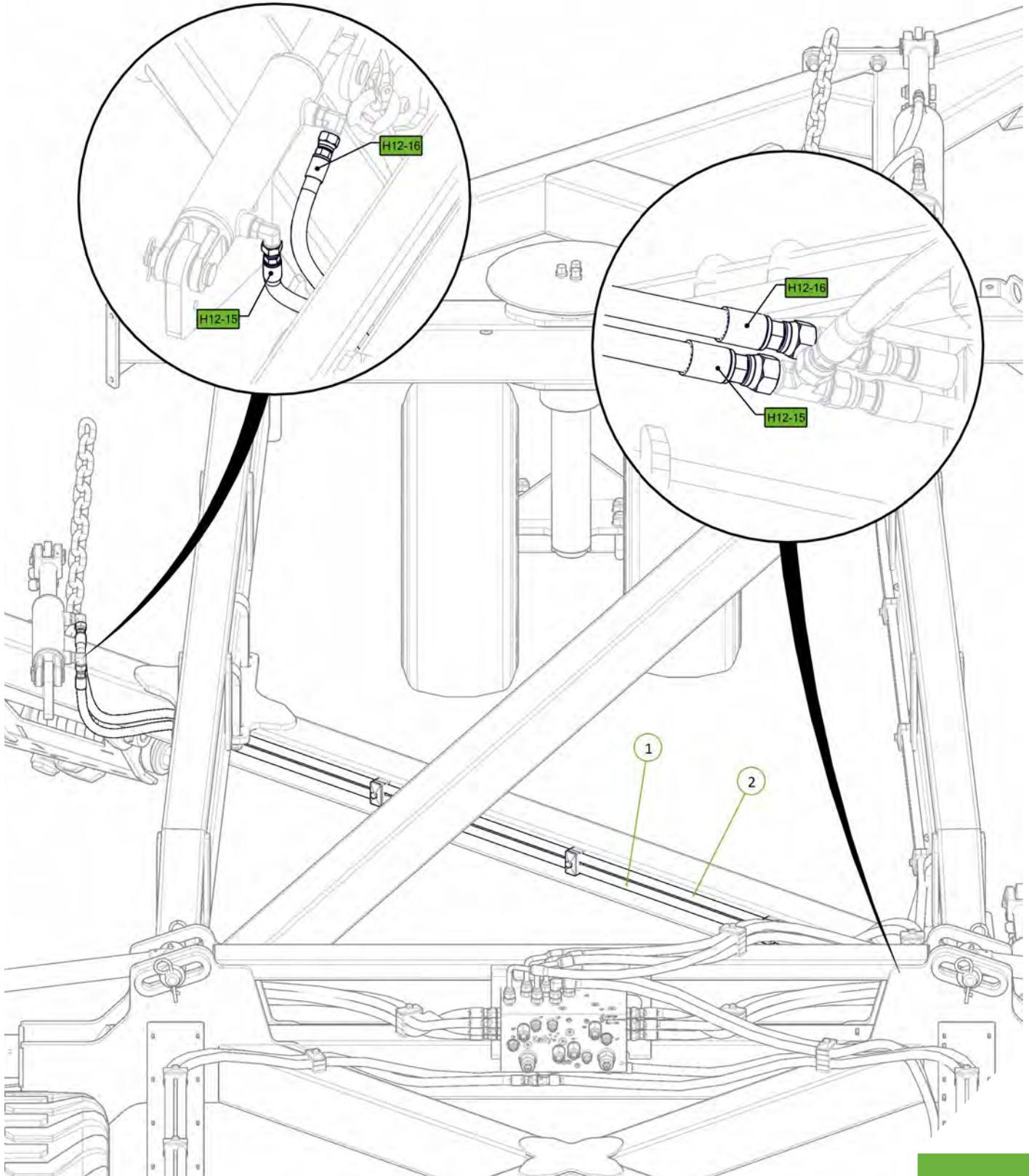




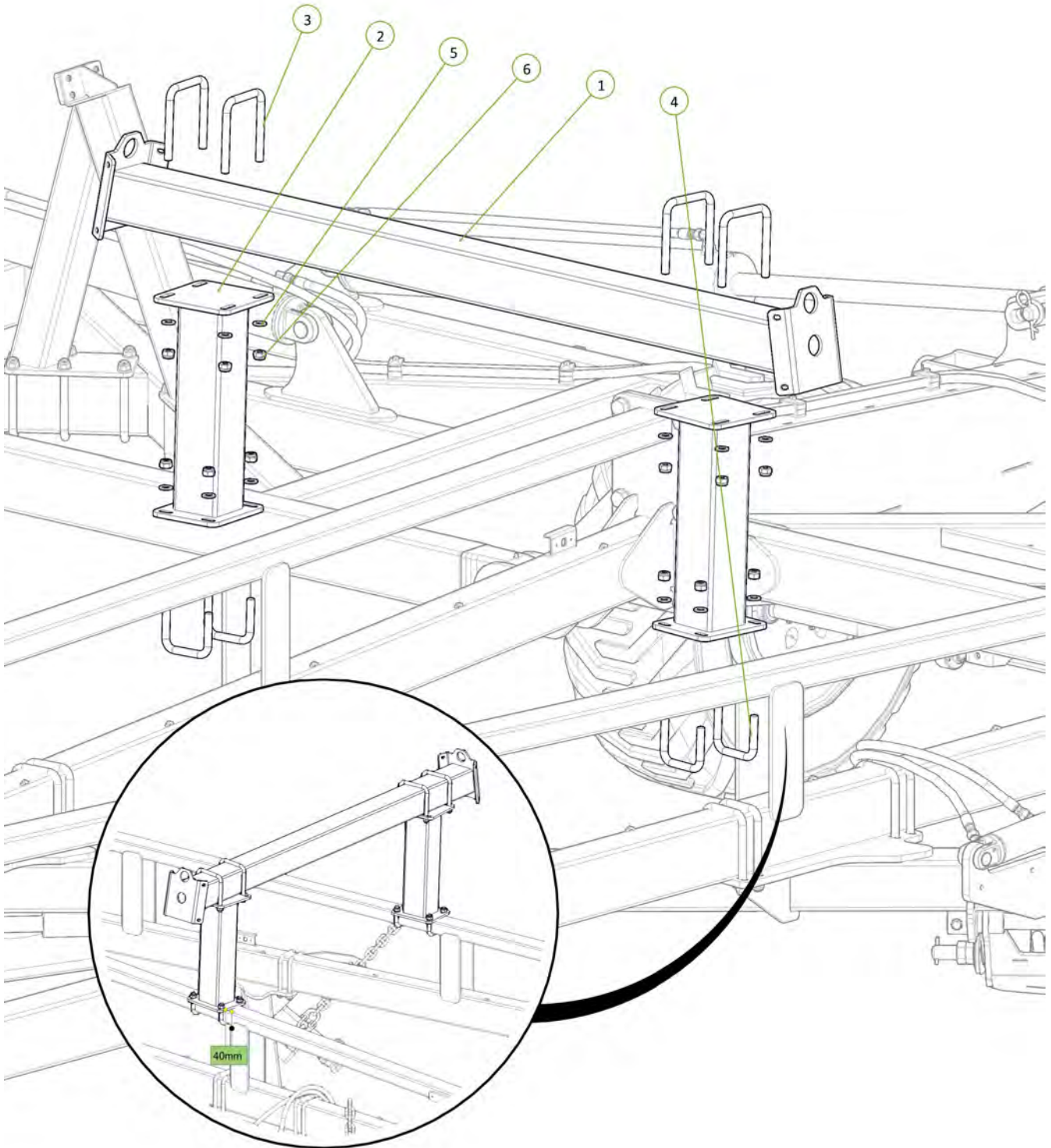
Item No.	Description	Qty	Number
1	Rear Module Extend Tee to LH Rear Module Cyl Extend Port	1	H12-13
2	Rear Module Retract Tee to LH Rear Module Cyl Retract Port	1	H12-14



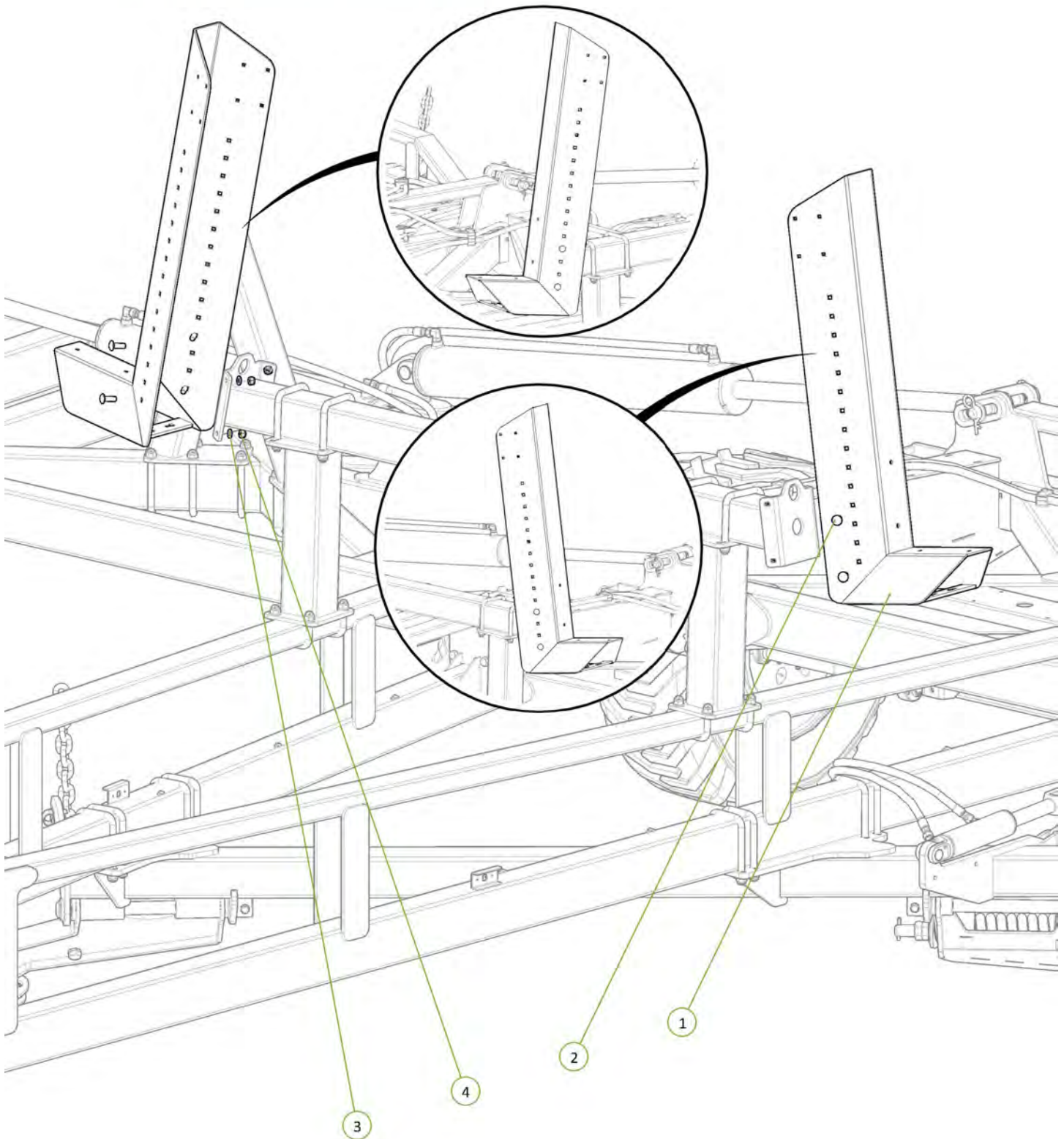
Item No.	Description	Qty	Number
1	Rear Module Extend Tee to RH Rear Module Cyl Extend Port	1	H12-15
2	Rear Module Retract Tee to RH Rear Module Cyl Retract Port	1	H12-16



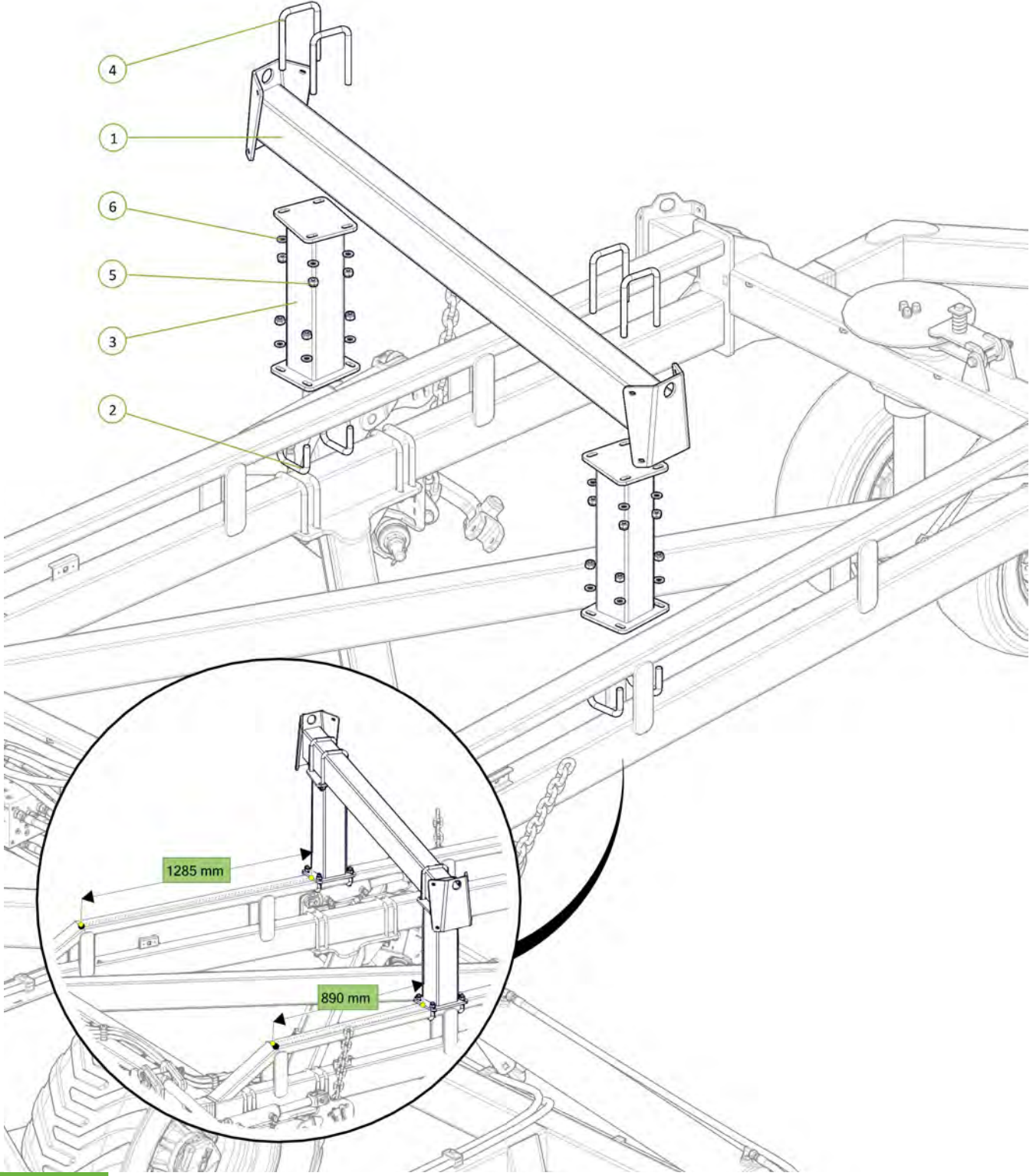
Item No.	Description	Qty	Number
1	Angled Chain Carrier Beam	1	0810-53E
2	500mm Pedestal	2	0810-52E
3	U-Bolt M16 x 160 Deep x 127 Wide	4	0271-16160127
4	U-Bolt M16 x 95 Deep x 102 Wide	4	0271-1695102
5	Washer Flat M16	16	0231-F16
6	Nyloc Nut M16	16	0221-NYL16



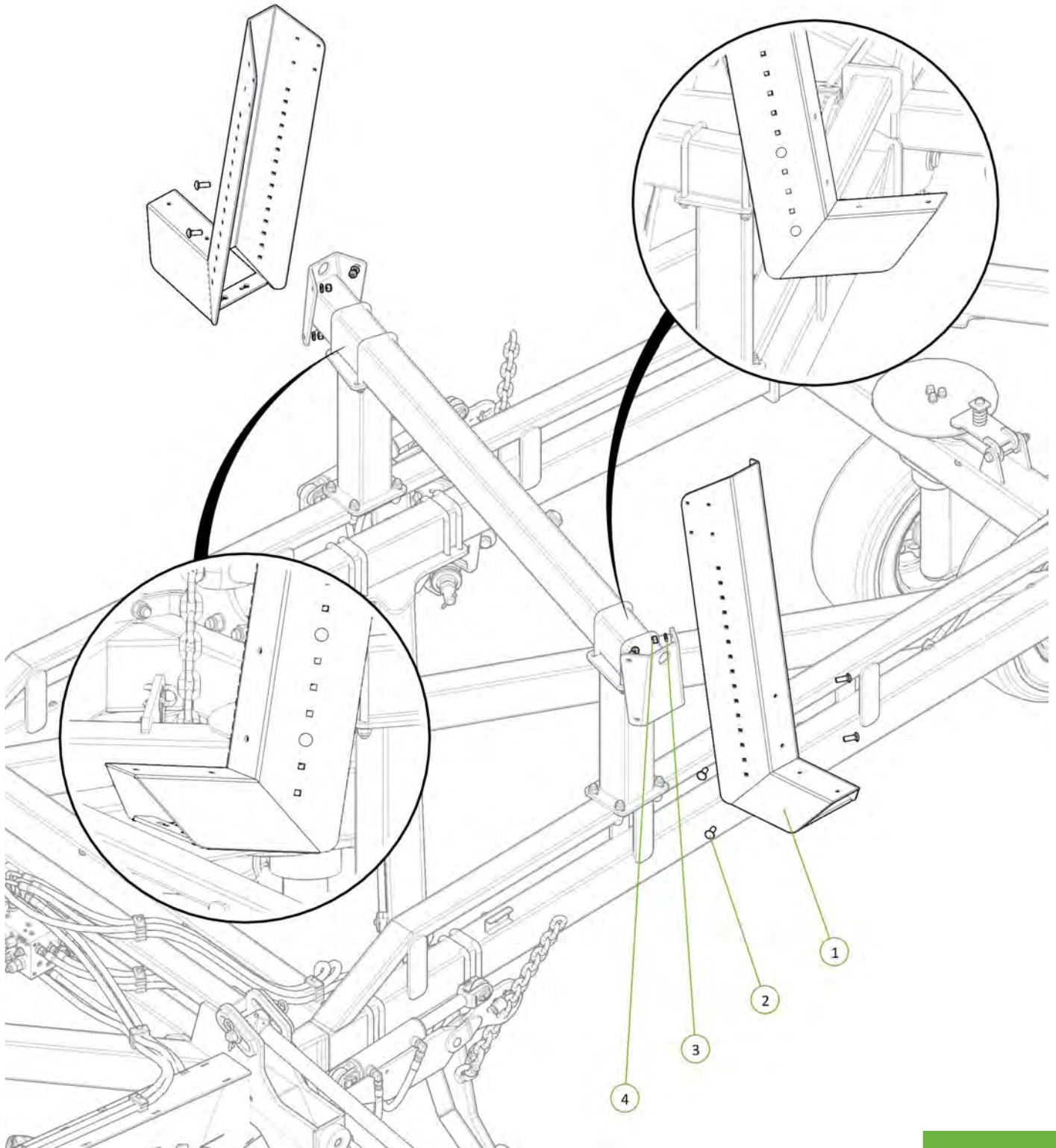
Item No.	Description	Qty	Number
1	Extended Chain Carrier Bolt on End	2	0810-17LEE
2	M12 x 40 Coach Head Bolt	8	0215-CH1240
3	Washer Flat M12	8	0231-F12
4	Nyloc Nut M12	8	0221-NYL12



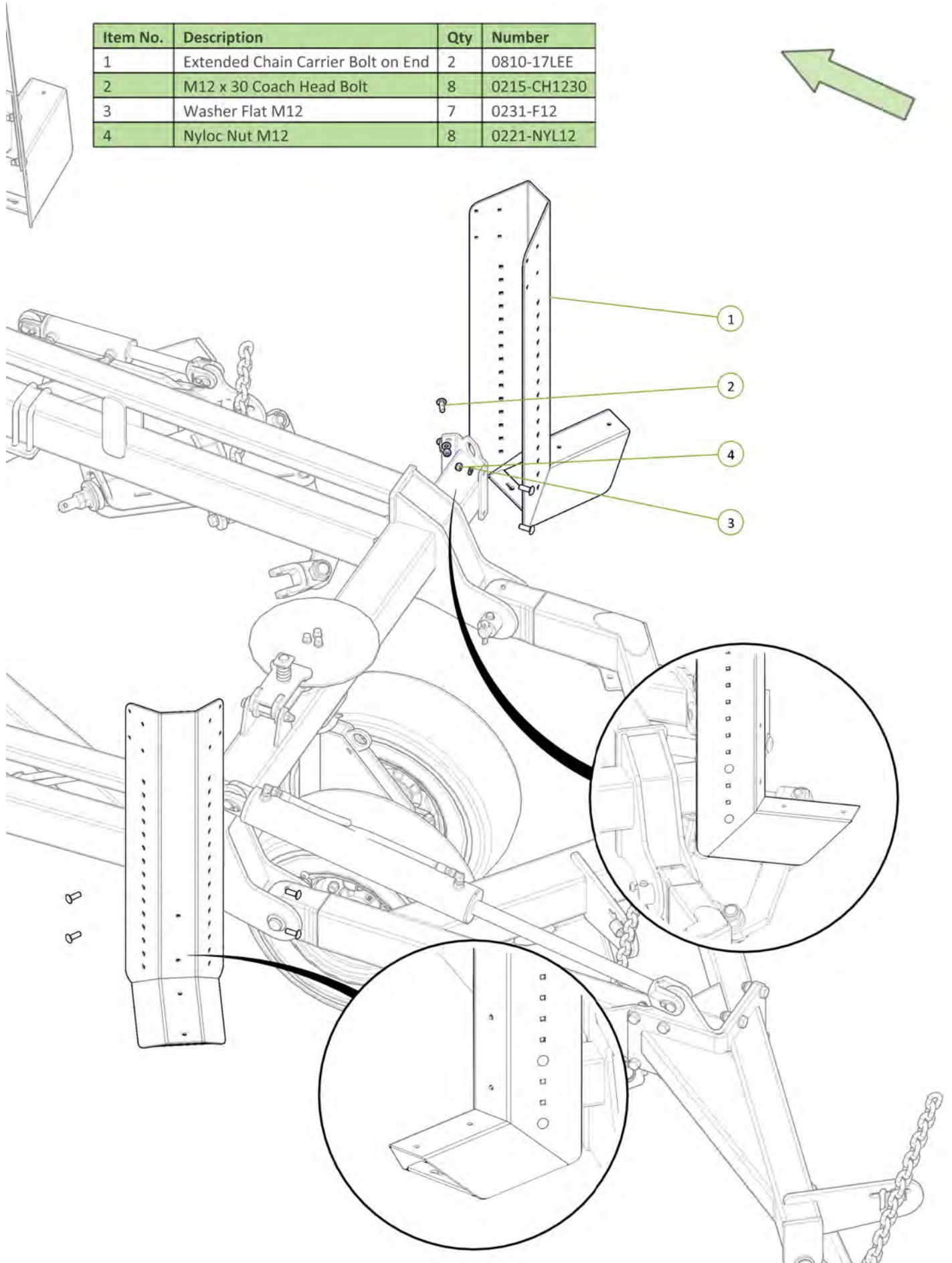
Item No.	Description	Qty	Number
1	Angled Chain Carrier Beam	1	0810-55E
2	U-Bolt M16 x 104 Wide x 85 Deep	4	0271-1610485
3	500mm Pedestal	2	0810-56E
4	U-Bolt M16 x 185 Deep x 104 Wide	4	0271-16185104
5	Nyloc Nut M16	16	0221-NYL16
6	Washer Flat M16	16	0231-F16

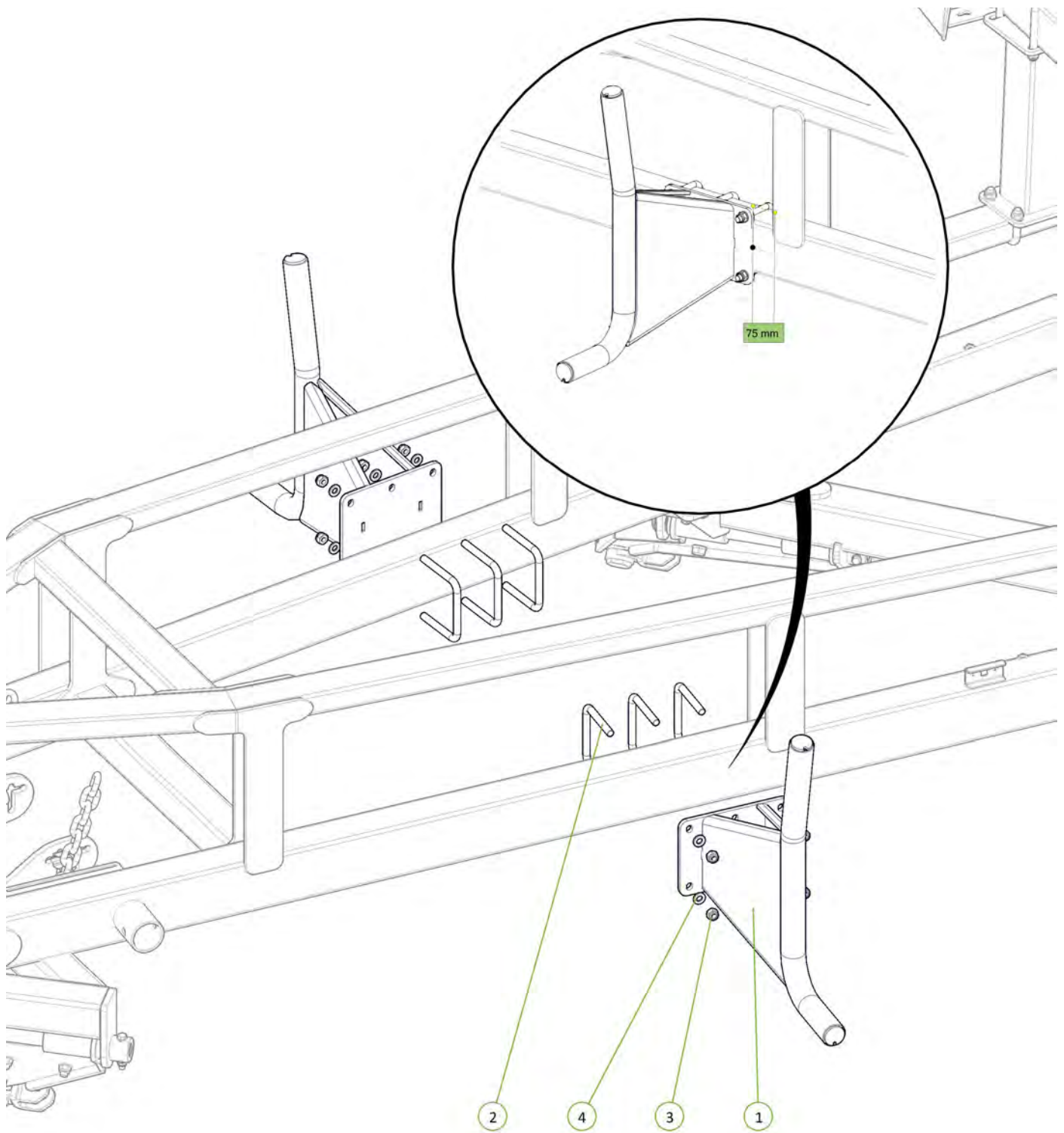


Item No.	Description	Qty	Number
1	Extended Chain Carrier Bolt on End	2	0810-17LEE
2	M12 x 40 Coach Head Bolt	8	0215-CH12
3	Washer Flat M12	8	0231-F12
4	Nyloc Nut M12	8	0221-NYL12



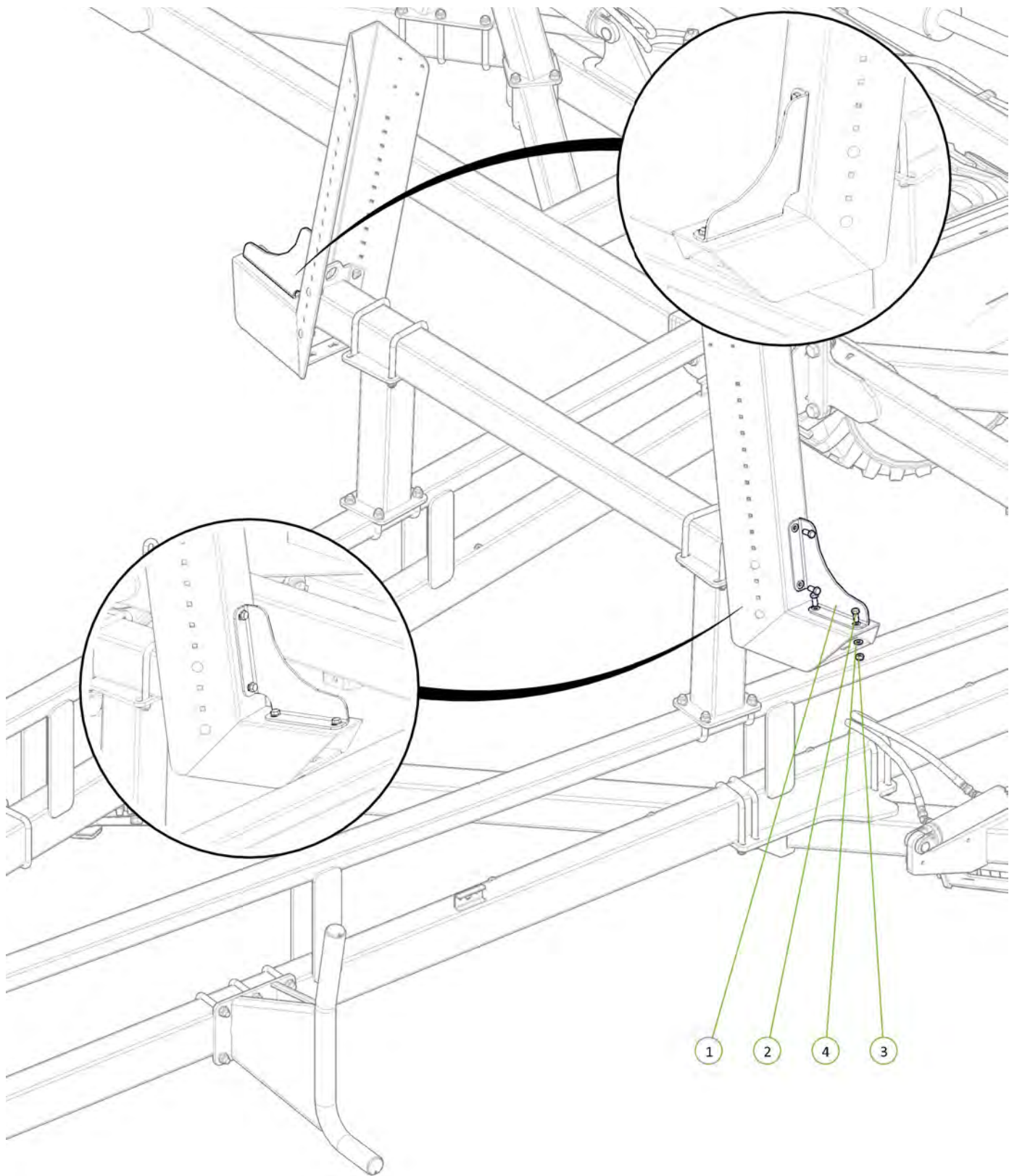
Item No.	Description	Qty	Number
1	Extended Chain Carrier Bolt on End	2	0810-17LEE
2	M12 x 30 Coach Head Bolt	8	0215-CH1230
3	Washer Flat M12	7	0231-F12
4	Nyloc Nut M12	8	0221-NYL12





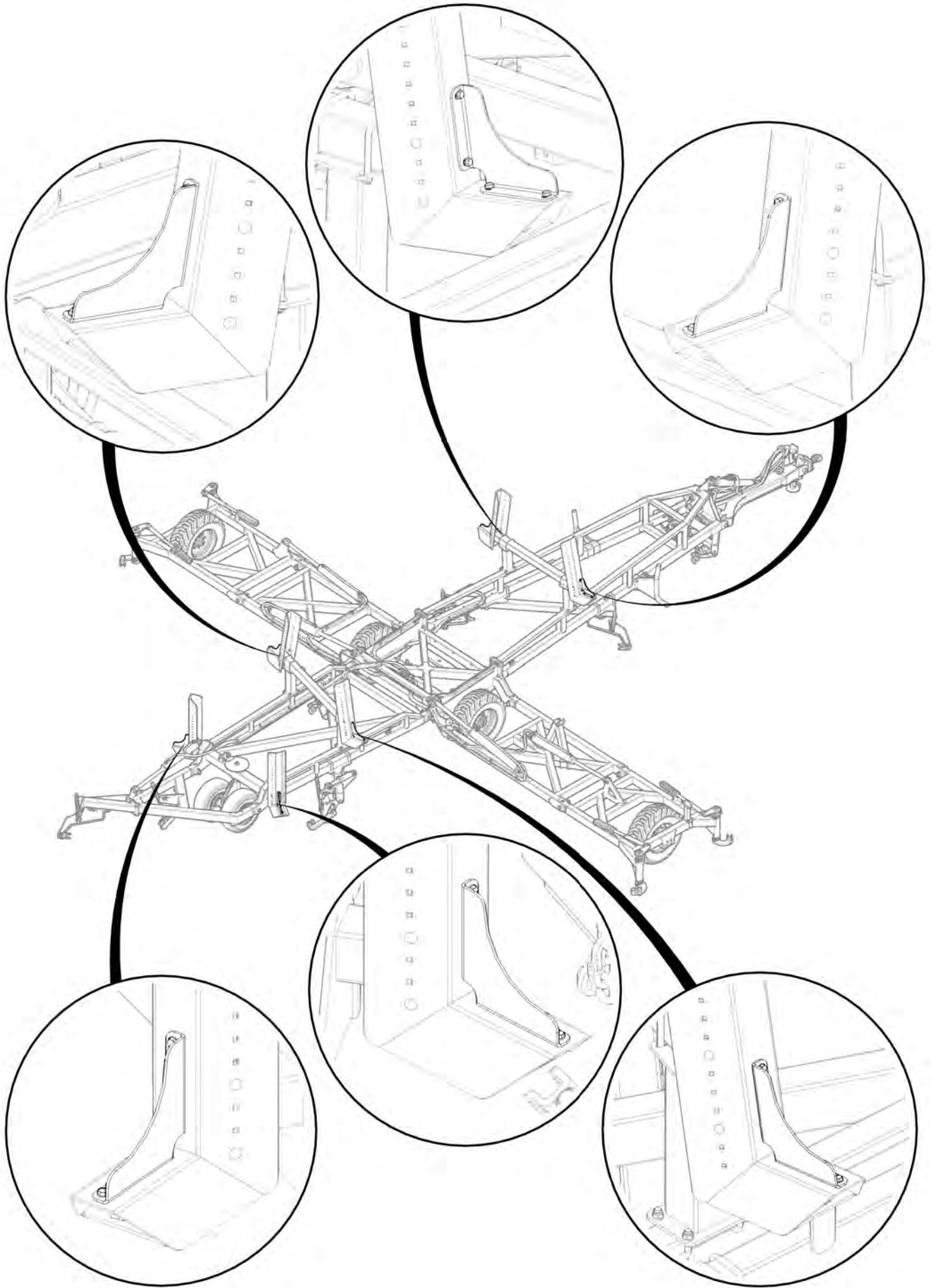
Item No.	Description	Qty	Number
1	Outrigger	2	0810-42E
2	U-Bolt M16 x 140 Deep x 154 Wide	6	0271-16140154
3	Nyloc Nut M16	12	0221-NYL16
4	Washer Flat M16	12	0231-F16



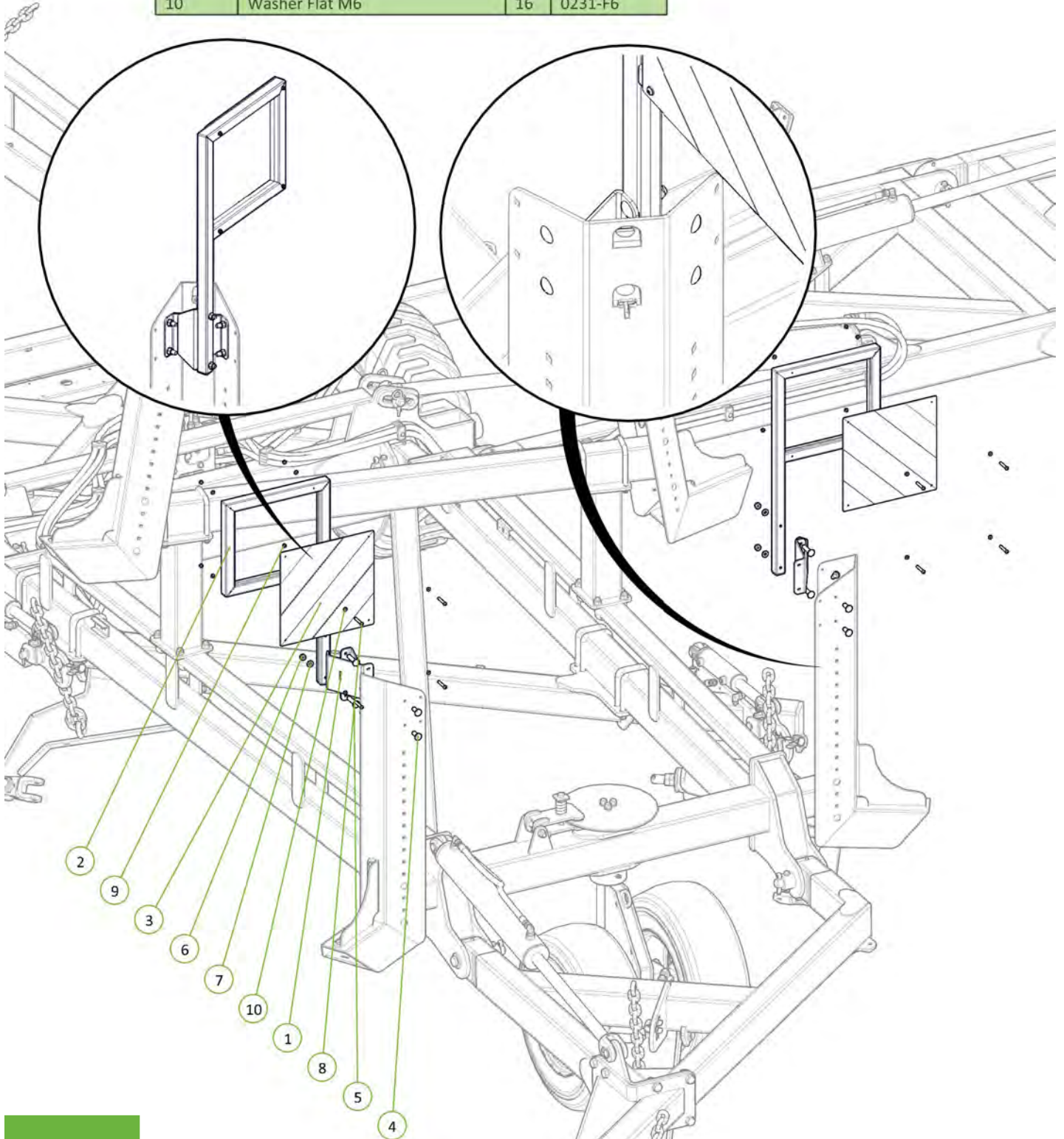
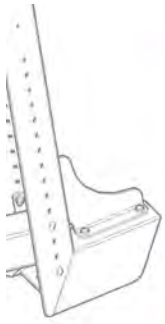


Item No.	Description	Qty	Number
1	Chain Retainer Plate	2	0800-360
2	M12 x 30 Class 8.8 ZP Bolt	8	0211-1230
3	Nyloc Nut M12	8	0221-NYL12
4	Washer Flat M12	16	0231-F12

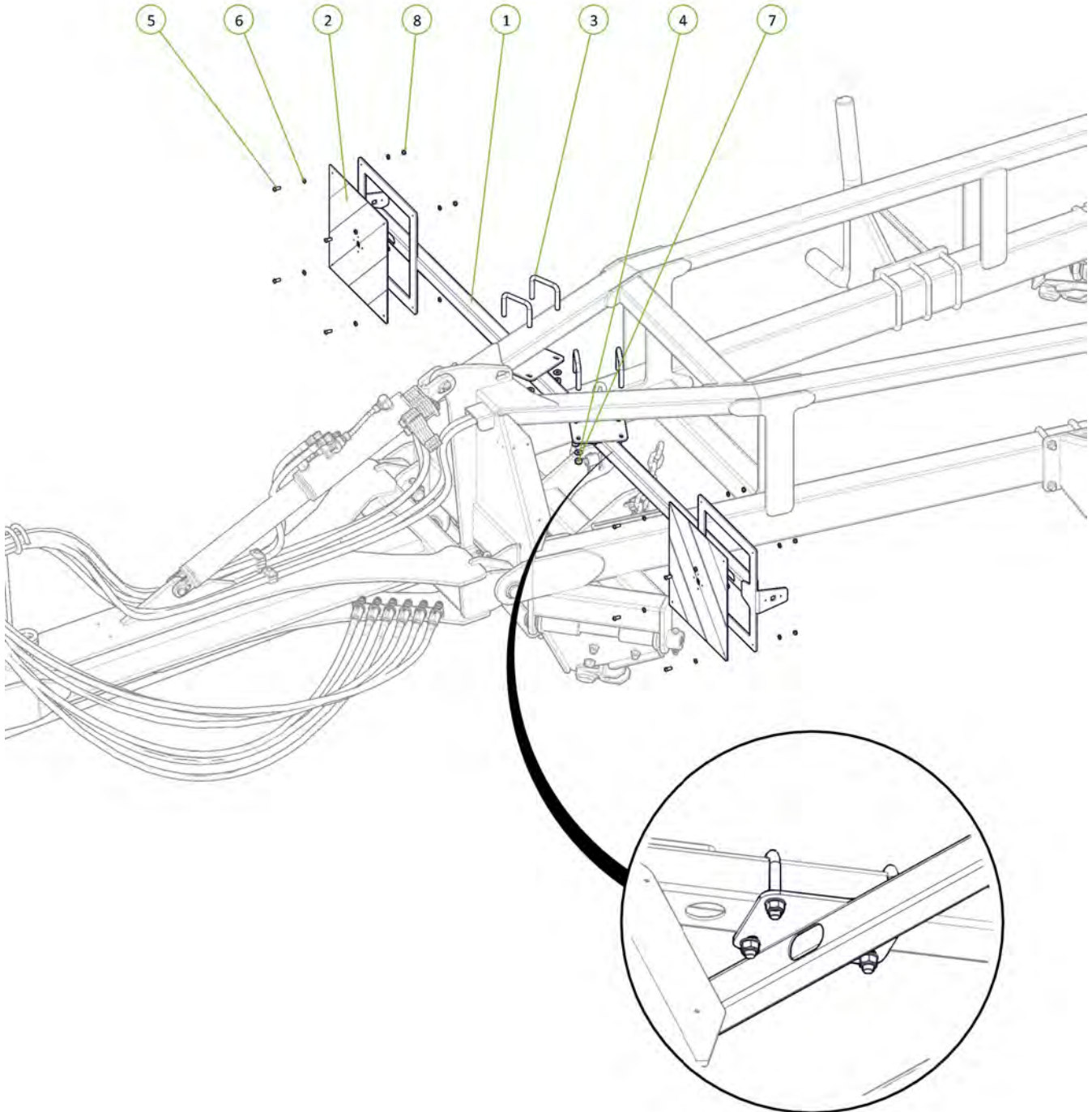


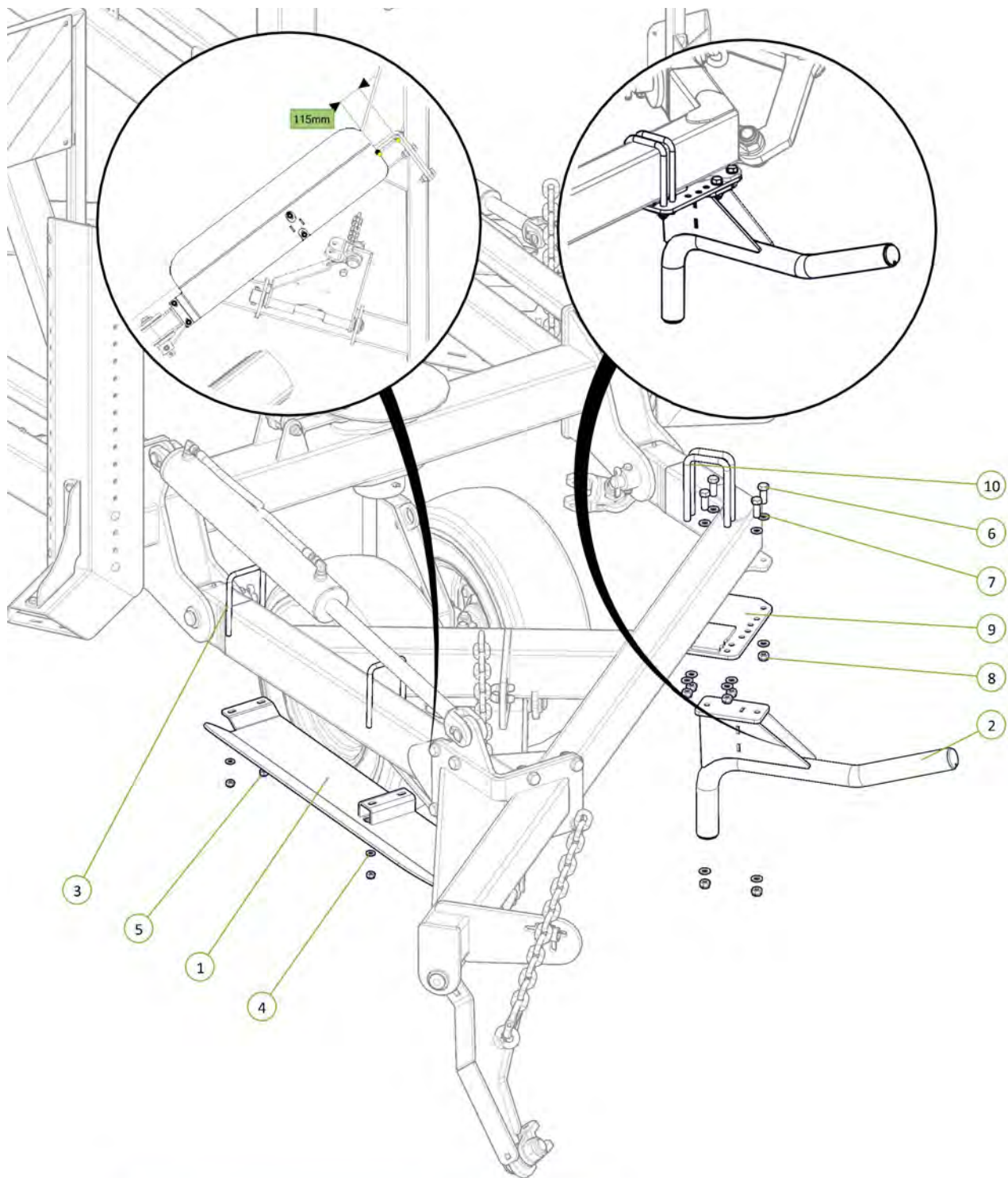


Item No.	Description	Qty	Number
1	Oversize Sign Mounting Bracket	2	1510-45
2	12m Rear OS Sign	2	1510-44
3	European Oversize Sign 2	2	1501-EUOS2
4	M12 x 40 Coach Head Bolt	8	0215-CH1240
5	M12 x 65 Coach Head Bolt	4	0215-CH1265
6	Nyloc Nut M12	12	0221-NYL12
7	Washer Flat M12	12	0231-F12
8	Button Head Screw M6 x 55mm ZP	8	0211-0655BH
9	Nyloc Nut M6	8	0221-NYL6
10	Washer Flat M6	16	0231-F6



