

3009NT

A large green agricultural machine, the Kelly Tillage System Model 3009NT, is shown from a top-down perspective. It features a central vertical shaft with a spring at the top, two long arms extending outwards, and a horizontal frame with three sets of wheels. The machine is set against a white background with green decorative elements.

Kelly

Kelly Tillage System Model 3009NT Assembly Manual

Revision A - December 2020

Serial Number:

Kelly Tillage
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South Australia 5482
P 08 8667 2253
W kellytillage.com

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.

Kelly Tillage

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Email: sales@kellytillage.com

Spare Parts: parts@kellytillage.com

Website: www.kellytillage.com

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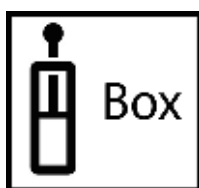
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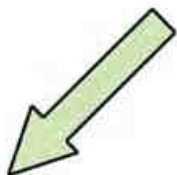
This symbol indicates which bag the relevant fasteners are in



This symbol indicates which bag the relevant hydraulics are in



This symbol indicates the hydraulics are in a box



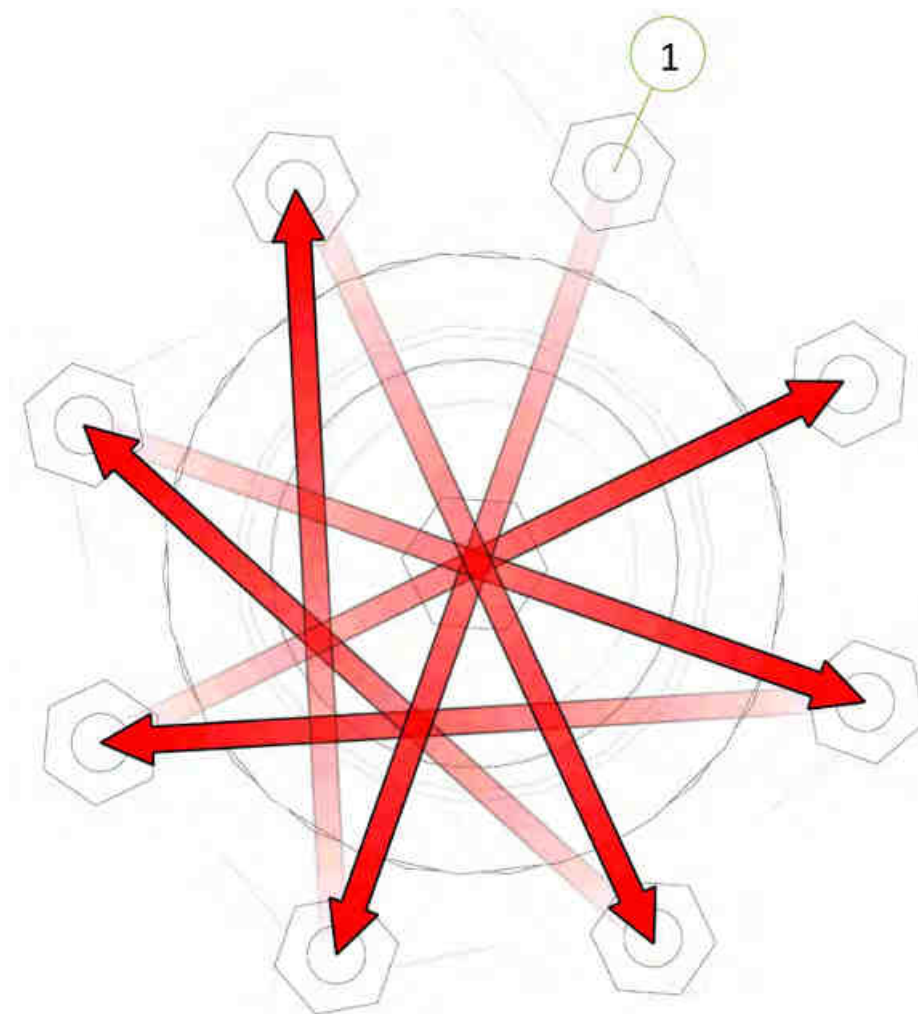
This symbol indicates which way the machine is travelling

Bolt Torque Settings

Bolt Type	Wheel nut				U Bolt			Class 8.8 Bolt					Class 10.9 Bolt		Grade 8 Bolt
Bolt Size	M18	M20	1/2"	9/16"	M10	M12	M16	M10	M12	M16	M20	M24	M20	M24	1" UNF
Ft lb	255	265	90	100	22	36	55	32	48	140	190	270	300	350	849
Nm	345	360	125	140	30	50	75	44	65	190	260	370	406	475	1151

[1] When fitting a wheel & tyre 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

Unpacking

Unpacking

We recommend the use of suitable lifting equipment with a lifting capacity of at least 4 tones.



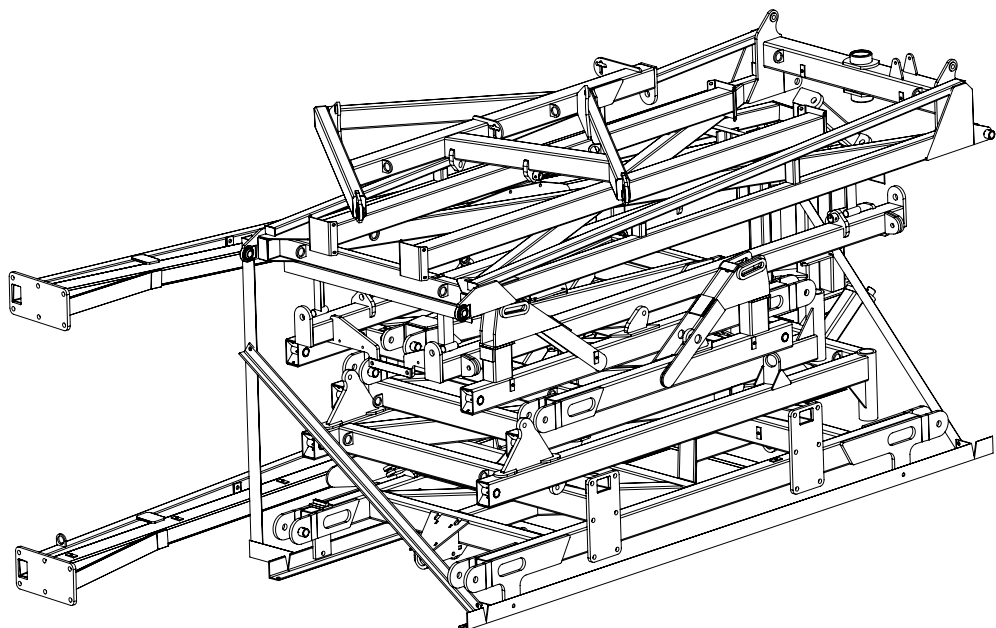
- Before unloading any loads please inspect exterior for damage

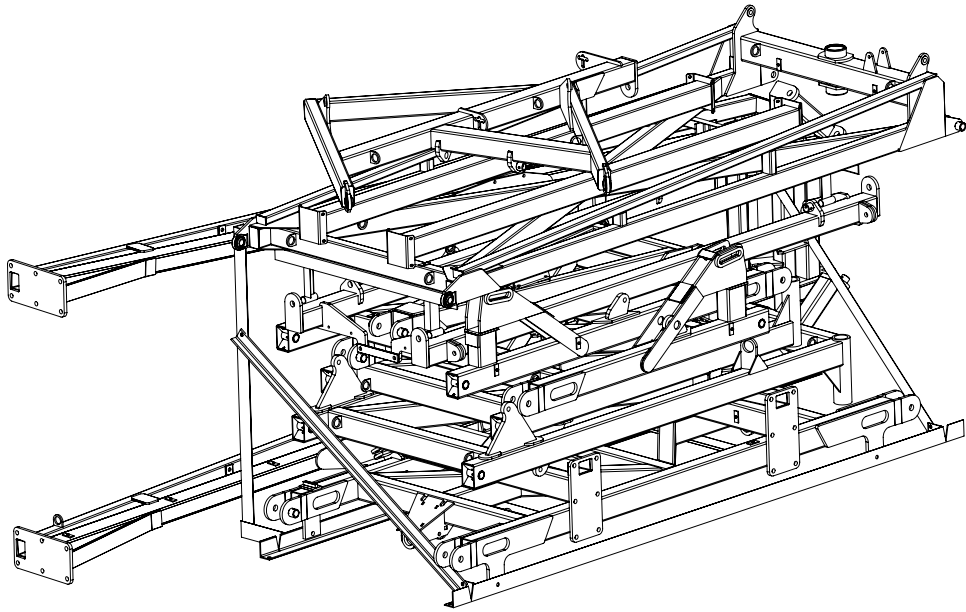


CAUTION

Take care when opening doors as load may have shifted or restraints may have broken.

- Remove boxes from doorway of container one at a time using a forklift truck. Each box weighs approximately 2500kg (5512 lbs)
- Check strapping on each bundle before attempting to remove
- Attach chains to the packing frame using shackles and using suitable equipment (eg. fork-lift or tractor) drag framework bundles out of container. To move bundles away from front of container lift from side with forklift. Do not lift under angle iron frame, lift only under centre frame. Each bundle weighs approximately 7000 lb (3200 kg).





CAUTION

Before cutting straps attach slings or chains and take the weight of the frames to avoid them slipping or falling and causing injury.



CAUTION

Wear eye and hand protection when cutting straps. Sharp edges are exposed as straps separate and may cause injury.