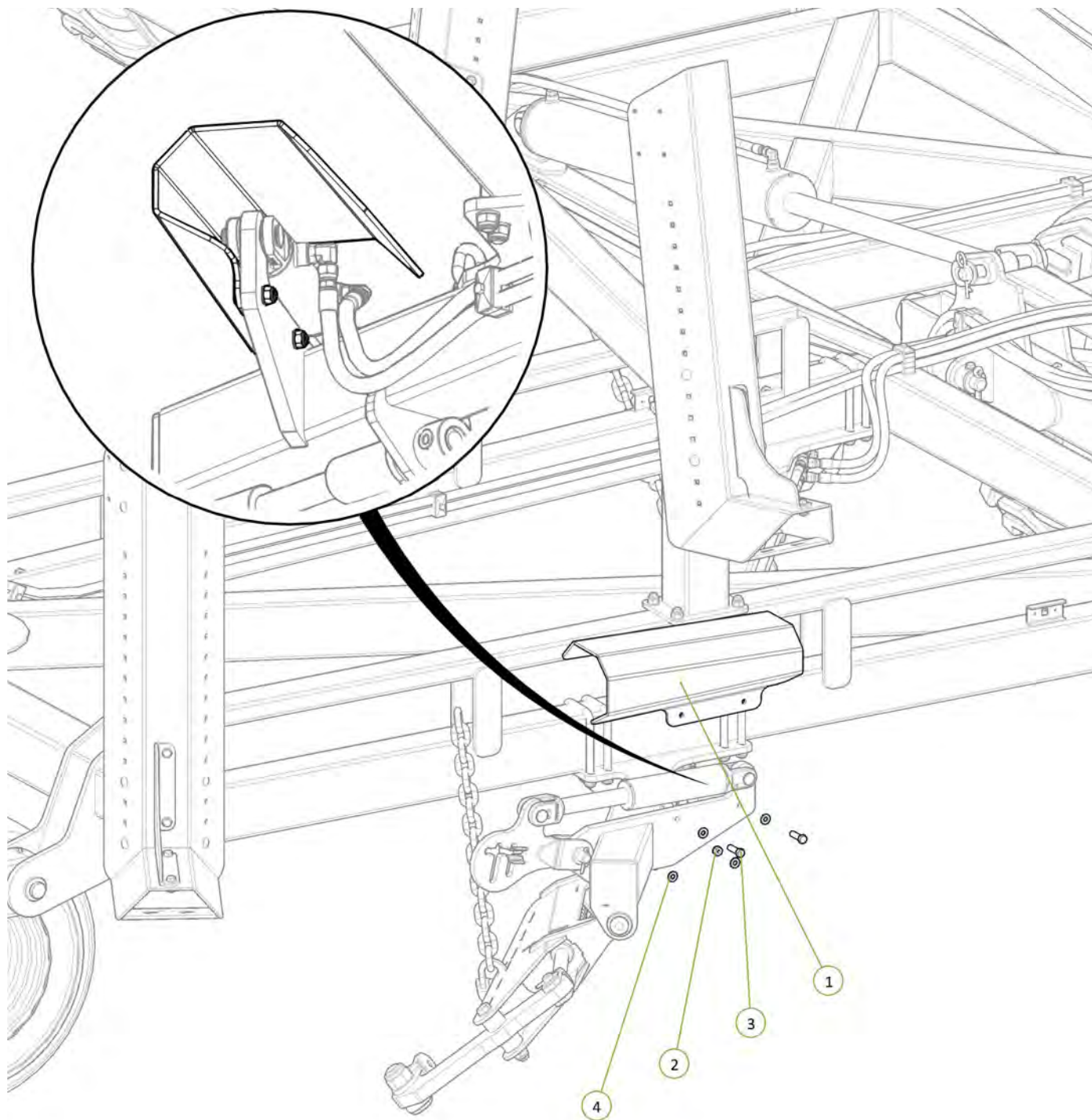
Item No.	Description	Qty	Number
1	EU Front Oversize Sign	1	1510-42
2	European Oversize Sign 3	2	1501-EUOS3
3	U-Bolt M12 x 85 Deep x 102 Wide	4	0271-1285102
4	Washer Flat M12	8	0231-F12
5	M6 x 20 Button Head Bolt ZP	8	0211-0620BH
6	Washer Flat M6	16	0231-F6
7	Nyloc Nut M12	8	0221-NYL12
8	Nyloc Nut M6	8	0221-NYL6





Item No.	Description	Qty	Number
1	Rear Guard 40'	1	1510-229
2	Outrigger	1	0810-41
3	U-Bolt M12 x 185 Deep x 104 Wide	2	0271-12185104
4	Washer Flat M12	4	0231-F12
5	Nyloc Nut M12	4	0221-NYL12
6	M16 x 45 Class 8.8 ZP Bolt	4	0211-1645
7	Washer Flat M16	12	0231-F16
8	Nyloc Nut M16	8	0221-NYL16
9	EU Rear Pipe Catcher Adjustment	1	1510-321
10	U-Bolt M16 x 195 Deep X 104 Wide	2	0271-16195104

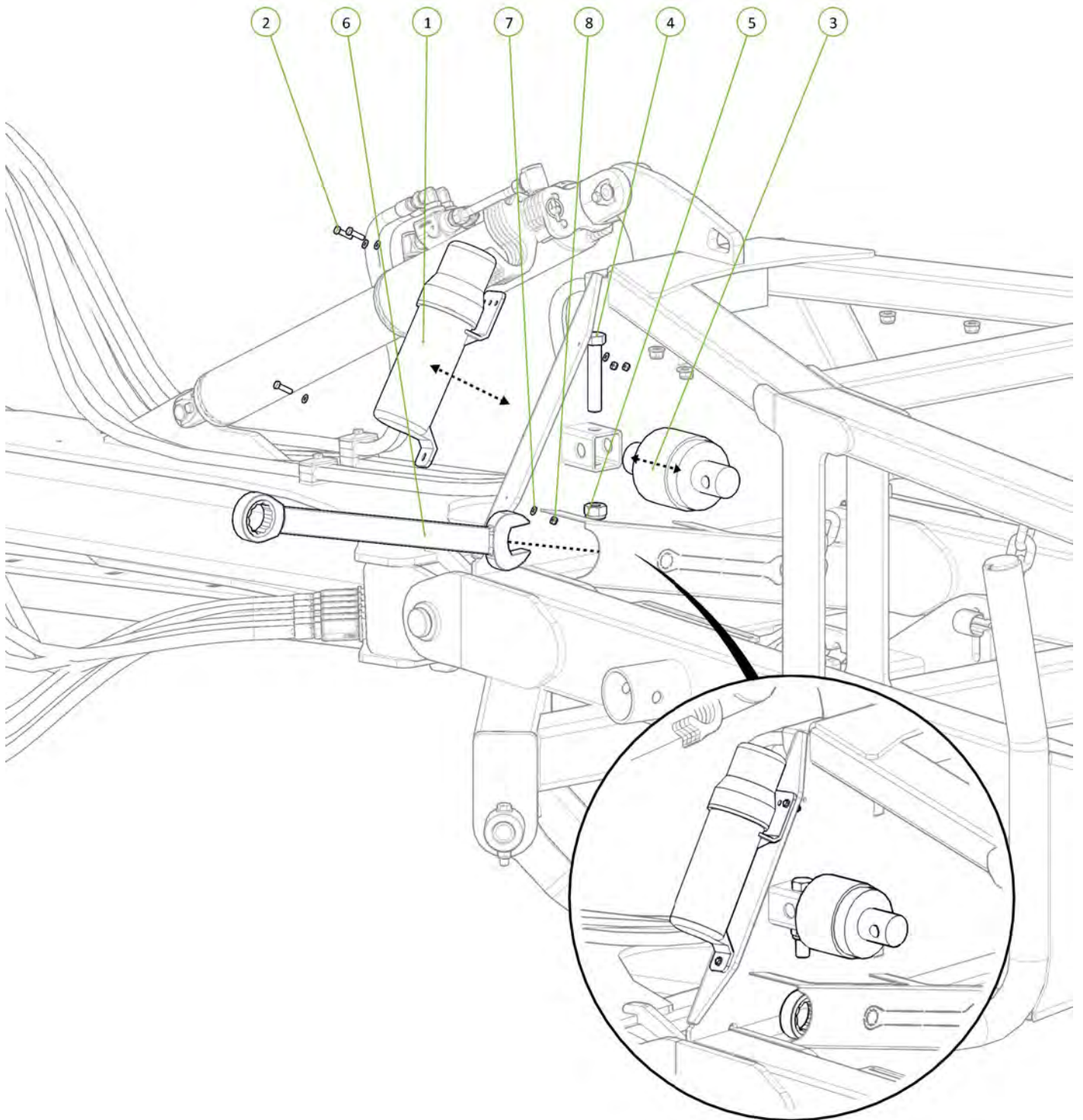




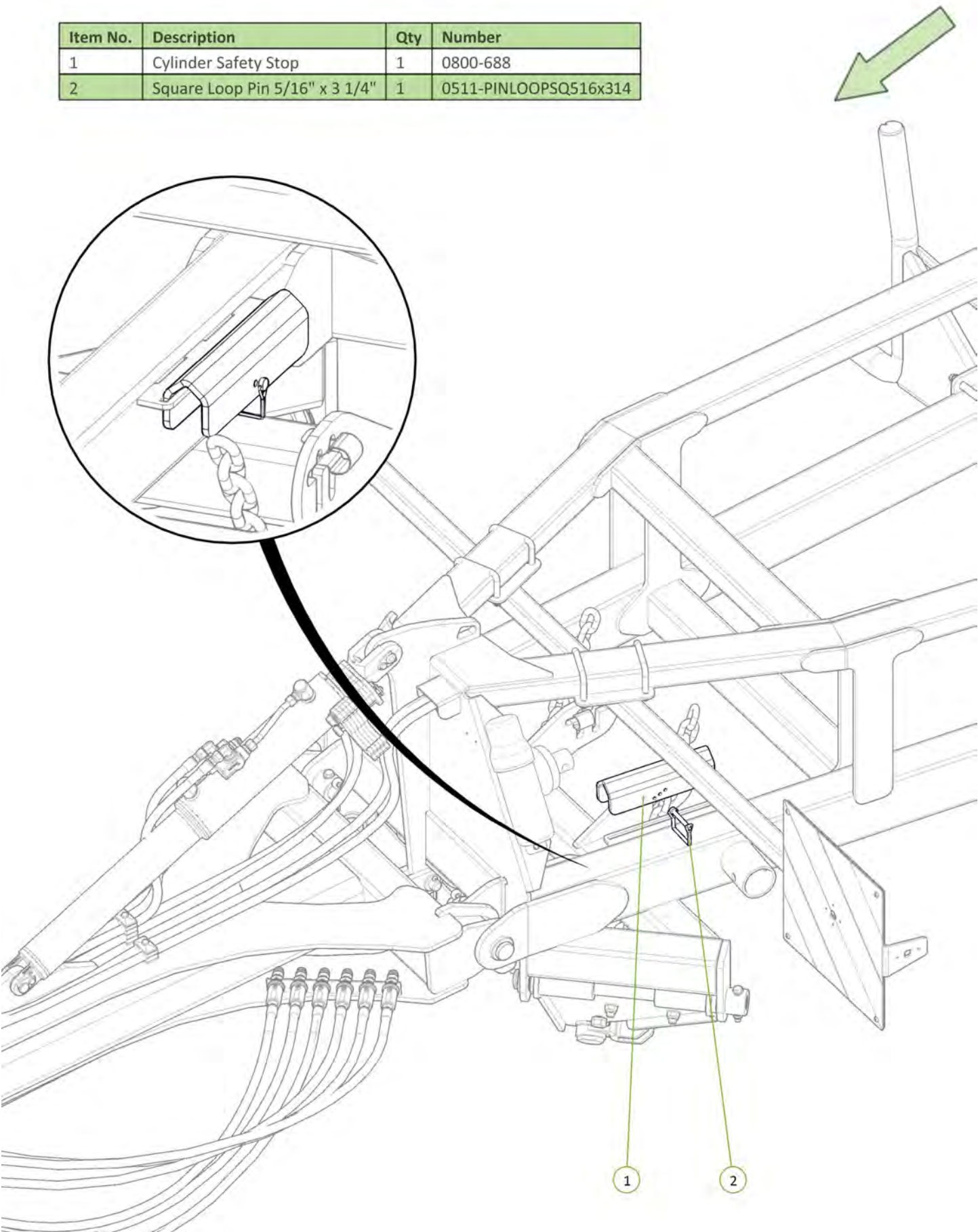
Item No.	Description	Qty	Number
1	Module Cylinder Guard	1	0800-167.3
2	Nyloc Nut M12	2	0221-NYL12
3	M12 x 45 grade 8.8 ZP Bolt	2	0211-1245
4	Washer Flat M12	4	0231-F12

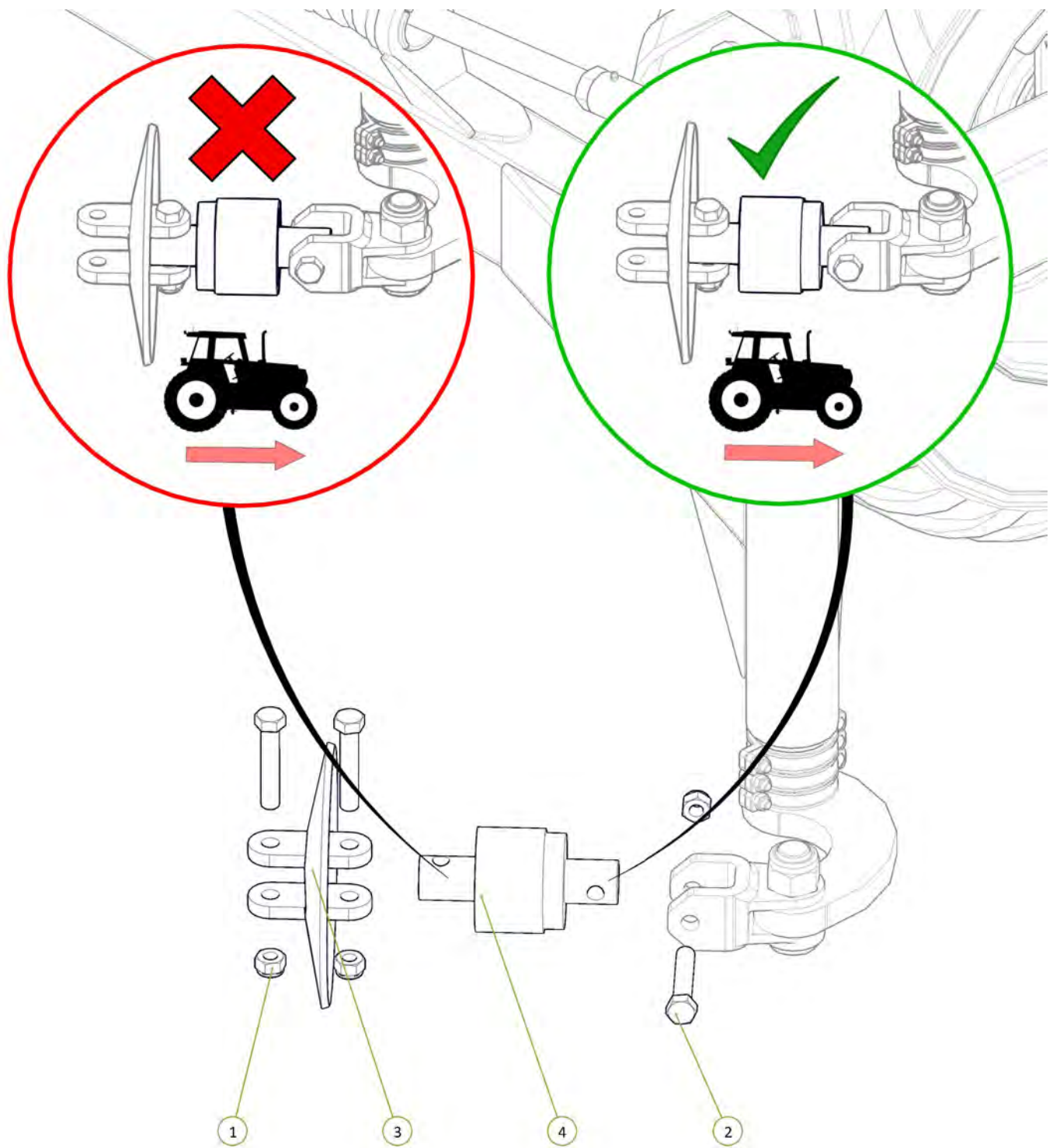


Item No.	Description	Qty	Number
1	Operator Manual Cannister	1	0801-OMC-1
2	M6 x 1 x 25mm Grade 4.6 ZP Bolt	3	0211-625
3	20mm Bolt Swivel Unit	1	0802-PCHB55
4	M20 x 110 grade 10.9 ZP Short Thread Bolt	1	0211-20110 ST
5	Nyloc Nut M20	1	0221-NYL20
6	Ratcheting Gear Wrench 1 3/4"	1	0802-GW1 3-4
7	Washer Flat M6	6	0231-F6
8	Nyloc Nut M6	3	0221-NYL6

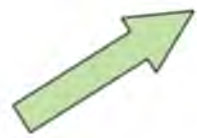


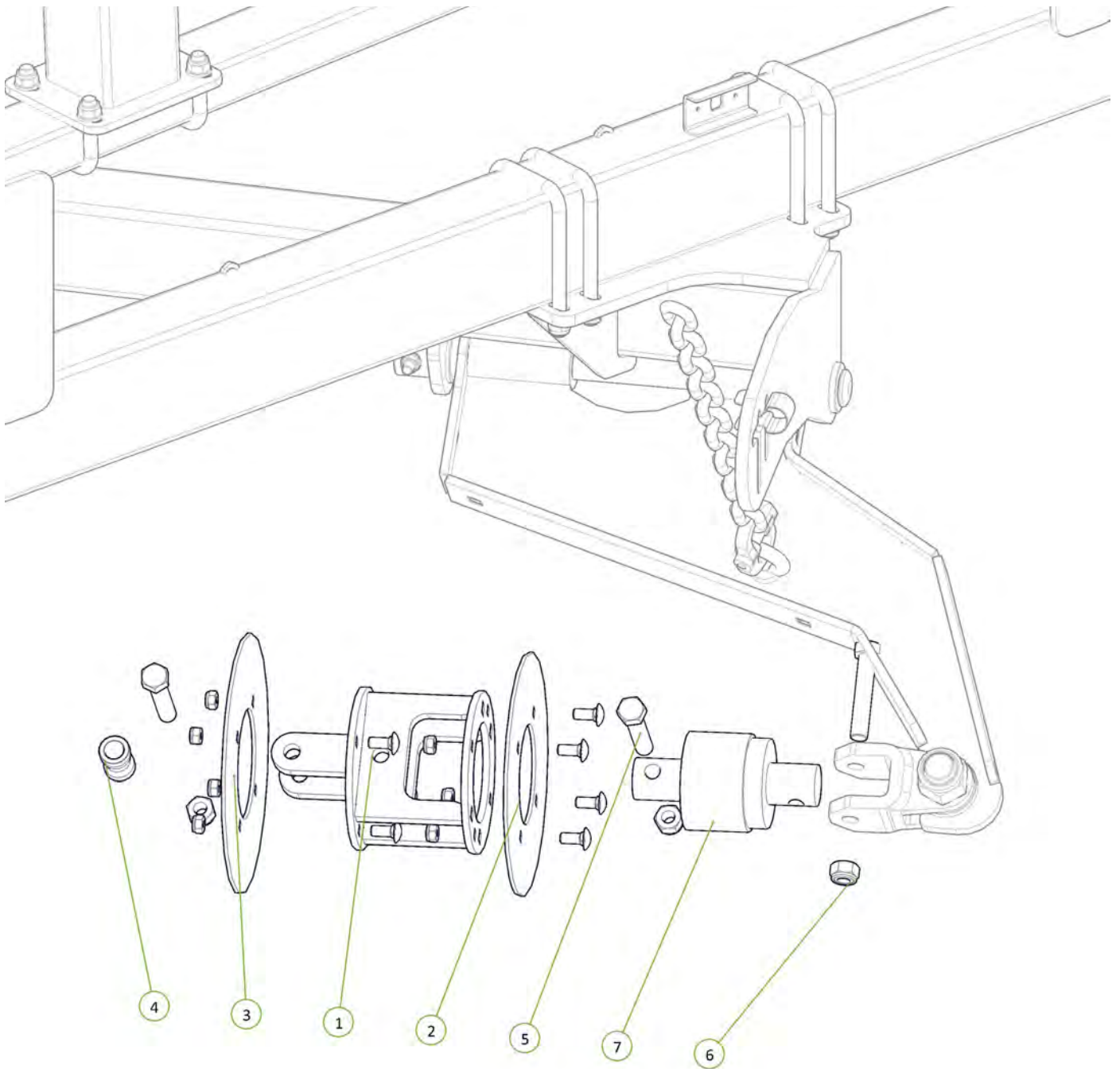
Item No.	Description	Qty	Number
1	Cylinder Safety Stop	1	0800-688
2	Square Loop Pin 5/16" x 3 1/4"	1	0511-PINLOOPSQ516x314





Item No.	Description	Qty	Number
1	Nyloc Nut M20	3	0221-NYL20
2	M20 x 110 grade 10.9 ZP Short Thread Bolt	3	0211-20110 ST
3	Disc Chain Tie Plate Link 20mm	1	0802-DCTP-20
4	20mm Bolt Swivel Unit	1	0802-PCHB55





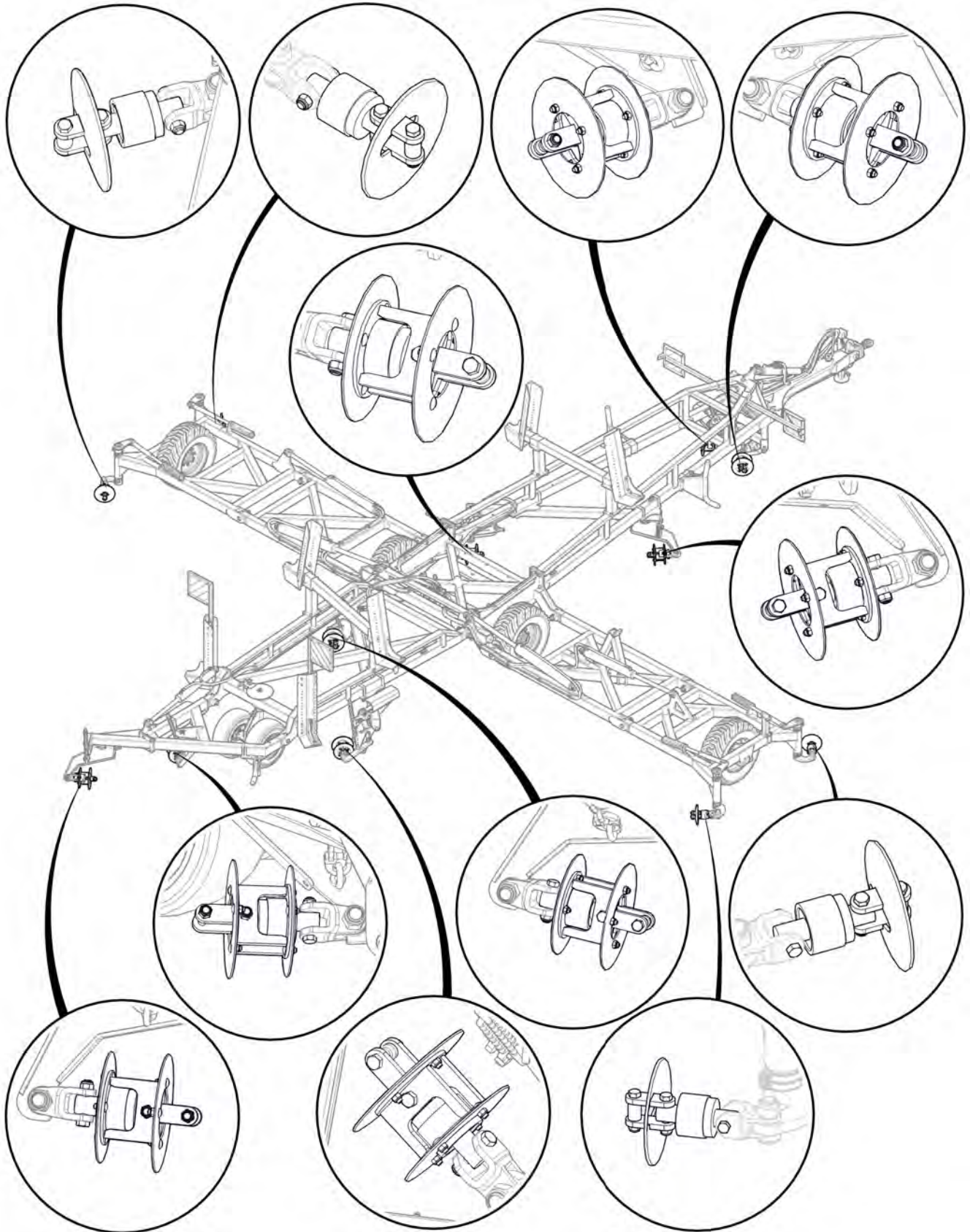
Item No.	Description	Qty	Number
1	Tapered Chain End Hub	1	0810-45-4
2	TCE First Blade	1	0800-696
3	TCE Second Blade	1	0800-697
4	Disc Chain Spacer	1	0801-253755
5	M20 x 110 Class 10.9 ZP Short Thread Bolt	3	0211-20110ST
6	Nyloc Nut M20	3	0221-NYL20
7	20mm Bolt Swivel Unit	1	0802-PCHB55

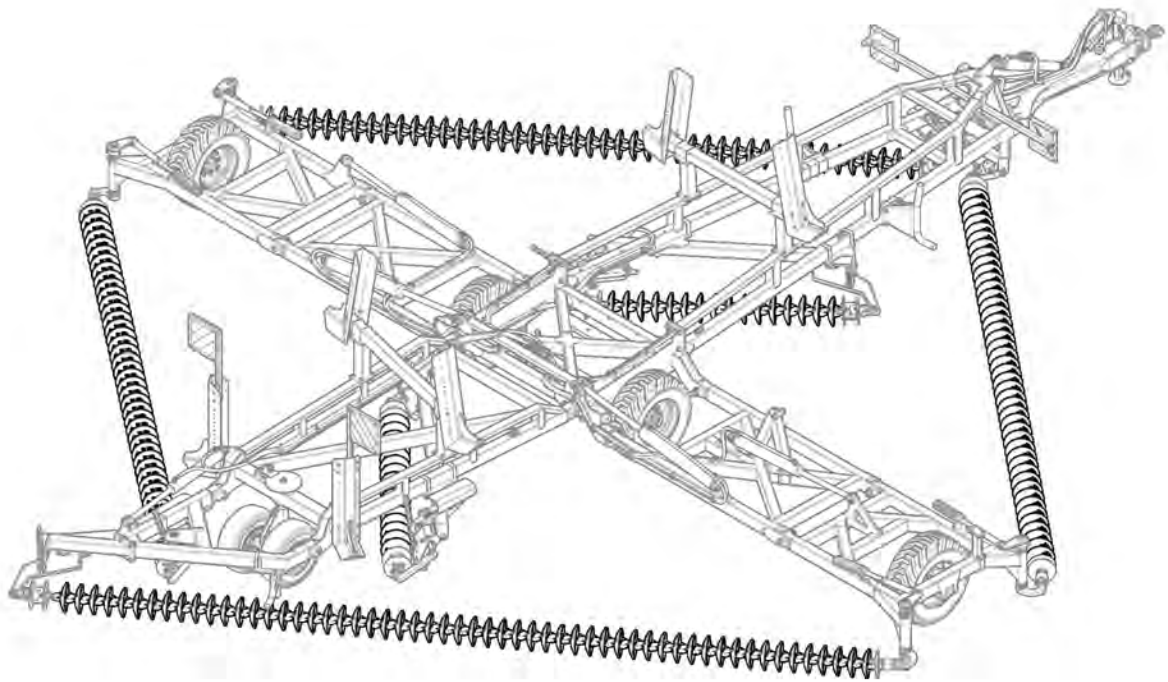


All bearings correctly orientated with seal facing the rear of the machine



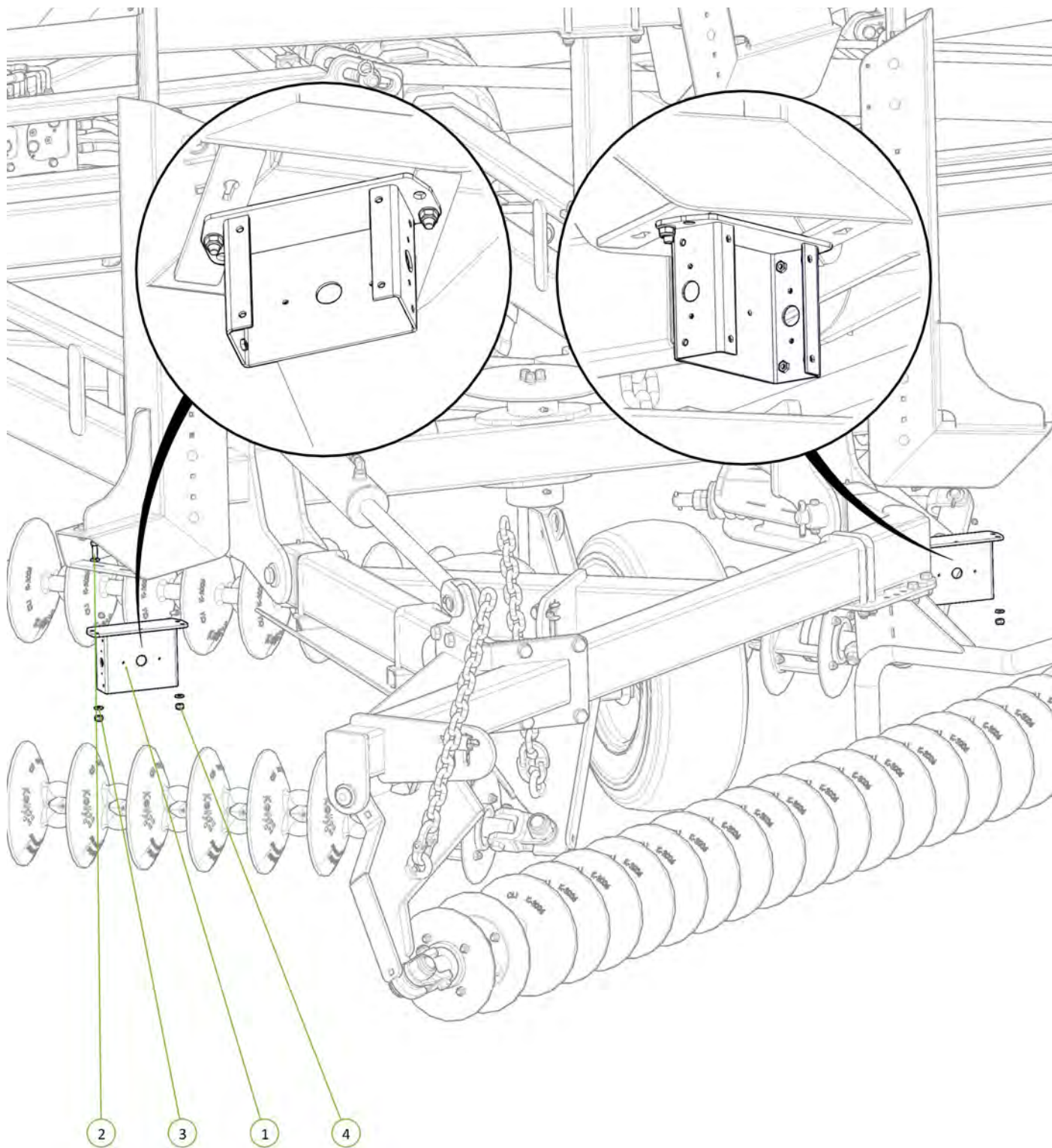
Signed _____ Date _/ _/ _
Unit Serial Number _____





Section 2

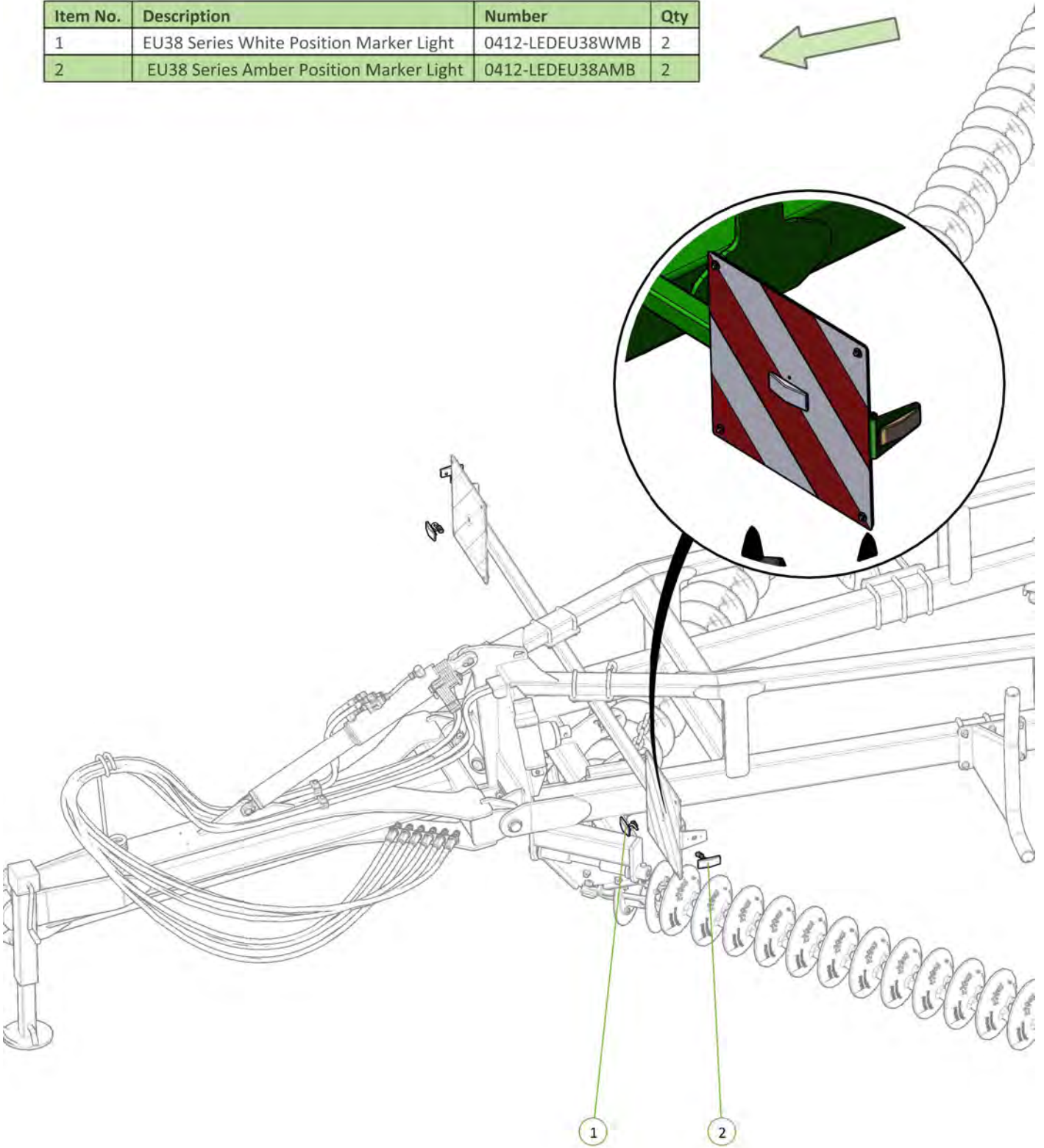
Light Kits

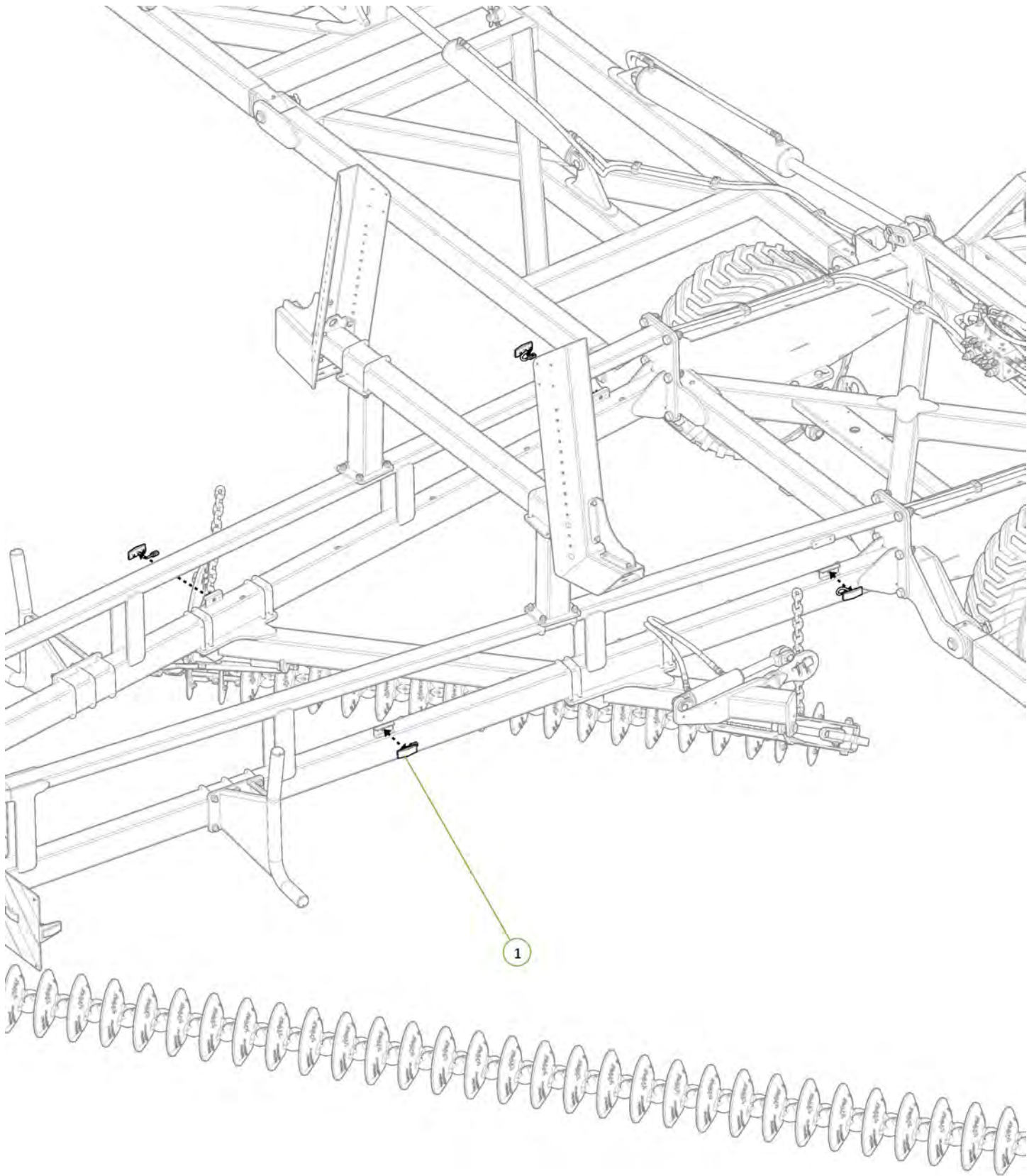


Item No.	Description	Number	Qty
1	EU Rear Light Bracket	1510-238	2
2	M10 x 35 grade 8.8 ZP Bolt	0211-1035	4
3	Washer Flat M10	0231-F10	8
4	Nyloc Nut M10	0221-NYL10	4



Item No.	Description	Number	Qty
1	EU38 Series White Position Marker Light	0412-LEDEU38WMB	2
2	EU38 Series Amber Position Marker Light	0412-LEDEU38AMB	2

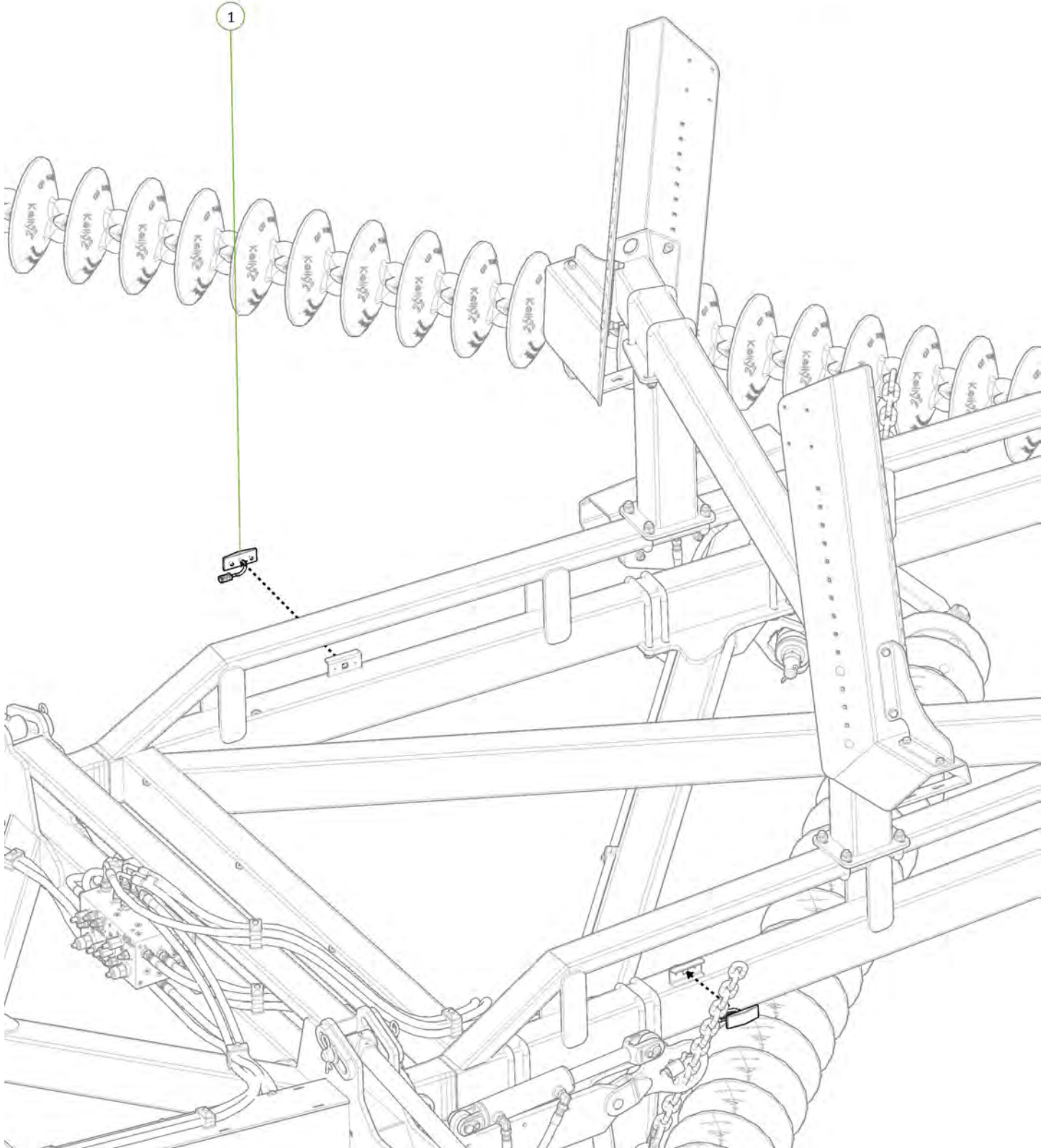


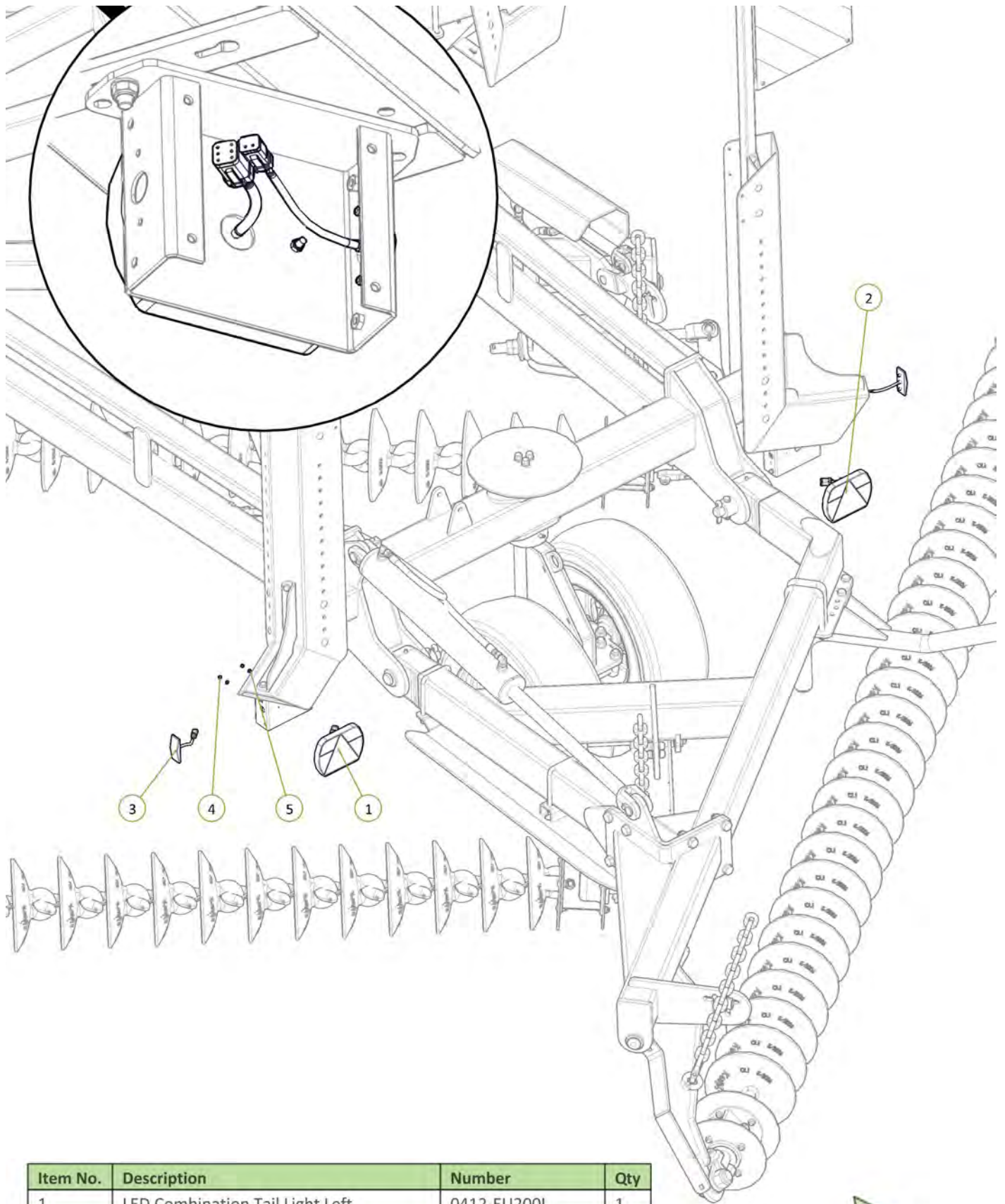


Item No.	Description	Number	Qty
1	EU38 Series Amber Position Marker Light	0412-LEDEU38AMB	4