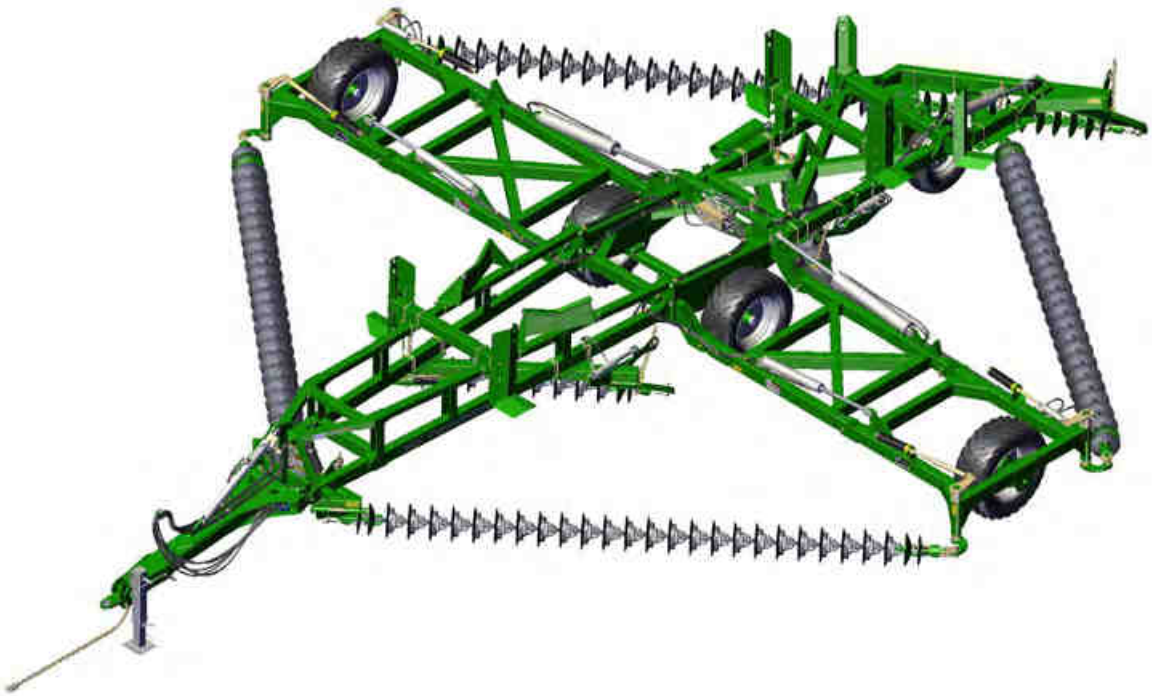
CAUTION

To avoid falling or moving components, before cutting straps attach slings or chains to individual pieces and only cut the straps holding the piece to be lifted.

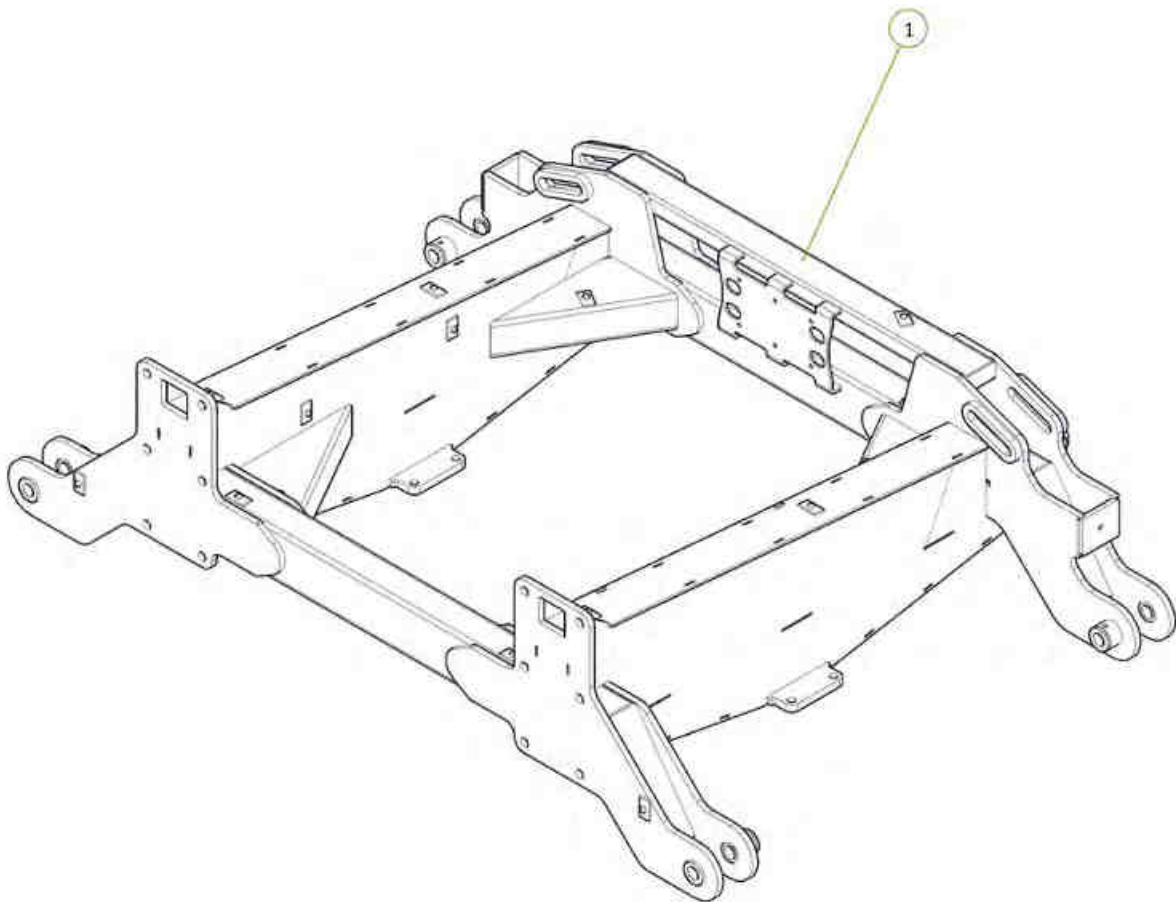
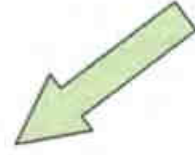
- Remove boxes from rear of container one at a time using a forklift truck. Each box weighs approximately 2500 kg (5512 lbs)
- Cut straps holding bundles and separate parts and place in assembly area
- Once all parts have been identified, the machine is ready for assembly
- Identify parts for each machine by serial no. or description and separate. Open parts box and check that all parts are accounted for against checklist
- Read assembly instructions before proceeding.

Section 2

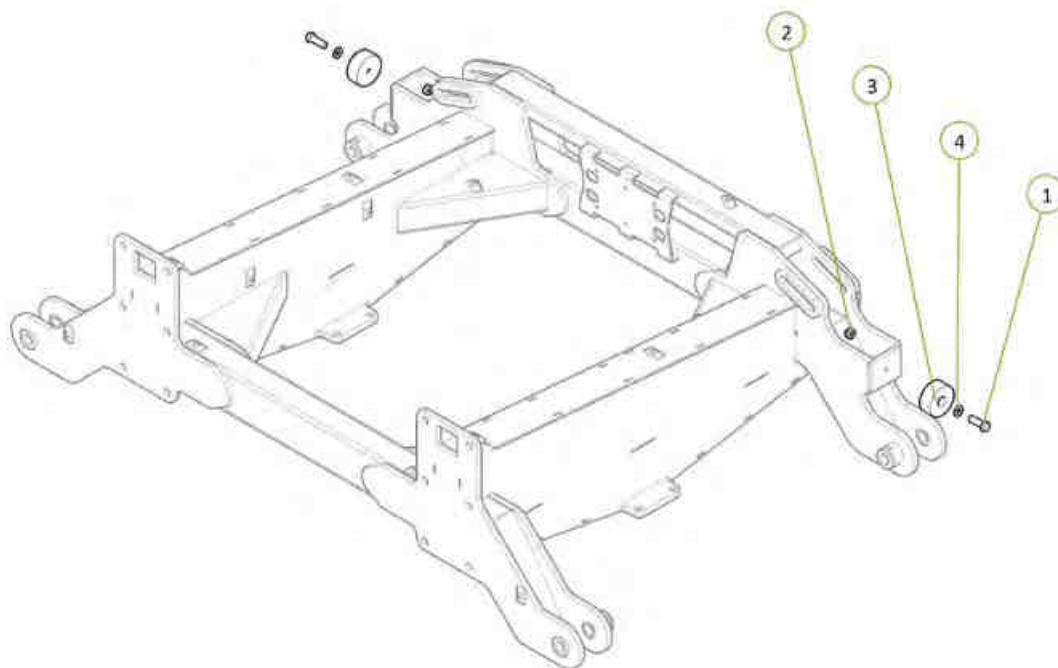
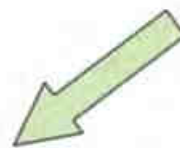
Assembly



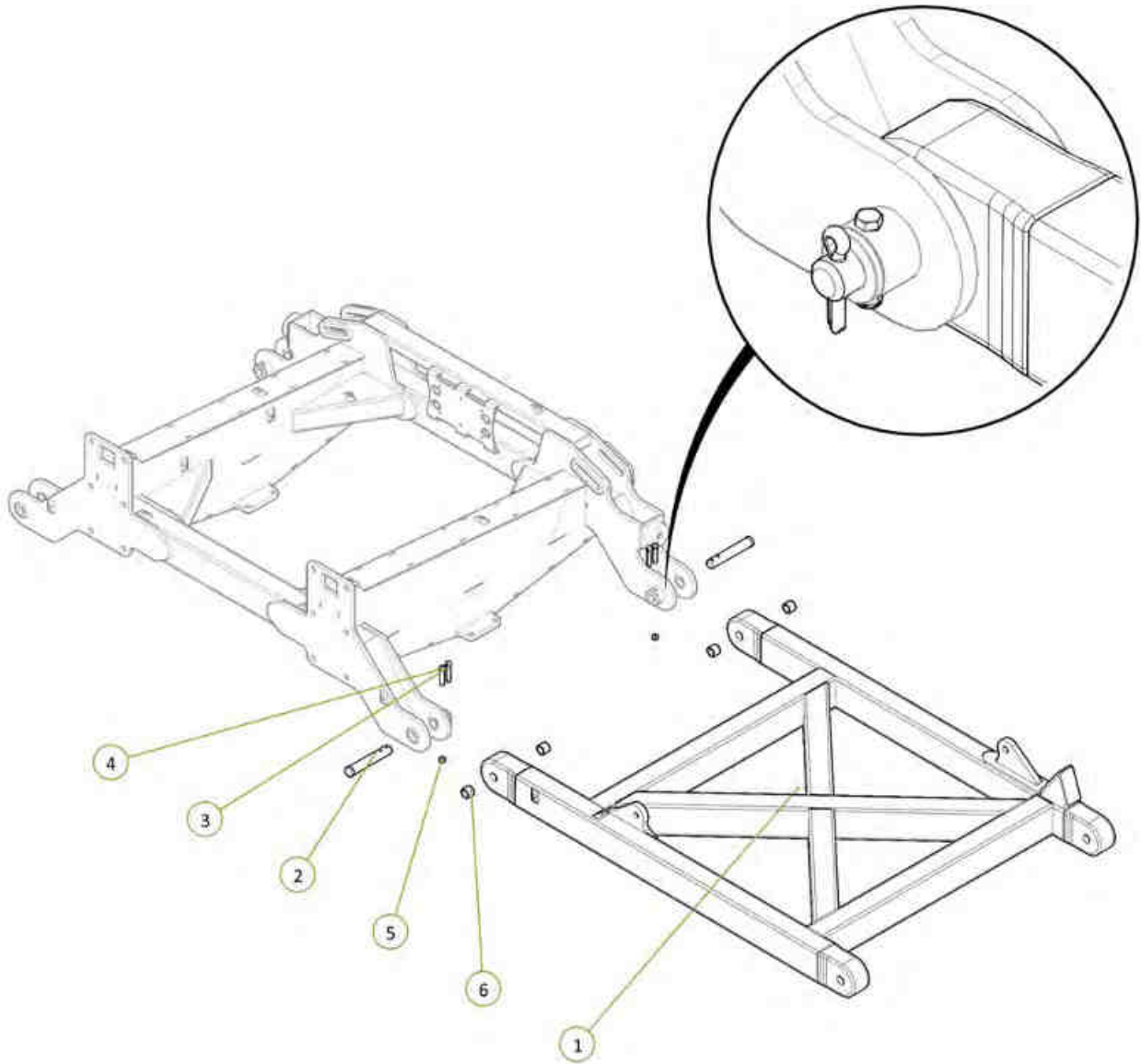
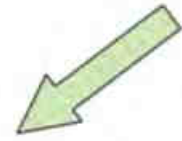
Item No.	Description	Qty	Number
1	9m Gen 2 Centre Frame	1	1532-01



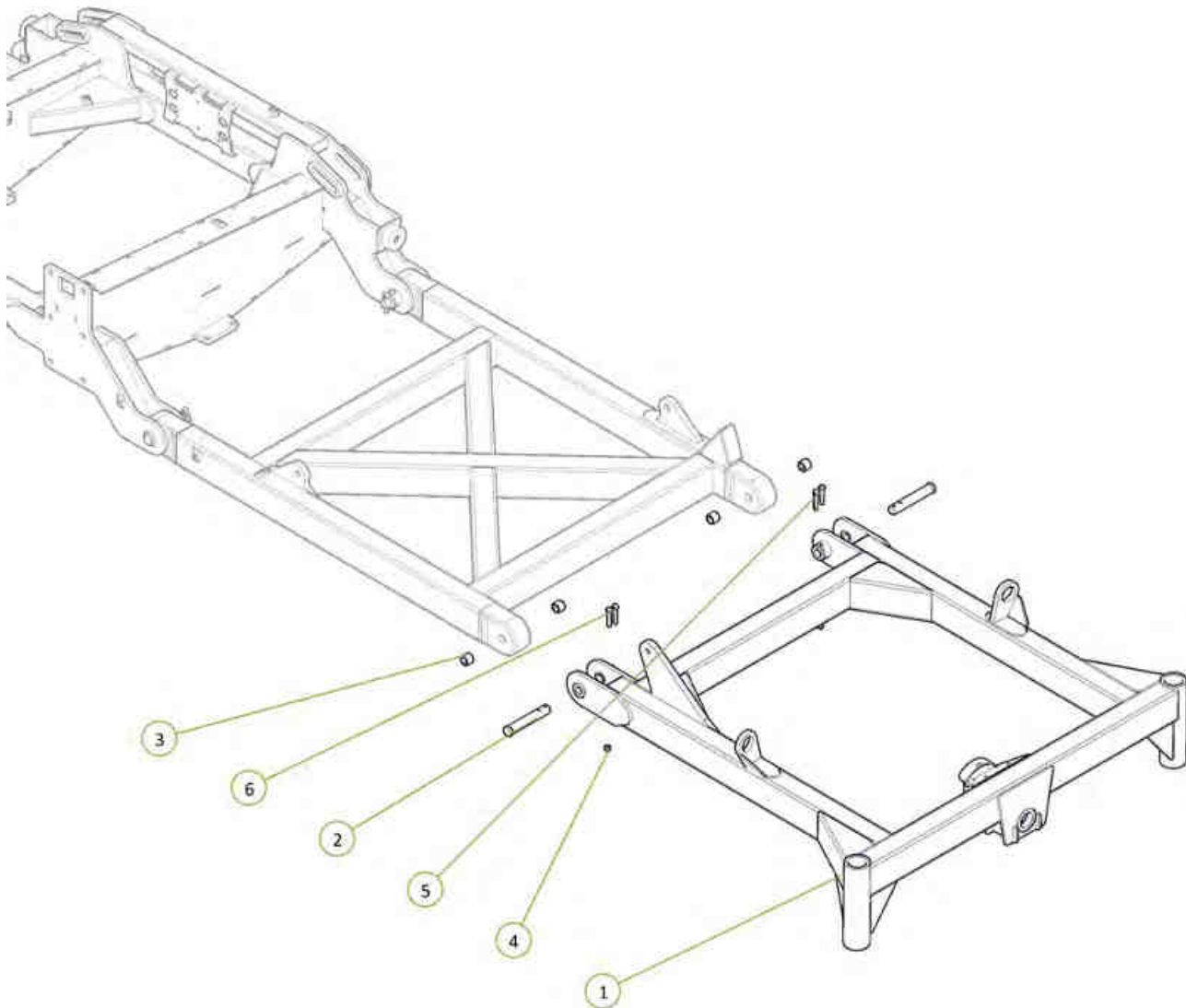
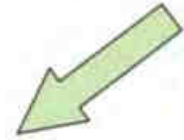
Item No.	Description	Qty	Number
1	M16 x 55 grade 8.8 zp Bolt	2	0211-1655
2	Nyloc Nut M16	2	0221-NYL16
3	Wing Folding Buffer	2	1201-12
4	Washer Flat M16	2	0231-F16



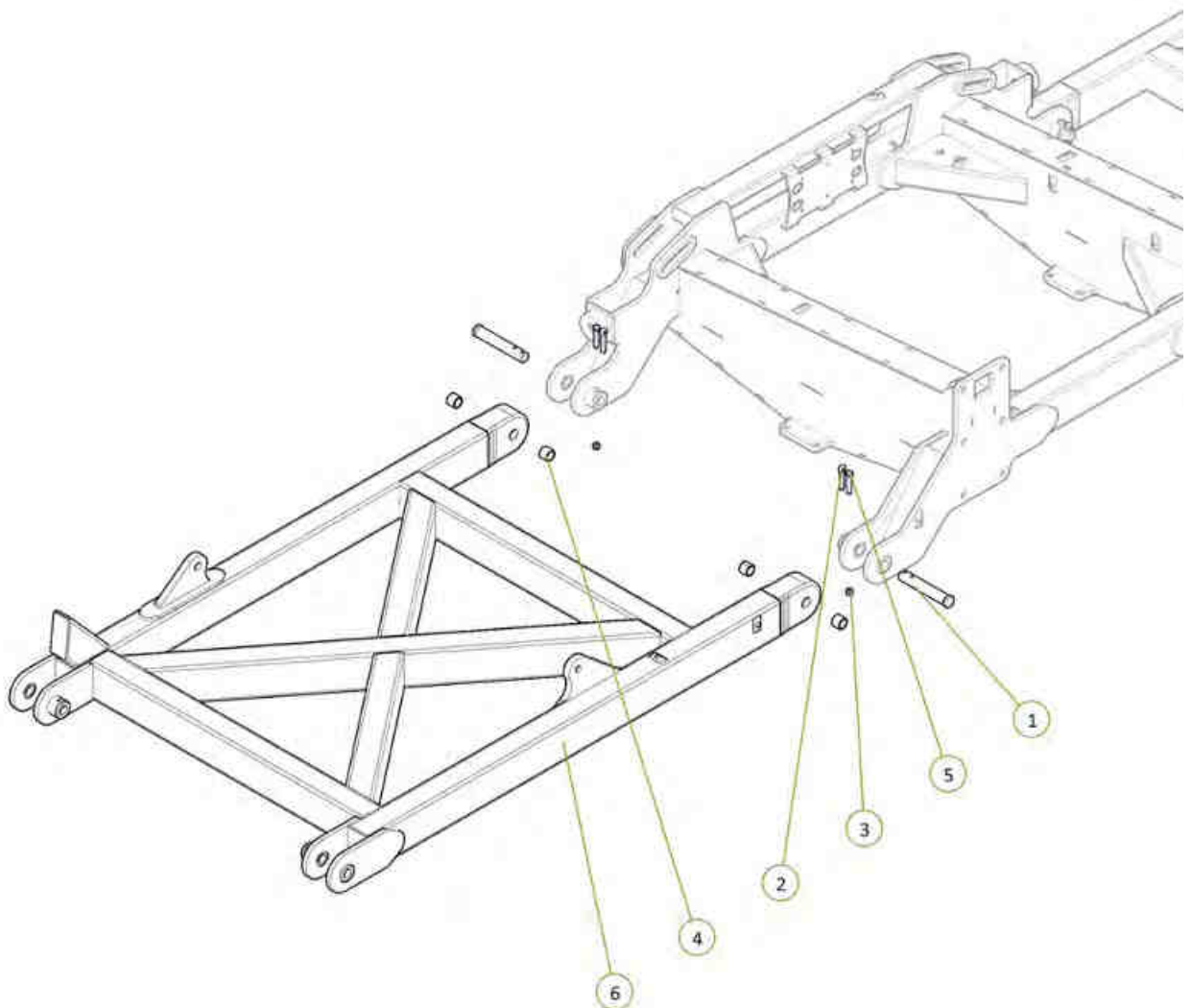
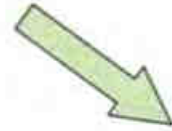
Item No.	Description	Qty	Number
1	9m Gen 2 LH Inner Wing	1	1532-05-2
2	PCH Wing Pivot Pin	2	0801-10-08-235
3	Cotter Pin M13 x 63	2	0261-PINC1363
4	M12 x 75 grade 8.8 ZP Bolt	2	0211-1275
5	Nyloc Nut M12	2	0221-NYL12
6	35 ID x 30mm DU Bush	4	0113-MB 3530DU