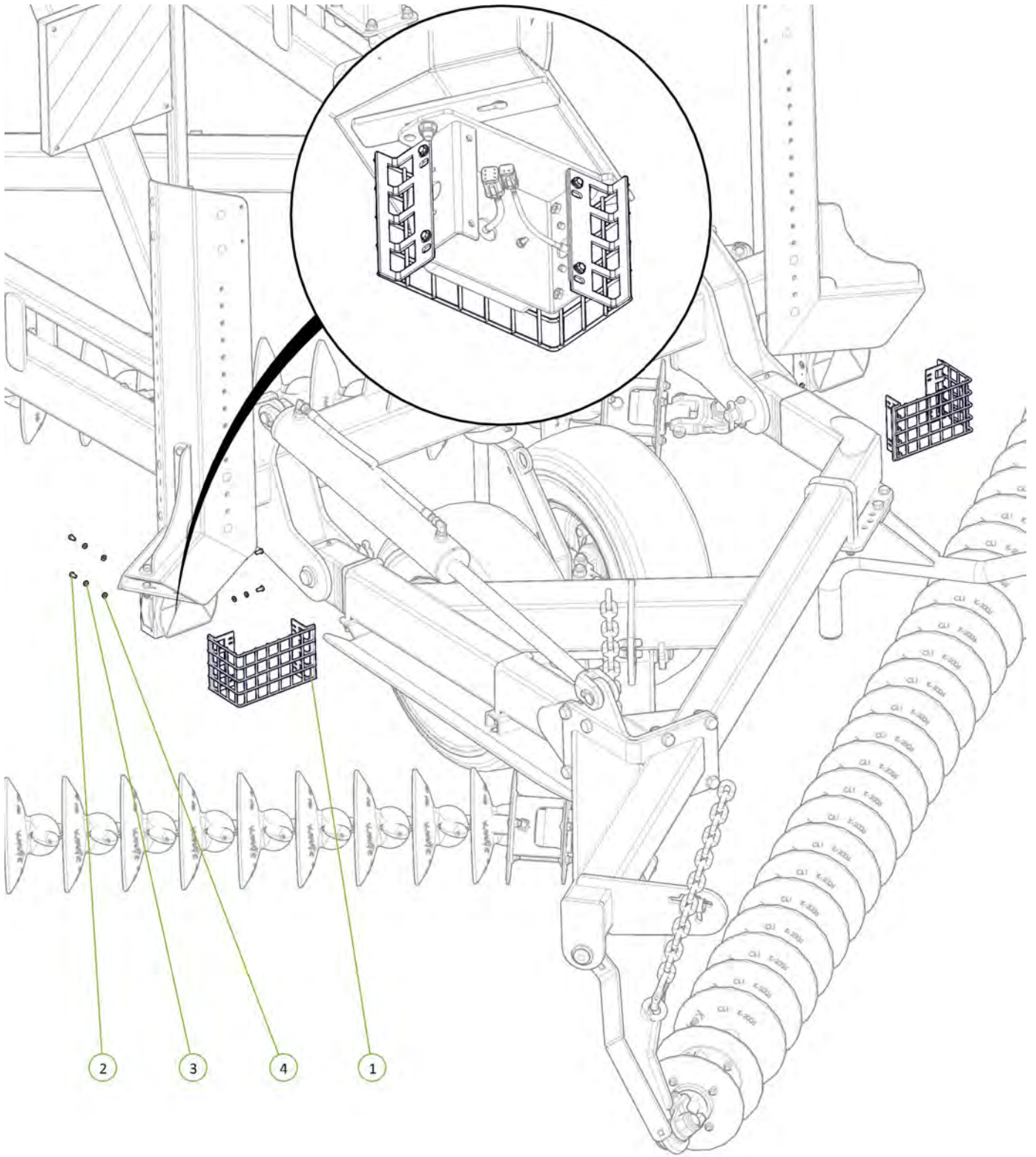


Item No.	Description	Number	Qty
1	EU38 Series Amber Position Marker Light	0412-LEDEU38AMB	2



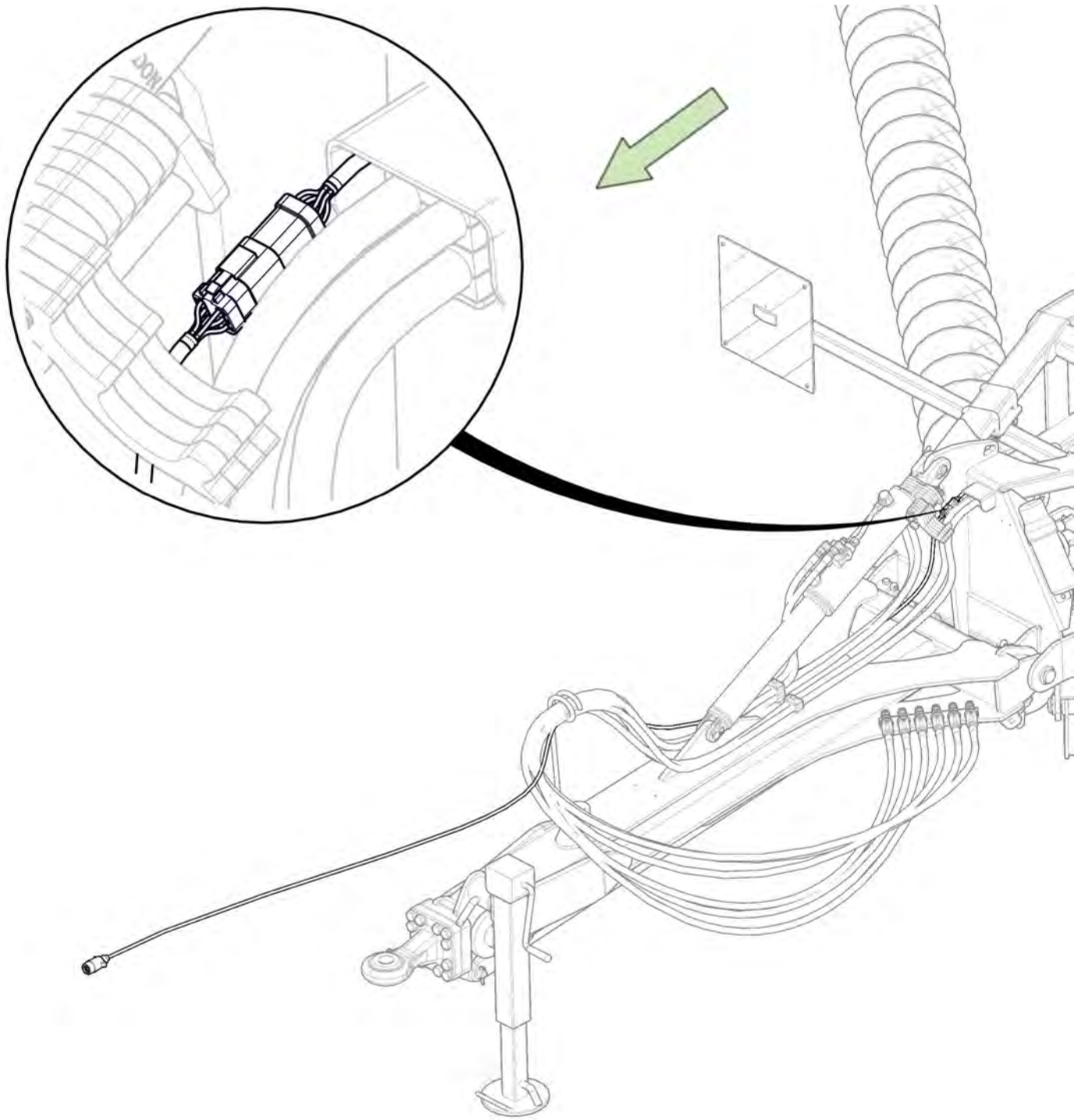


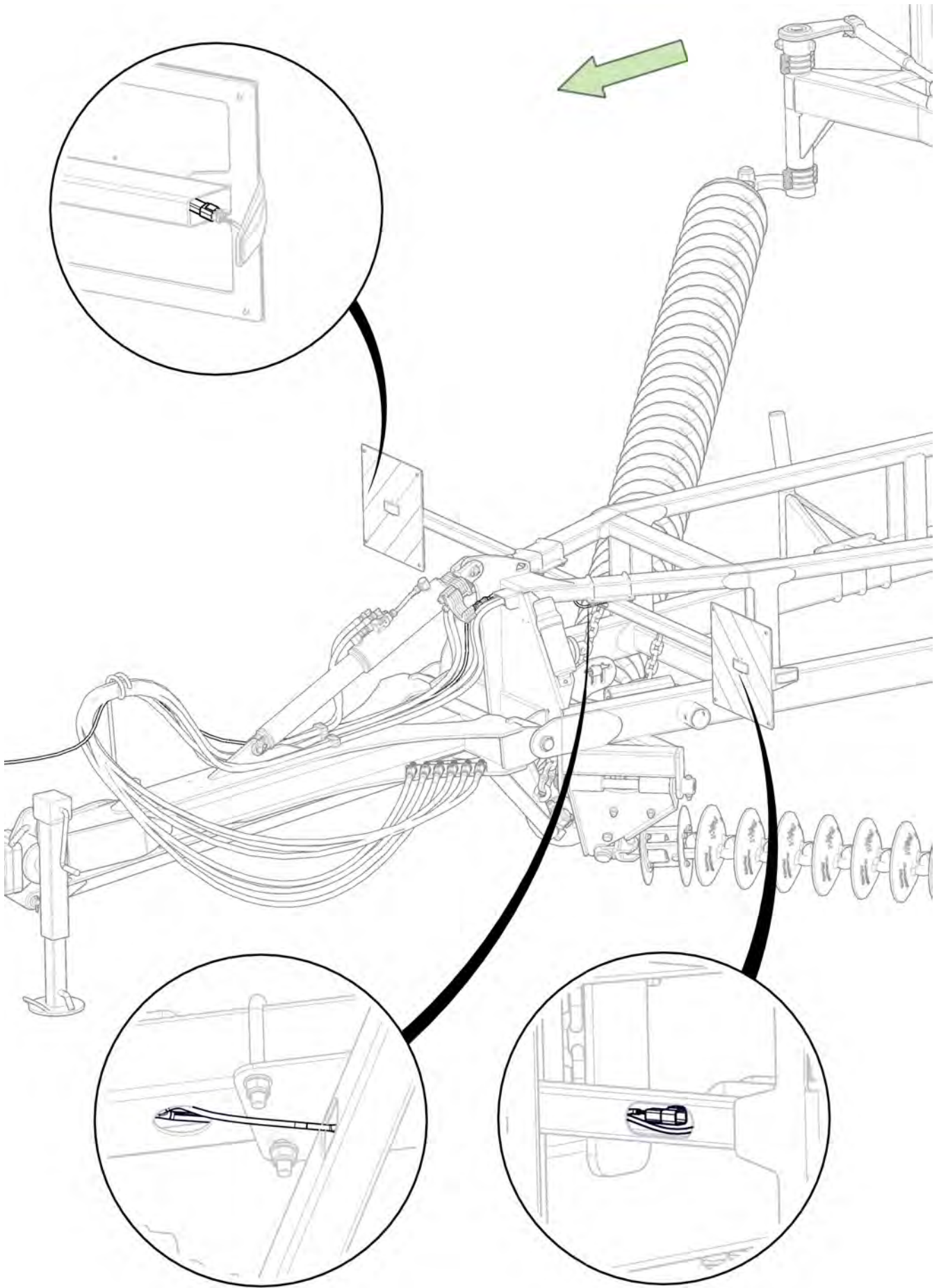
Item No.	Description	Number	Qty
1	LED Combination Tail Light Left	0412-EU200L	1
2	LED Combination Tail Light Right	0412-EU200R	1
3	EU38 Series Amber Position Marker Light	0412-LEDEU38AMB	2
4	Nyloc Nut M5	0221-NYL5	4
5	Washer Flat M5	0231-F5	4

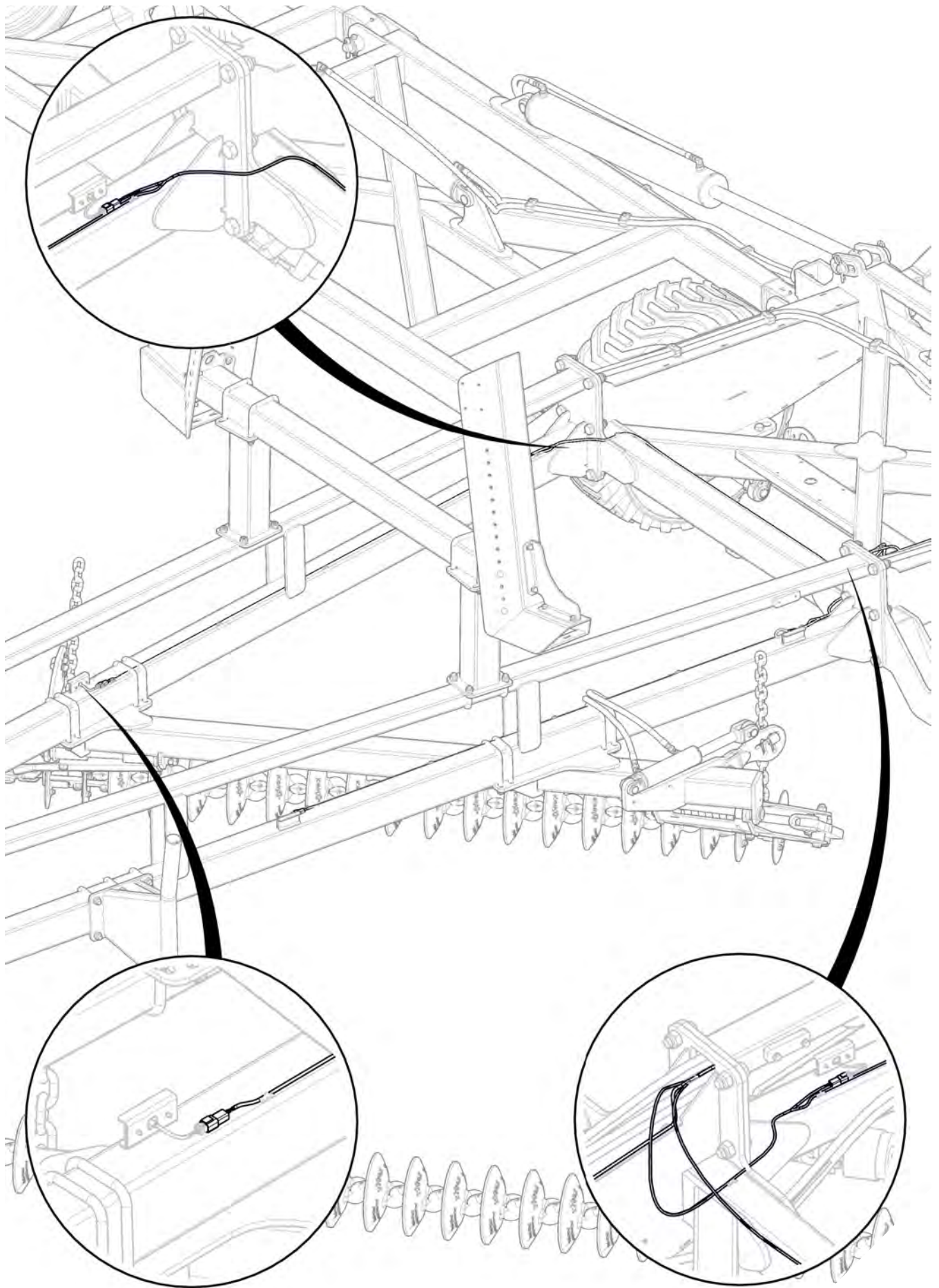


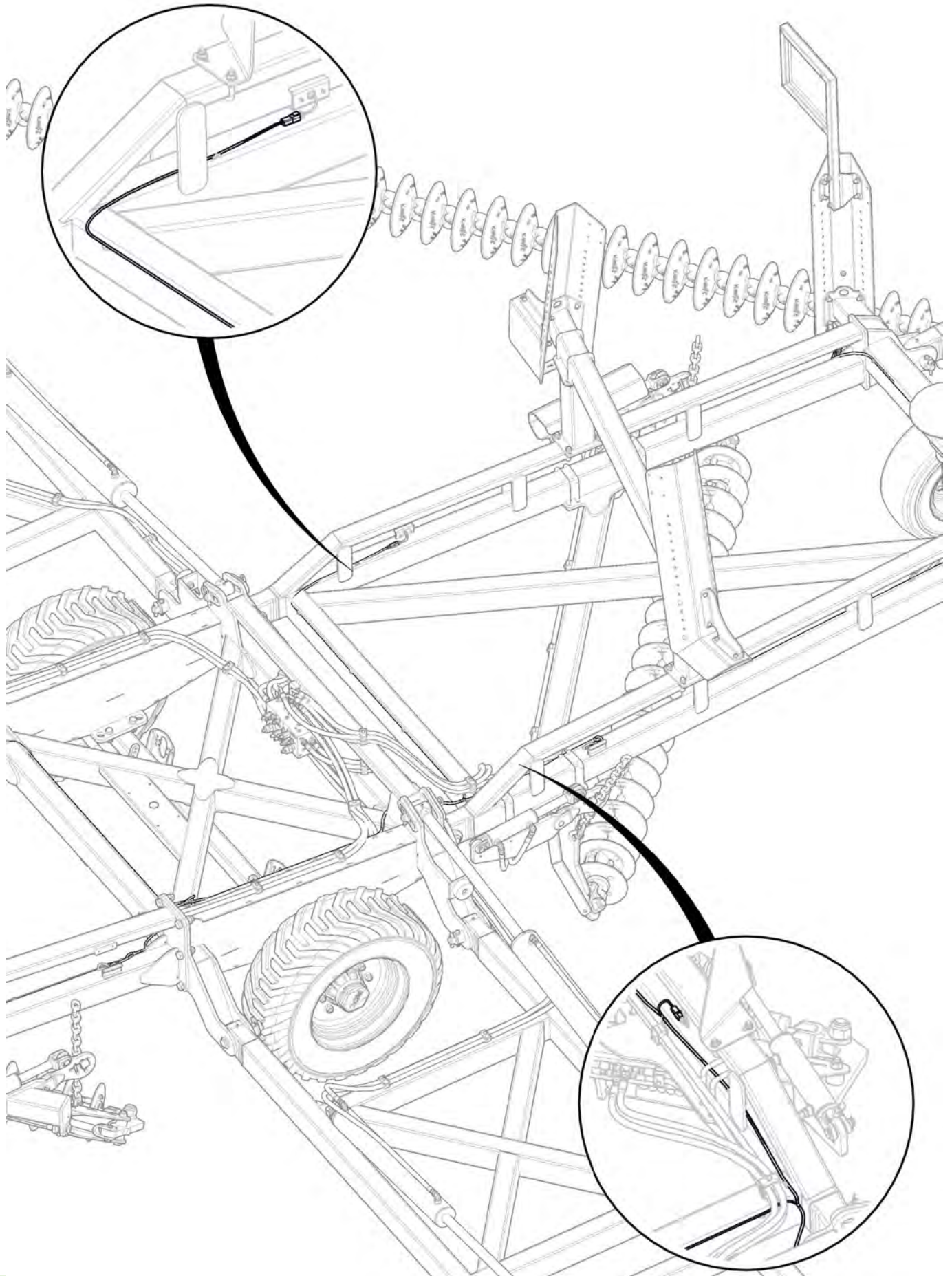
Item No.	Description	Number	Qty
1	Rear Light Bracket Guard	1510-239	2
2	M6 x 15 Class 8.8 ZP Bolt	0211-615	8
3	Washer Spring M6	0231-S6	8
4	Washer Flat M6	0231-F6	8

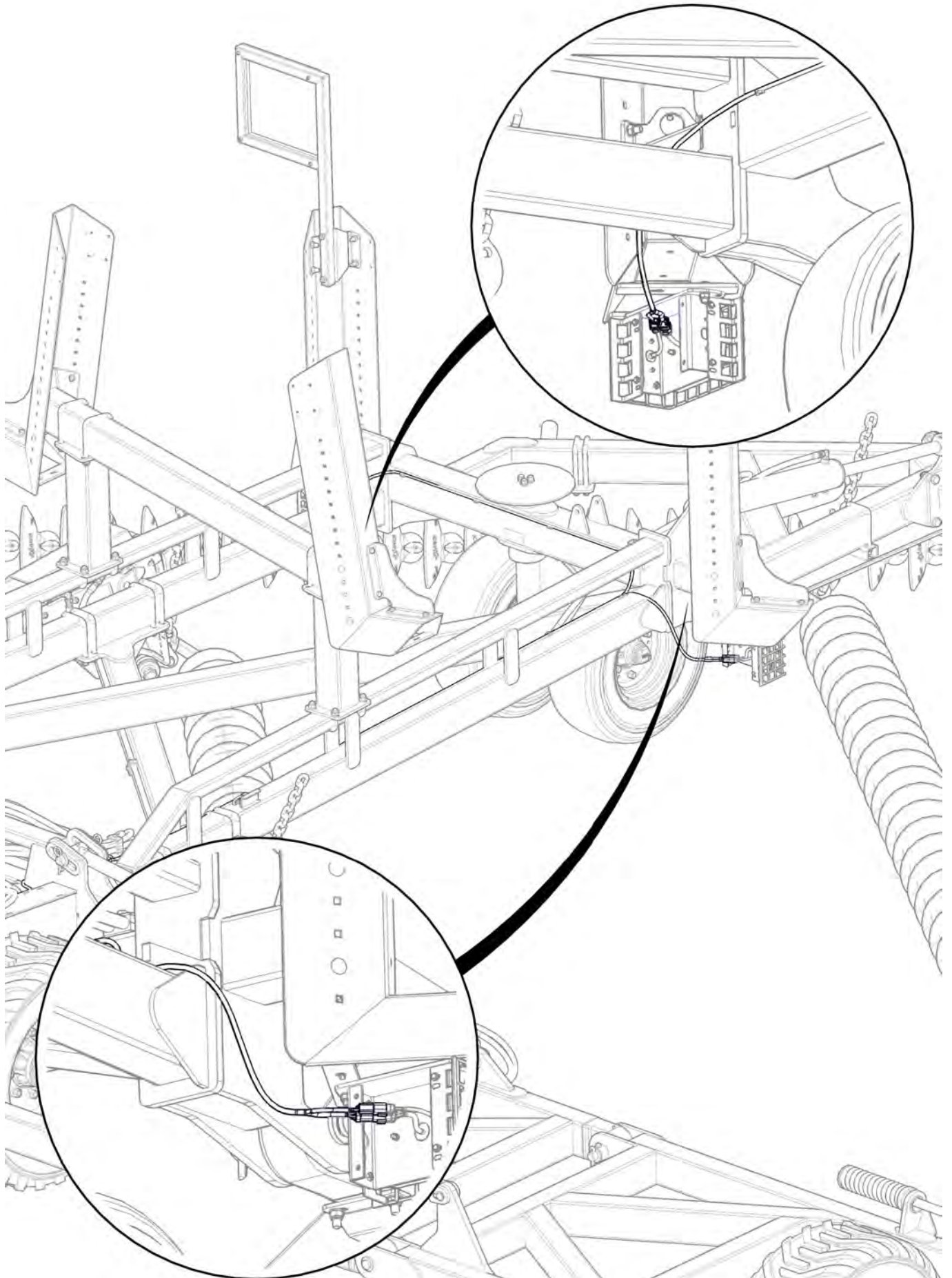




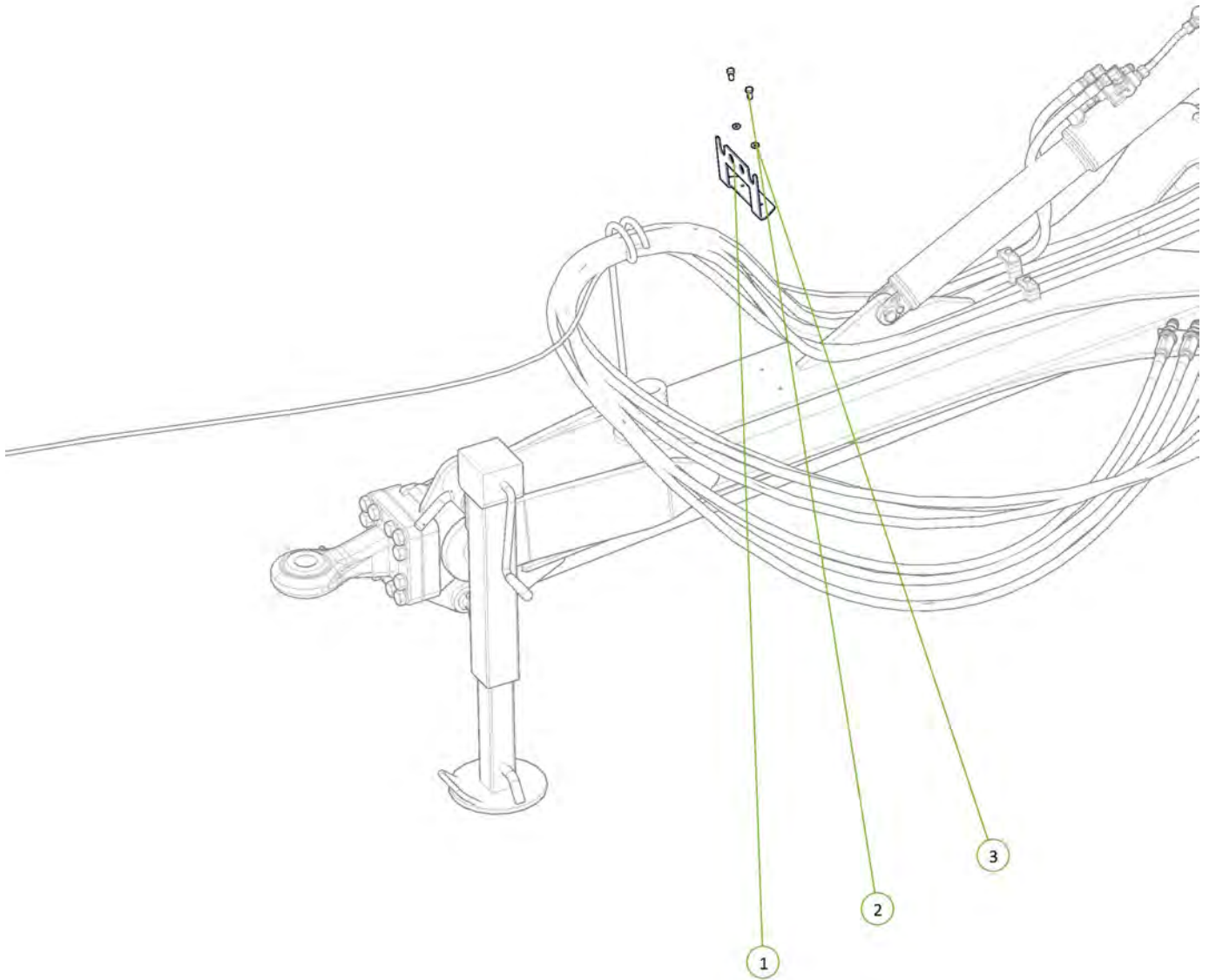








Item No.	Description	Number	Qty
1	Air Coupling Storage Bracket	1500-402	1
2	M8 x 20 Class 8.8 ZP Bolt	0211-820	2
3	Washer Spring M8	0231-S8	2

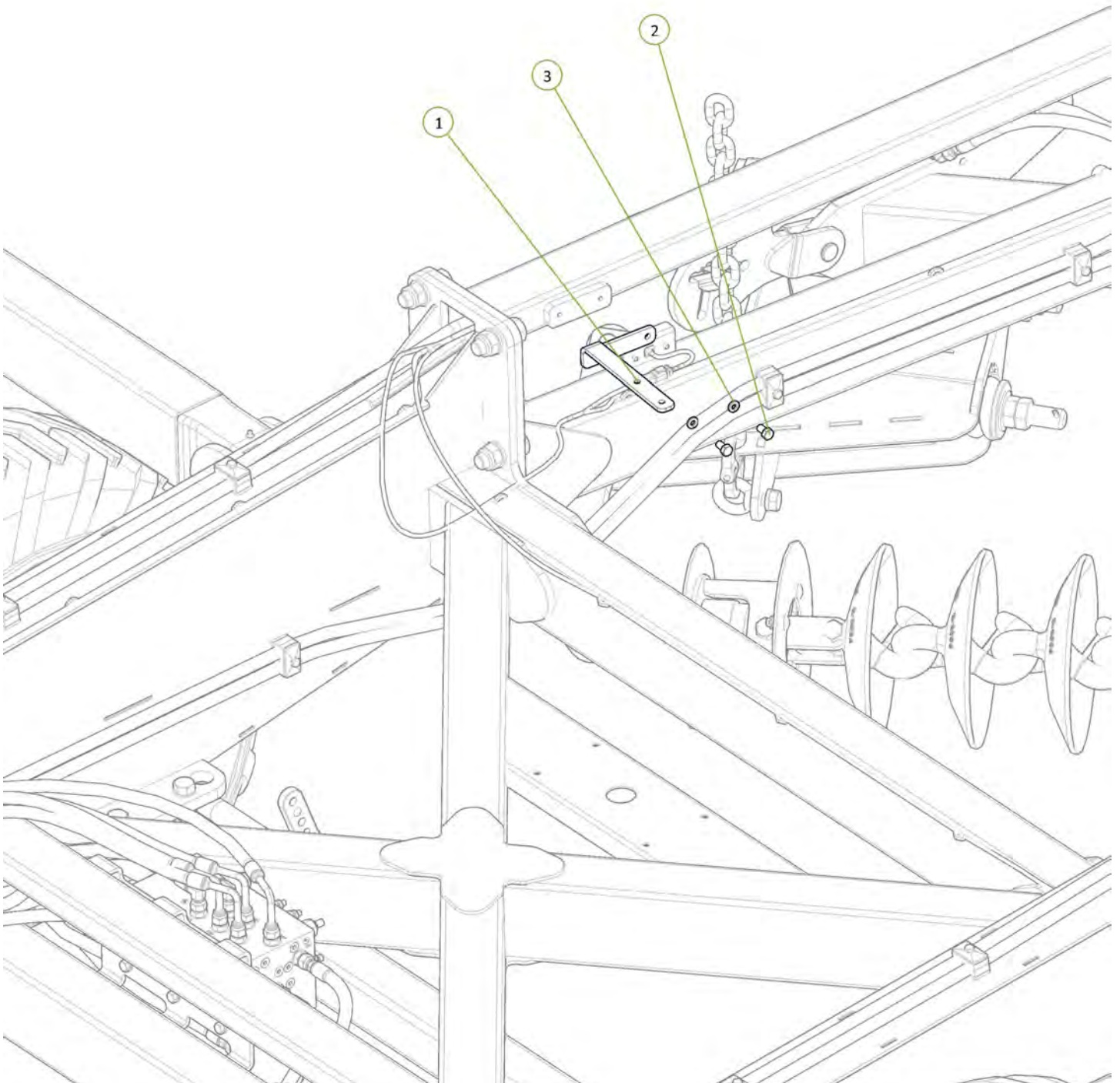




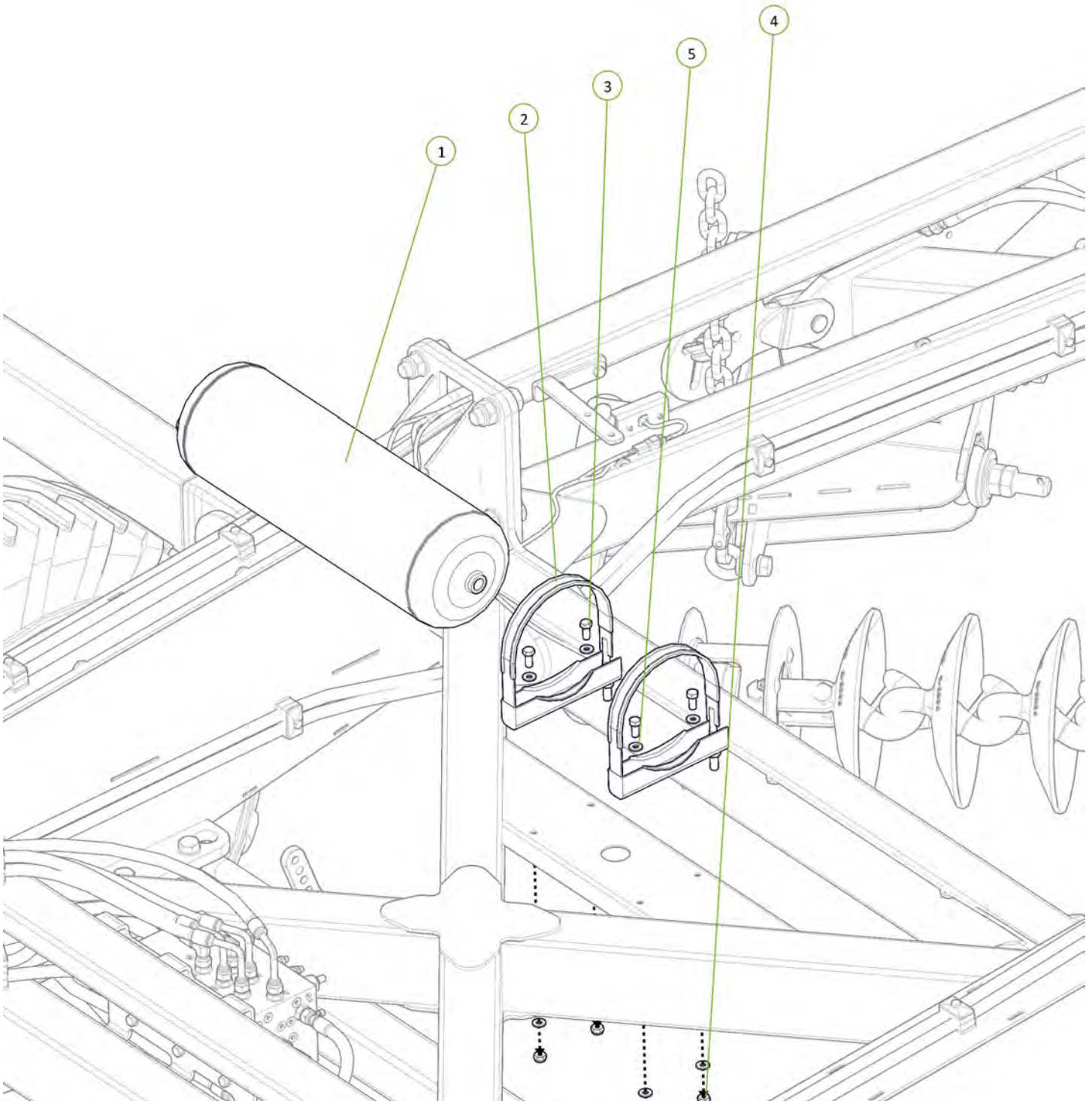
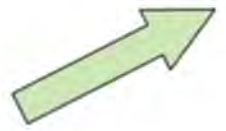
Section 3

Braking Components

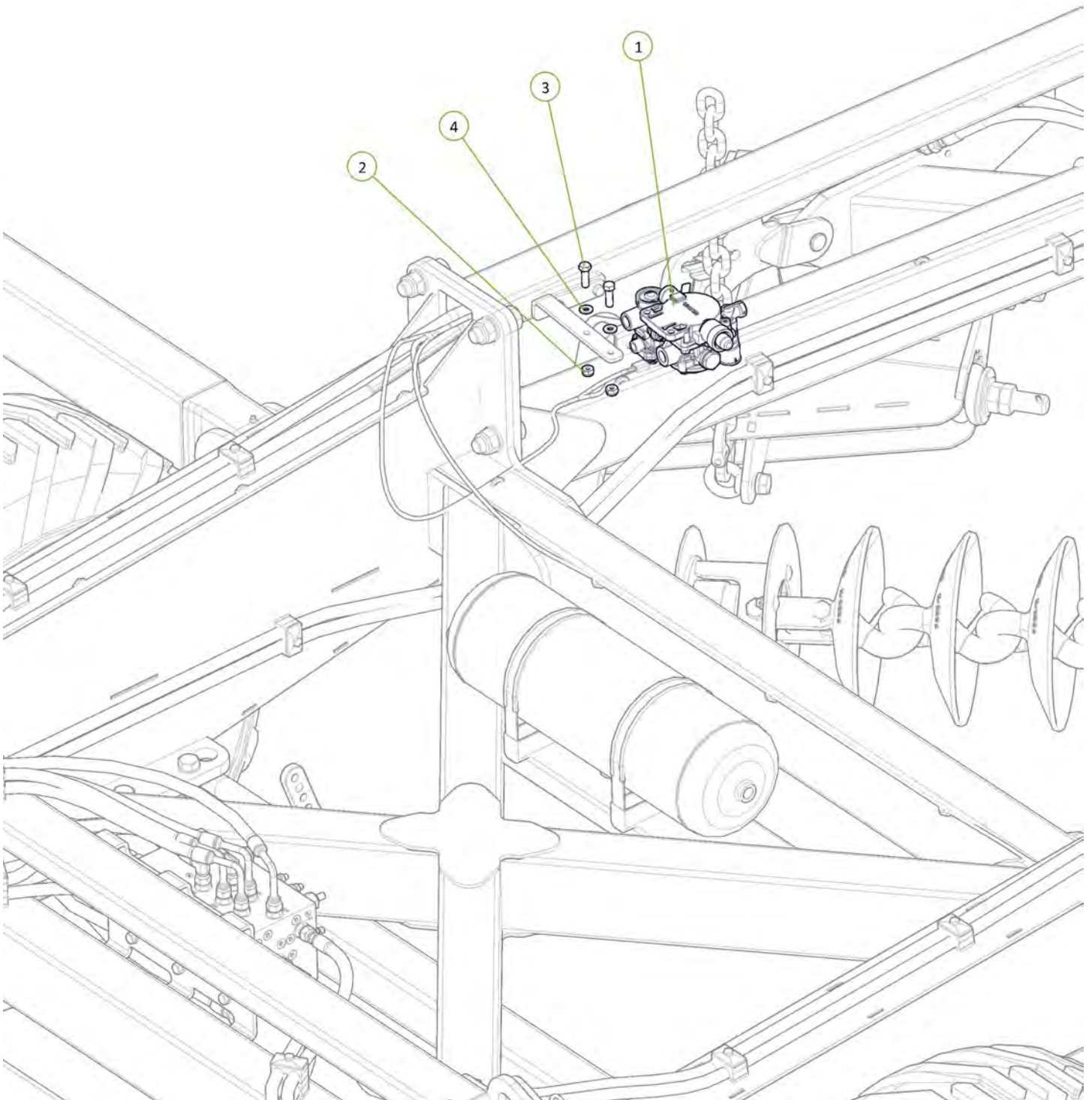
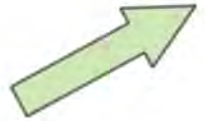
Item No.	Description	Number	Qty
1	9m Air Valve Bracket	1500-401	1
2	M10 x 20 Class 8.8 ZP Bolt	0211-1020	2
3	Washer Spring M10	0231-S10	2



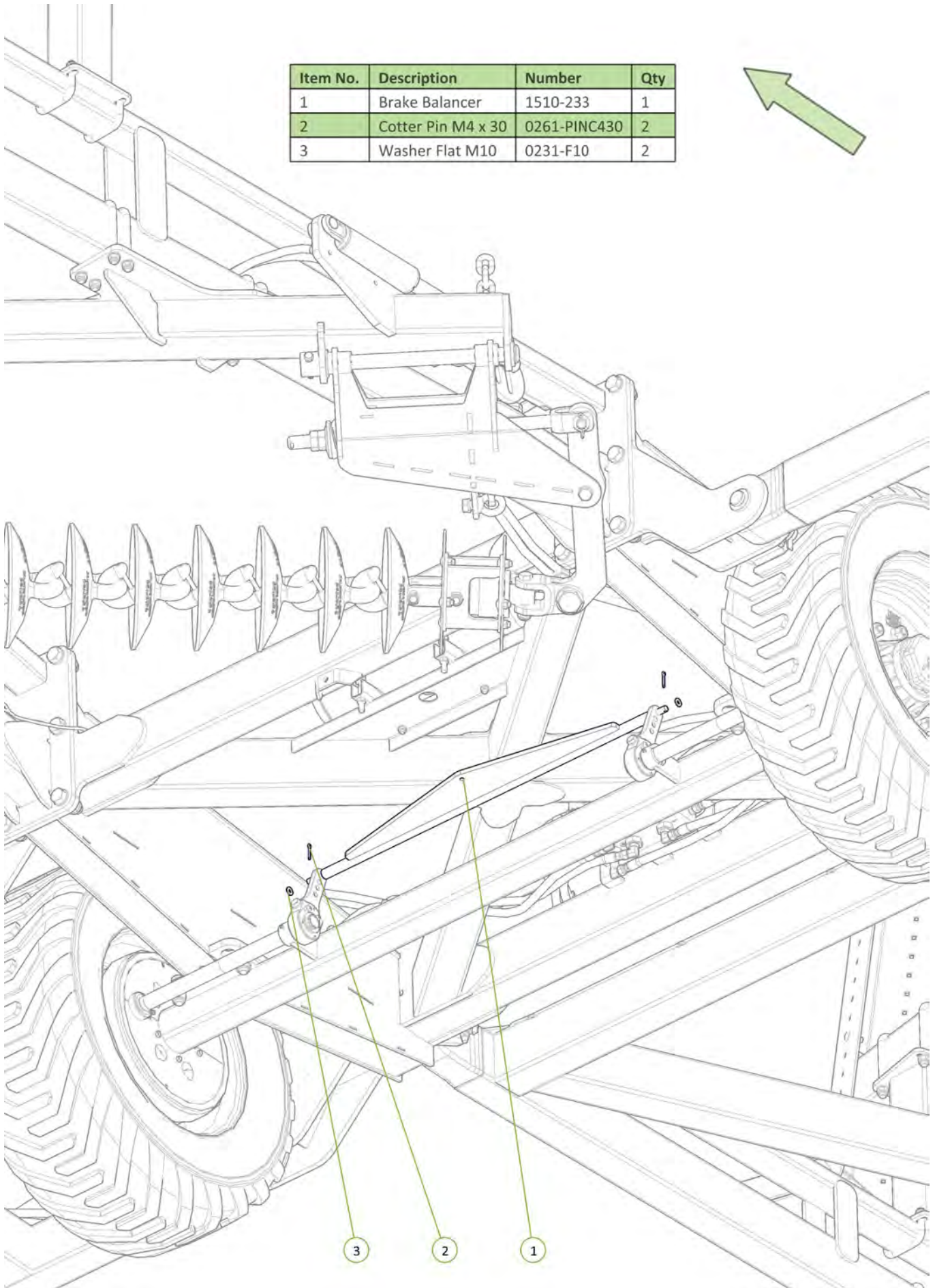
Item No.	Description	Number	Qty
1	Air Reservoir 20L	0761-9504200030	1
2	20L Air Reservoir Bracket	0761-9504053512	2
3	M10 x 25 Class 8.8 ZP Bolt	0211-1025	4
4	Nyloc Nut M10	0221-NYL10	4
5	Washer Flat M10	0231-F10	8