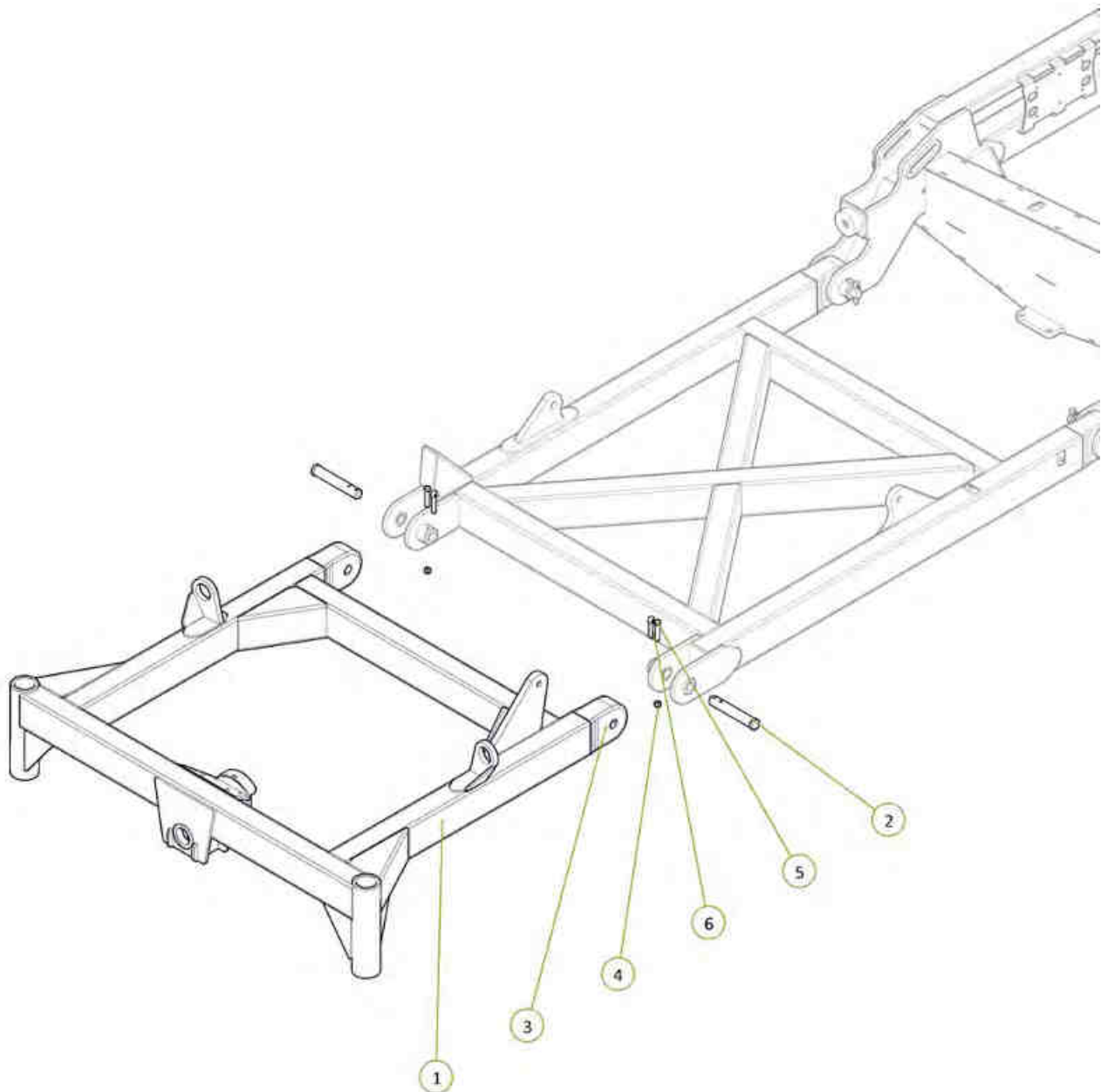
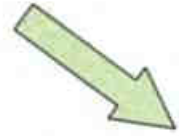
Item No.	Description	Qty	Number
1	9m Gen 2 LH Outer Wing	1	1532-07-2
2	PCH Wing Pivot Pin	2	0801-10-08-235
3	35 ID x 30mm DU Bush	4	0113-MB 3530DU
4	Nyloc Nut M12	2	0221-NYL12
5	M12 x 75 grade 8.8 ZP Bolt	2	0211-1275
6	Cotter Pin M13 x 63	2	0261-PINC1363



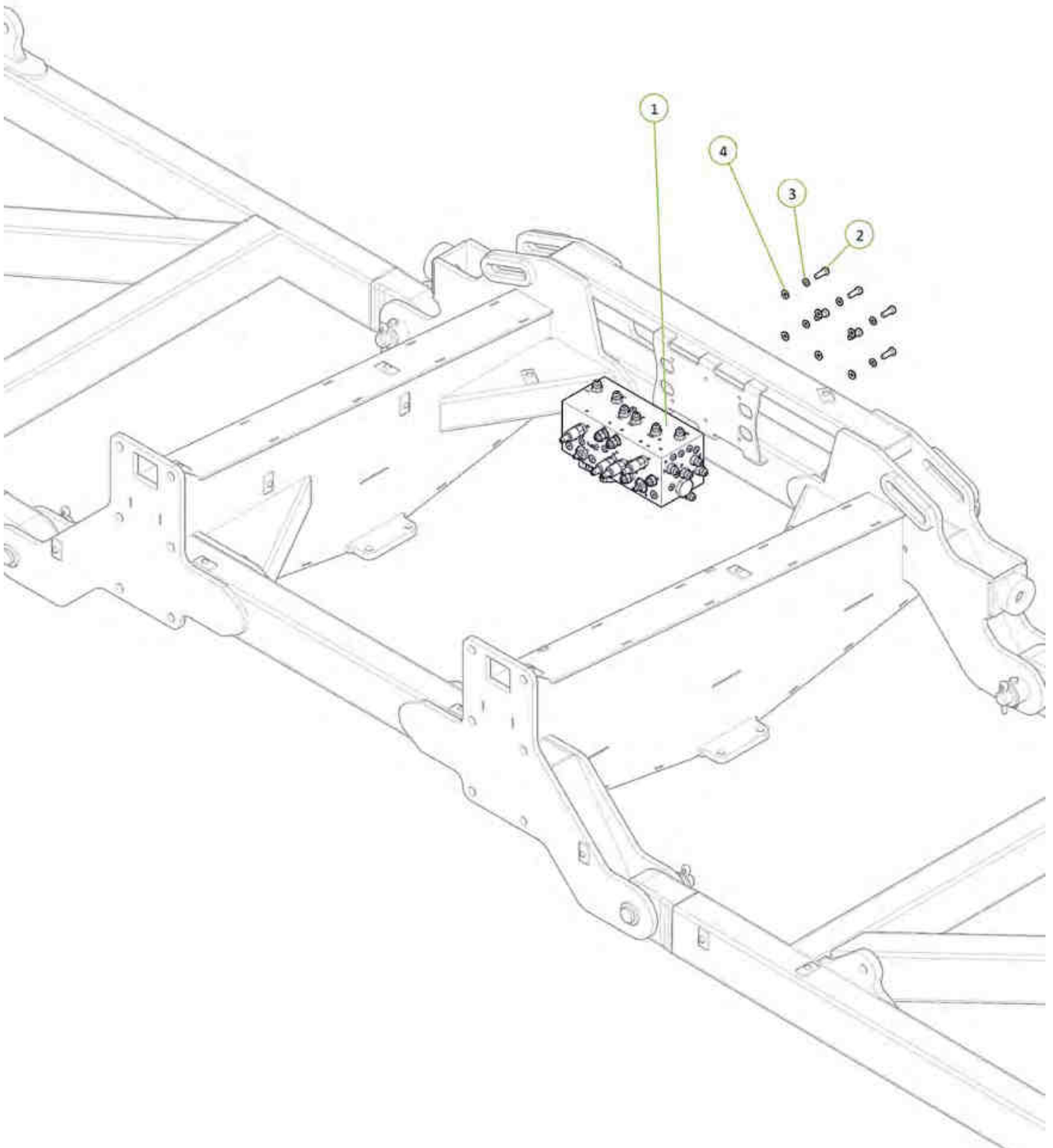
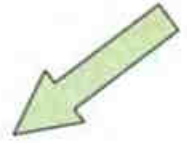
Item No.	Description	Qty	Number
1	PCH Wing Pivot Pin	2	0801-10-08-235
2	Cotter Pin M13 x 63	2	0261-PINC1363
3	Nyloc Nut M12	2	0221-NYL12
4	35 ID x 30mm DU Bush	4	0113-MB 3530DU
5	M12 x 75 grade 8.8 ZP Bolt	2	0211-1275
6	9m Gen 2 RH Inner Wing	1	1532-04-2