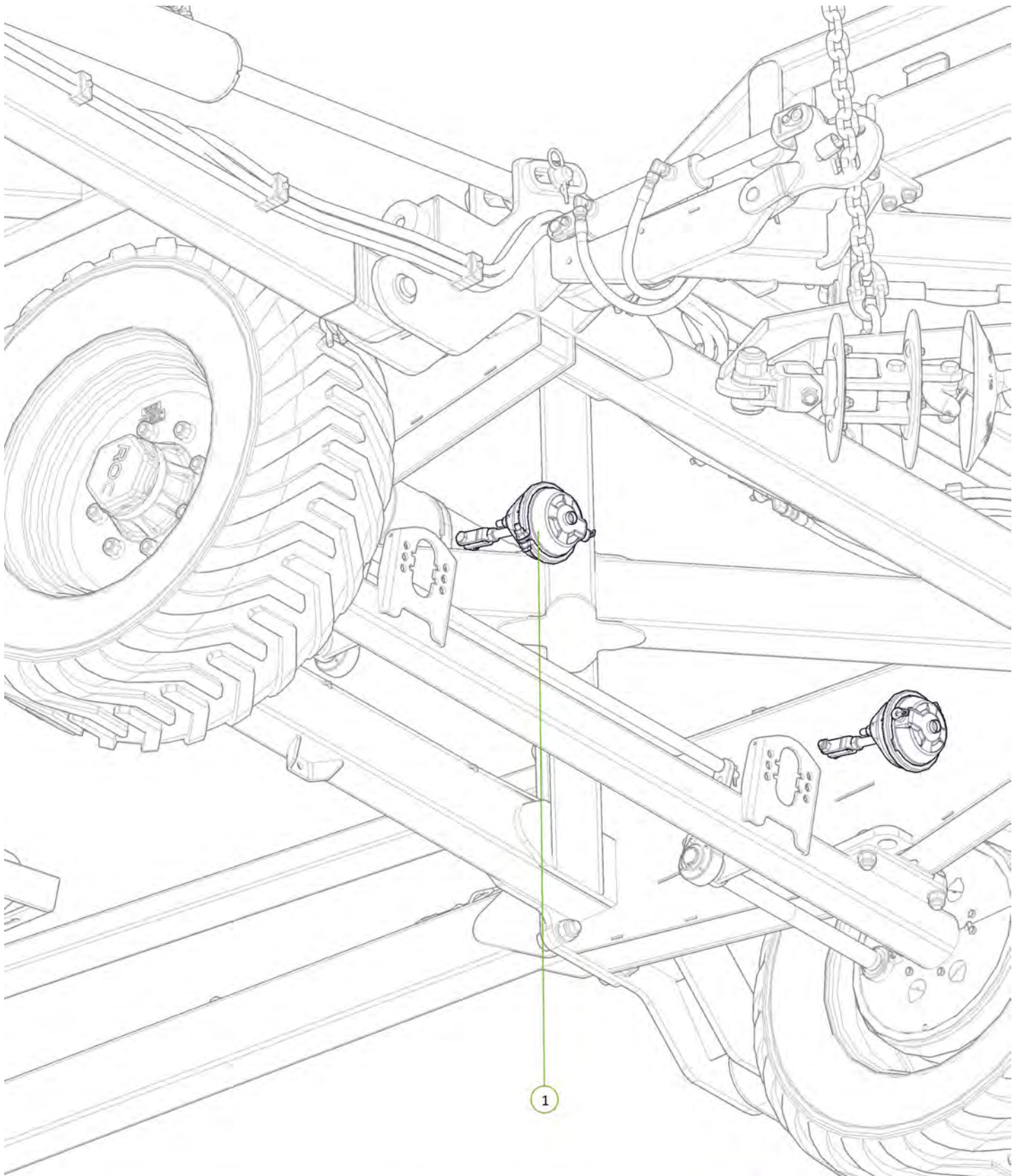


Item No.	Description	Number	Qty
1	Relay Emergency Valve	0761-9710026200	1
2	Nyloc Nut M10	0221-NYL10	2
3	M10 x 35 Class 8.8 ZP Bolt	0211-1035	2
4	Washer Flat M10	0231-F10	2



Item No.	Description	Number	Qty
1	Brake Balancer	1510-233	1
2	Cotter Pin M4 x 30	0261-PINC430	2
3	Washer Flat M10	0231-F10	2

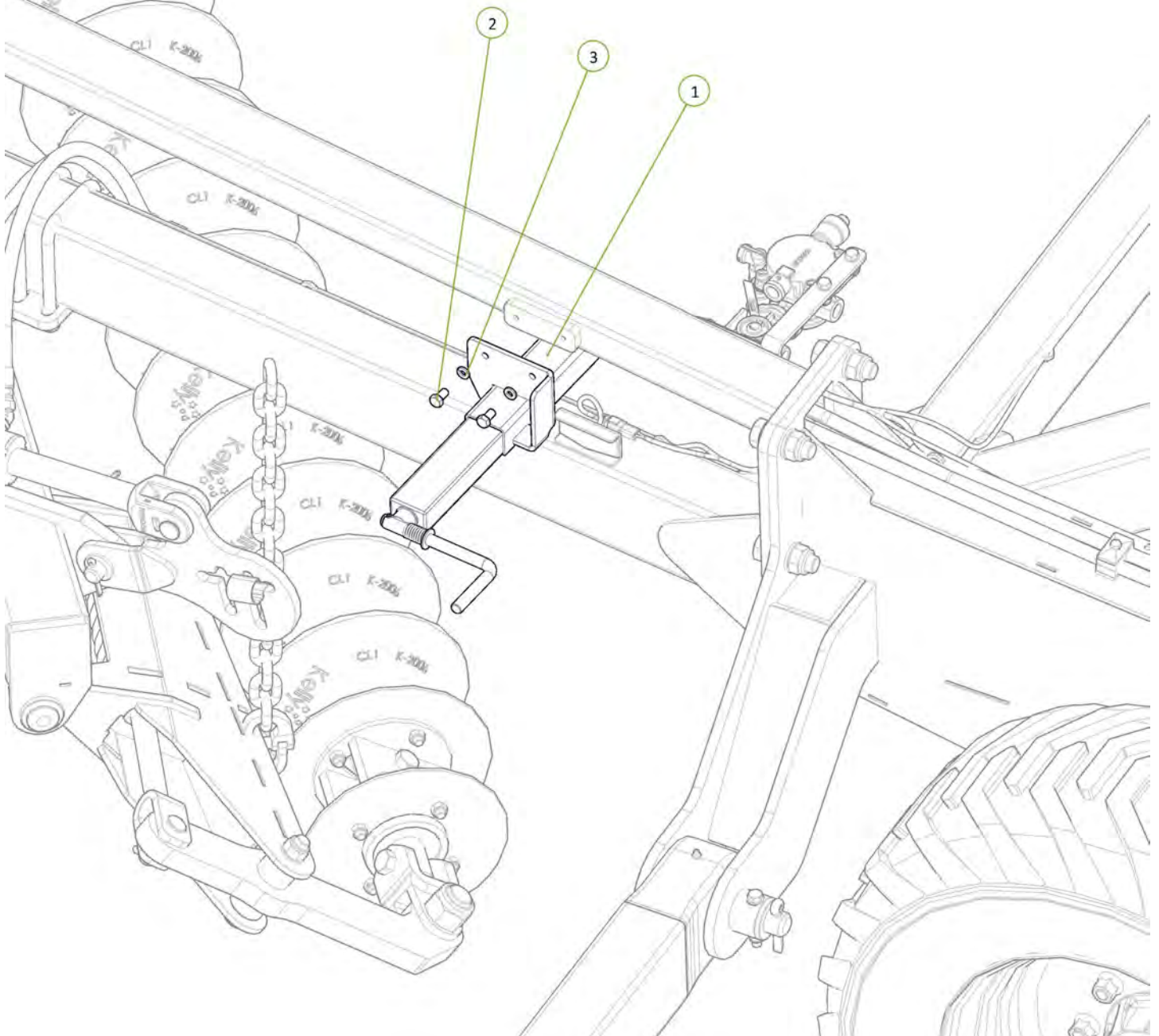




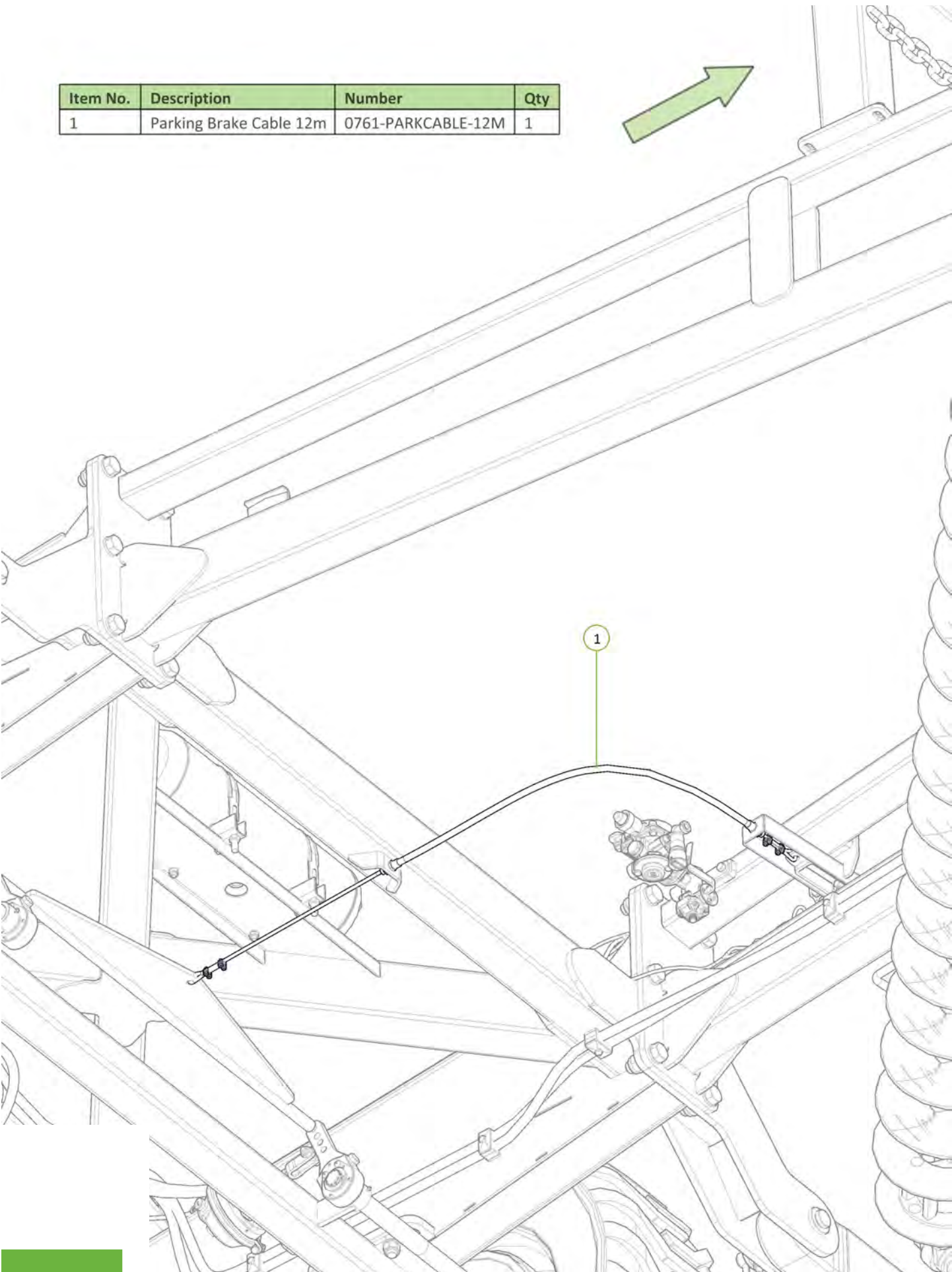
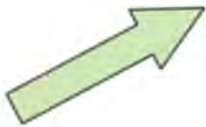
Item No.	Description	Number	Qty
1	16" Knorr Brake Actuator	1501-3573000150	2



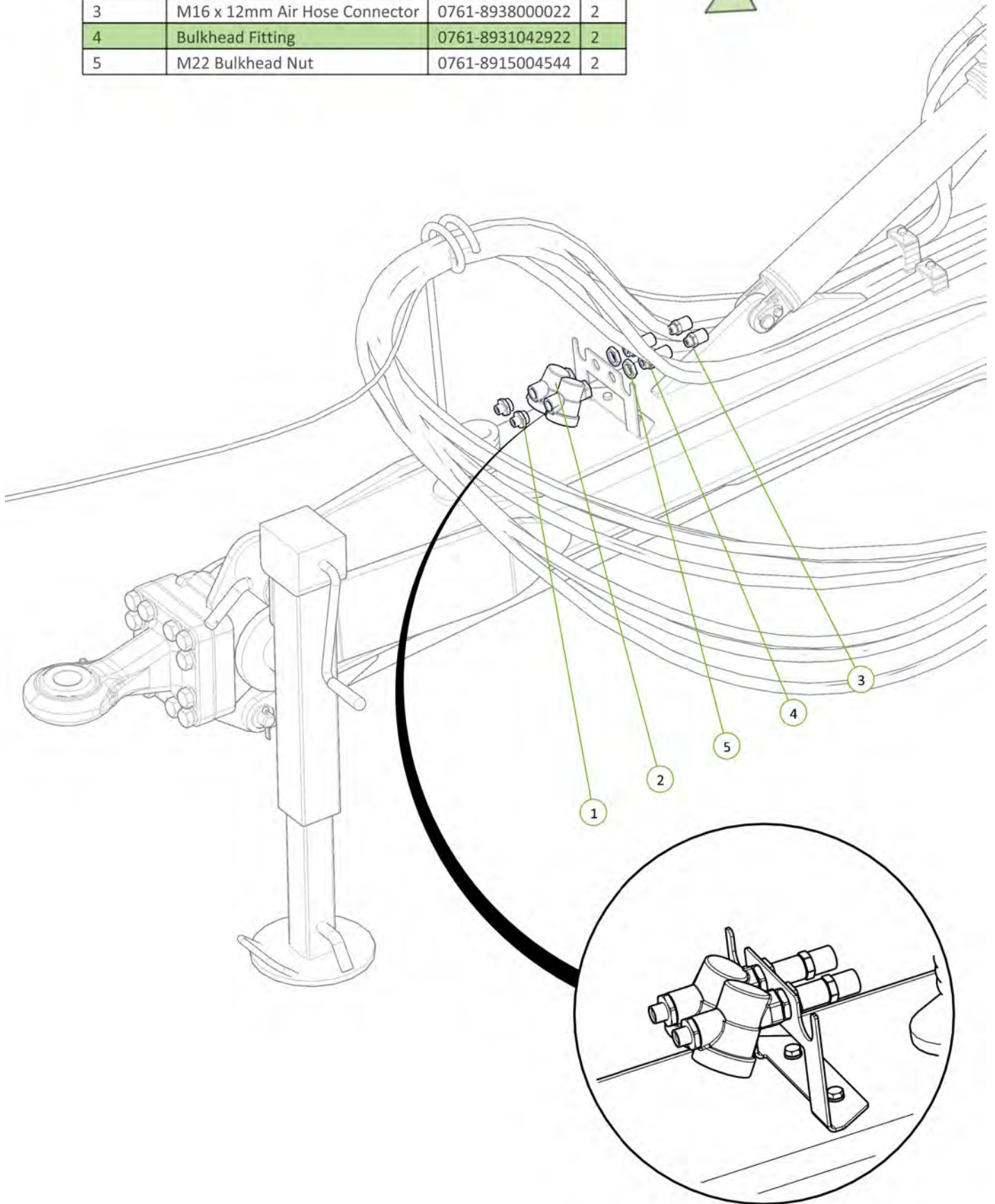
Item No.	Description	Number	Qty
1	9m Parking Brake Mechanism	0761-9MPB	1
2	M10 x 20 Class 8.8 ZP Bolt	0211-1020	2
3	Washer Spring M10	0231-S10	2



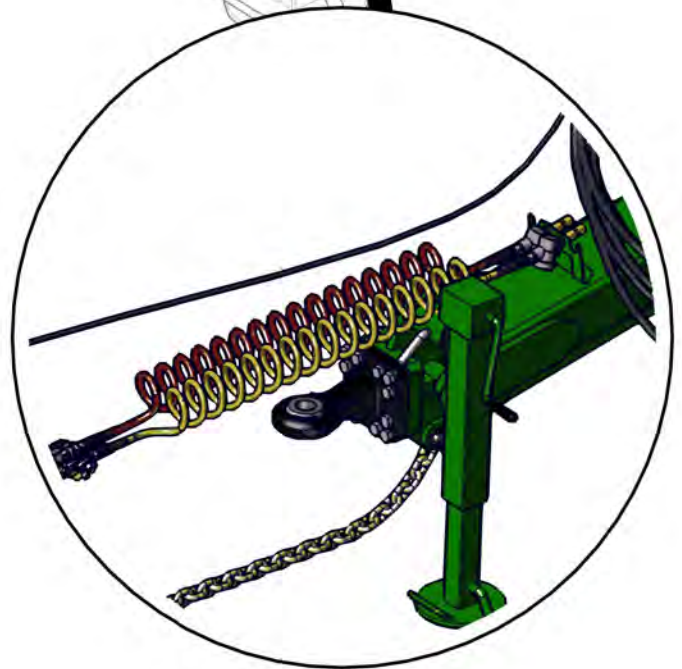
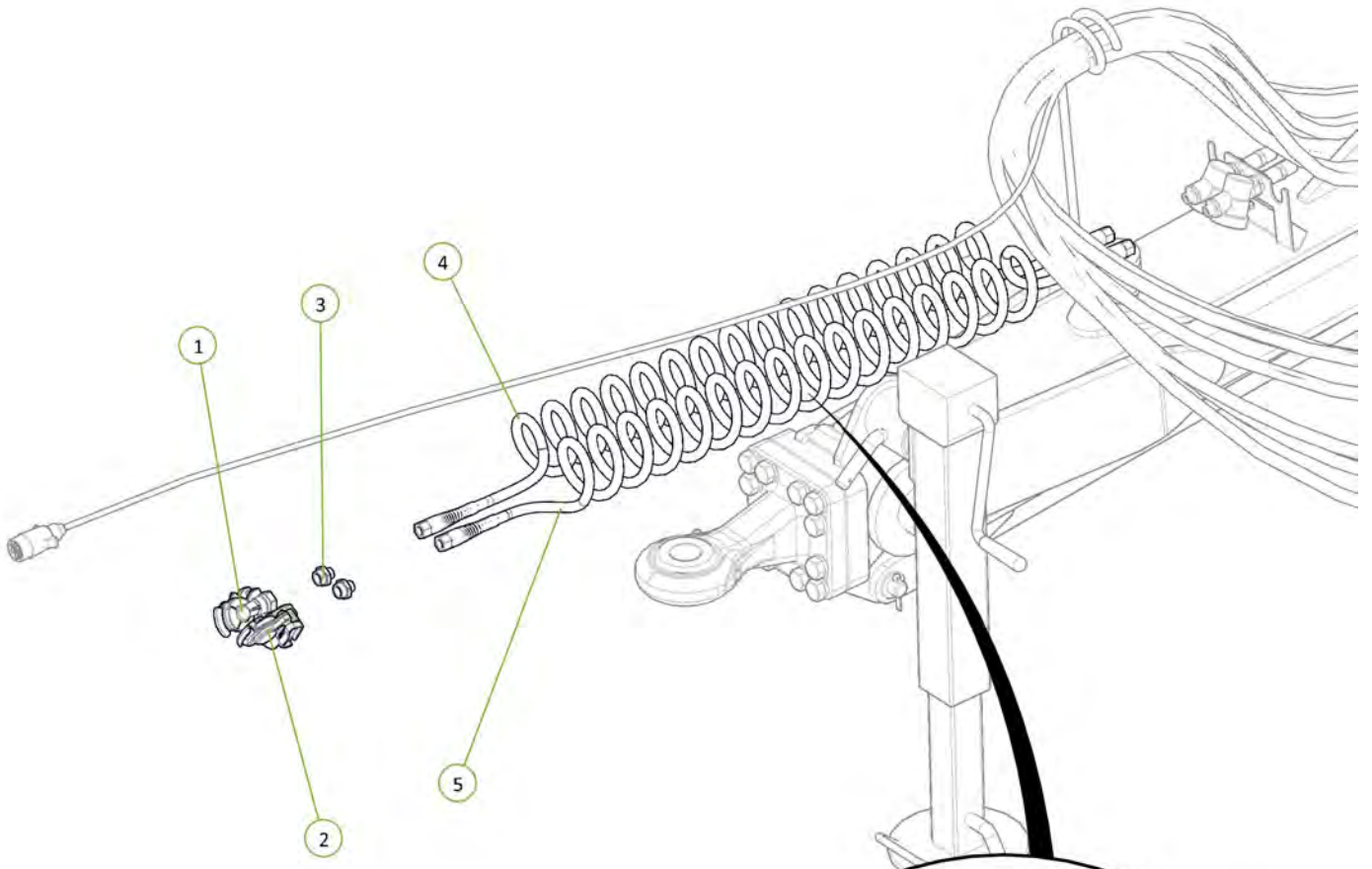
Item No.	Description	Number	Qty
1	Parking Brake Cable 12m	0761-PARKCABLE-12M	1



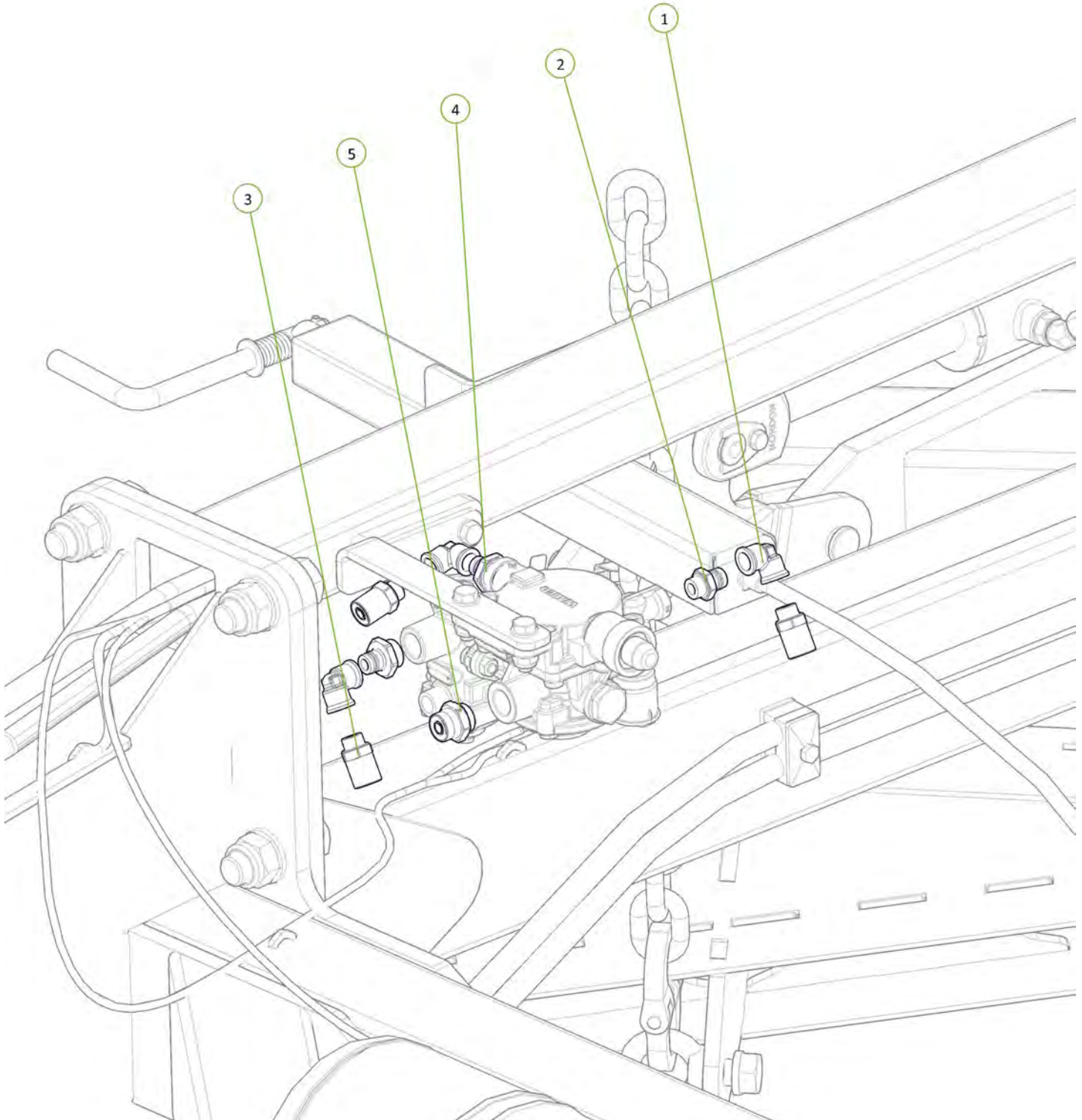
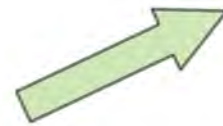
Item No.	Description	Number	Qty
1	M22/16 Straight Connector	0761-8931003404	2
2	Air Line Filter	0761-4325000200	2
3	M16 x 12mm Air Hose Connector	0761-8938000022	2
4	Bulkhead Fitting	0761-8931042922	2
5	M22 Bulkhead Nut	0761-8915004544	2

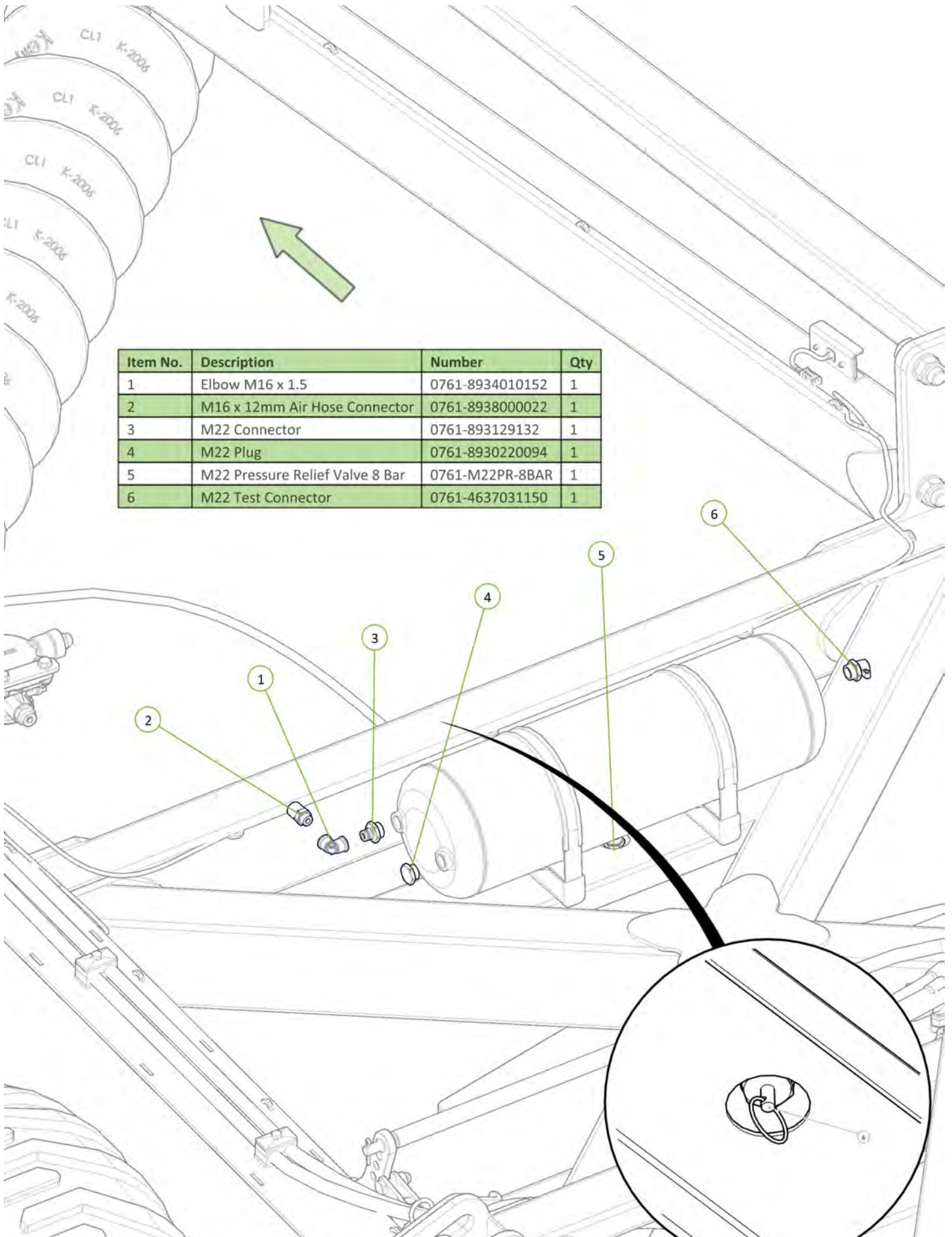


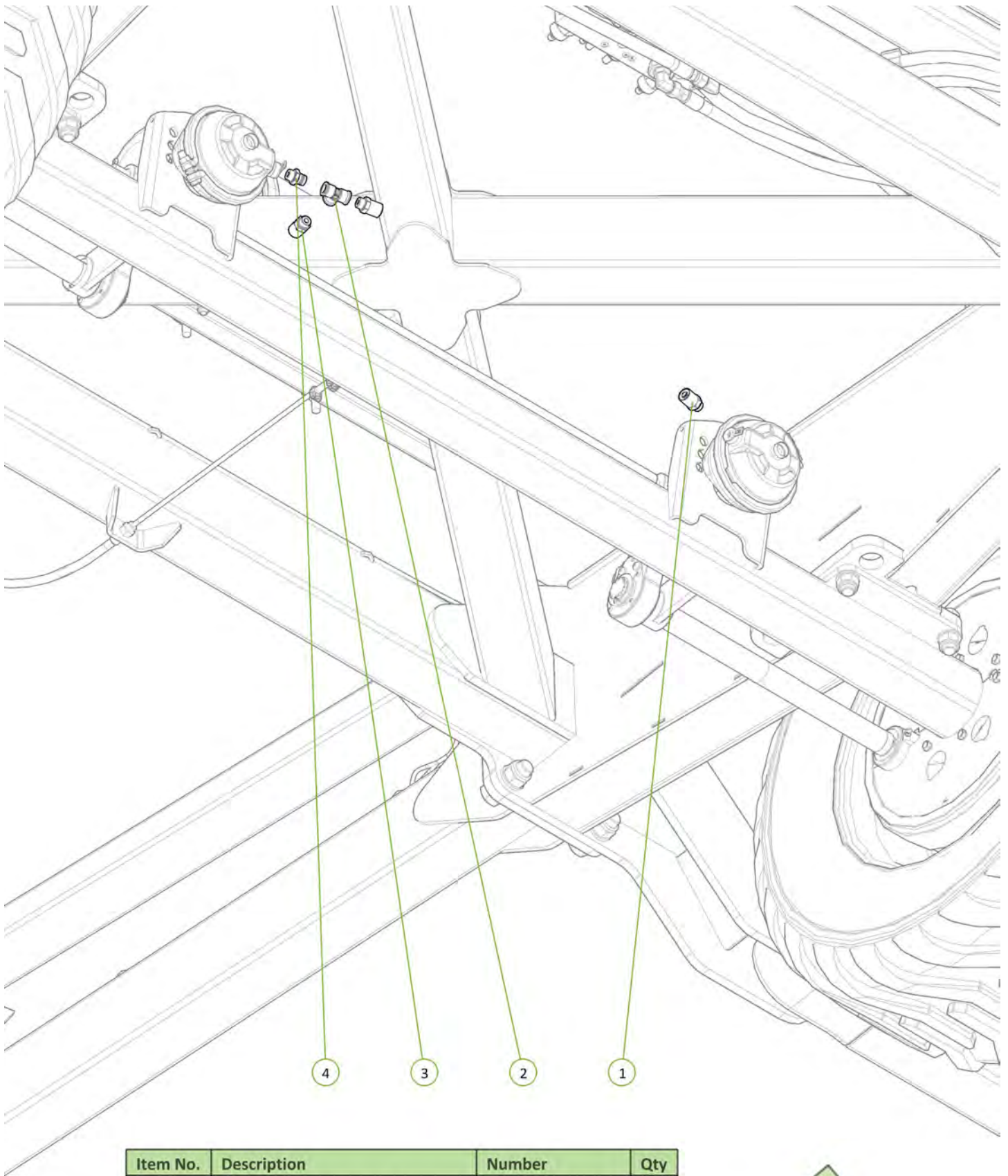
Item No.	Description	Number	Qty
1	Red Air Hose Coupling	0761-9528970070	1
2	Yellow Air Hose Coupling	0761-9528970060	1
3	M22/16 Straight Connector	0761-8931003404	2
4	Red Flexi Air Hose	0761-4527110580	1
5	Yellow Flexi Air Hose	0761-4527110590	1



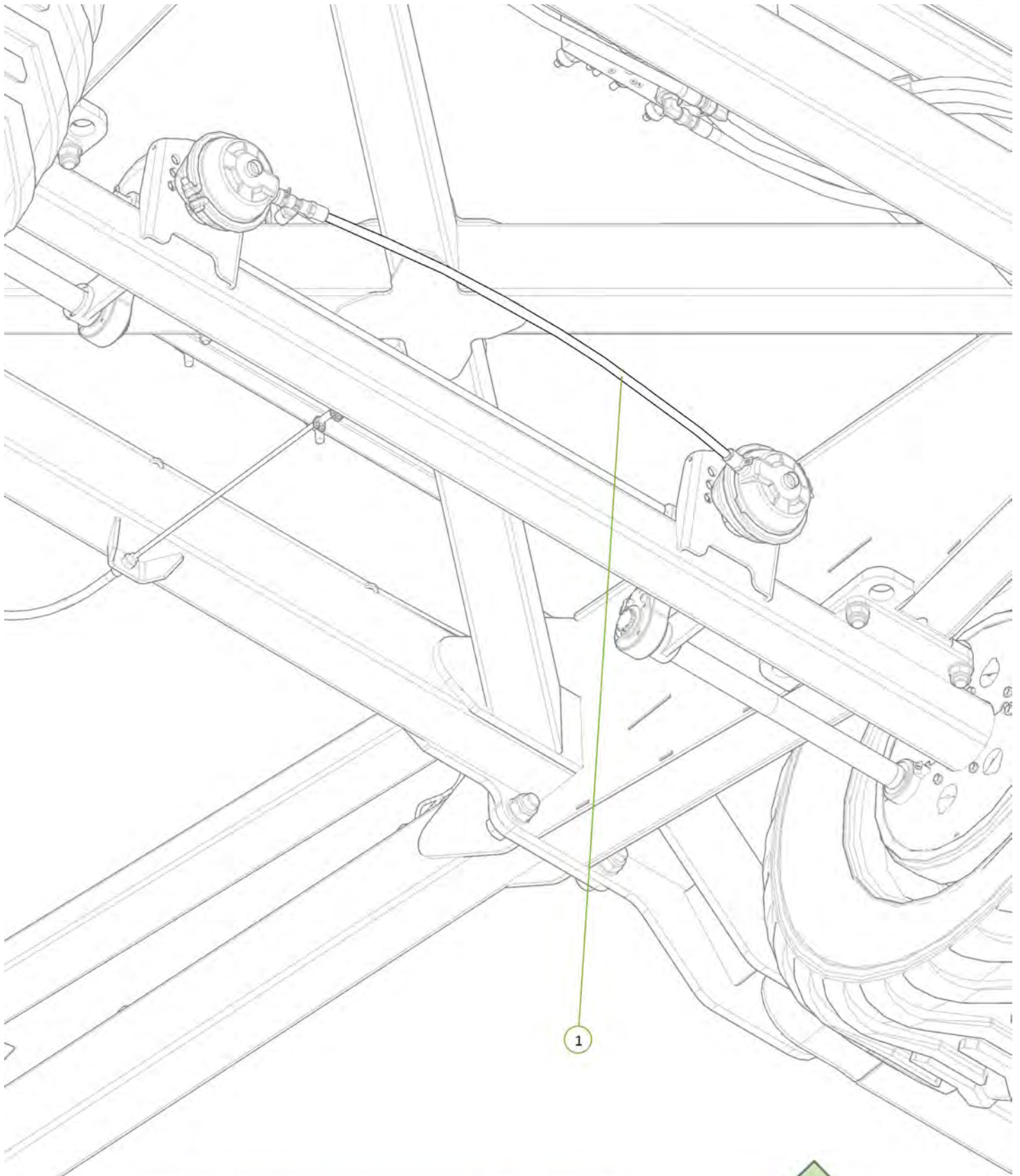
Item No.	Description	Number	Qty
1	Elbow M16 x 1.5	0761-8934010152	3
2	M16 Connector	0761-8931291922	1
3	M16 x 12mm Air Hose Connector	0761-8938000022	3
4	M22 Connector	0761-893129132	2
5	M22 x 12mm Air Hose Connector	0761-8938000082	1





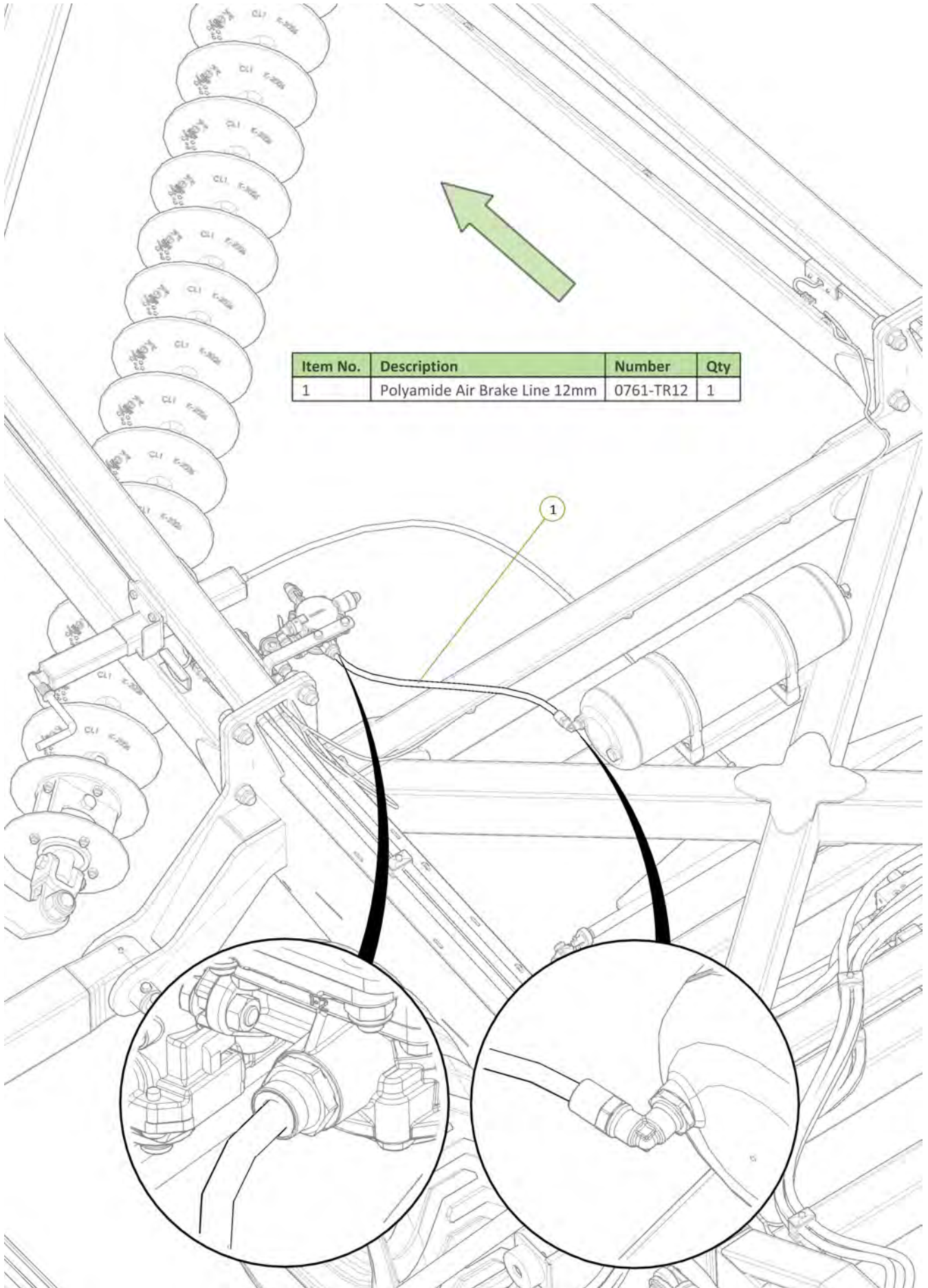


Item No.	Description	Number	Qty
1	M16 x 12mm Air Hose Connector	0761-8938000022	2
2	T-Piece M16 x 1.5	0761-8935011944	1
3	M16 x 12mm Air Hose Connector	0761-8938000022	1
4	M16 Connector	0761-8931291922	1



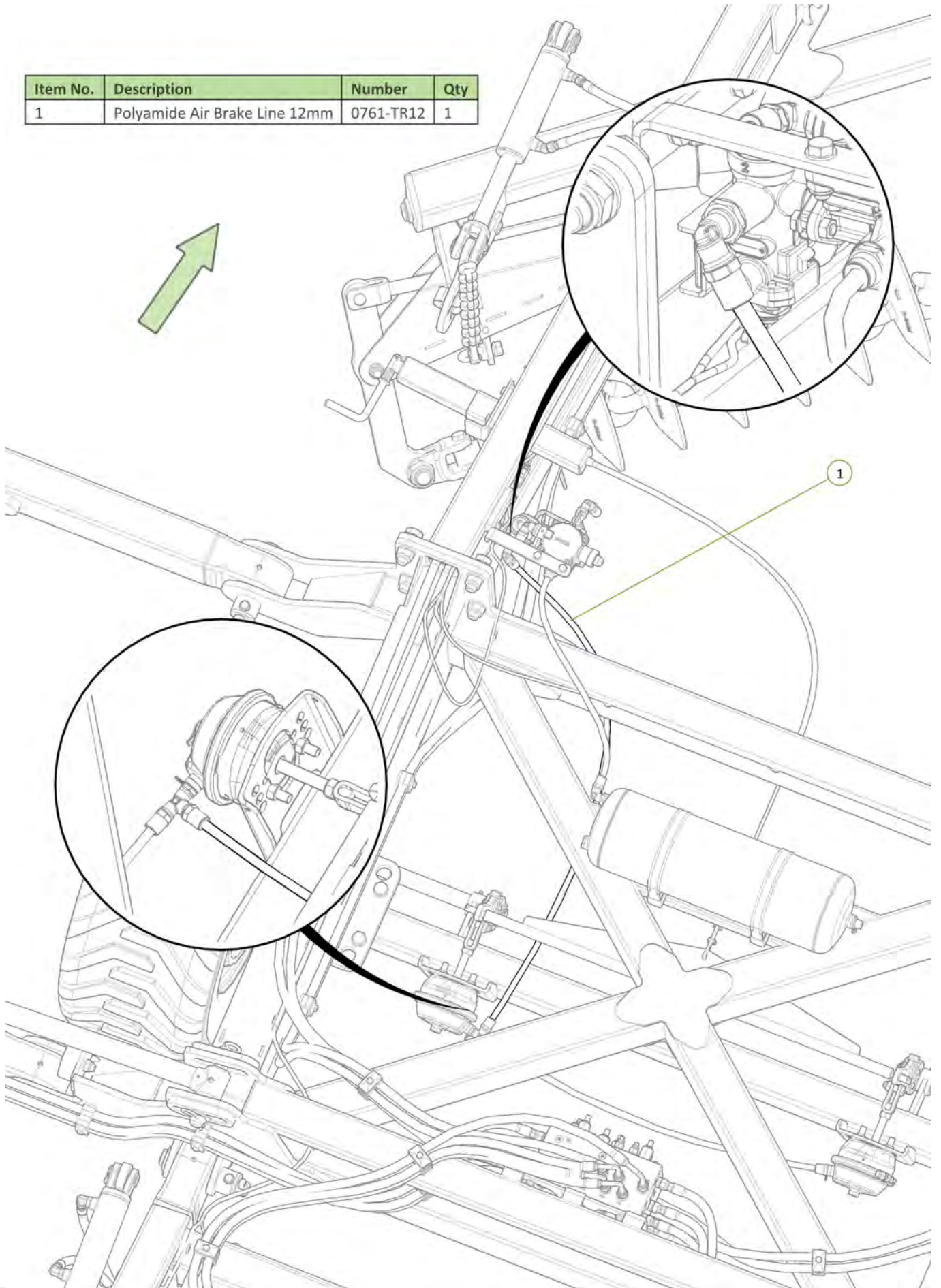
Item No.	Description	Number	Qty
1	Polyamide Air Brake Line 12mm	0761-TR12	1

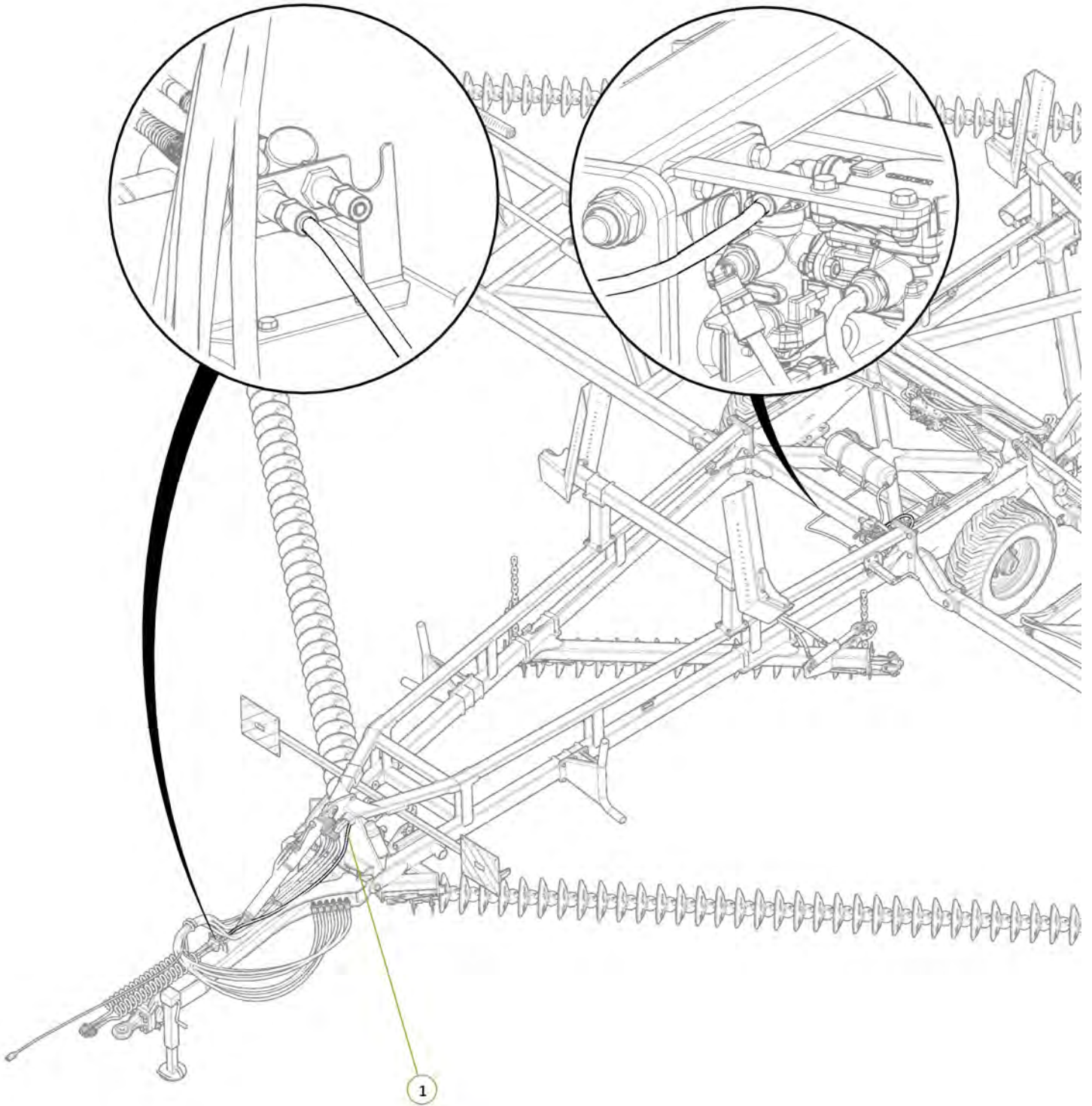




Item No.	Description	Number	Qty
1	Polyamide Air Brake Line 12mm	0761-TR12	1

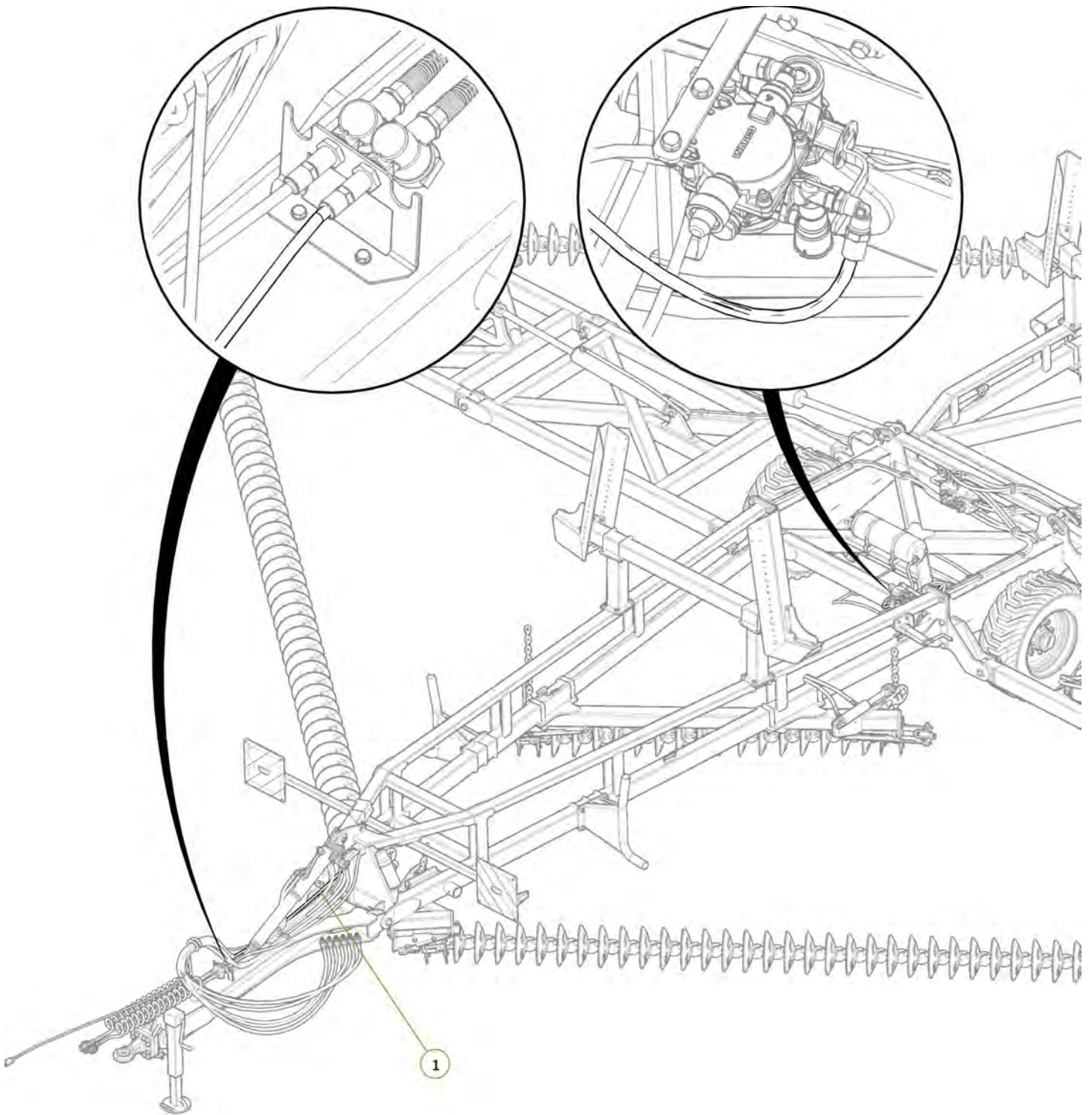
Item No.	Description	Number	Qty
1	Polyamide Air Brake Line 12mm	0761-TR12	1





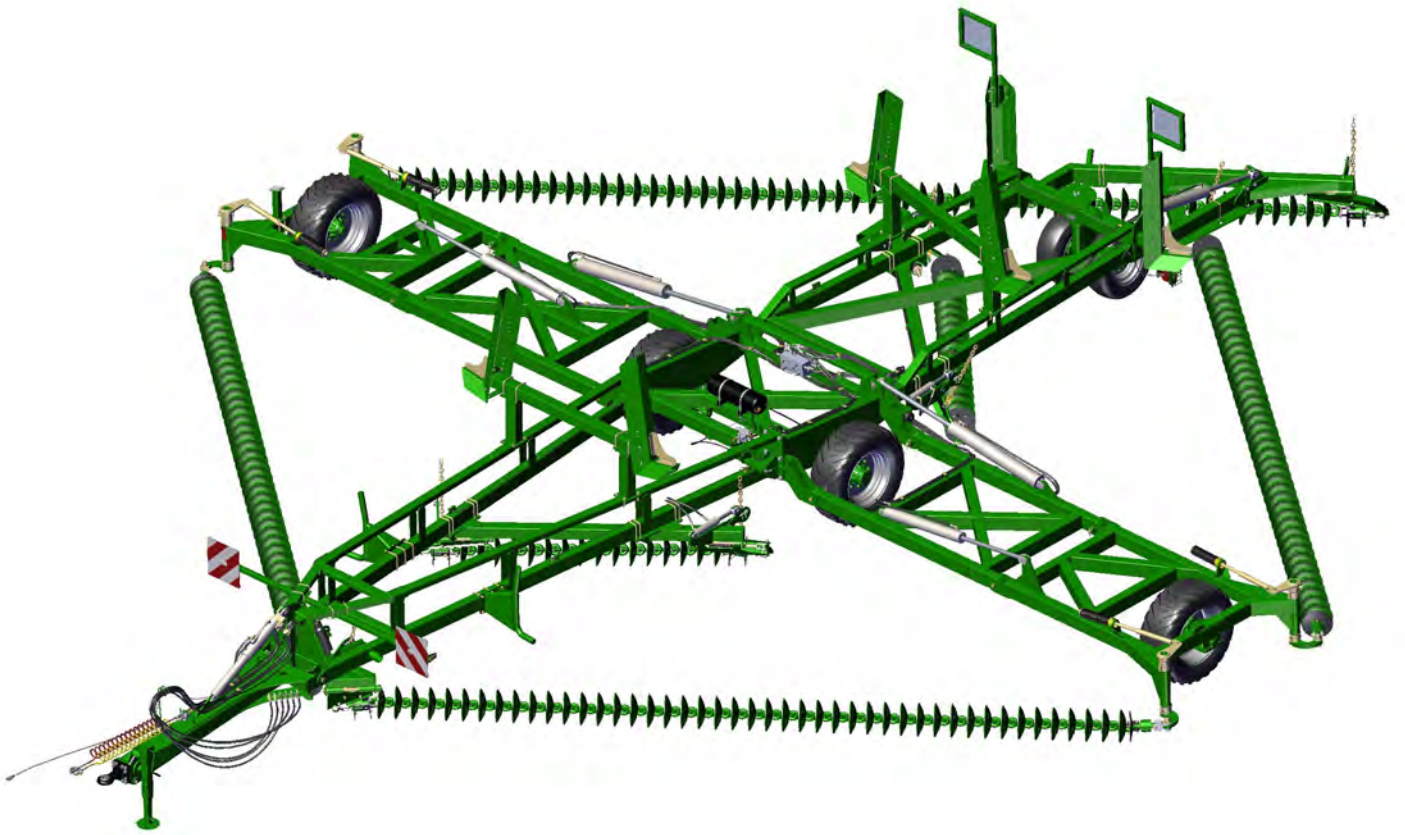
Item No.	Description	Number	Qty
1	Polyamide Air Brake Line 12mm	0761-TR12	1





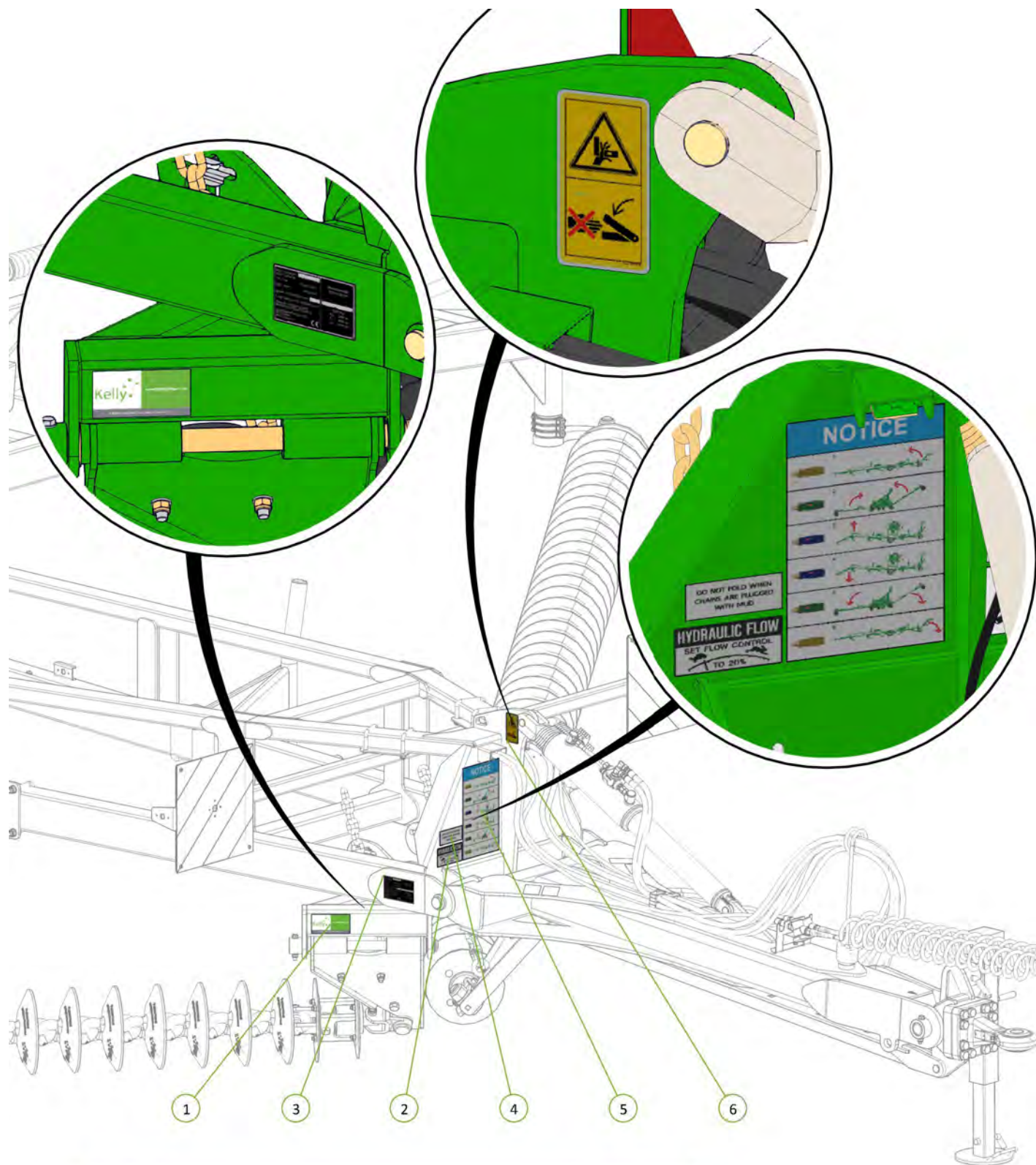
Item No.	Description	Number	Qty
1	Polyamide Air Brake Line 12mm	0761-TR12	1





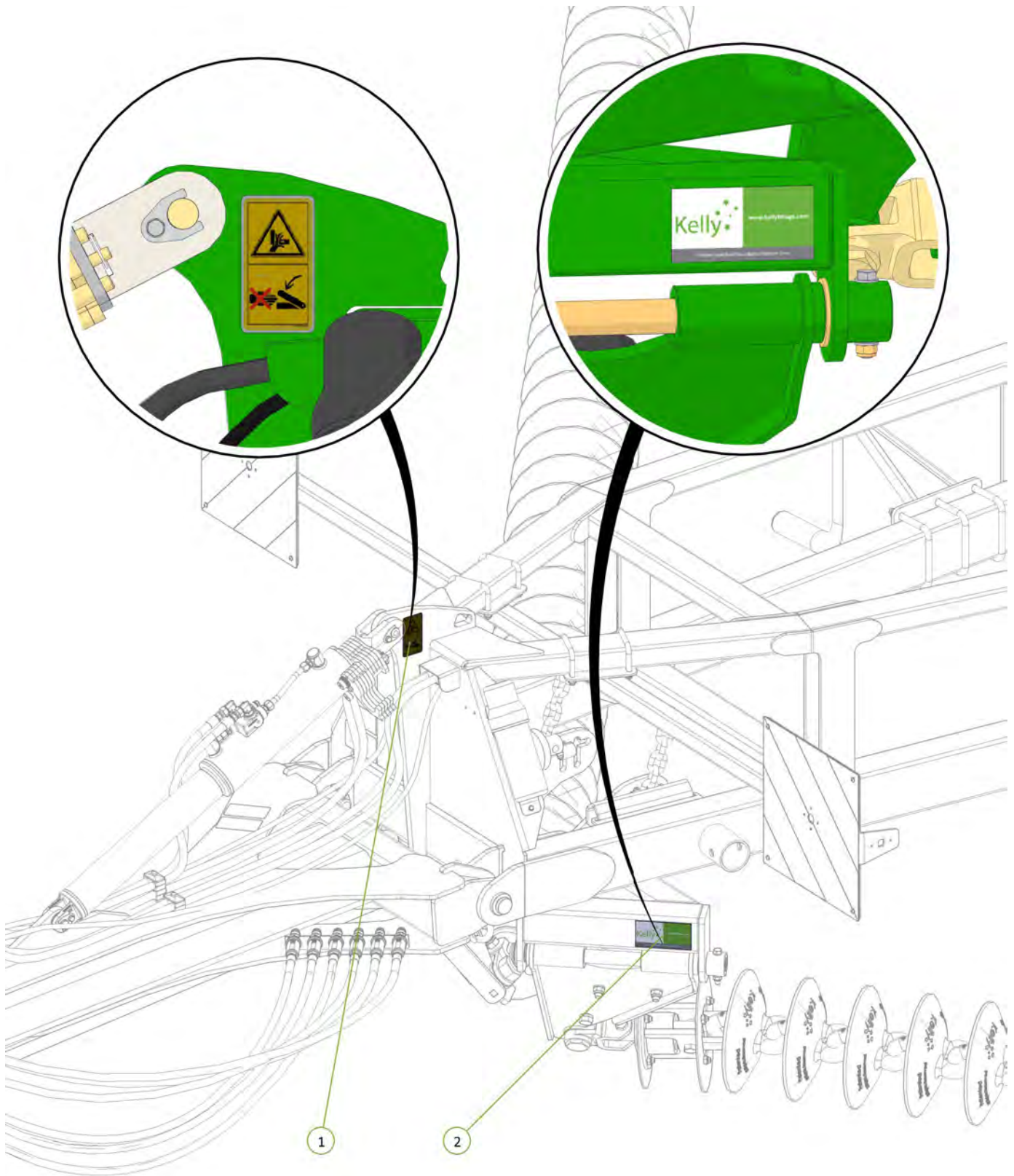
Section 4

Decal Application



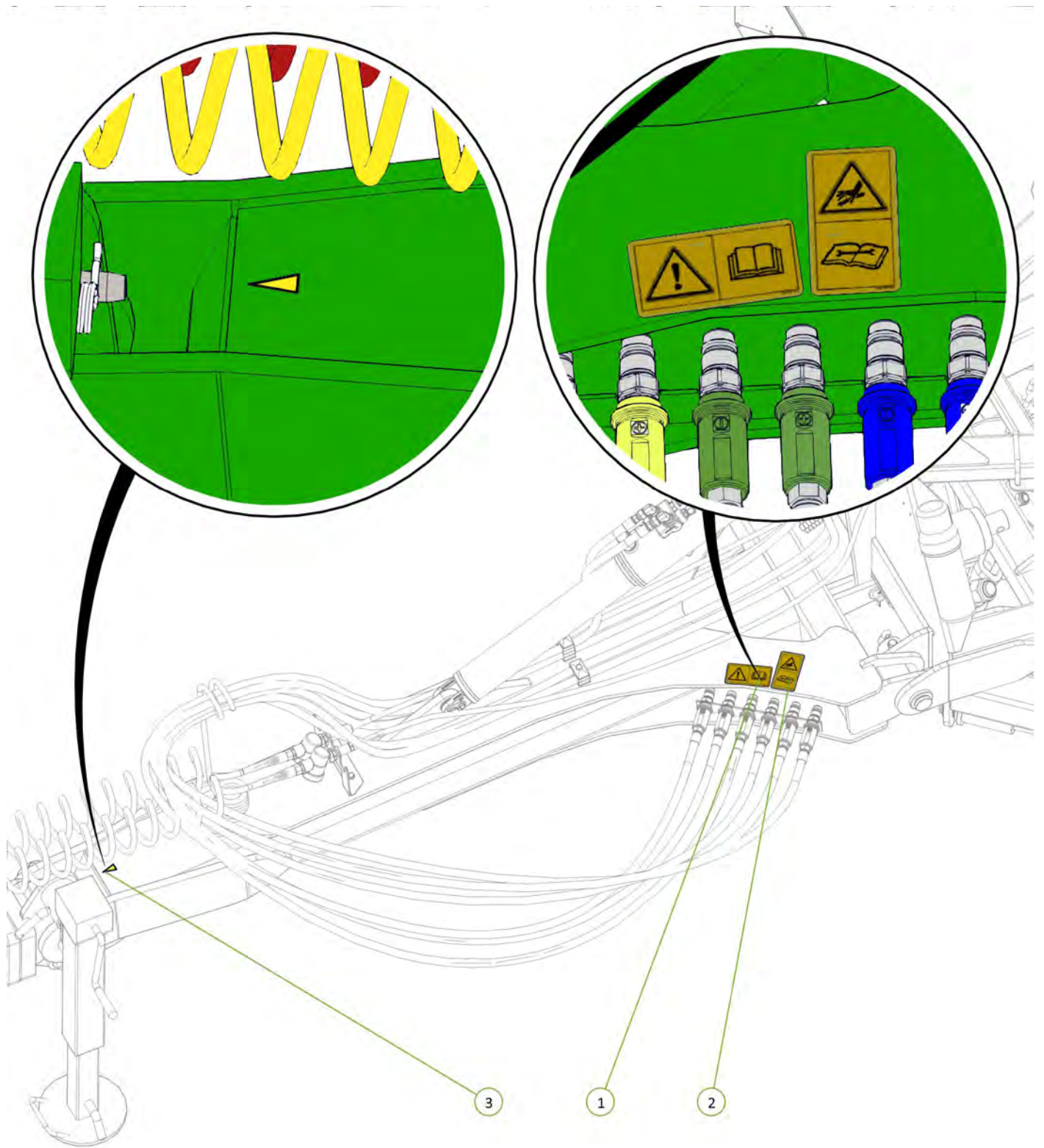
Item No.	Description	Qty	Number
1	EU KTS Decal	1	1501-S14
2	Hydraulic Flow Decal	1	0801-S21
3	4012 Data Plate	1	1501-010
4	Mud Folding Warning Decal	1	0801-S22
5	NOTICE' Hydra Grip Sequence Decal 200x360mm	1	0801-S20
6	Euro Pinch Point Decal	1	1501-S1





Item No.	Description	Qty	Number
1	Euro Pinch Point Decal	1	1501-S1
2	KTS Decal	1	1501-S14

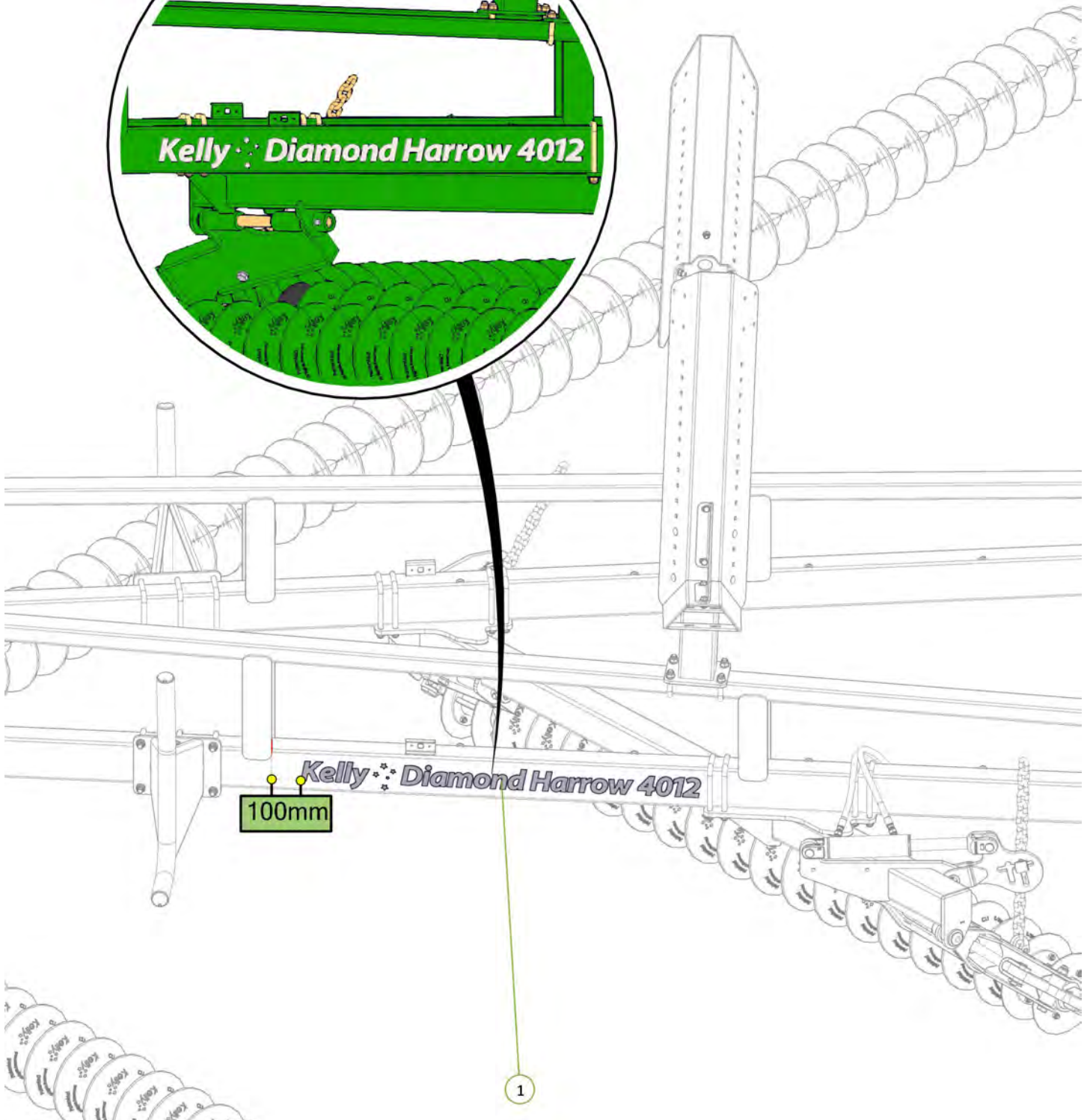
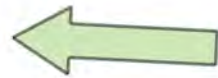




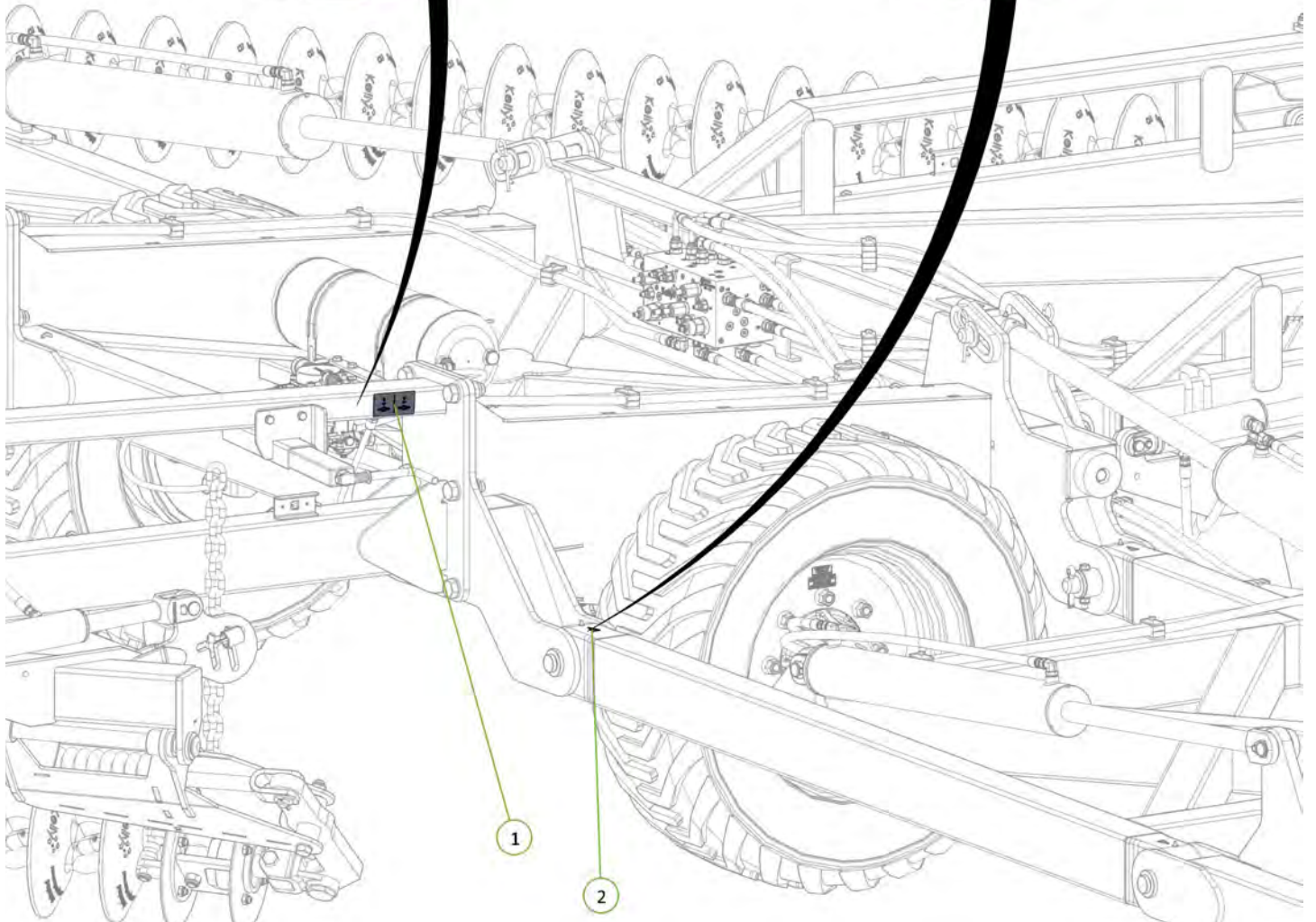
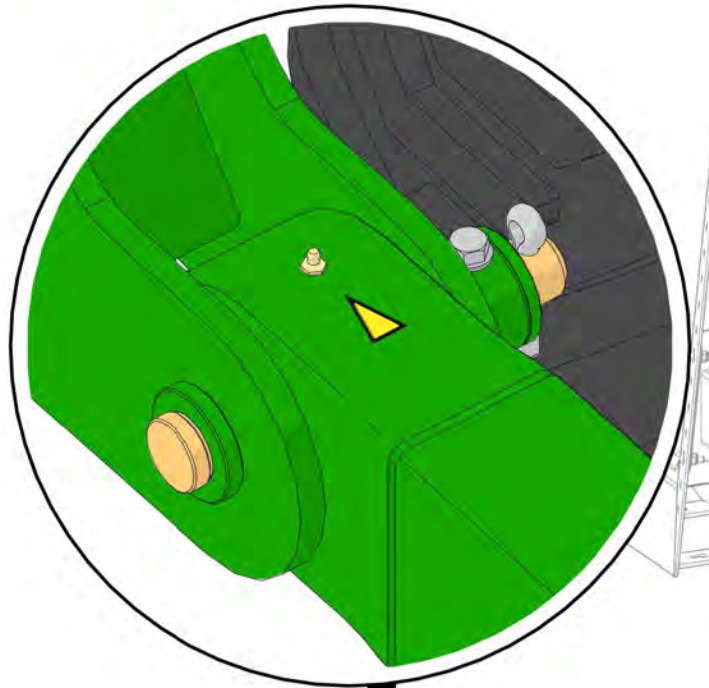
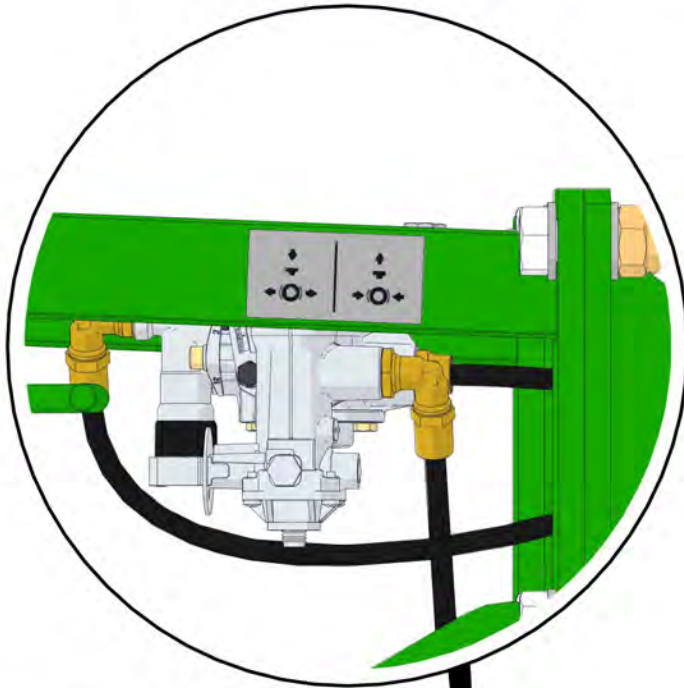
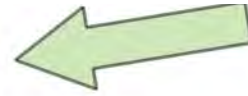
Item No.	Description	Qty	Number
1	Read Manual Decal	1	1501-S3
2	Hydraulic Pressure Hazard Decal	1	1501-S9
3	Grease Point Indicator	1	1501-S12

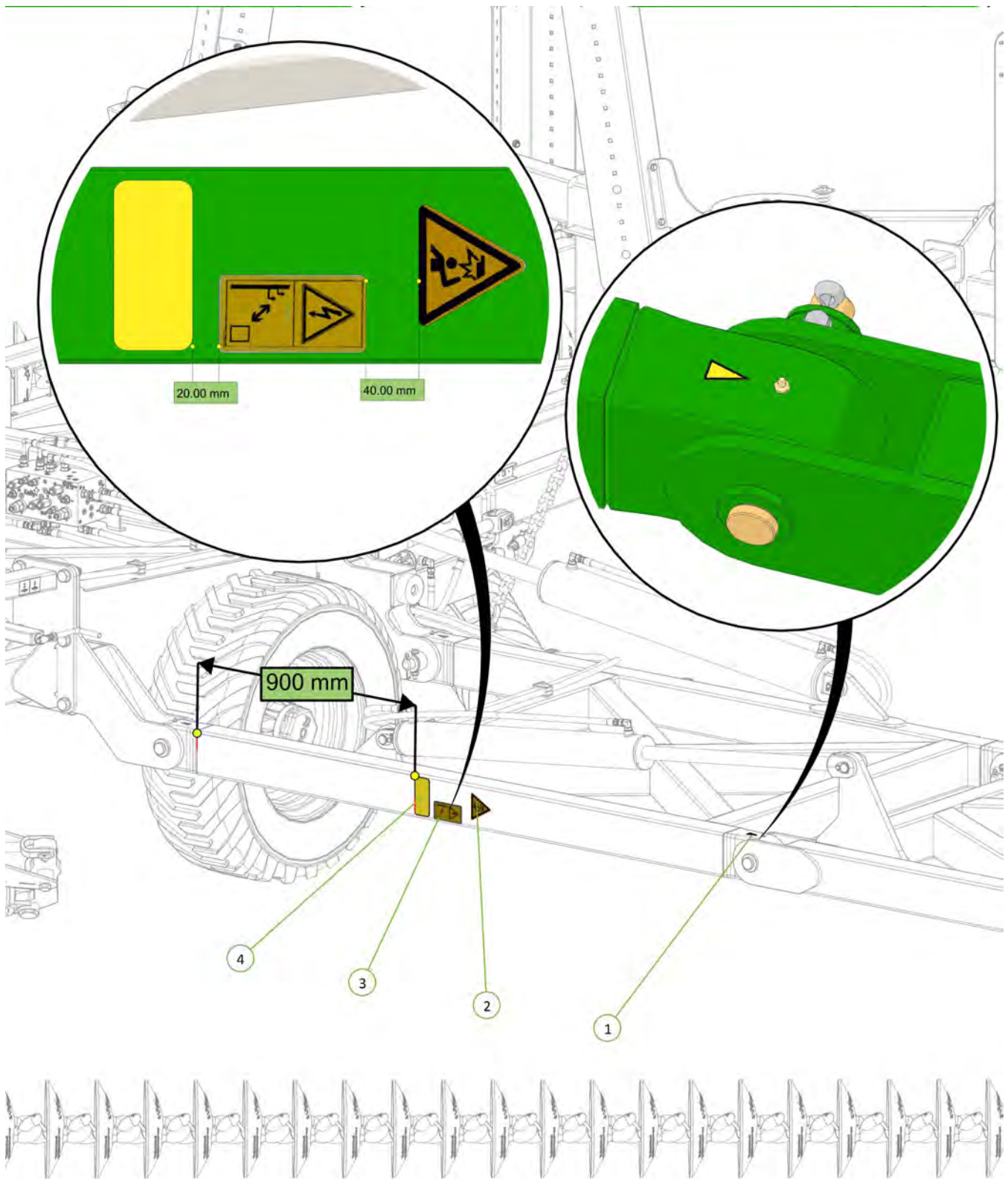


Item No.	Description	Qty	Number
1	Diamond Harrow 4012 Decal	1	0801-SKDH4012



Item No.	Description	Qty	Number
1	Euro Park Brake Decal	1	1501-S2
2	Grease Point Indicator	1	1501-S12

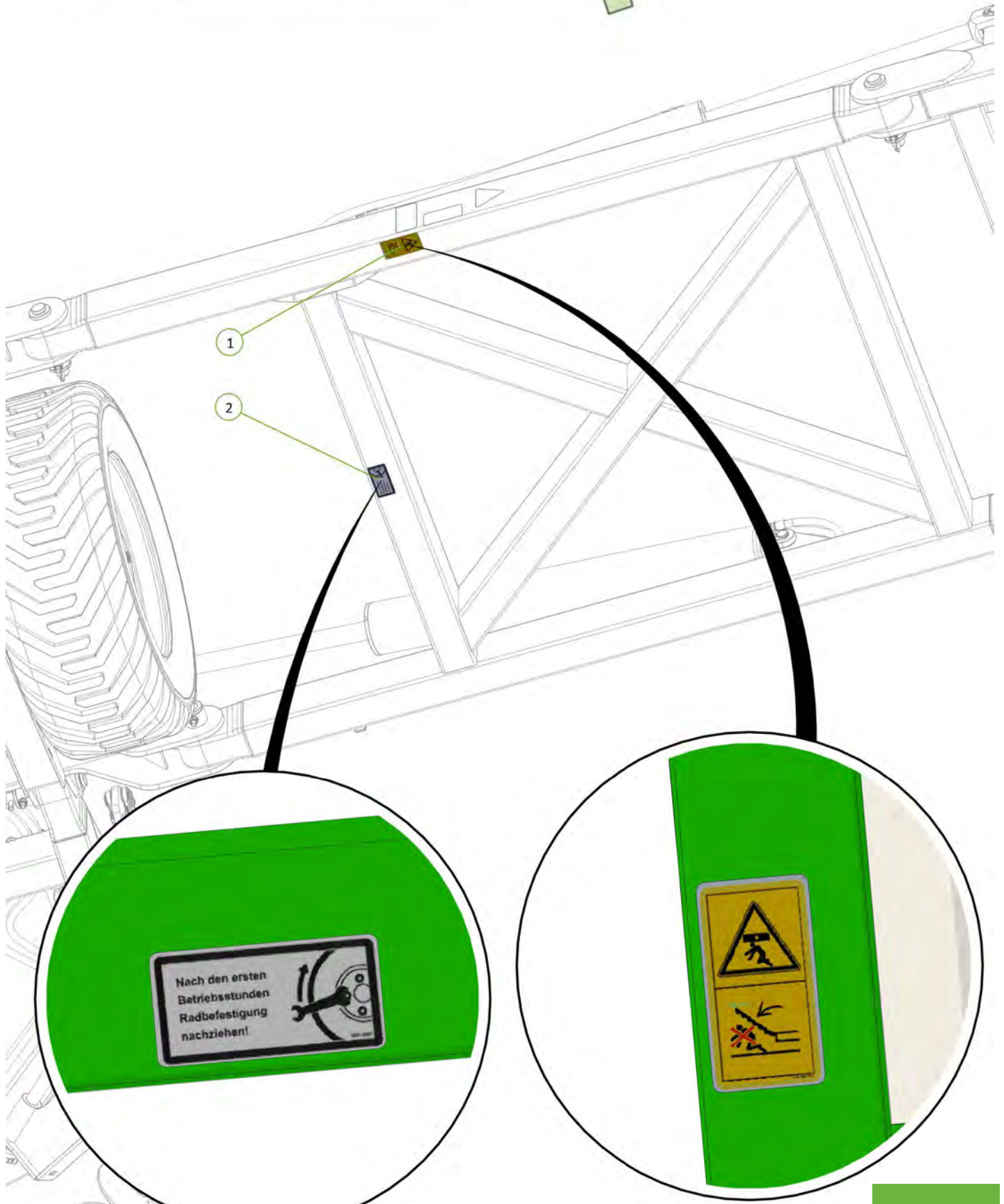


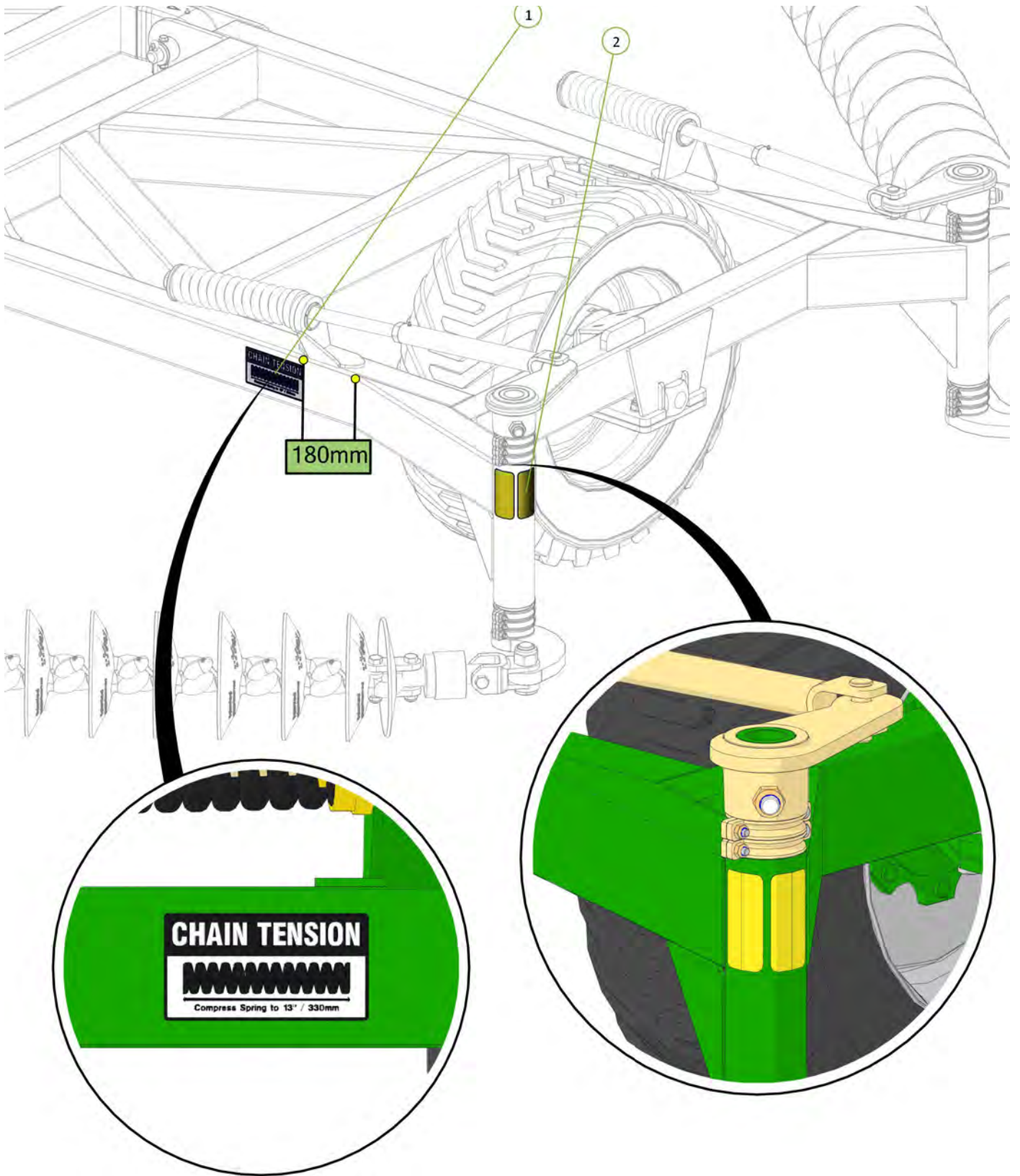


Item No.	Description	Qty	Number
1	Grease Point Indicator	1	1501-S12
2	Overhead Objects Decal	1	1501-S7
3	Power Line Hazard Decal	1	1501-S8
4	Yellow Reflective Decal	1	0801-SYRF