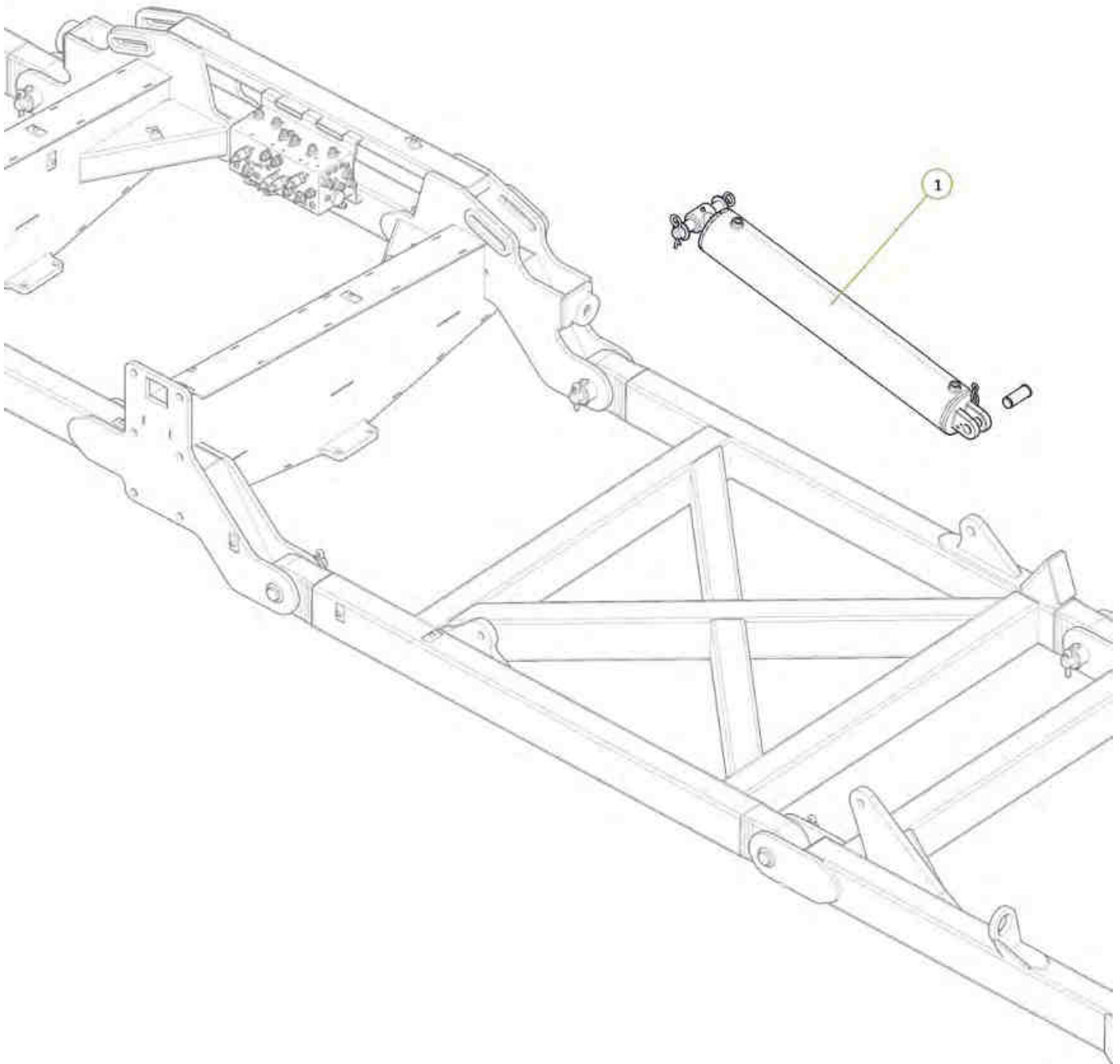
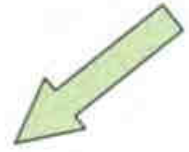
Item No.	Description	Qty	Number
1	9m Gen 2 RH Outer Wing	1	1532-06-2
2	PCH Wing Pivot Pin	2	0801-10-08-235
3	35 ID x 30mm DU Bush	4	0113-MB 3530DU
4	Nyloc Nut M12	2	0221-NYL12
5	M12 x 75 grade 8.8 ZP Bolt	2	0211-1275
6	Cotter Pin M13 x 63	2	0261-PINC1363

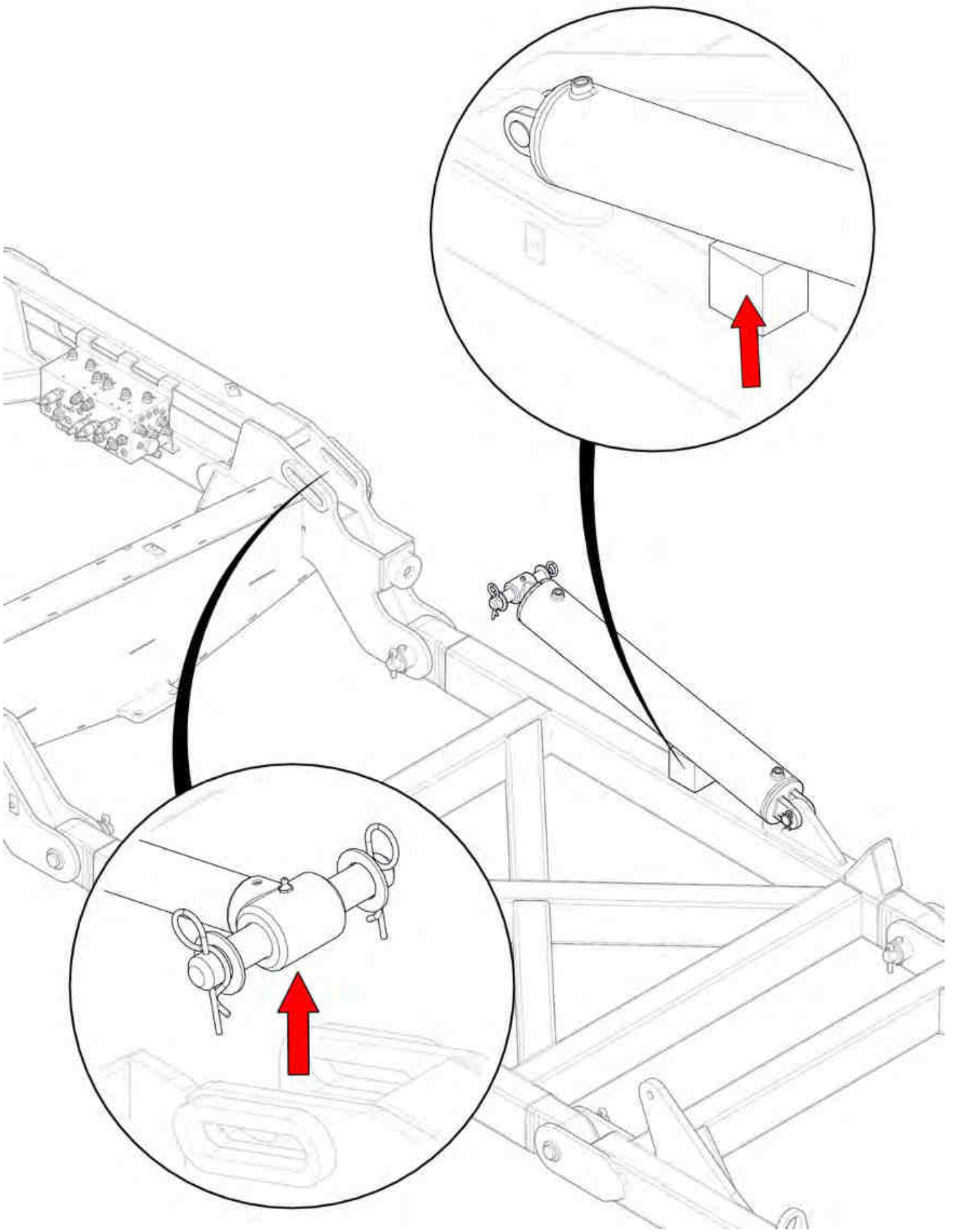


Item No.	Description	Qty	Number
1	Dual Circuit 3 Stage Sequence Manifold V12	1	0802-691033
2	M10 x 30 grade 8.8 ZP Bolt	6	0211-1030
3	Washer Spring M10	5	0231-S10
4	Washer Flat M10	6	0231-F10