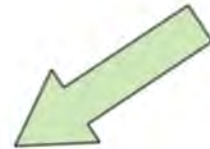


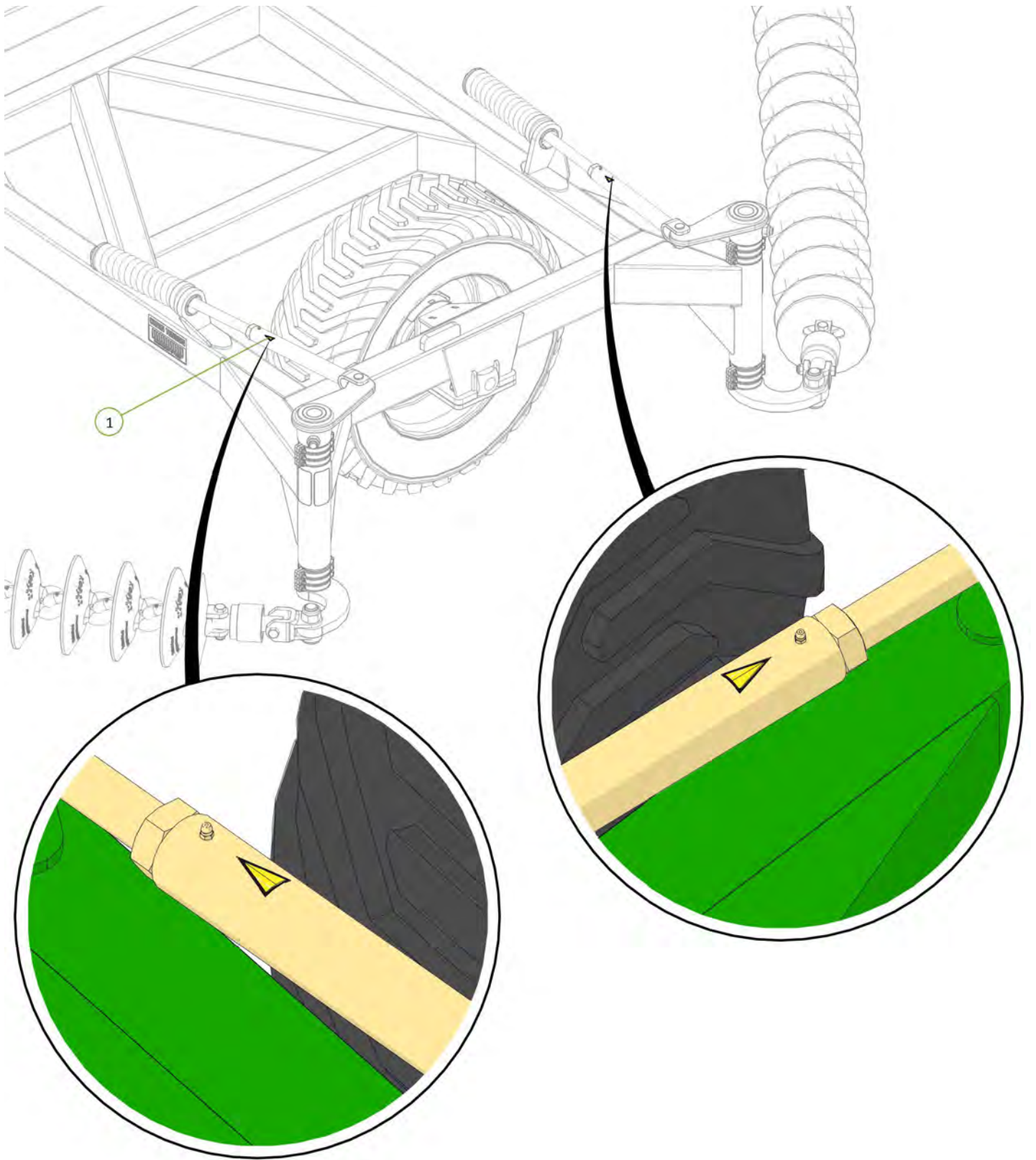
Item No.	Description	Qty	Number
1	Crush Hazard Decal	1	1501-S6
2	Wheel Nut Decal	1	1501-S5





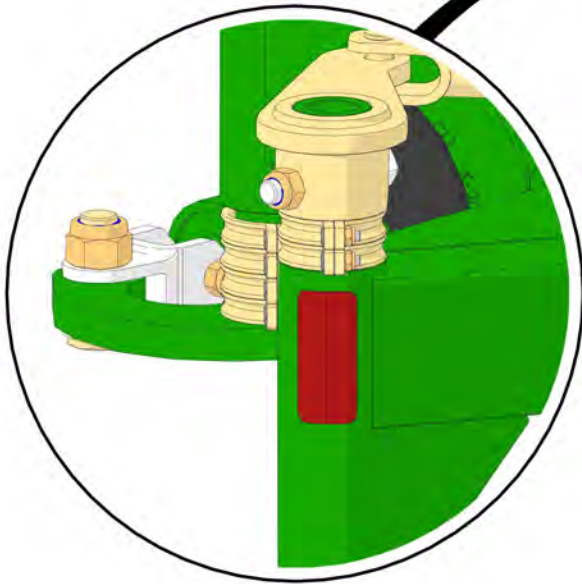
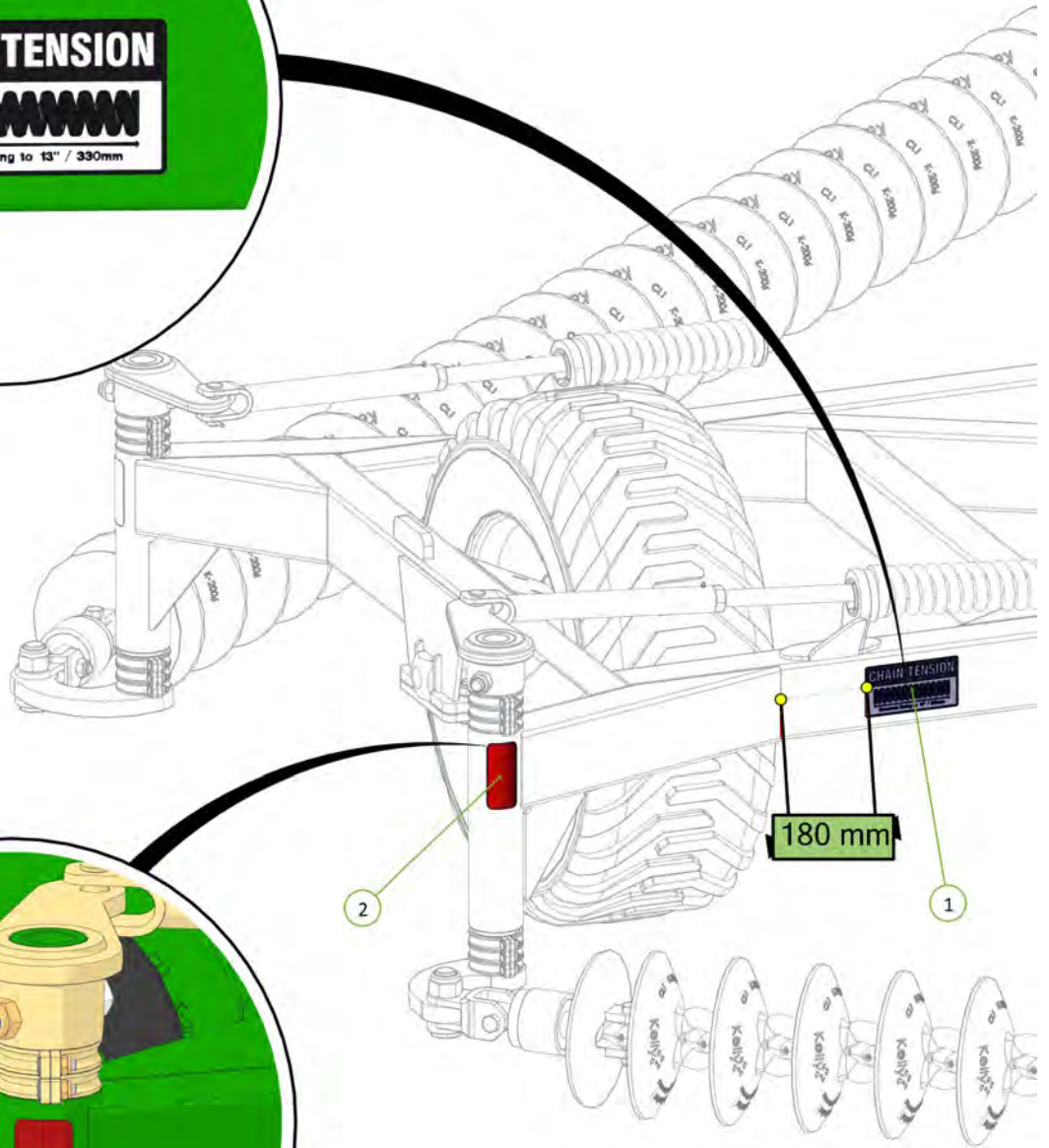
Item No.	Description	Qty	Number
1	Chain Tension 330mm Decal	1	0801-S15
2	Yellow Reflective Decal	2	0801-SYRF





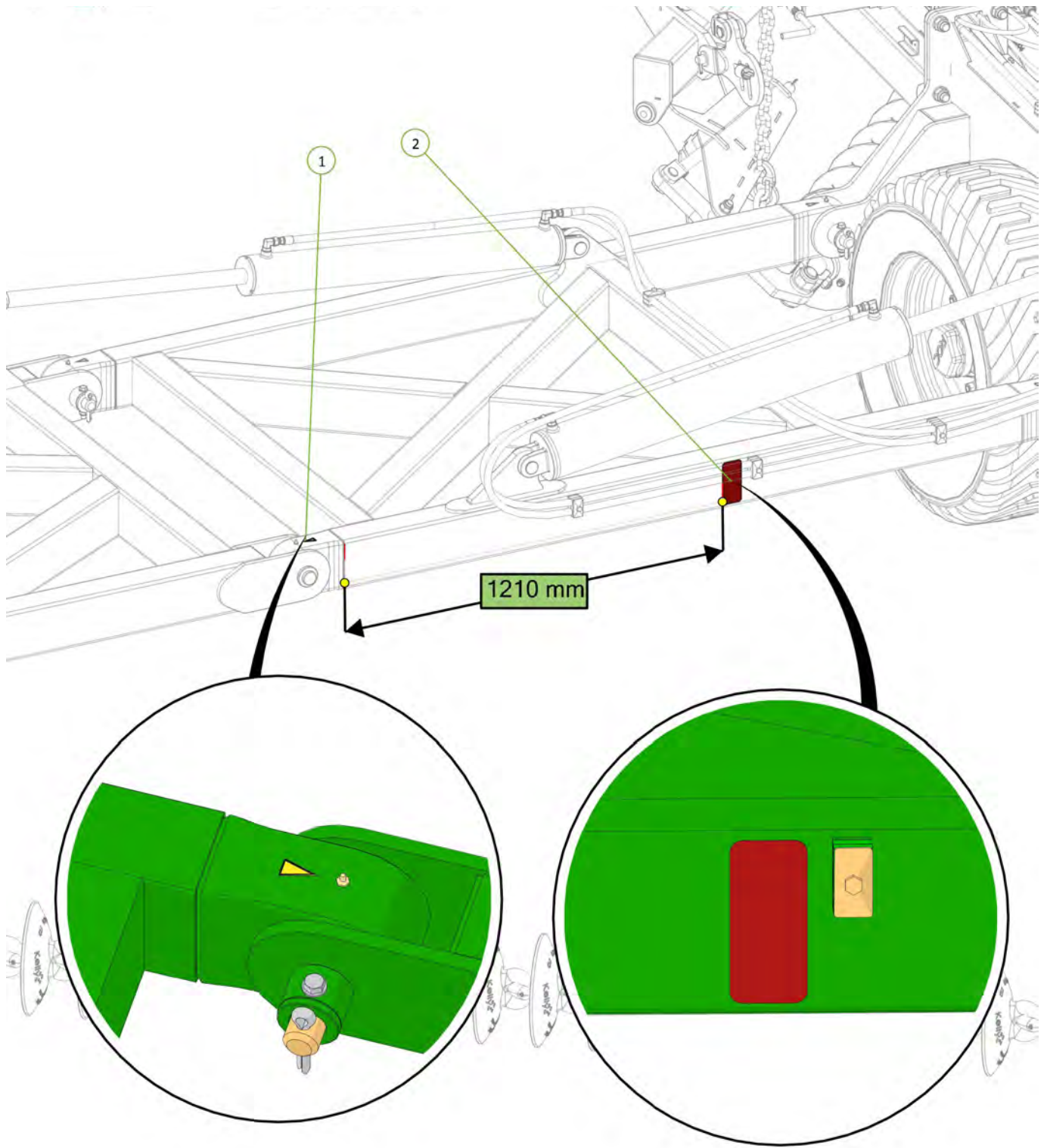
Item No.	Description	Qty	Number
1	Grease Point Indicator	2	1501-S12





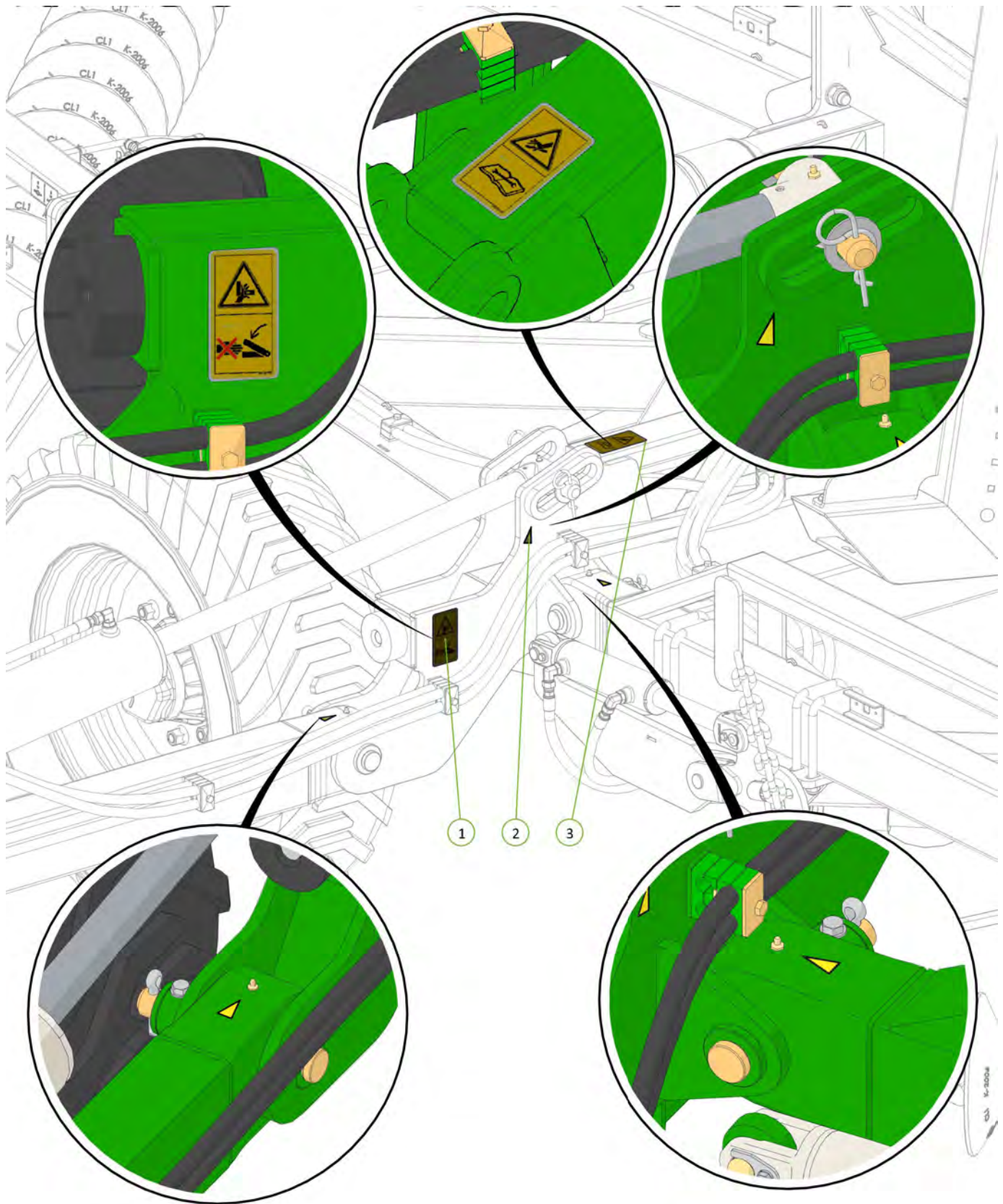
Item No.	Description	Qty	Number
1	Chain Tension 330mm Decal	1	0801-S15
2	Red Reflective Decal	1	0801-SRRF





Item No.	Description	Qty	Number
1	Grease Point Indicator	1	1501-S12
2	Red Reflective Decal	1	0801-SRRF

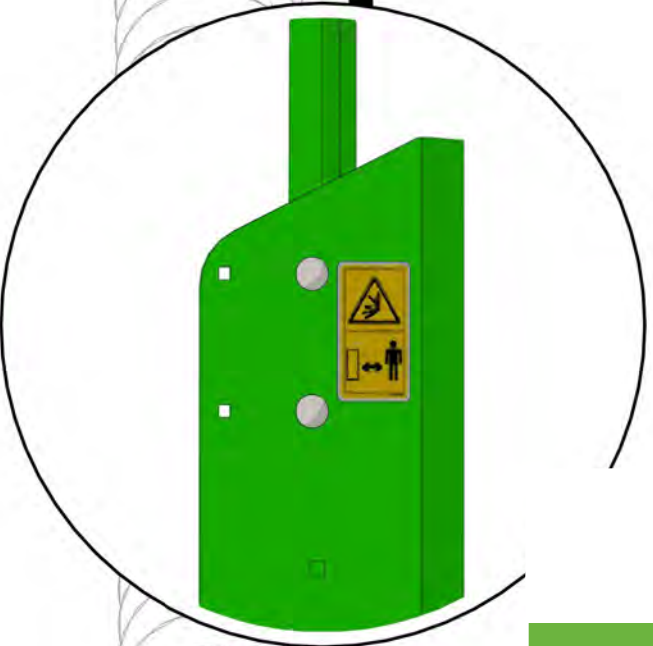
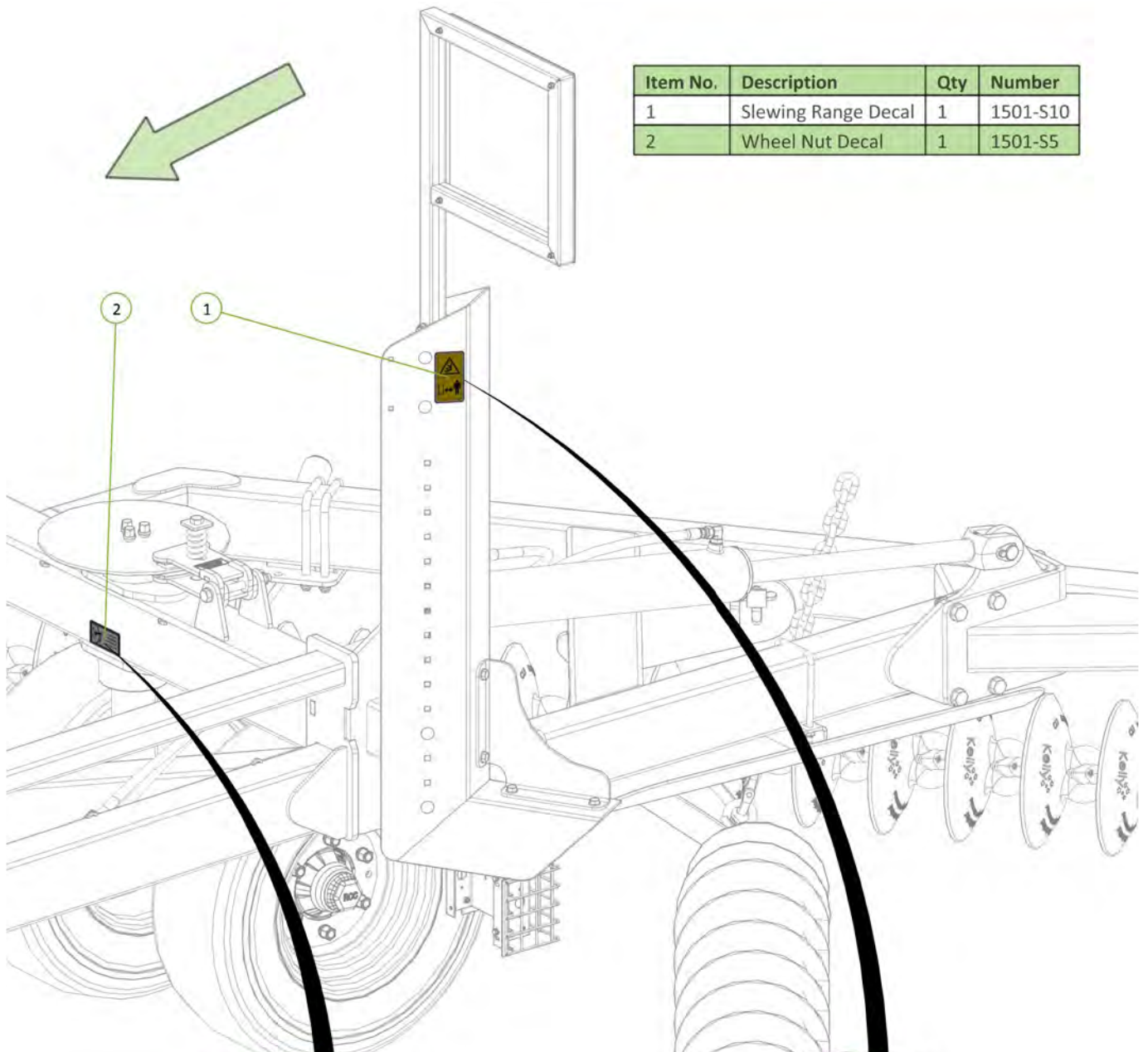


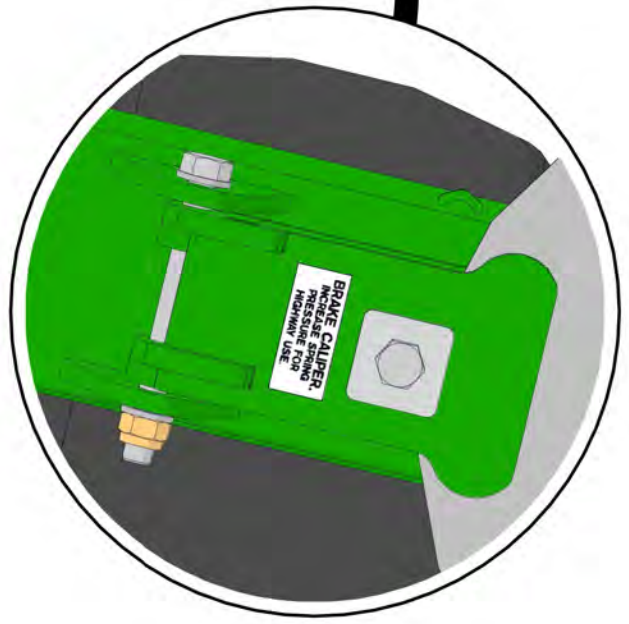
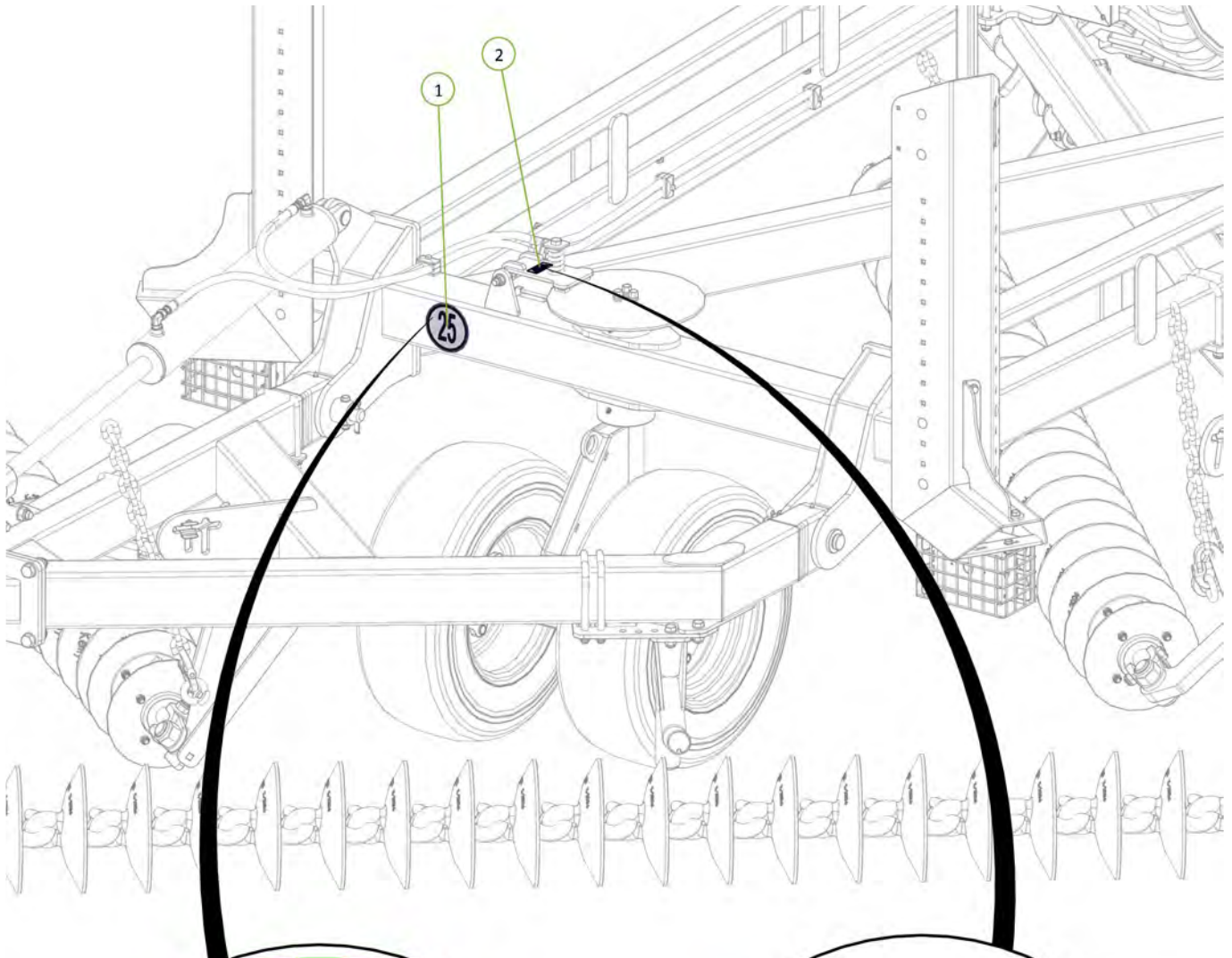


Item No.	Description	Qty	Number
1	Euro Pinch Point Decal	1	1501-S1
2	Grease Point Indicator	3	1501-S12
3	Hydraulic Pressure Hazard Decal	1	1501-S9

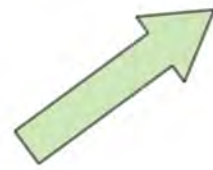


Item No.	Description	Qty	Number
1	Slewing Range Decal	1	1501-S10
2	Wheel Nut Decal	1	1501-S5

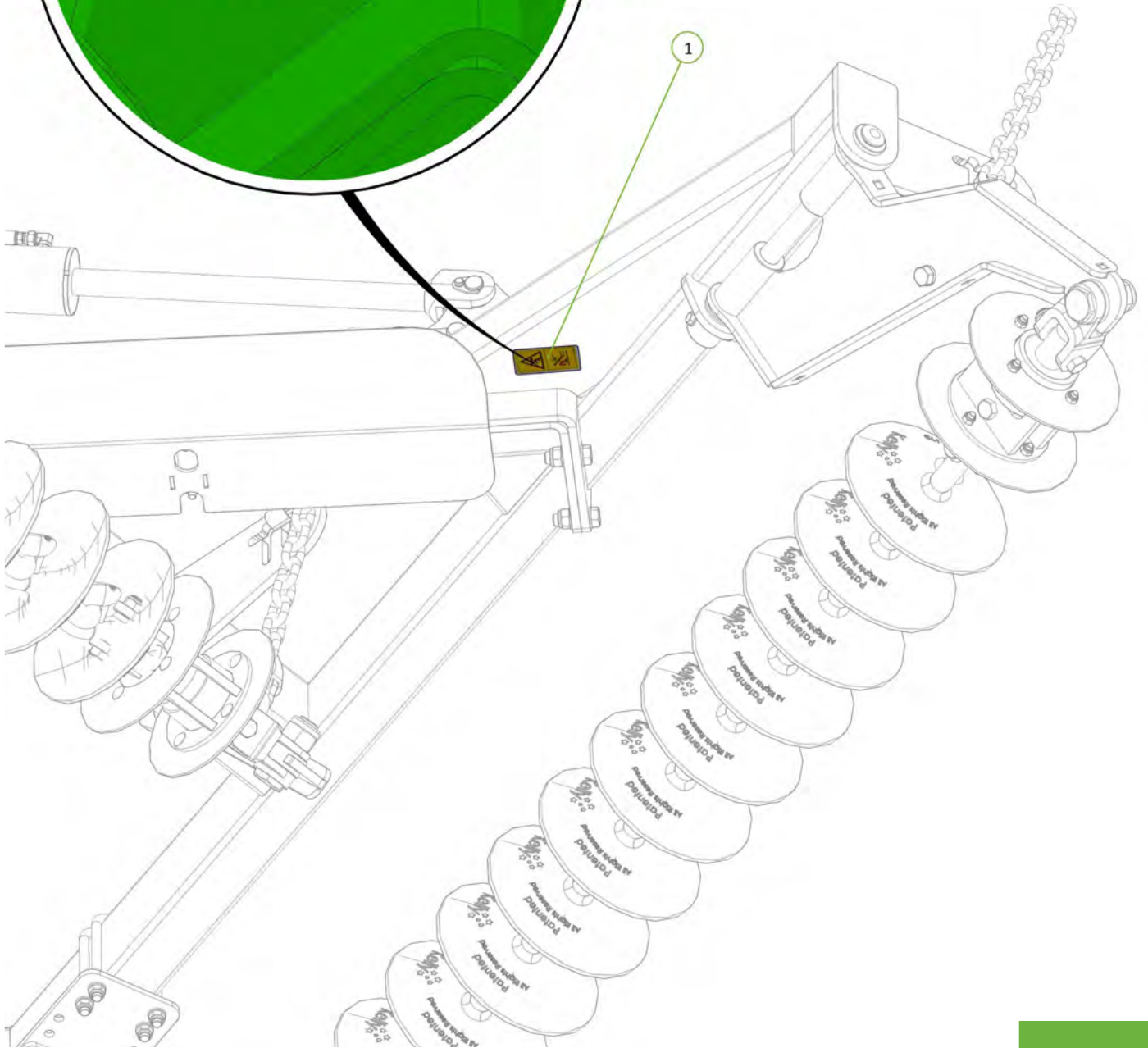
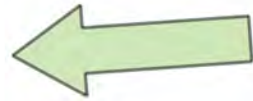




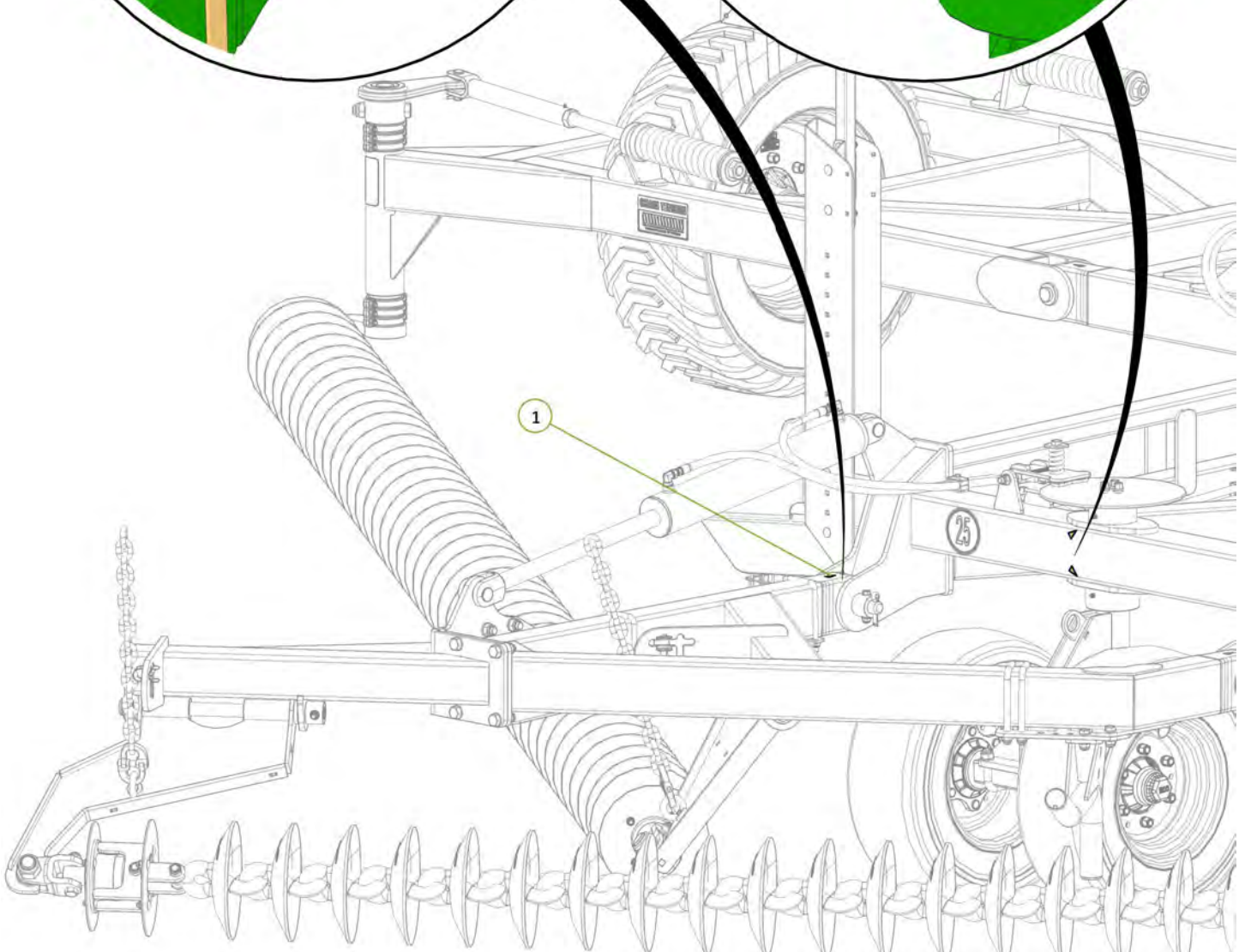
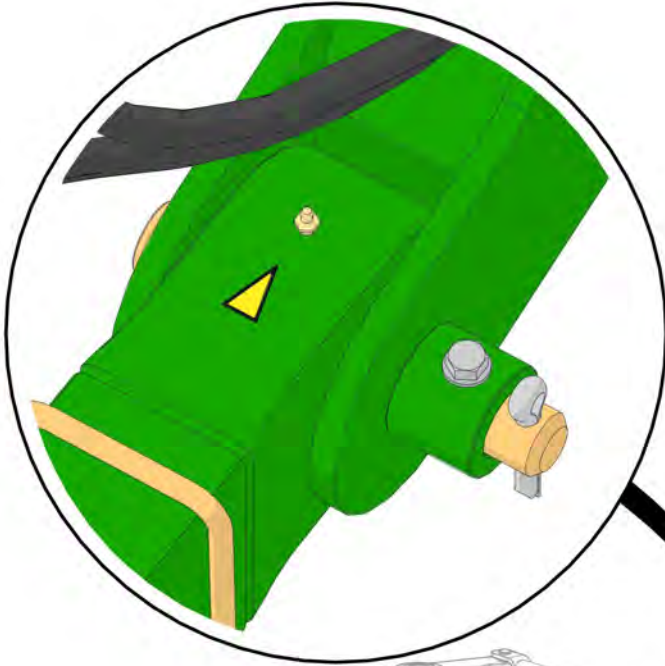
Item No.	Description	Qty	Number
1	25km/h Speed Limit Decal	1	1501-S13
2	Brake Caliper Decal	1	0801-S11



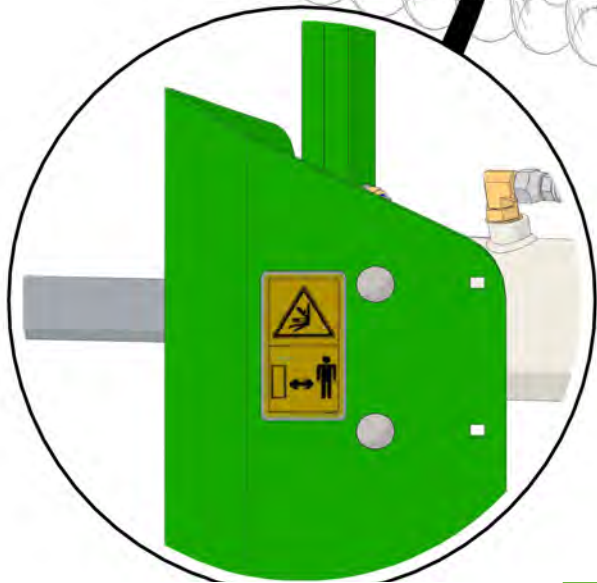
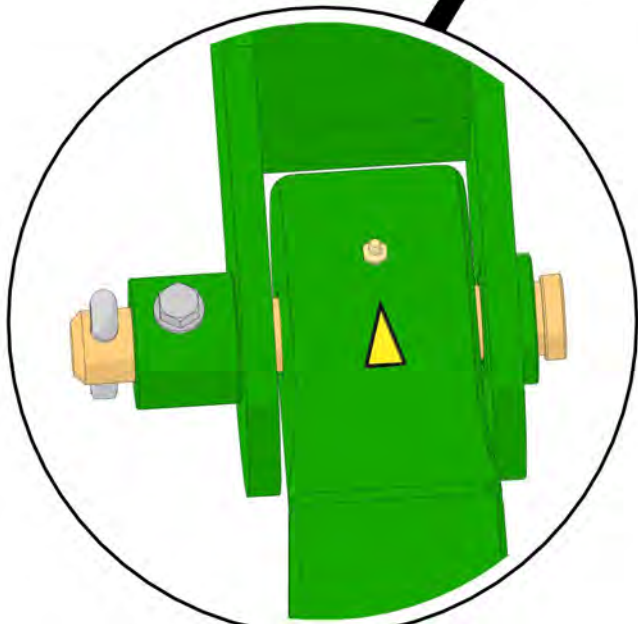
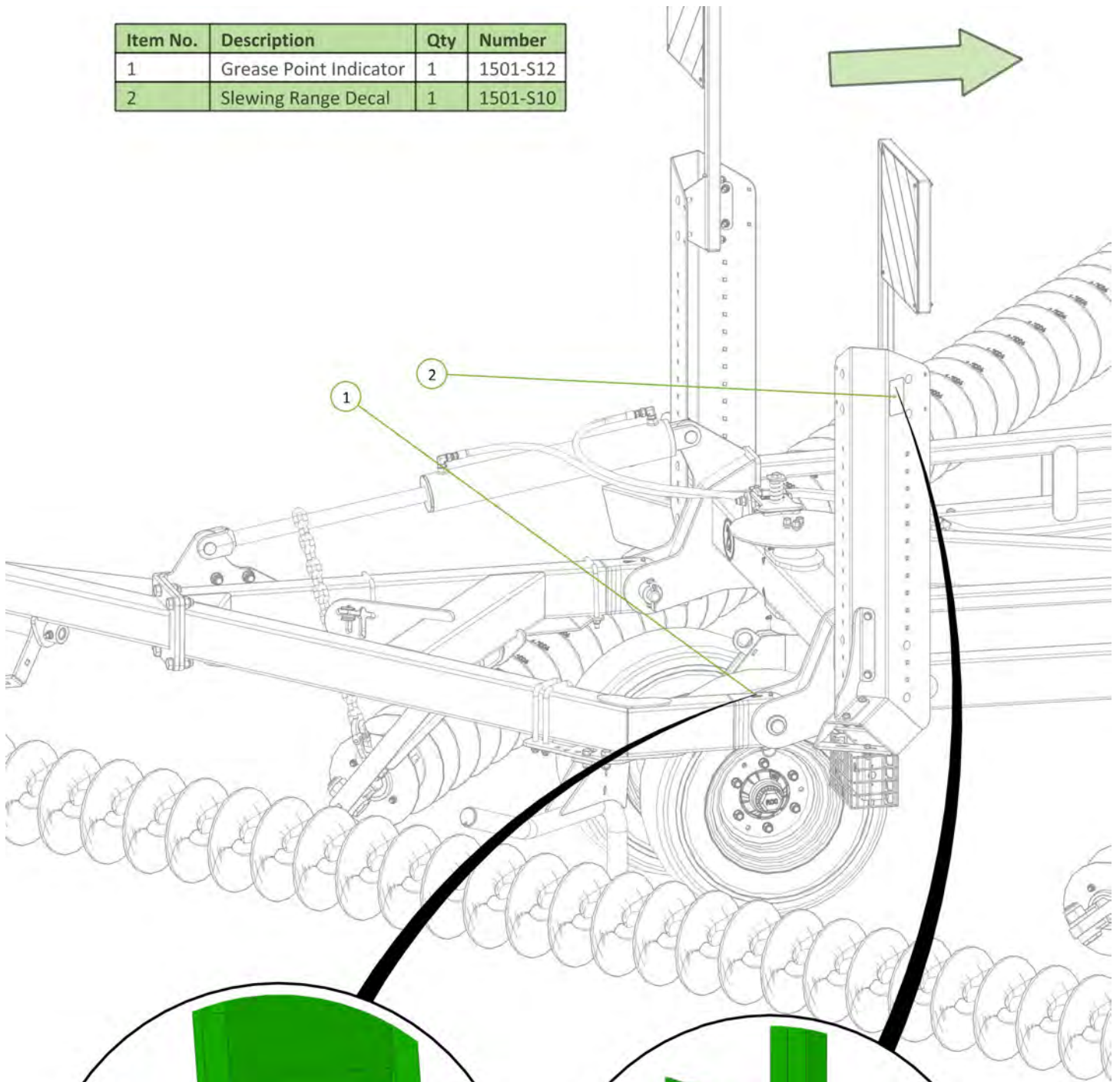
Item No.	Description	Qty	Number
1	Crush Hazard Decal	1	1501-S6

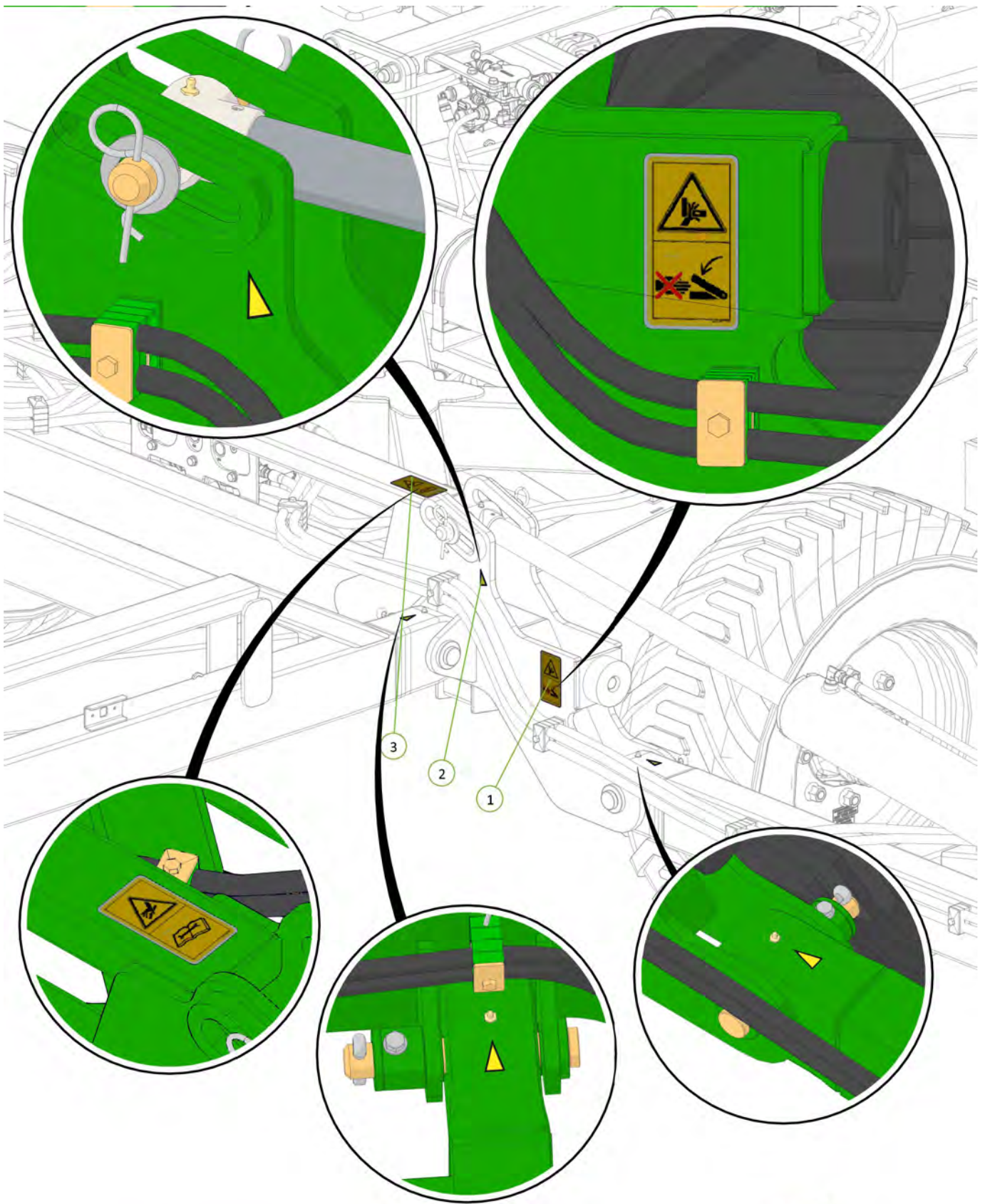


Item No.	Description	Qty	Number
1	Grease Point Indicator	3	1501-S12



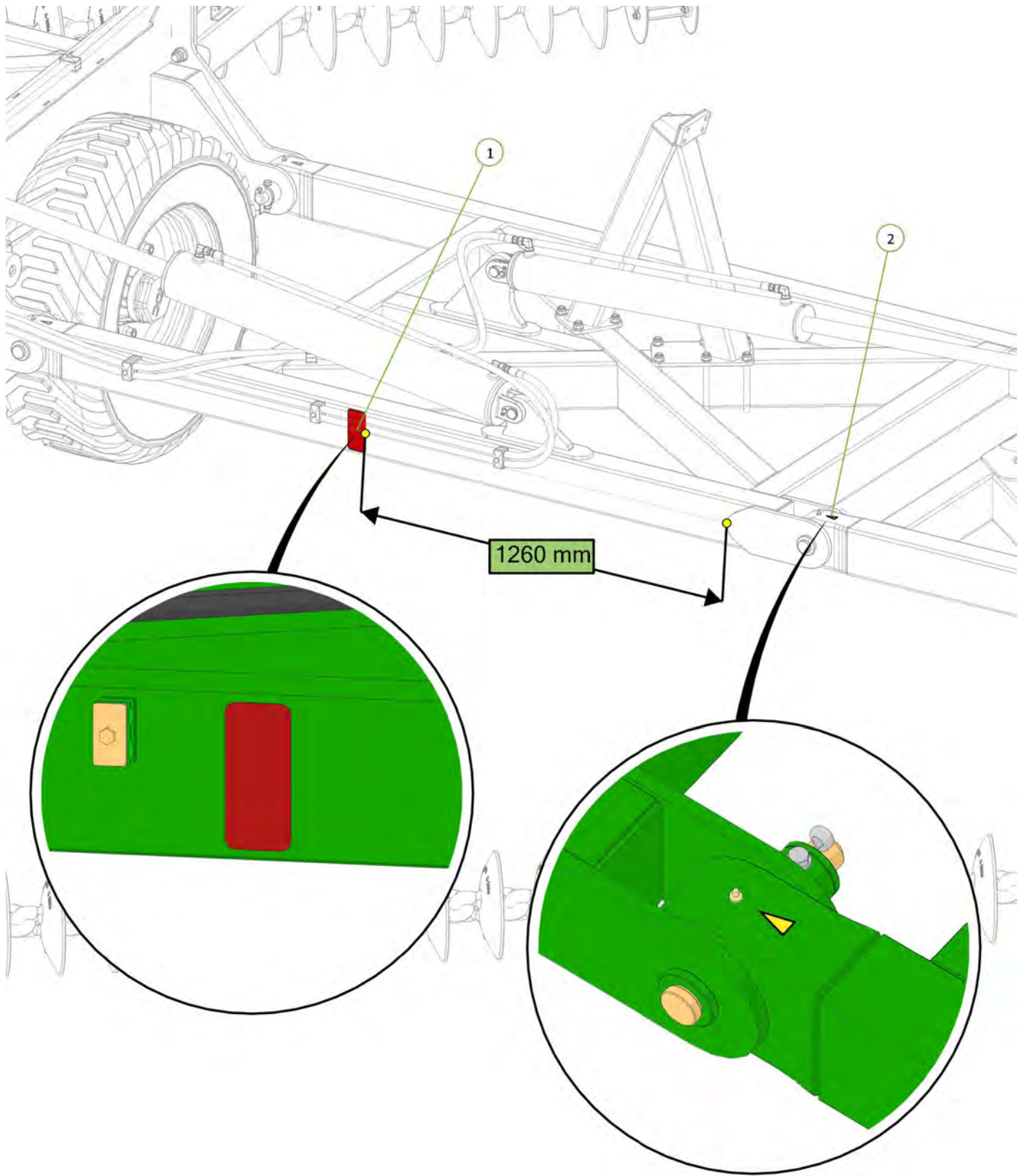
Item No.	Description	Qty	Number
1	Grease Point Indicator	1	1501-S12
2	Slewing Range Decal	1	1501-S10