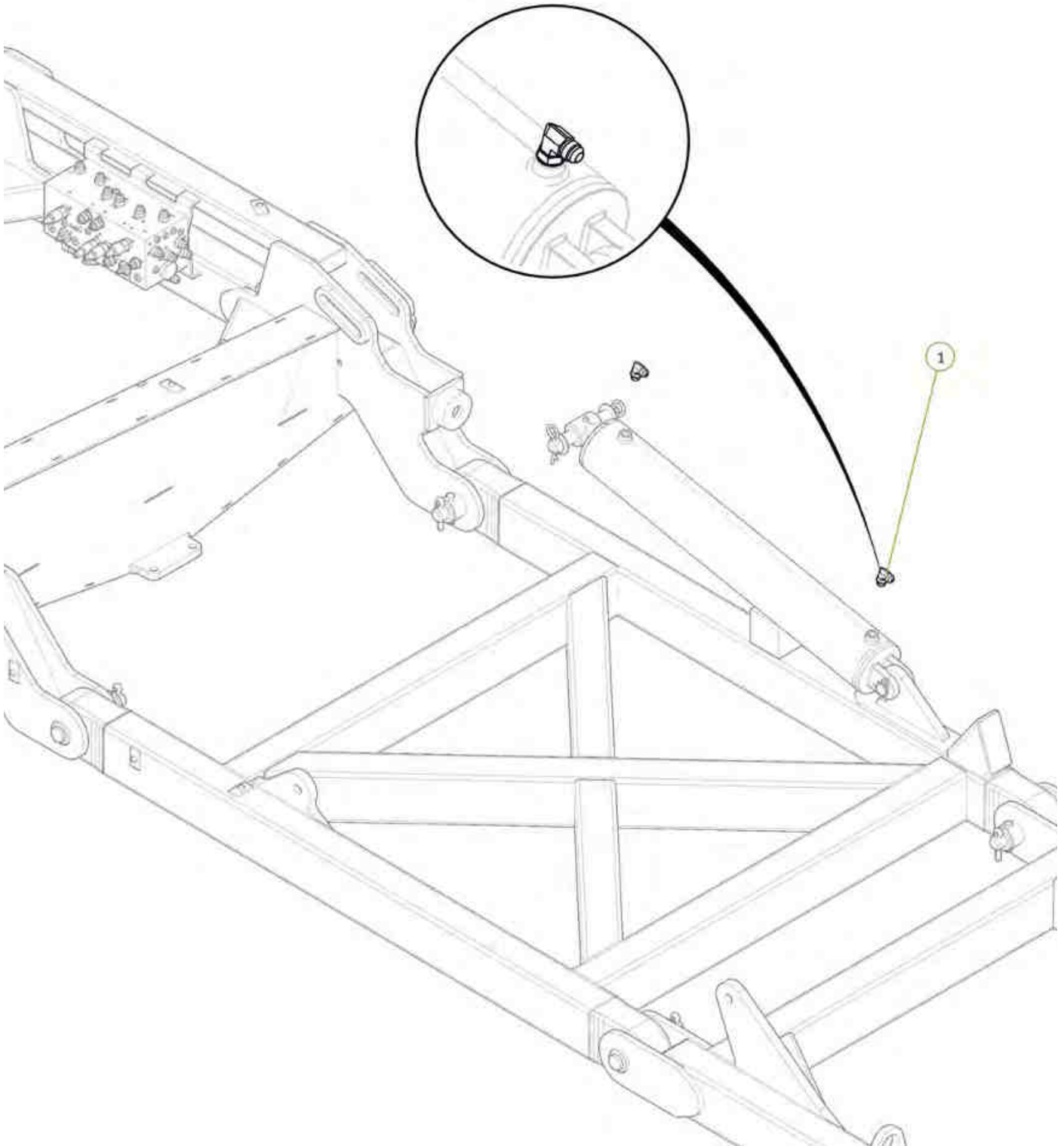
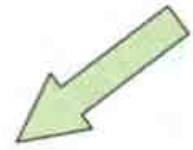


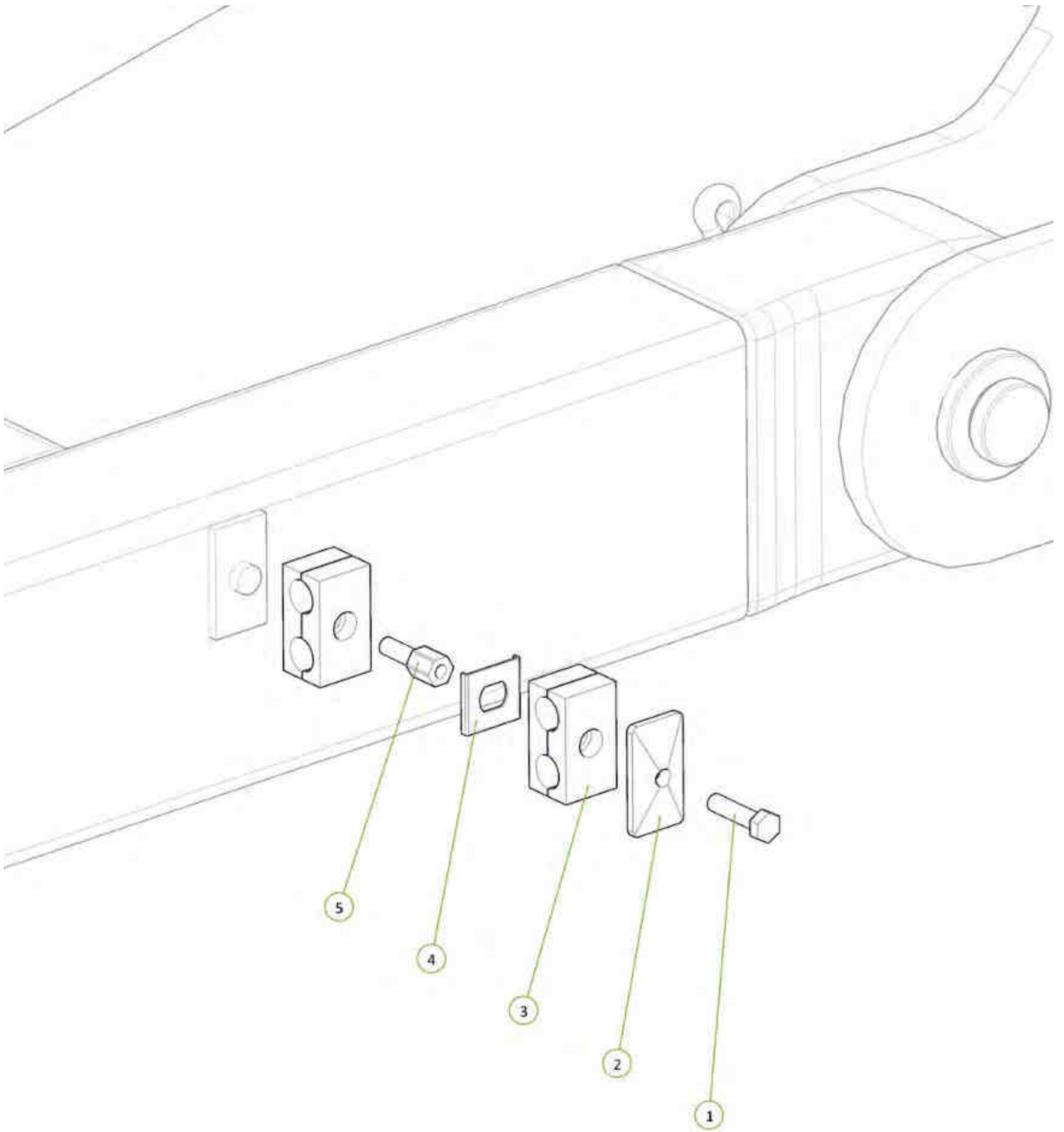
Item No.	Description	Qty	Number
1	5" Bore 30" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder	1	0311-530ST





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

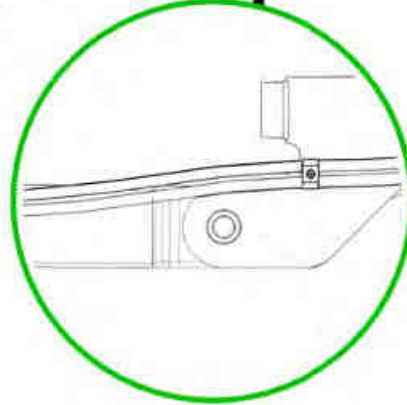
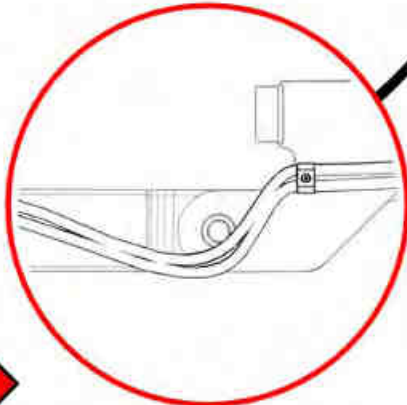
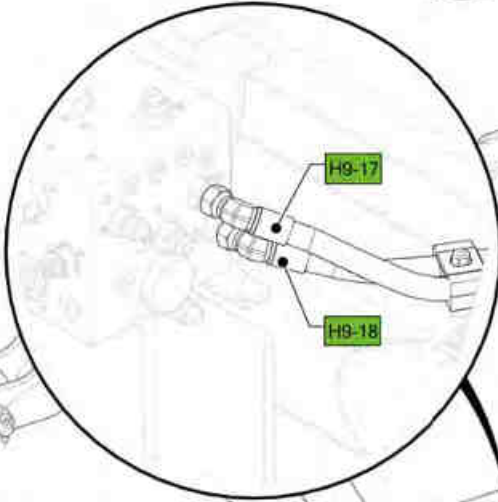
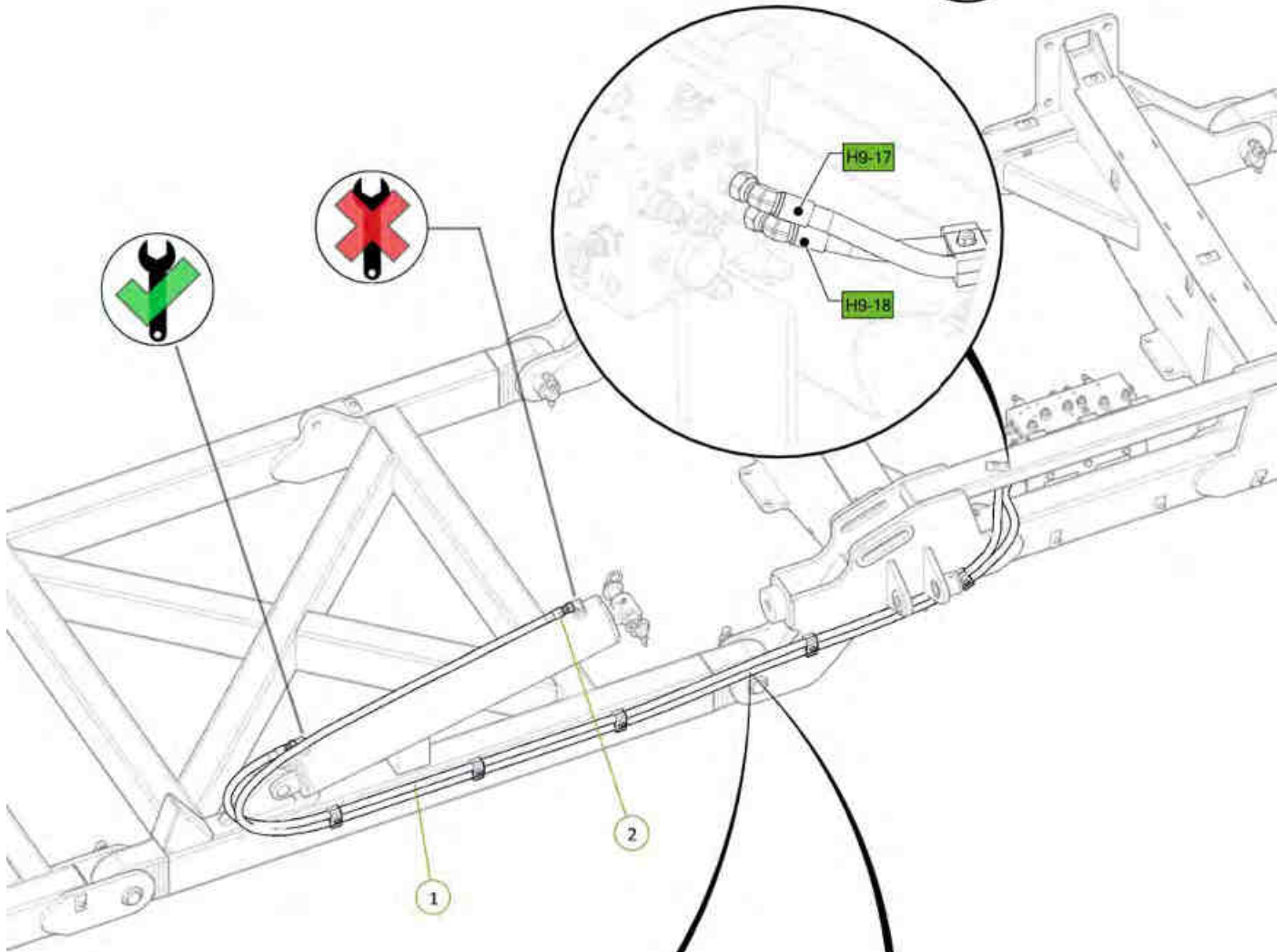
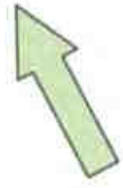




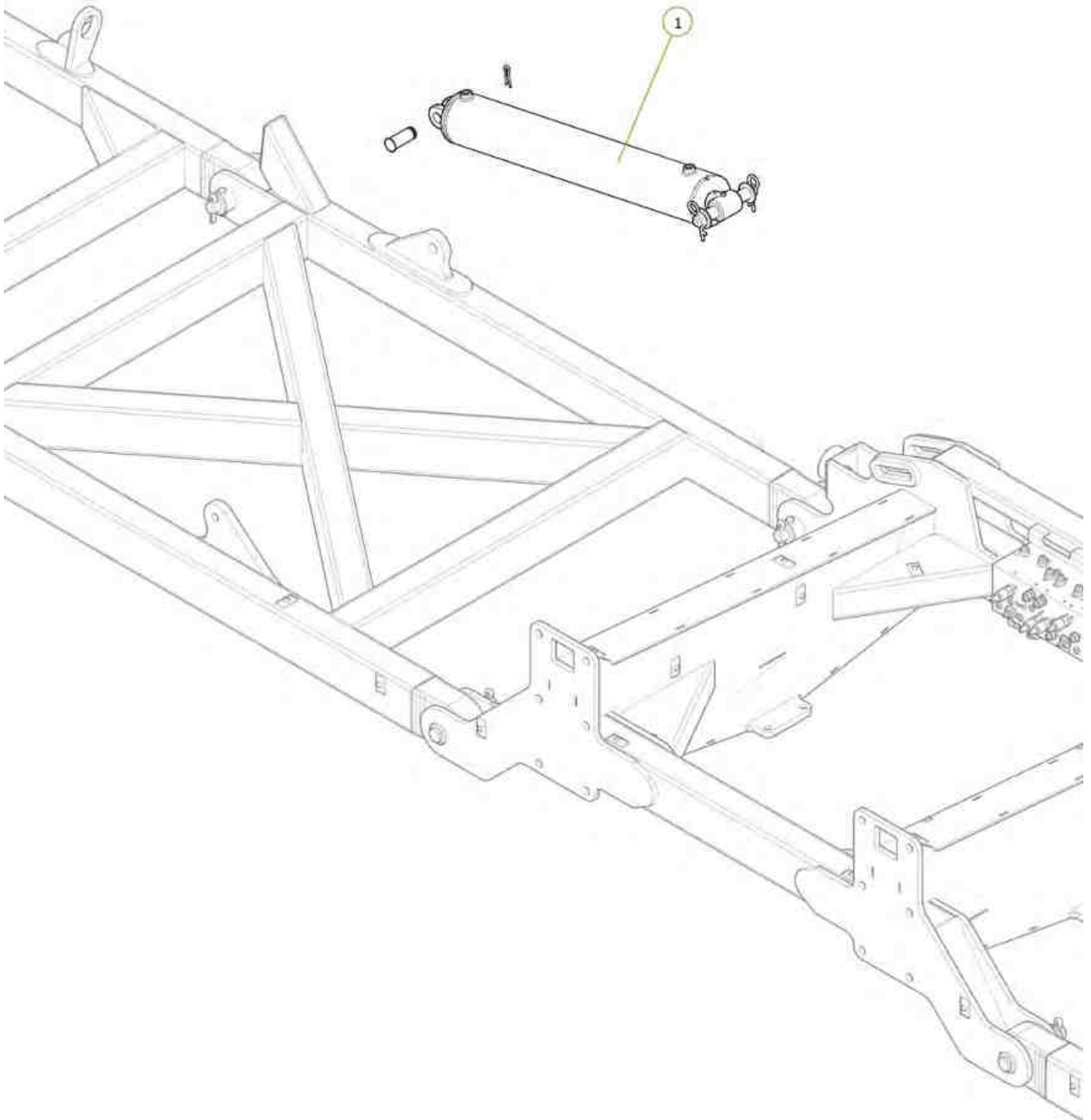
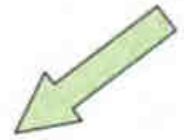
Item No.	Description	Qty	Number
1	Double Clamp Bolt Group 2	1	0325-RCD-2BH
2	Clamp top plate group 2	1	0325-RCD-2PT
3	17mm Clamp Jaws (Pair)	2	0325-RCD-17J
4	Double Clamp Stacking Plate (Non Ryco)	1	0325-SI-2-5D-W3
5	Double Clamp Stacking Bolt Group 2	1	0325-RCD-2BS