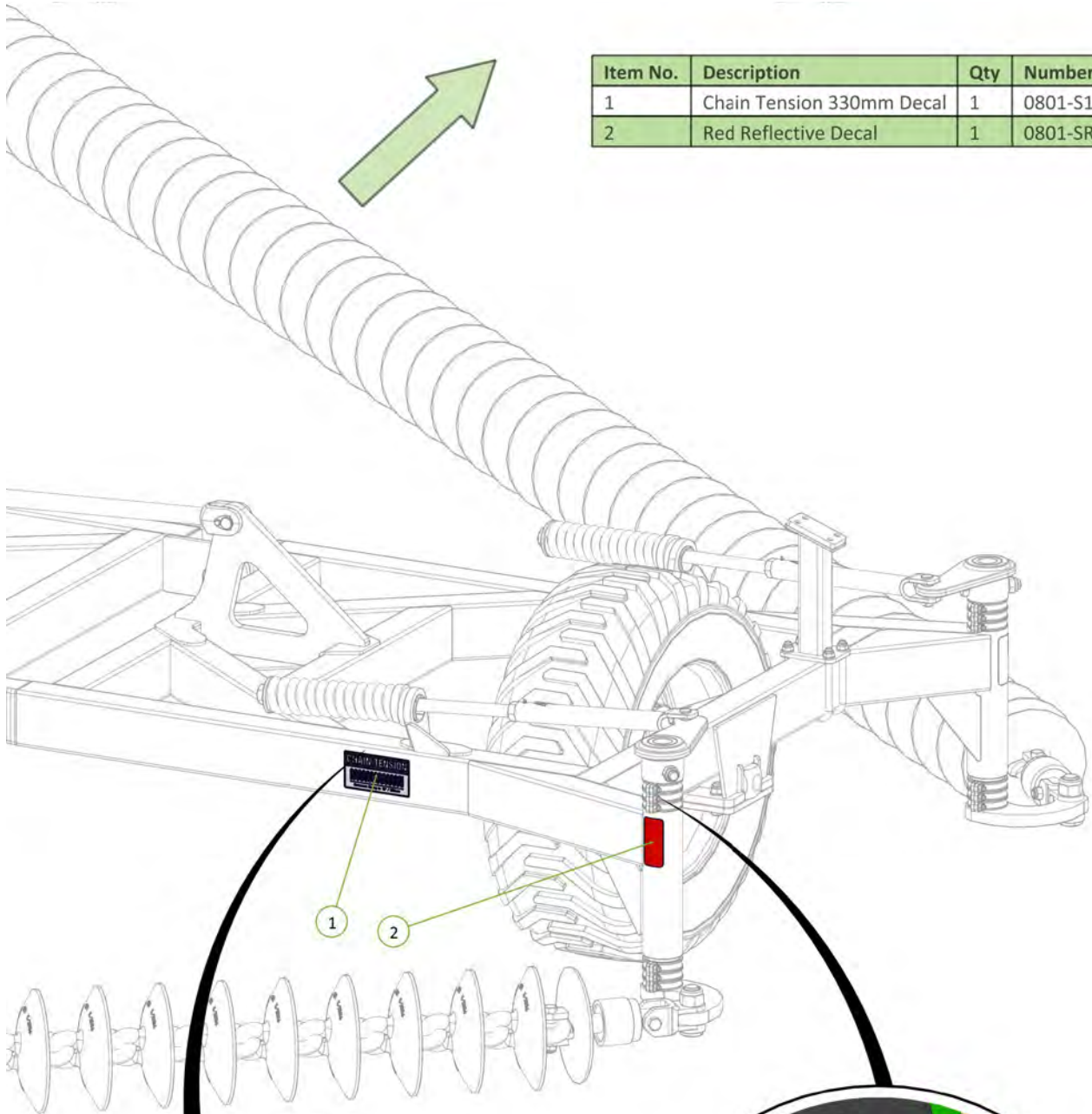
Item No.	Description	Qty	Number
1	Euro Pinch Point Decal	1	1501-S1
2	Grease Point Indicator	3	1501-S12
3	Hydraulic Pressure Hazard Decal	1	1501-S9



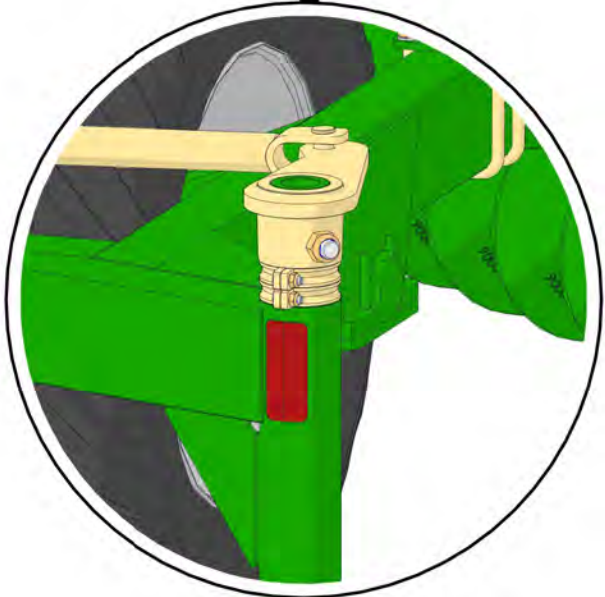
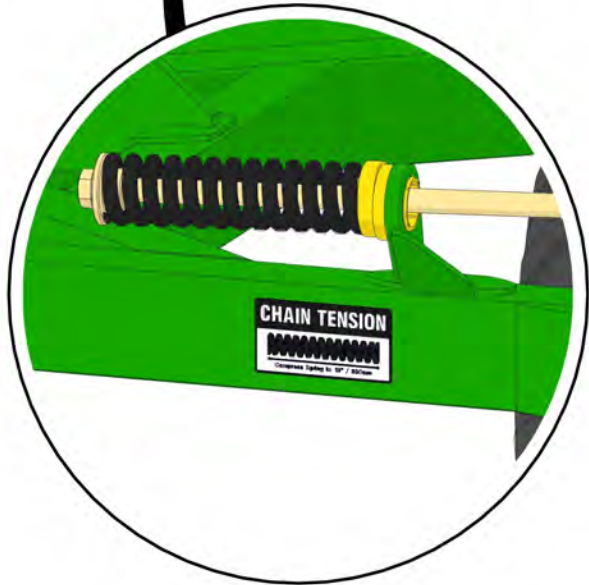
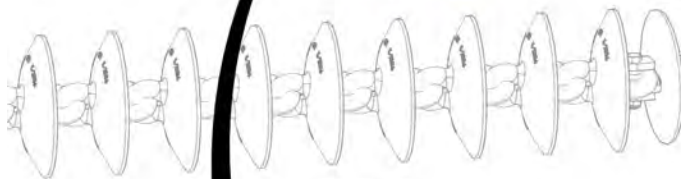


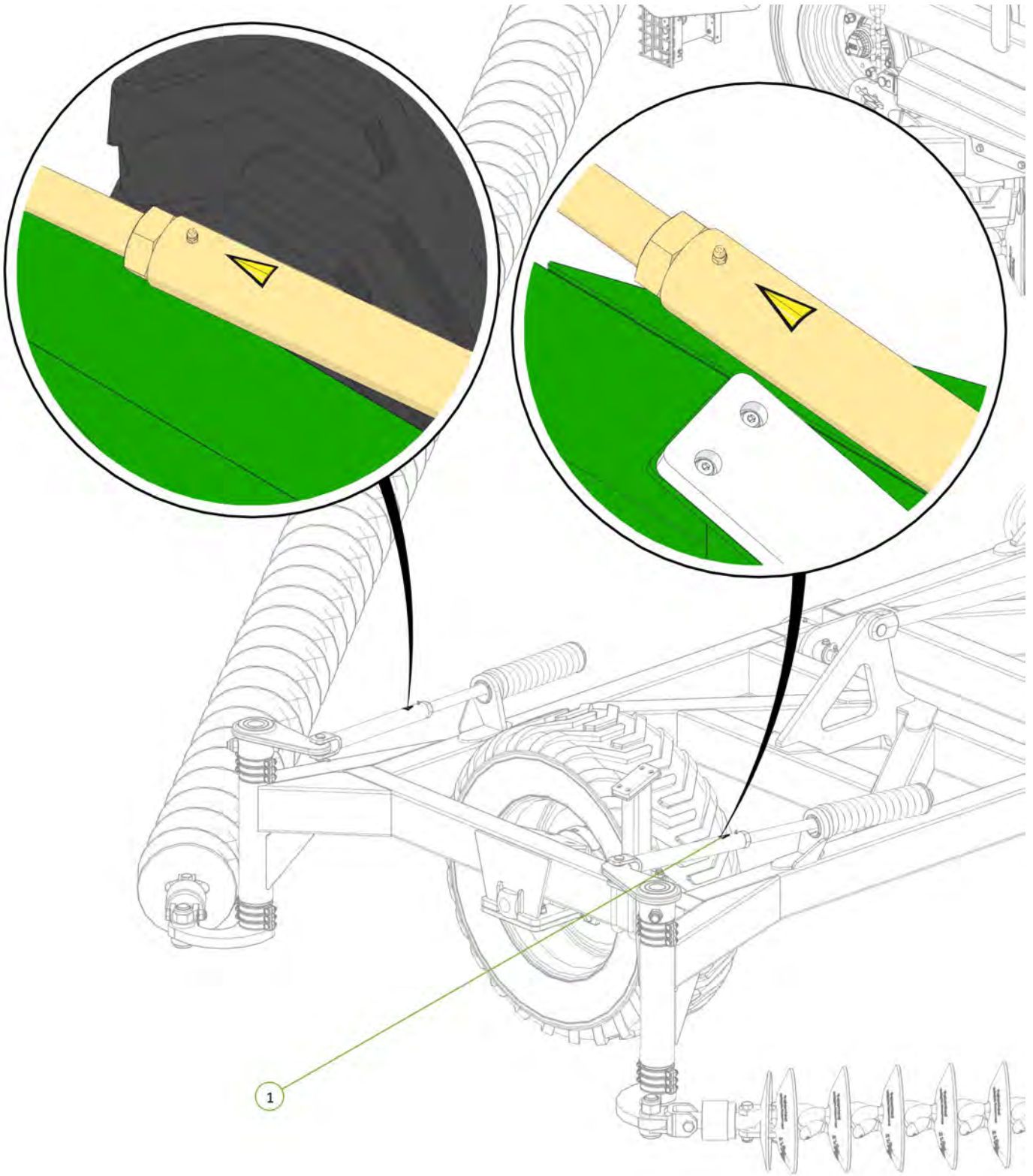
Item No.	Description	Qty	Number
1	Red Reflective Decal	1	0801-SRRF
2	Grease Point Indicator	1	1501-S12





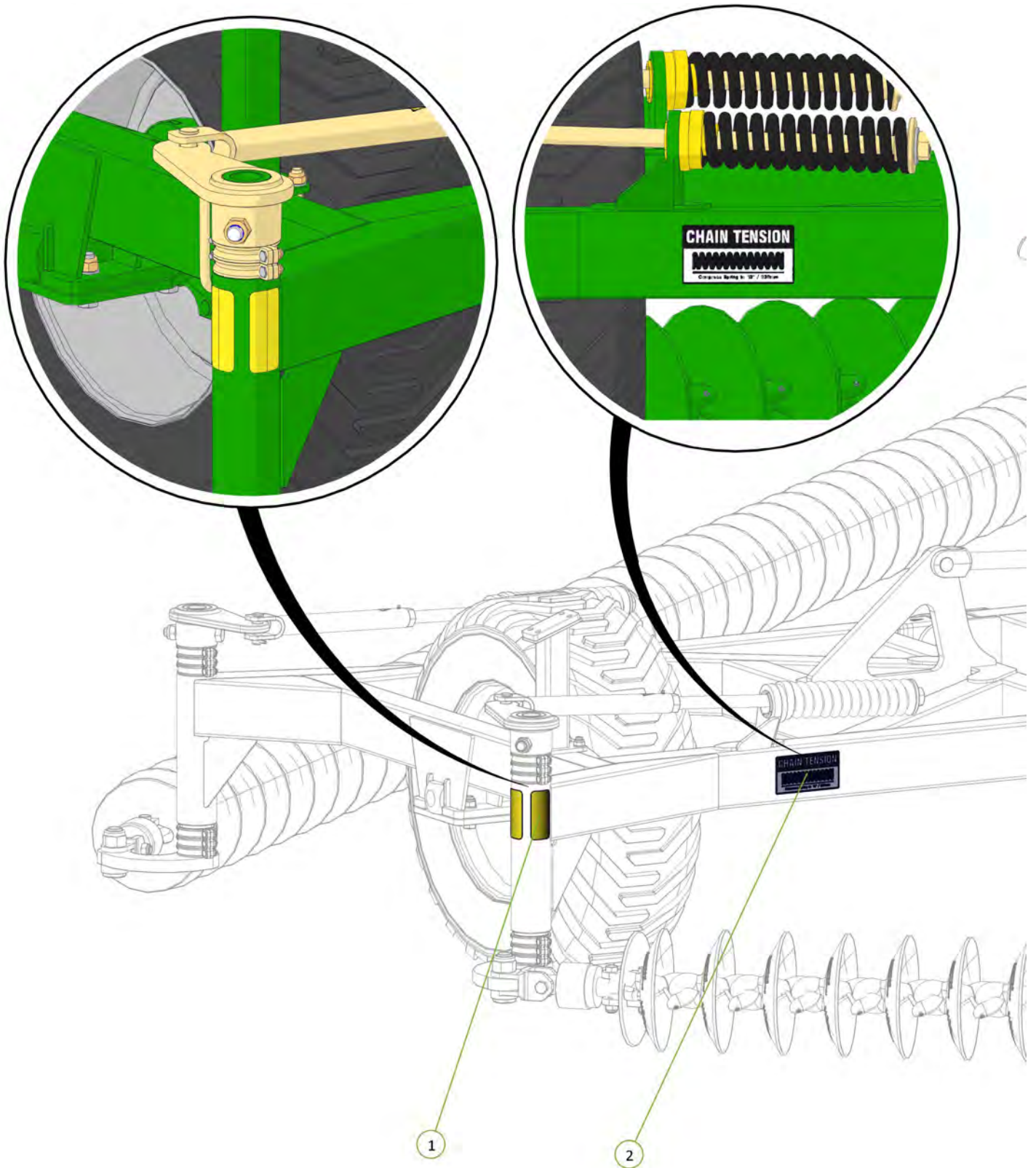
Item No.	Description	Qty	Number
1	Chain Tension 330mm Decal	1	0801-S15
2	Red Reflective Decal	1	0801-SRRF



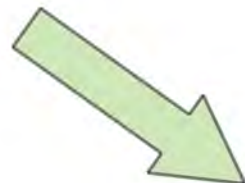


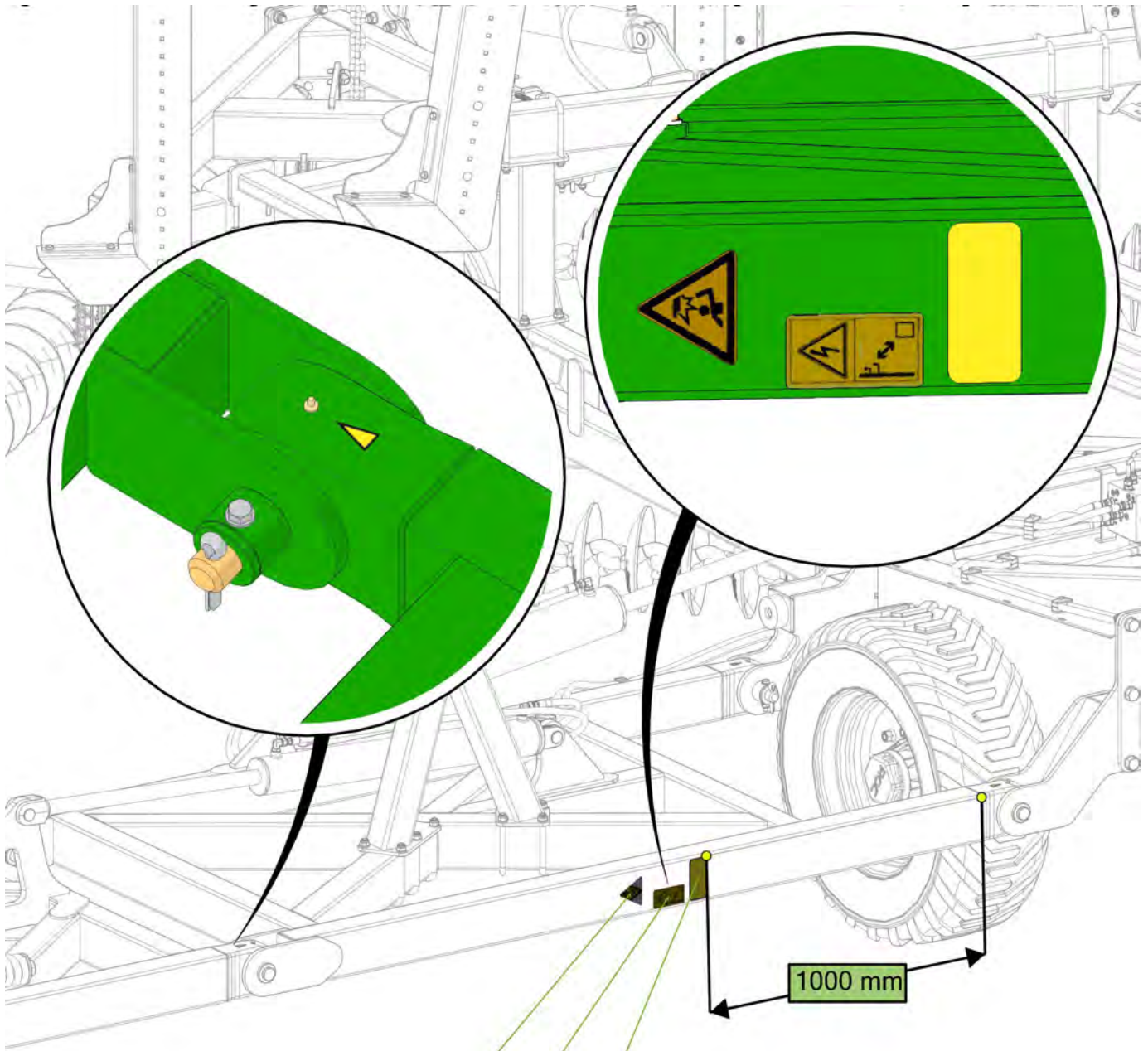
Item No.	Description	Qty	Number
1	Grease Point Indicator	2	1501-S12





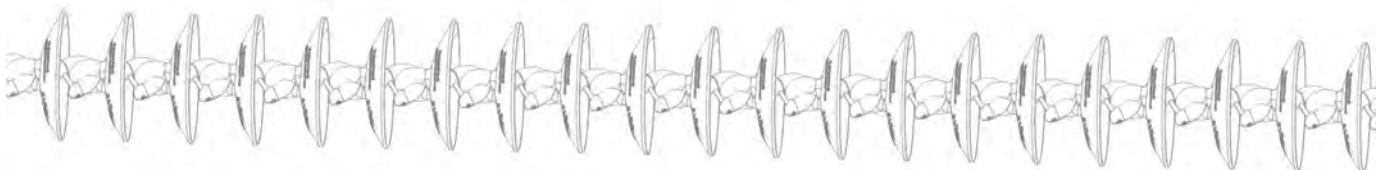
Item No.	Description	Qty	Number
1	Yellow Reflective Decal	2	0801-SYRF
2	Chain Tension 330mm Decal	1	0801-S15





- ①
- ②
- ③

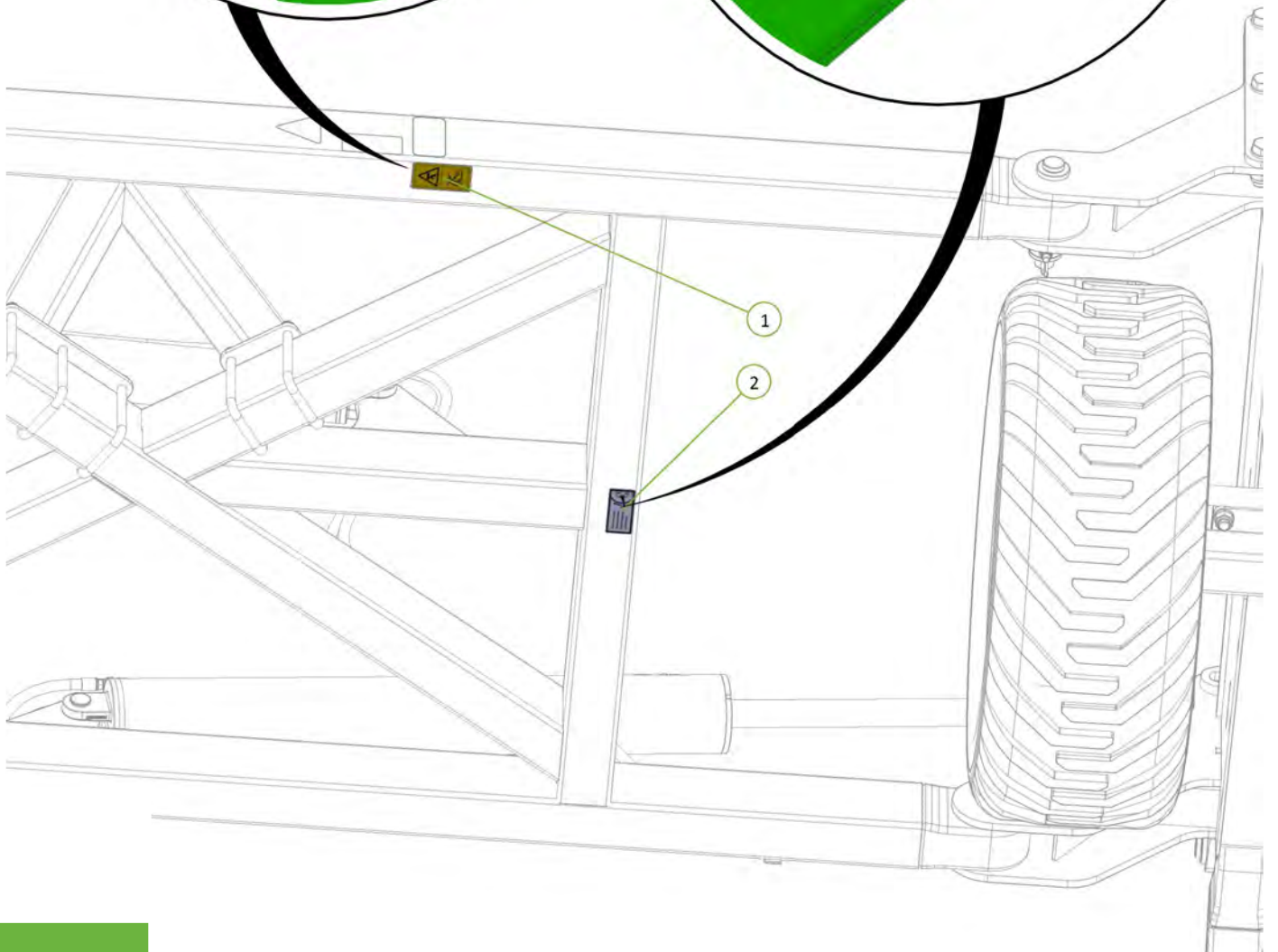
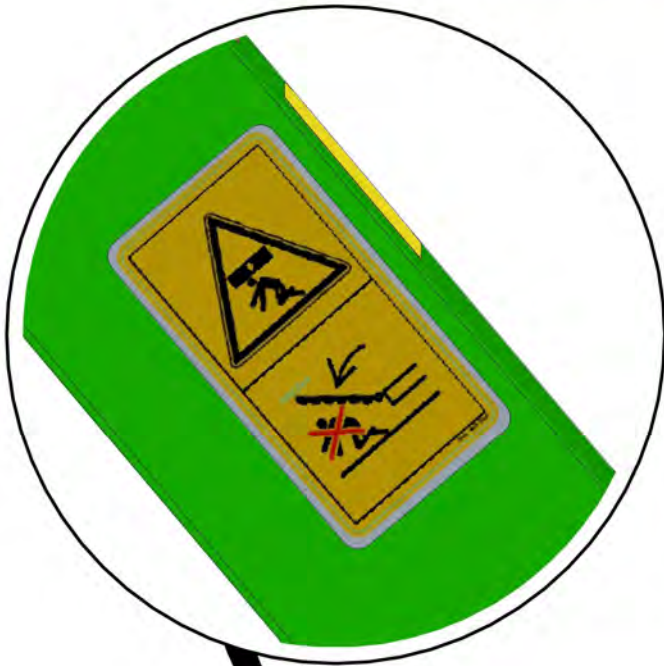
1000 mm



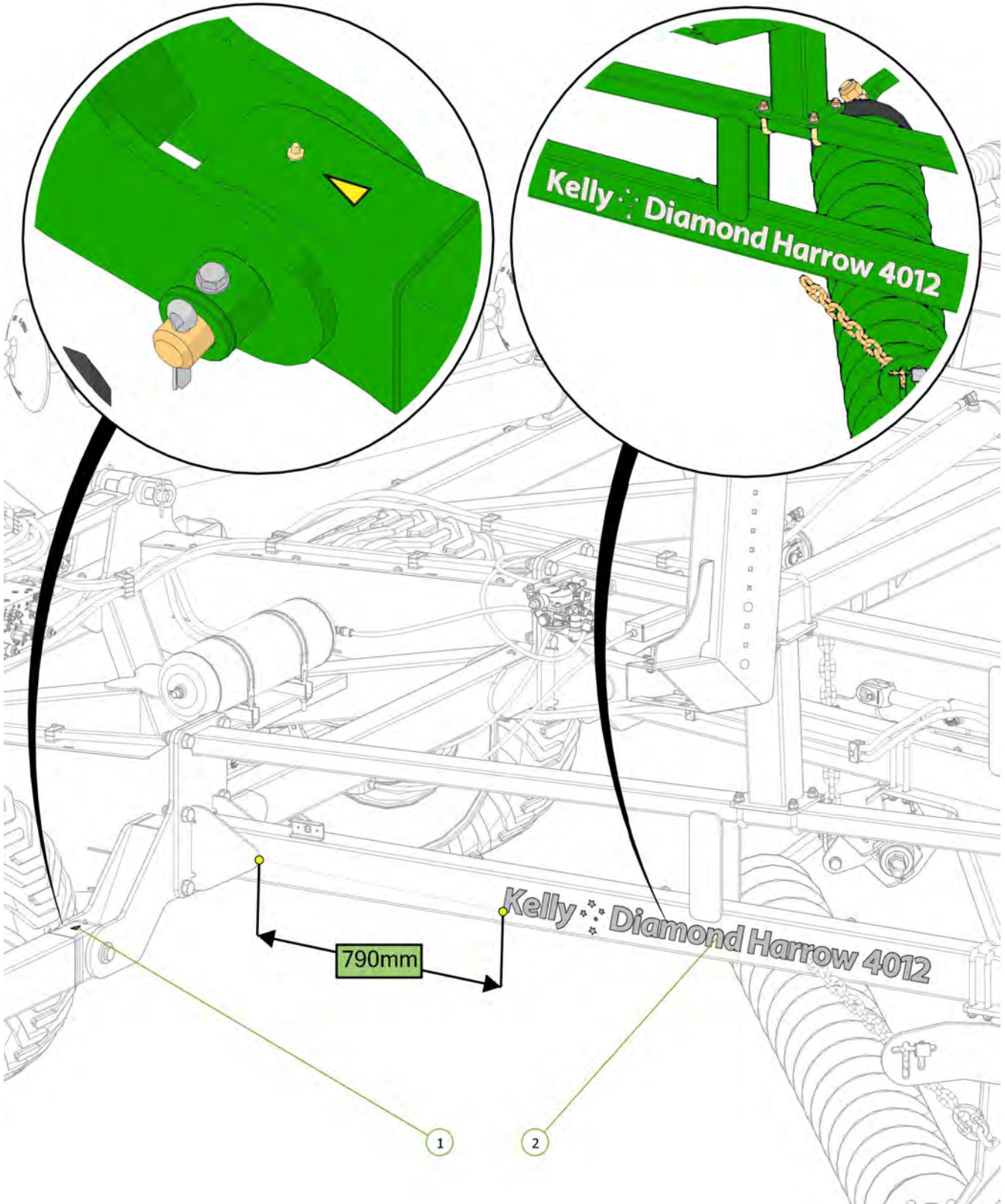
Item No.	Description	Qty	Number
1	Yellow Reflective Decal	1	0801-SYRF
2	Overhead Objects Decal	1	1501-S7
3	Power Line Hazard Decal	1	1501-S8

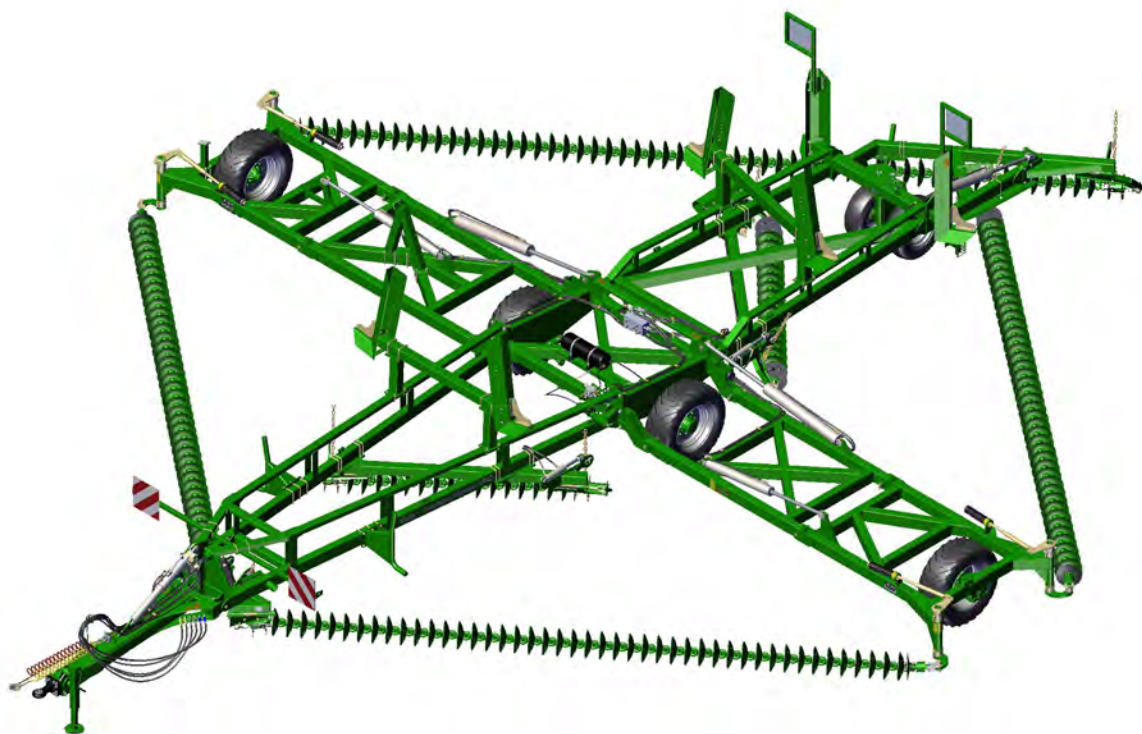


Item No.	Description	Qty	Number
1	Crush Hazard Decal	1	1501-S6
2	Wheel Nut Decal	1	1501-S5



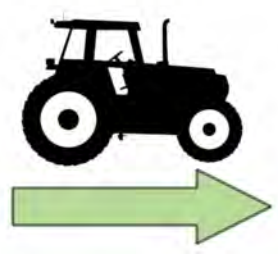
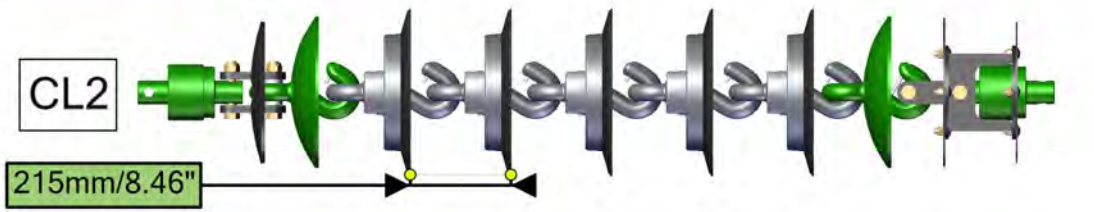
Item No.	Description	Qty	Number
1	Grease Point Indicator	1	1501-S12
2	Diamond Harrow 4012 Decal	1	0801-SKDH4012



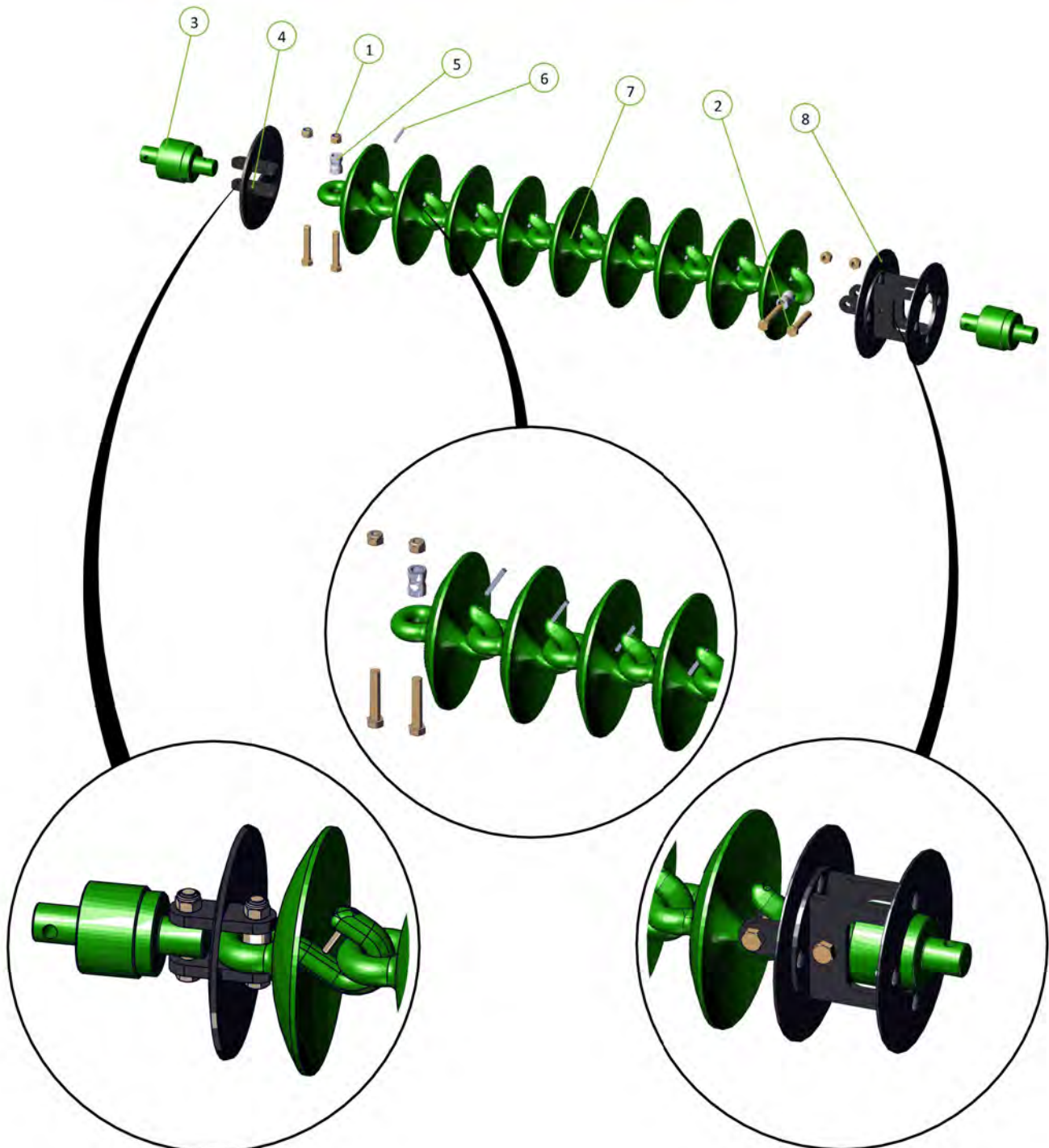


Section 5

Chain Assembly

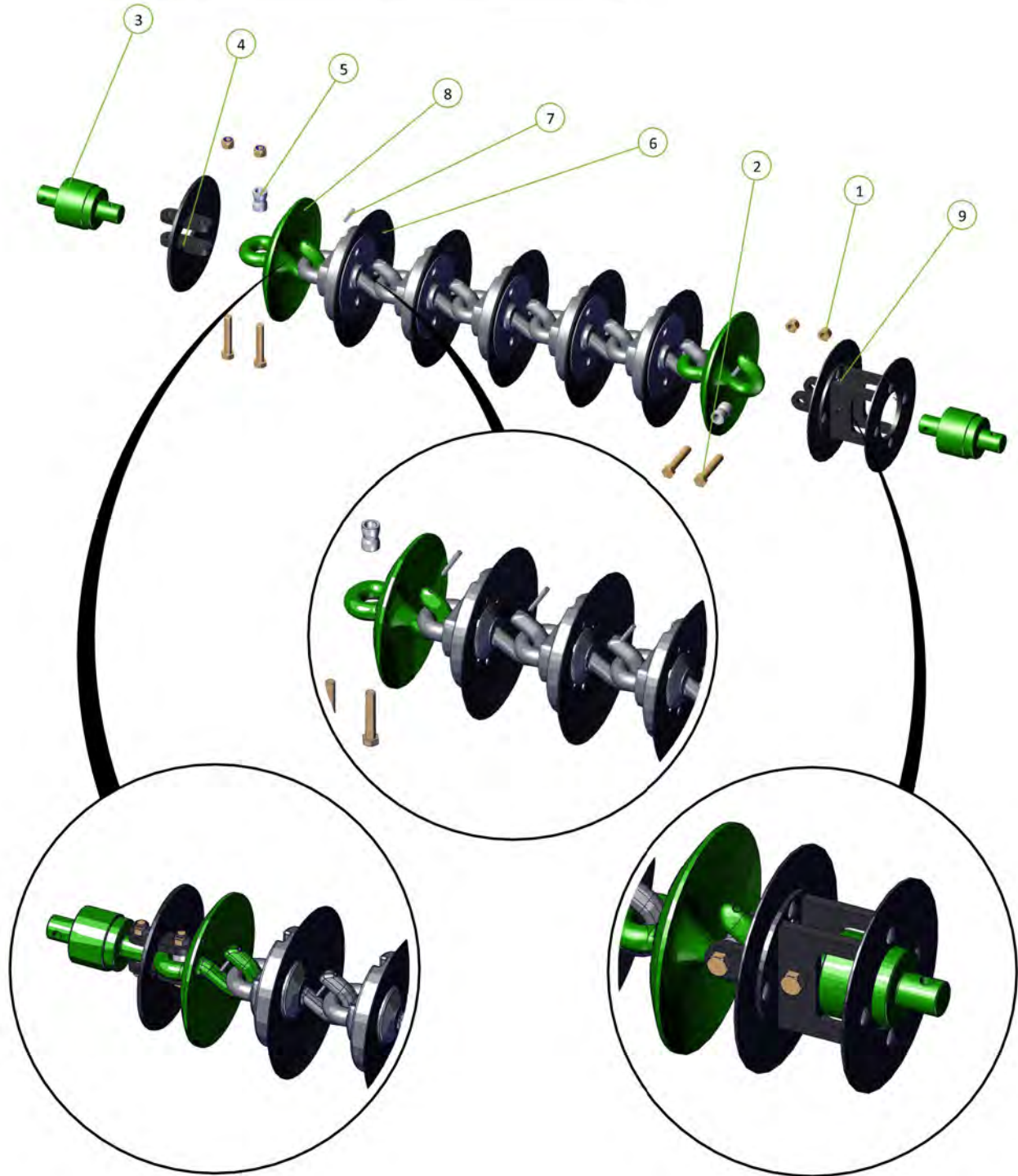
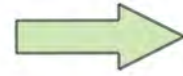


Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate Disc 20mm	0802-DCTP-20
5	Disc Chain Spacer	0801-253755
6	Roll Pin Zinc Plated 3/8" x 2"	0262-3-8X2
7	CL1-B Chain Disc Link	0803-CL1
8	Tapered Chain End Assembly	0810-45A

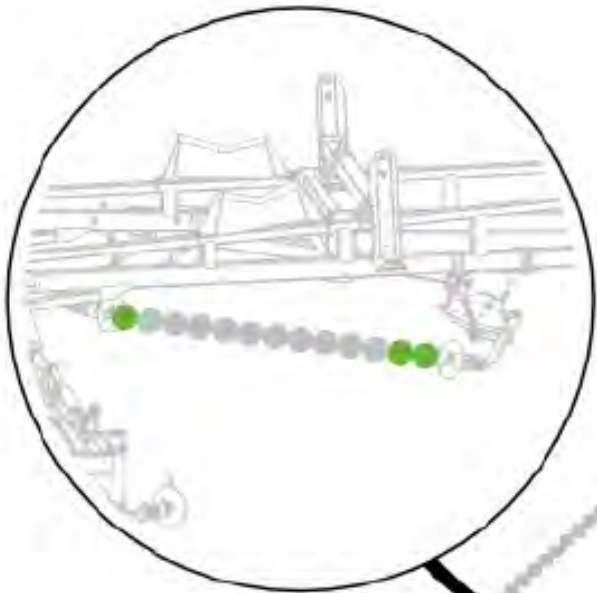


For correct chain tension, chain links may need to be removed from the end of the chain as follows:
 CL1 Disc Chain - unhook disc chain link/s from end of the disc chain

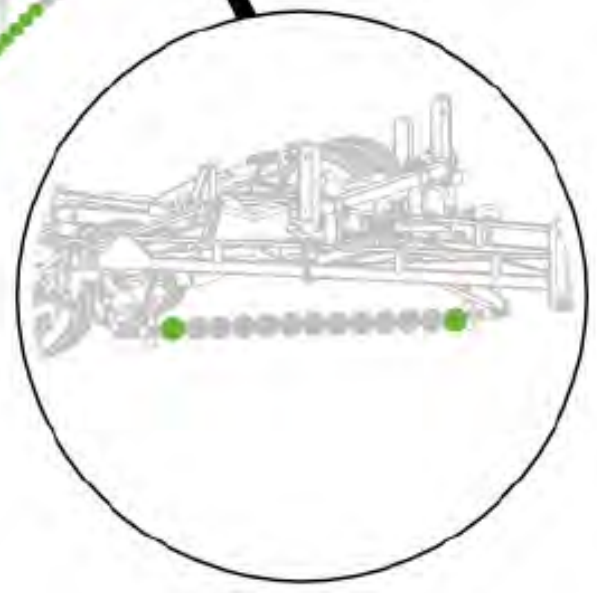
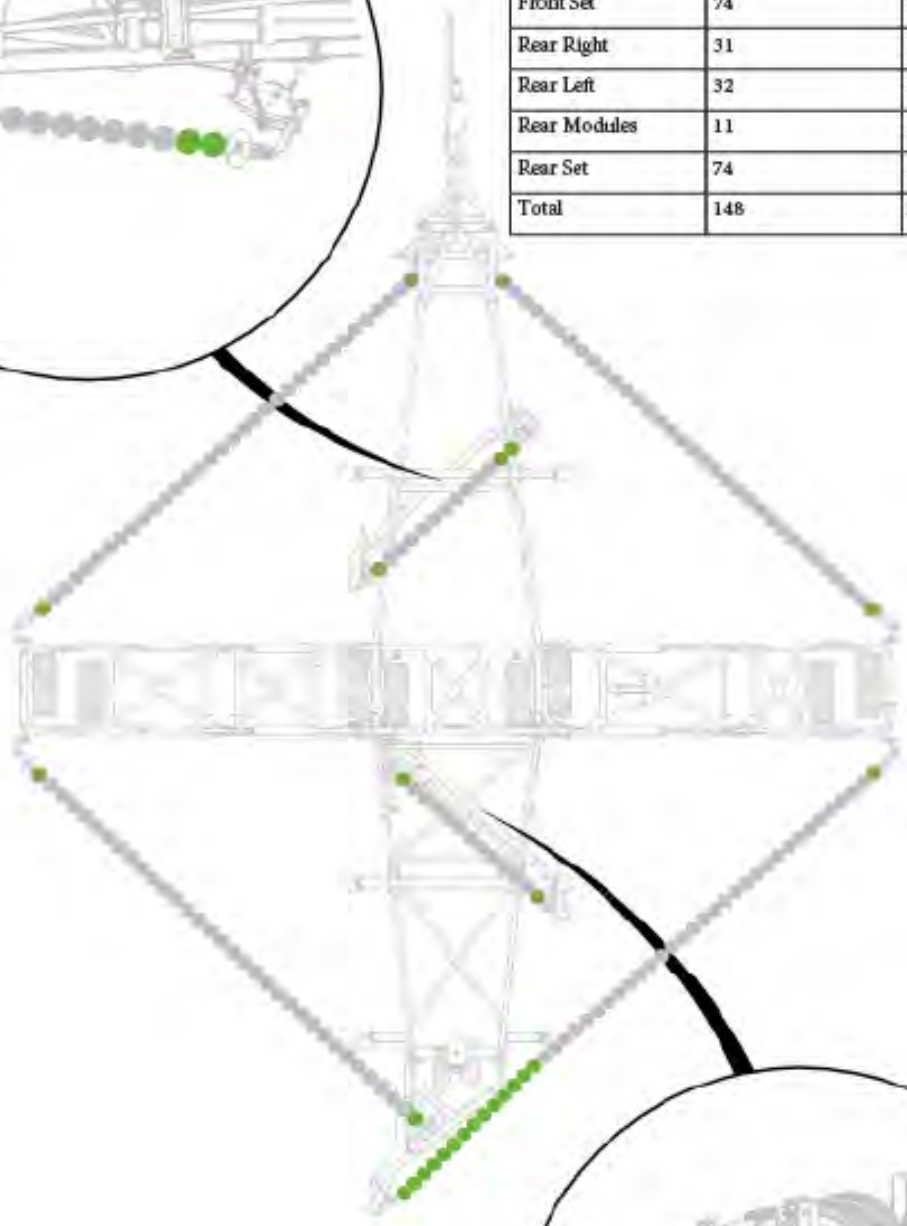
Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate Disc 20mm	0802-DCTP-20
5	Disc Chain Spacer	0801-253755
6	CL2-Link Assembly	0803-CL2
7	Roll Pin Zinc Plated 3/8" x 2"	0262-3-8X2
8	CL1 Disc Chain Link	0803-CL1
9	Tapered Chain End Assembly	0810-45A



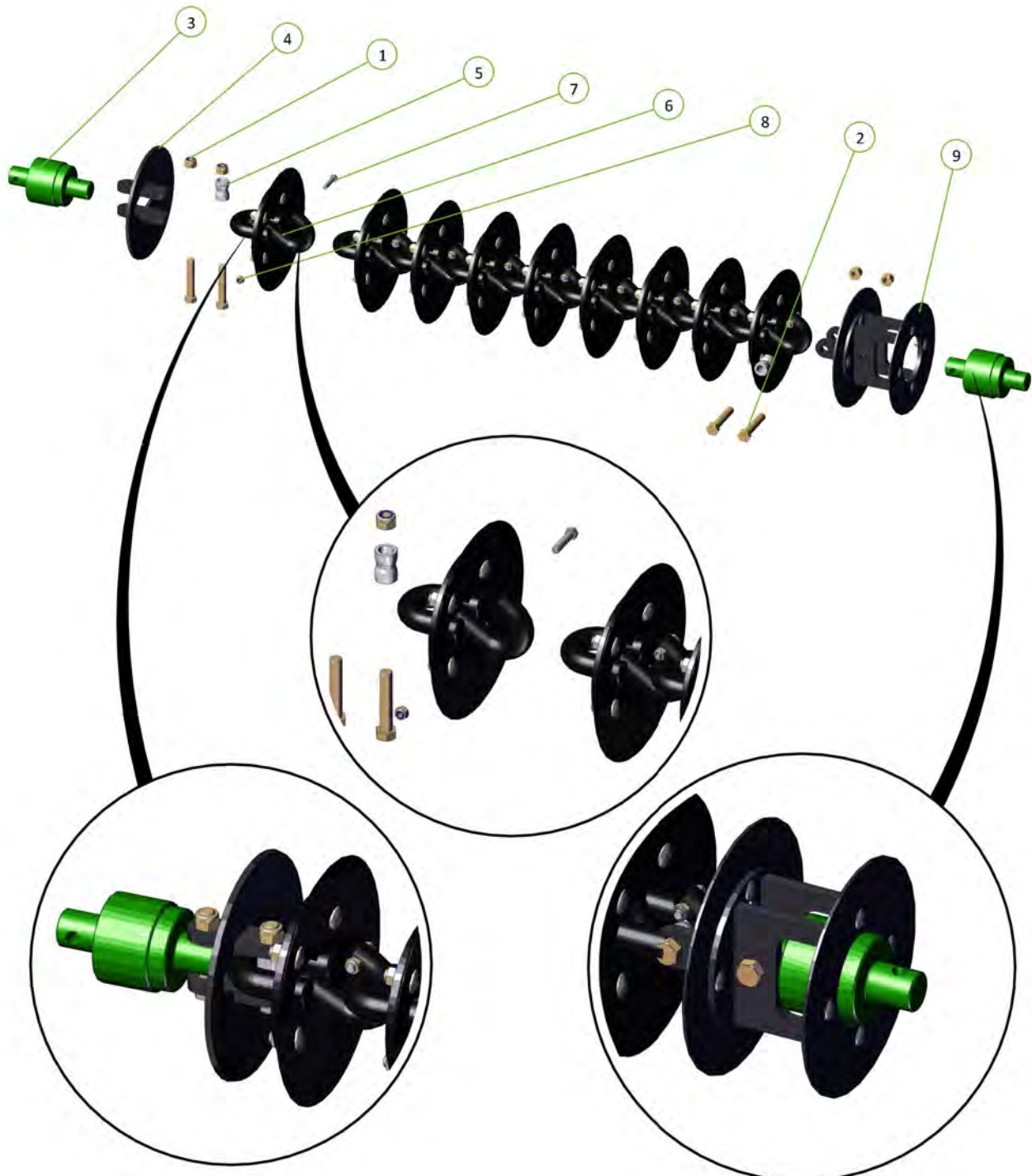
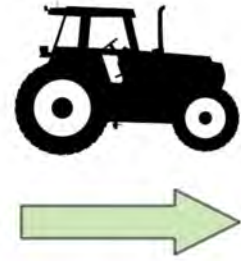
For correct chain tension, chain links may need to be removed from the end of the chain as follows:
 CL2 Disc Chain - unhook disc chain link/s from end of the disc chain



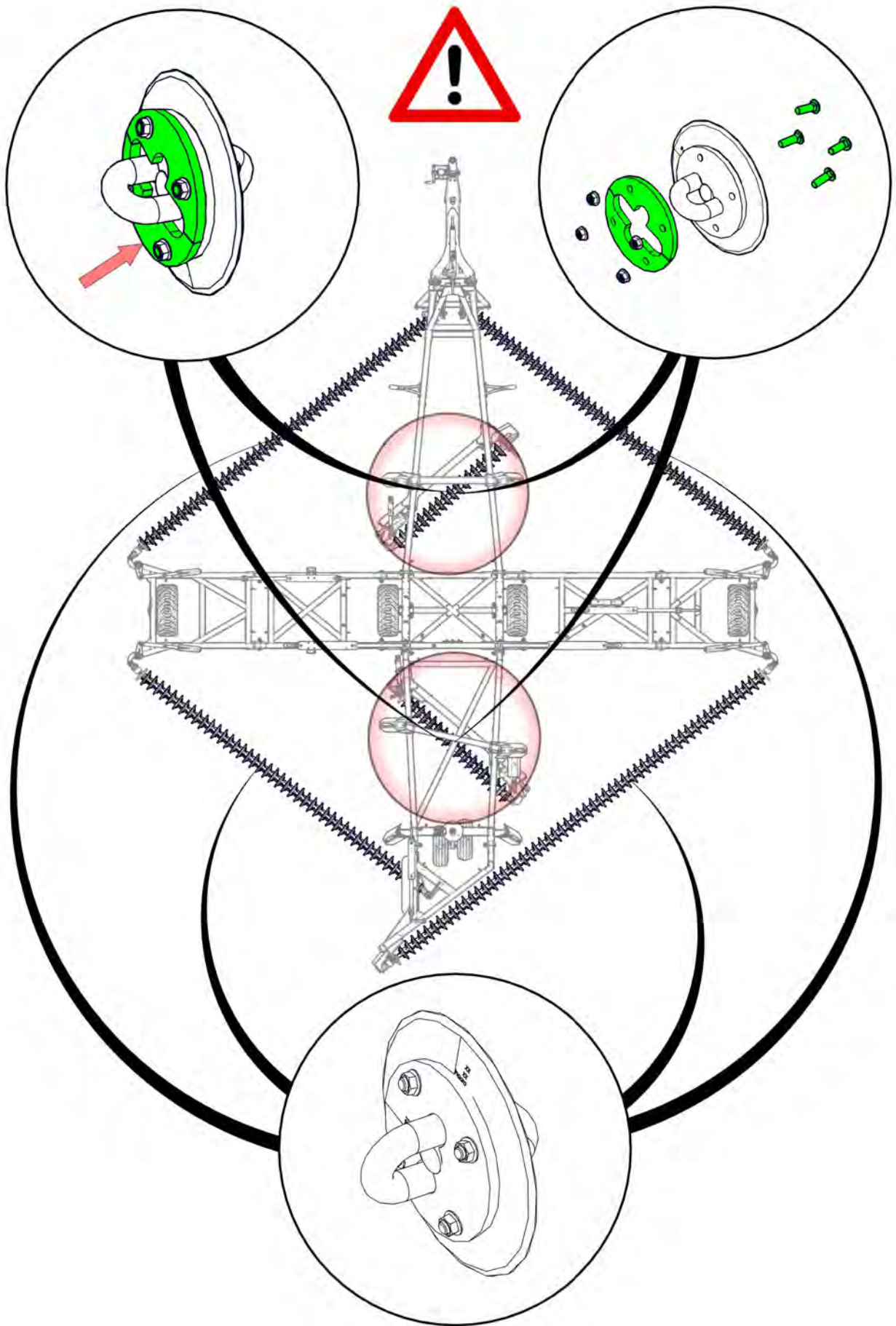
Set	CL2	CL1
Front Left	32	2
Front Right	32	2
Front Modules	10	3
Front Set	74	7
Rear Right	31	15
Rear Left	32	2
Rear Modules	11	2
Rear Set	74	19
Total	148	26



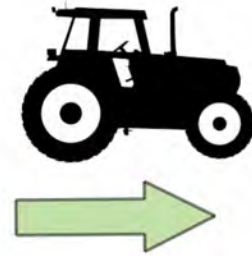
Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate Disc 20mm	0802-DCTP-20
5	Disc Chain Spacer	0801-253755
6	K4 Disc Assembly	0803-K4
7	M12 x 55 Class 8.8 ZP Bolt	0211-1255
8	Nyloc Nut M12	0221-NYL12
9	Tapered Chain End Assembly	0810-45A



For correct chain tension, chain links may need to be removed from the end of the chain as follows:
 K4 Disc Chain - unhook disc chain link/s from end of the disc chain

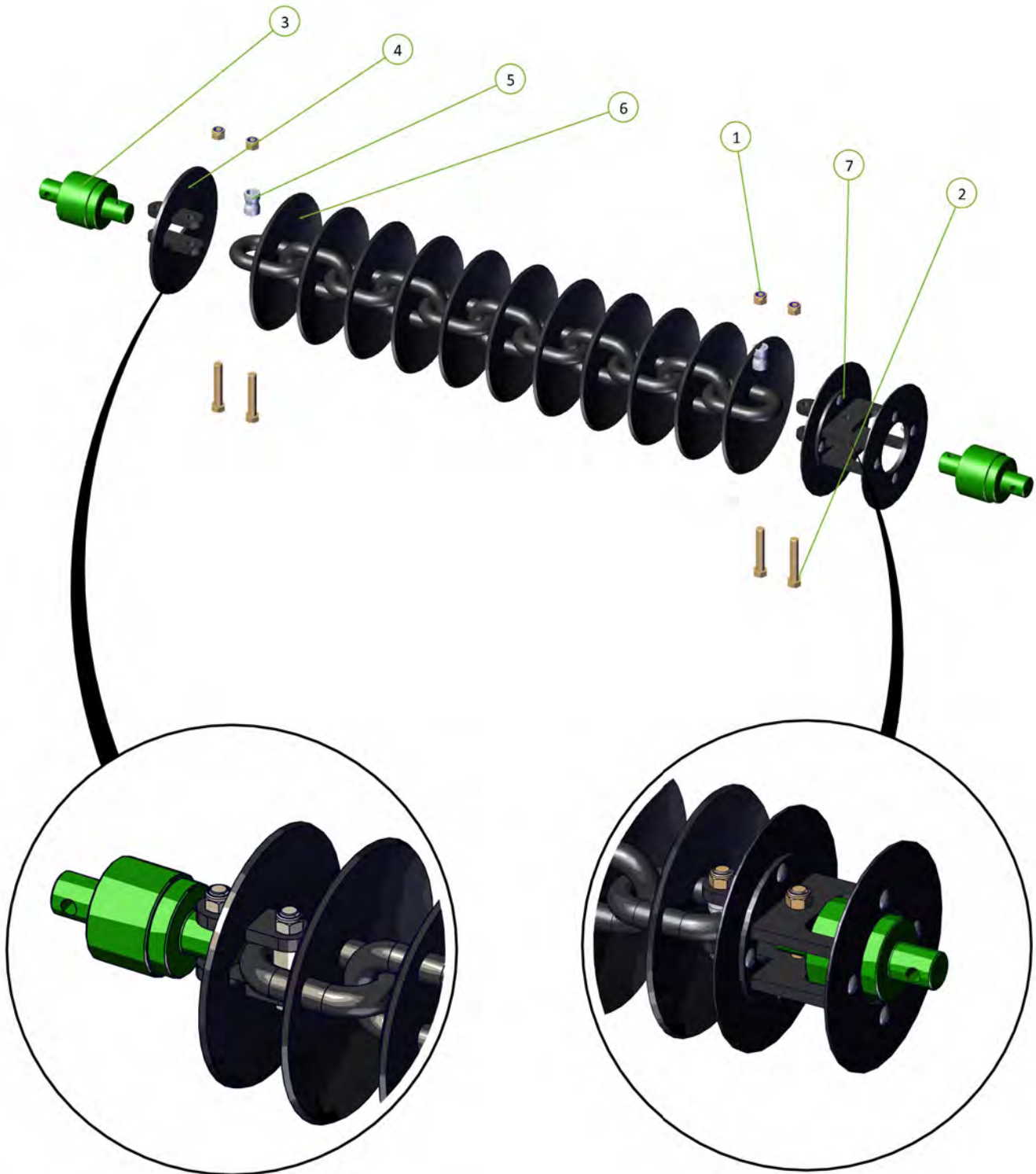


Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate Disc 20mm	0802-DCTP-20
5	Disc Chain Spacer	0801-253755
6	R300 Chain Link	0803-R300
7	Tapered Chain End Assembly	0810-45A

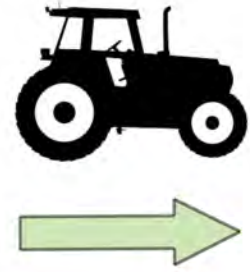


For correct chain tension, chain links may need to be removed from the end of the chain as follows:

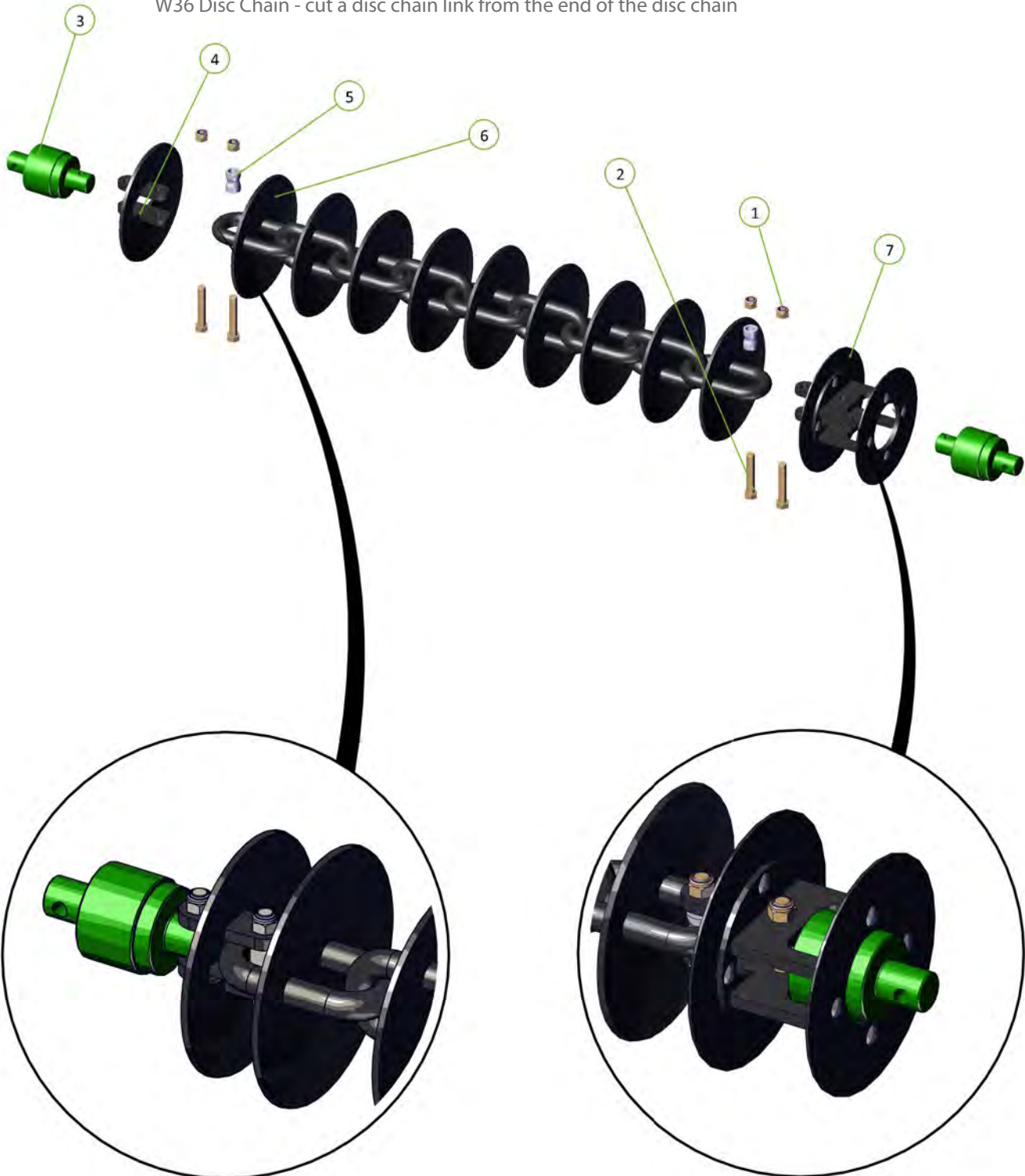
R300 Disc Chain - cut a disc chain link from the end of the disc chain



Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate Disc 20mm	0802-DCTP-20
5	Disc Chain Spacer	0801-253755
6	W36/25 Chain Link	0803-W36
7	Tapered Chain End Assembly	0810-45A



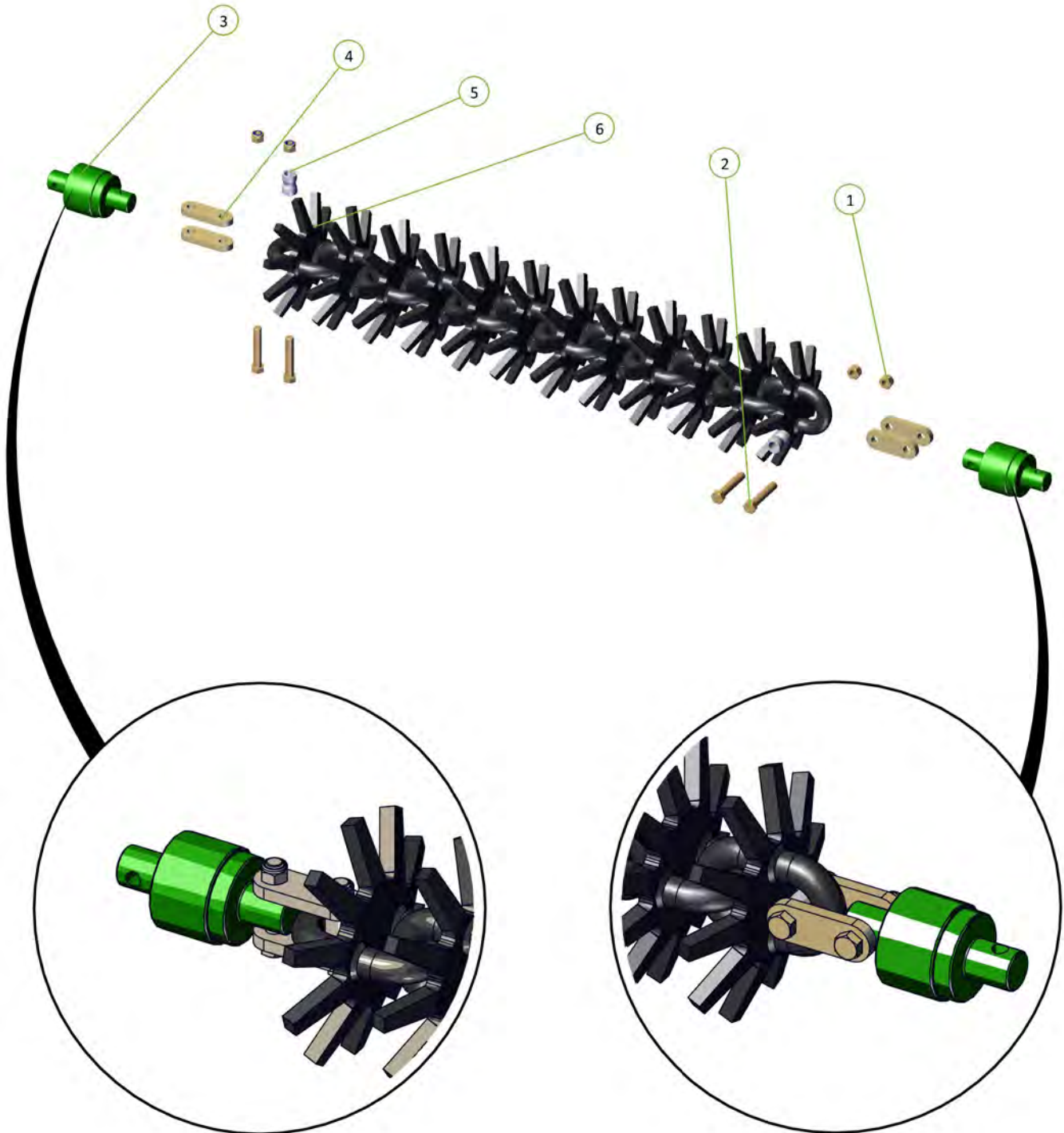
For correct chain tension, chain links may need to be removed from the end of the chain as follows:
 W36 Disc Chain - cut a disc chain link from the end of the disc chain



Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate For 20mm Bolt	0800-83.2
5	Disc Chain Spacer	0801-253755
6	10 Spike Disc Chain 49/27/5	0803-SD49



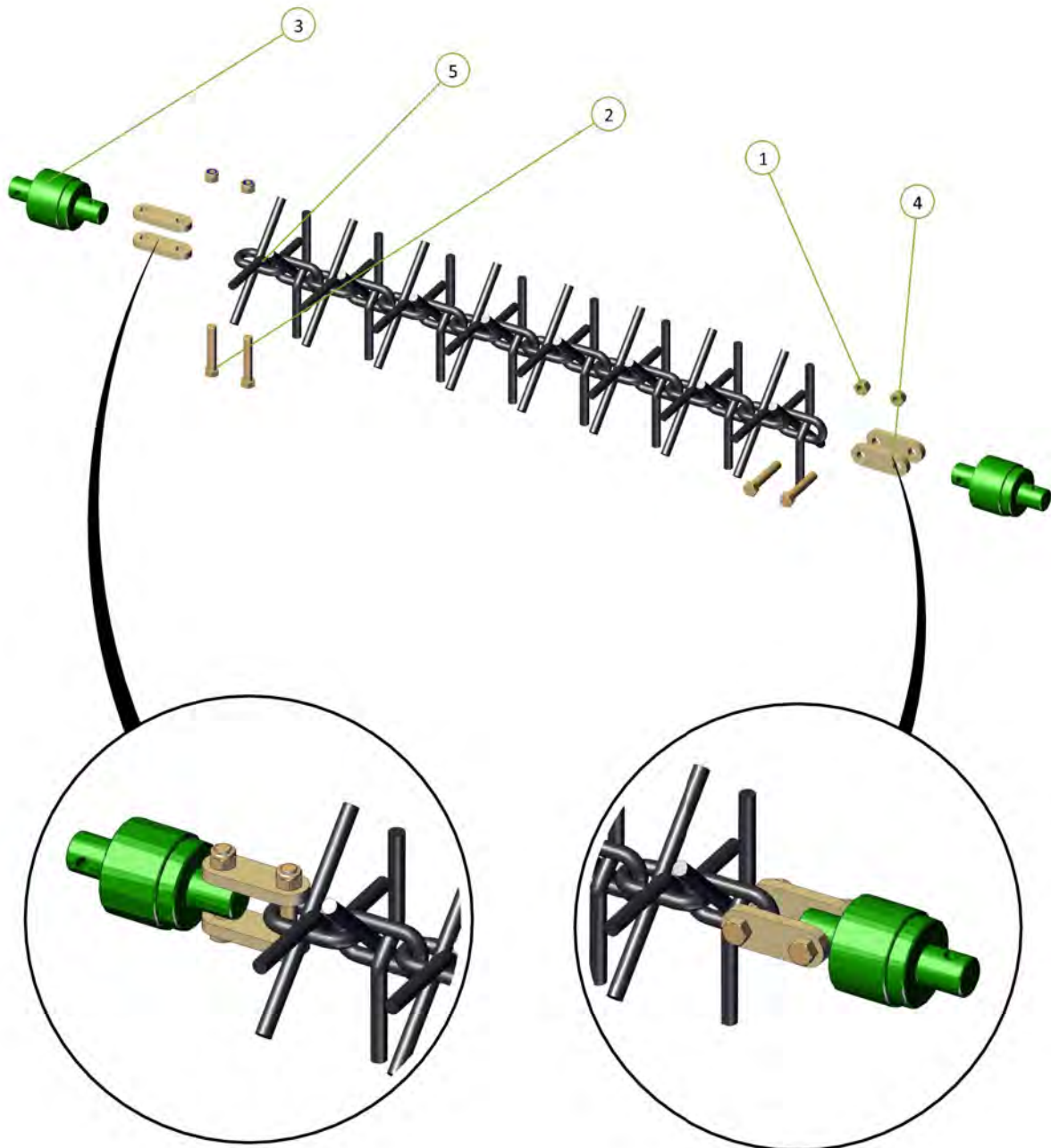
For correct chain tension, chain links may need to be removed from the end of the chain as follows:
 Spiked Disc Chain - cut a disc chain link from the end of the disc chain



Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate For 20mm Bolt	0800-83.2
5	Prickle Chain	0803-PCH

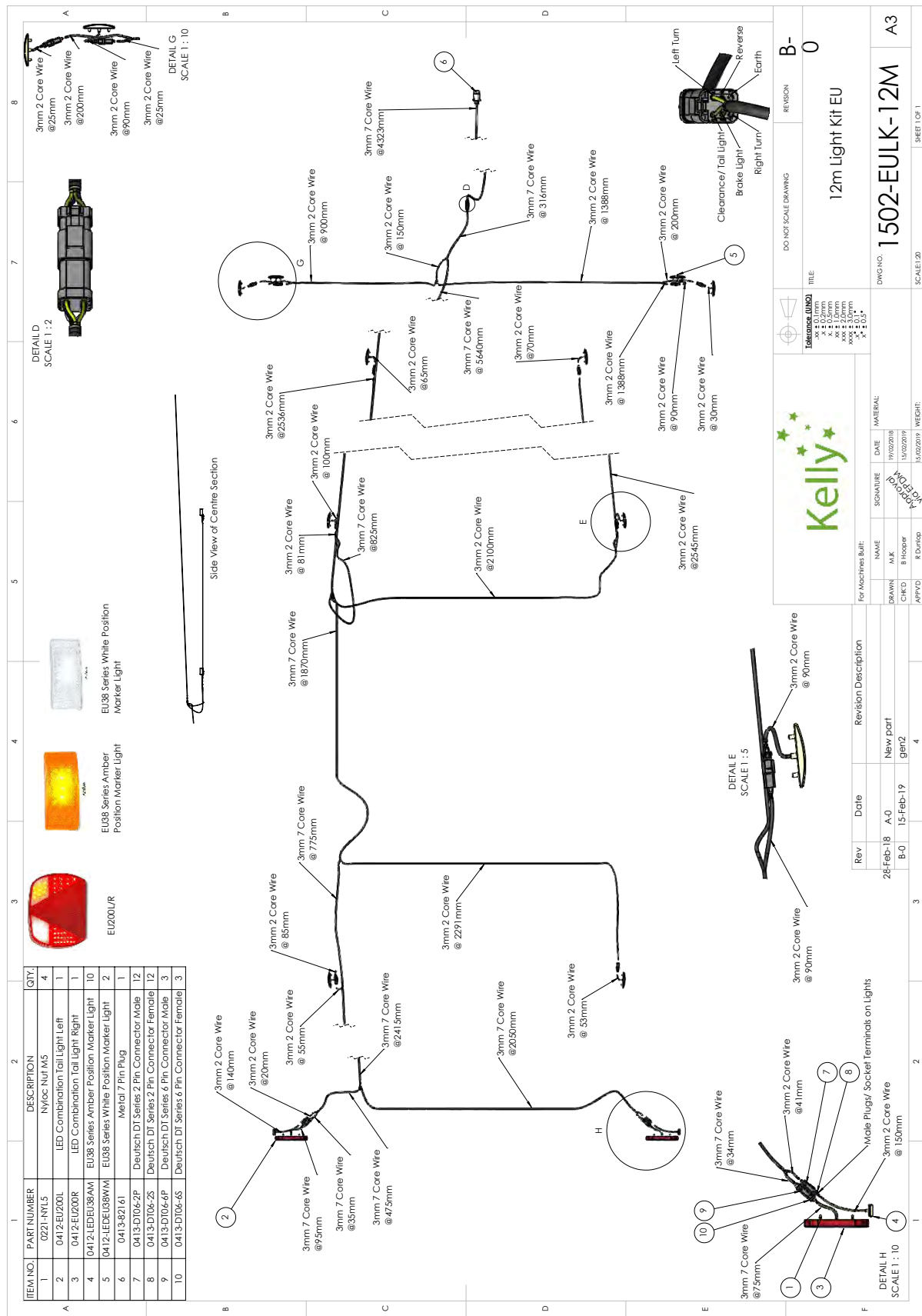


For correct chain tension, chain links may need to be removed from the end of the chain as follows:
 Prickle Chain - cut a prickle chain link from the end of the prickle chain



Section 6

Diagrams & Specifications



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	0221-NHLS	INLOC-NUT/M5	4
2	0412-EU200L	LED Combination Tail Light Left	1
3	0412-EU200R	LED Combination Tail Light Right	1
4	04121LEDEU38AM	EU38 Series Amber Position Marker Light	10
5	04121LEDEU38WM	EU38 Series White Position Marker Light	2
6	0413-82161	Metal 7 Pin Plug	1
7	0413-DT06-2P	Deutsch DT Series 2 Pin Connector Male	12
8	0413-DT06-2S	Deutsch DT Series 2 Pin Connector Female	12
9	0413-DT06-4P	Deutsch DT Series 4 Pin Connector Male	3
10	0413-DT06-4S	Deutsch DT Series 4 Pin Connector Female	3

DETAIL D
SCALE 1 : 2



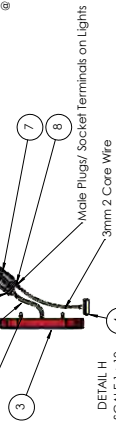
DETAIL G
SCALE 1 : 10

Side View of Centre Section

DETAIL E
SCALE 1 : 5



DETAIL H
SCALE 1 : 10



DO NOT SCALE DRAWING		REVISION	B-
TITLE		0	
12m Light Kit EU			
DRAWING NO.		1502-EULK-12M	
SCALE 1:20		A3	
SHEET 1 OF 1			

Rev	Date	Revision Description
28-Feb-18	A-0	New part
B-0	15-Feb-19	gen2

NAME	SIGNATURE	DATE	MATERIAL
DRWNG	M.K	15/02/2018	
CHKD	B. Hooper	15/02/2019	
APPROV	Forwards	15/02/2019	

Operating speeds

Operating speeds for normal conditions	
Chain type	Speed
Operating / working speed	10-12 kph
Transport / towing on roads	25 kph

Tyre pressure

Tyre size	Ply	KPA	PSI
400/55-22.5	18	350	50
10.0/75-15.3	14	300	44

Chain Harrow specifications

Model	4012
Working width	12.93 +0.16/-0.13m
Transport width	2.98m
Transport height	3.89m
Transport length	14.30m

Chain Quantities

Model	Length	CL2	CL1	K4	W36	R300	SD49	Prickle chain
		CL2 disc chain also requires CL1 disc chain						
4012 Front right	7.3m	CL2 - 32 CL1 - 2	44	45	42	57	57	79
Front left	7.3m	CL2 - 32 CL1 - 2	44	45	42	57	57	79
Rear right	9.2m	CL2 - 31 CL1 - 15	55	57	53	72	72	101
Rear left	7.1m	CL2 - 29 CL1 - 2	41	42	39	53	53	74
Front module	2.6m	CL2 - 10 CL1 - 3	16	16	15	21	21	29
Rear module	2.6m	CL2 - 10 CL1 - 2	16	16	15	21	21	29

For correct chain tension, chain links may need to be removed from the end of the chain as follows:

- CL2 Disc Chain - unhook disc chain link/s from end of the disc chain
- CL1 Disc Chain - unhook disc chain link/s from end of the disc chain
- K4 Disc Chain - unhook disc chain link/s from end of the disc chain
- Spiked Disc Chain - cut a disc chain link from the end of the disc chain
- R300 Disc Chain - cut a disc chain link from the end of the disc chain
- W36 Disc Chain - cut a disc chain link from the end of the disc chain
- Prickle Chain - cut a prickles chain link from the end of the prickles chain

Scan the following QR code to open the removing a welded disc chain video.



Section 7

Operation

Basic Operation

Unfolding:

1. Remove transport safety stop from drawbar cylinder shaft. Ensure front cylinder depth stop plates are fully engaged on cylinder shaft.
2. Walk around and inspect the machine.
 - a. Check that chains are not hooked on framework
 - b. Check swivel bolts at end of each chain are in place and not broken
 - c. Check that height adjusting chains have not fallen out of their slotted plates during transport.
3. Lower front A Frame to working height.
4. Unfold wings, holding the hydraulic lever until the main center cylinder pins have centered in their slots.
5. Lower rear tail by holding hydraulic lever until tail and modules are completely lowered to working position and the wing de-tensioning cylinders are fully retracted, tensioning the chain.
6. Walk around machine and check that all chain links are straight and that working height of all swivels are correct for field conditions. Adjust if necessary.
7. Move off with all chains in working position. If necessary it is acceptable to raise Front A Frame and drawbar to transport height. This will lift the front chains off the ground and reduce the load on the tractor. Lower the front A Frame once operating speed is reached.

Folding:

1. Lower the front A Frame to working height. It's important to ensure that all chains locate correctly in their transport rests.
2. Raise the Rear Tail and Modules by holding the hydraulic lever until they come to a complete stop.
3. Fold the wings. They should move as follows:
 - Main center cylinders will retract, one or both, until the wings stand vertically.
 - The left outer wing then the right outer wing will fold down.
4. Raise front A Frame to transport height.
5. Walk around and check that chains have located correctly in transport rests.
6. Install transport safety stop on drawbar cylinder shaft.

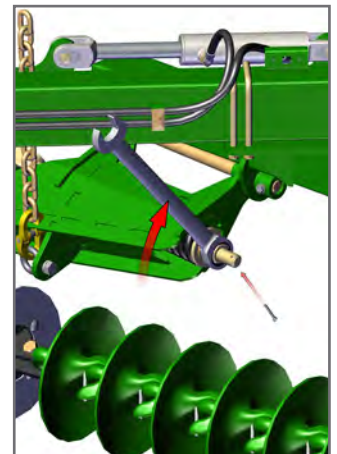
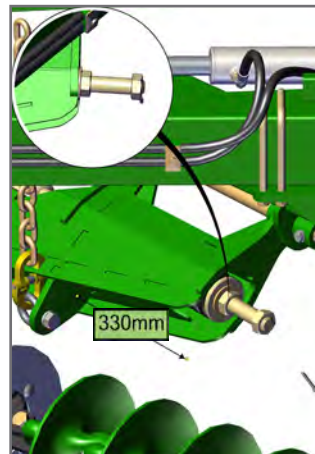
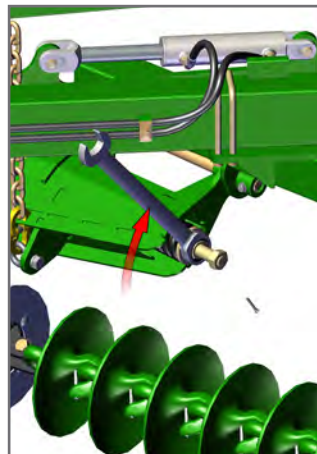
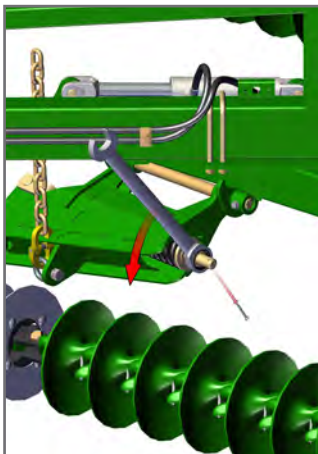
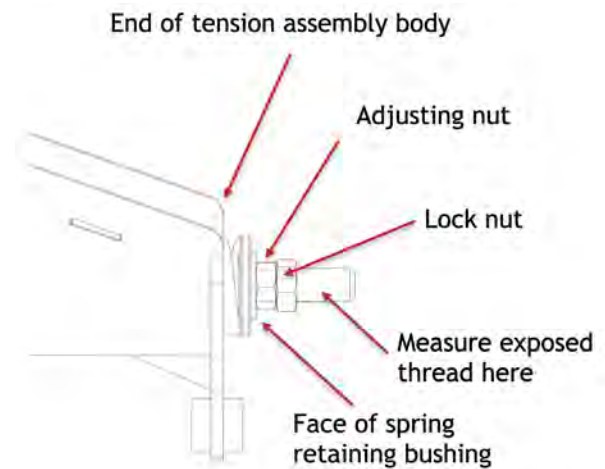
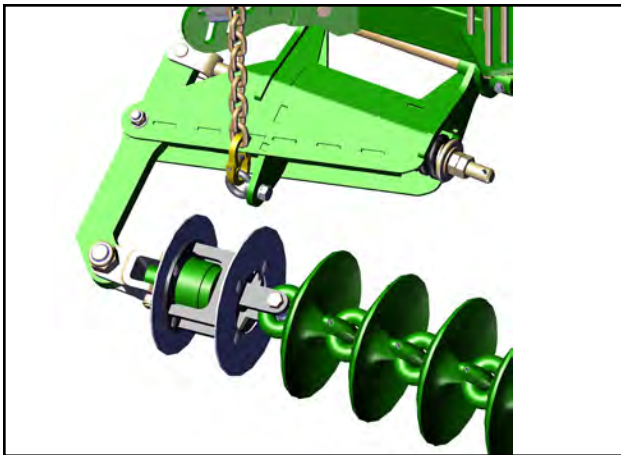
Setting for correct chain tension

Wings

- Use the spanner supplied. Loosen the lock nut adjacent to the tensioner assembly body.
- Turn the tension bolt clockwise to compress the coil spring to 330mm. Correct tension is achieved when spring retains its set length when operator rolls the chain fore and aft on the ground.
Retighten the lock nut.
- When less than 25mm of thread remains visible on the adjuster bolt then a link must be removed from the chain.

Modules

- Loosen the lock nut on the draw bolt.
- Tighten the adjusting nut clockwise until the outer face of the spring retaining washer is flushed with the body of the module tensioning unit.
- Retighten the lock nut.
- After setting the tension assemblies to have the recommended thread showing (less than 200mm), move out to the wings of the machine and use the PCHTA adjusters to tension the gang of discs.



Importance of chain tension

Operational

It is imperative that the correct adjustment be maintained. Only through correct adjustment can a smooth and level finish be achieved in field working.

Loose chains lead to :

- Uneven performance across the width of the machine
- Uneven weed control
- Unsatisfactory incorporation
- Ineffective levelling
- Accelerated or premature chain wear
- Chains failing to engage with transport locators when folded
- Machine damage when folding or unfolding
- Uneven field surface with ridges and furrows being created. The leading 1/3rd of a loose chain is much more aggressive than the trailing 1/3rd and the centre. This will mean that the middle of the machine's front pair of chains will aggressively move soil outwards. The machine's rear pair of chains, if loose, have their aggressive 1/3rd near the wing extremity. It follows then that as the front discs push soil outwards, the least aggressive portion of the rear chain follows them and does not balance the soil movement. This is exacerbated at the wings, effectively creating a broad ridge about halfway out each wing. It won't be evident in one pass, but is possible if care is not taken over time.

A correctly adjusted machine will not have this problem.

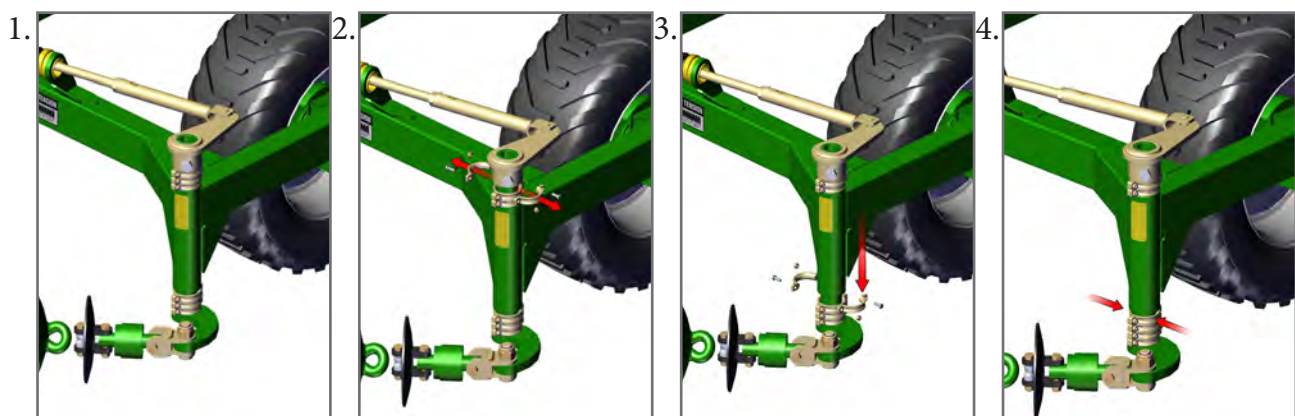
Correct chain height adjustment

To adjust the swivel height at the wings, relocate one of the spacers either above or below the fixed mounting tube. Each Dropleg has four pairs of 25mm cast spacers. The most common set up is to have two pairs of cast spacers on the bottom and two pairs of cast spacers on the top.

Below is the process to adjust the Dropleg height.

1. Loosen chain tension completely.
2. Undo 2 x M10 bolts from corresponding spacer set and take the two halves off of the drop leg tube .
3. Replace it in the selected position after raising or lowering the drop leg.
4. Reinstall the M10 bolts and re-tension the chain.

It is possible to install all spacers either above or below the mounting tube giving a maximum of 100mm of adjustment.



Section 8

Pre-Delivery Checklist

Dealer Pre-Delivery Checklist

To be completed by the dealer on sale of the machine

Check Item:	Checked by Initial
Tow hitch is fitted correctly with bolts tightened to correct torque and marked	
Air brake hoses are correctly routed through holders and fitted with no leaks	
Air brake relay valve is correctly set for the load	
Hydraulic hoses are routed through holders and fitted to cylinders with no leaks	
Hydraulic Accumulator is charged correctly (2006 only)	
All bolts and nuts are tightened to the correct torque and marked	
All split pins are inserted and split	
All safety signs and decals are in the correct locations as per the Assembly/Operators Manual	
All safety lights are in the correct locations and working	
All tyres are fitted correctly and inflated to the correct pressure	
All wheel nuts are tightened to the correct torque and marked	
Swivel units are correctly orientated	
Drop legs are correctly orientated	
Grease all marked locations	
Disc roll pins/locking bolts are installed in the discs (CL1, CL2 and K4 only)	
Check the chain tension as per Operators Manual	
Machine folds/unfolds in the correct sequence	
Chains are resting correctly on their transport supports (chain carriers)	
Machine is registered for Warranty	
Customer has been shown the website and how to access parts information	
Operators manual has been provided with the machine	

Completed Pre-Delivery Checklist to be returned to warranty@kellytillage.com within 7 days of delivery to the customer.

Name:	
Signature:	
Date:	