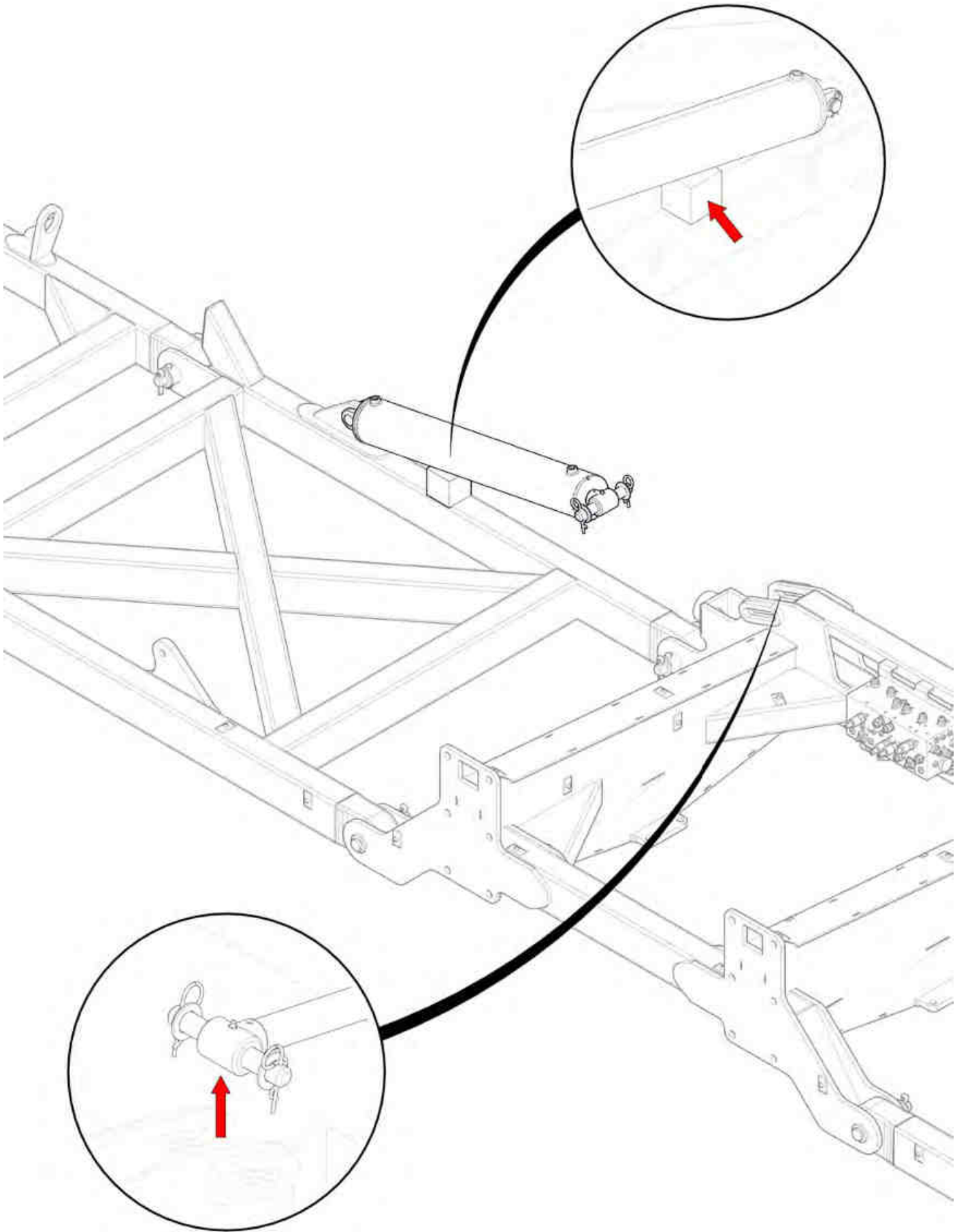


Item No.	Description	Qty	Number
1	Left CE Port to LH Main Wing Cylinder Extend Port	1	H9-17
2	Left CR Port to LH Main Wing Cylinder Retract Port	1	H9-18

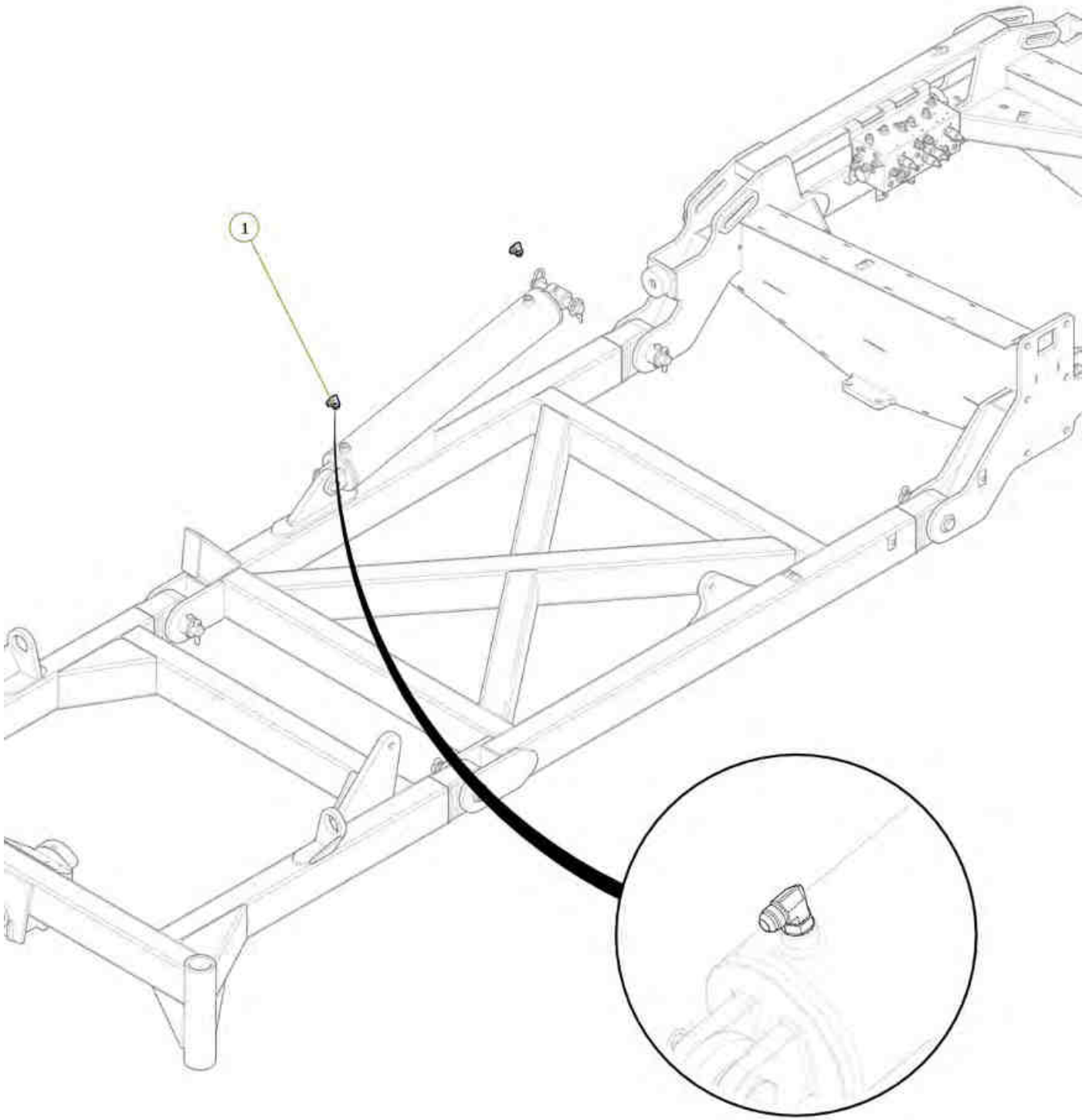
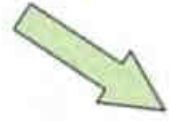


Item No.	Description	Qty	Number
1	5" Bore 30" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder	1	0311-530ST

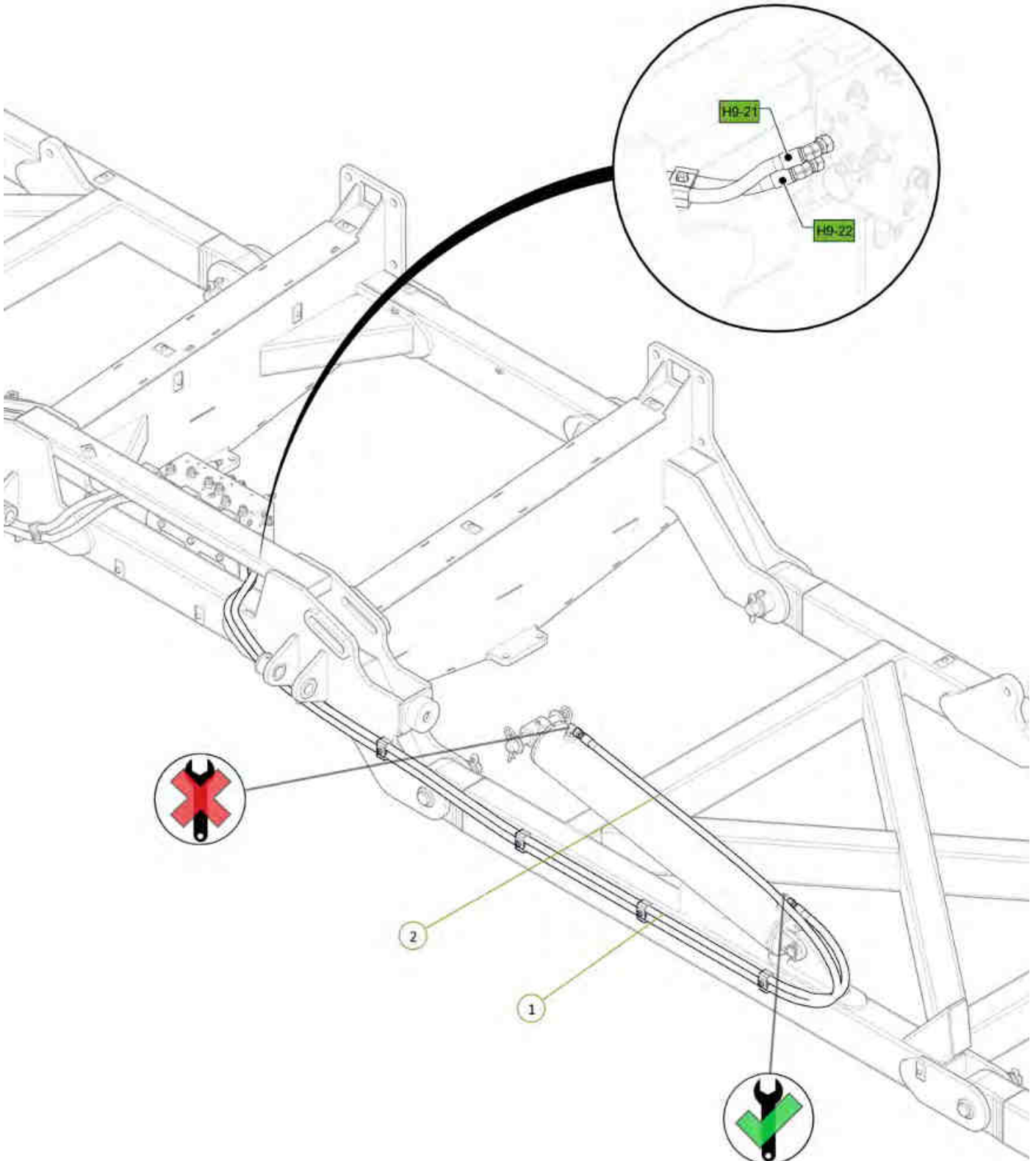
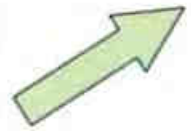




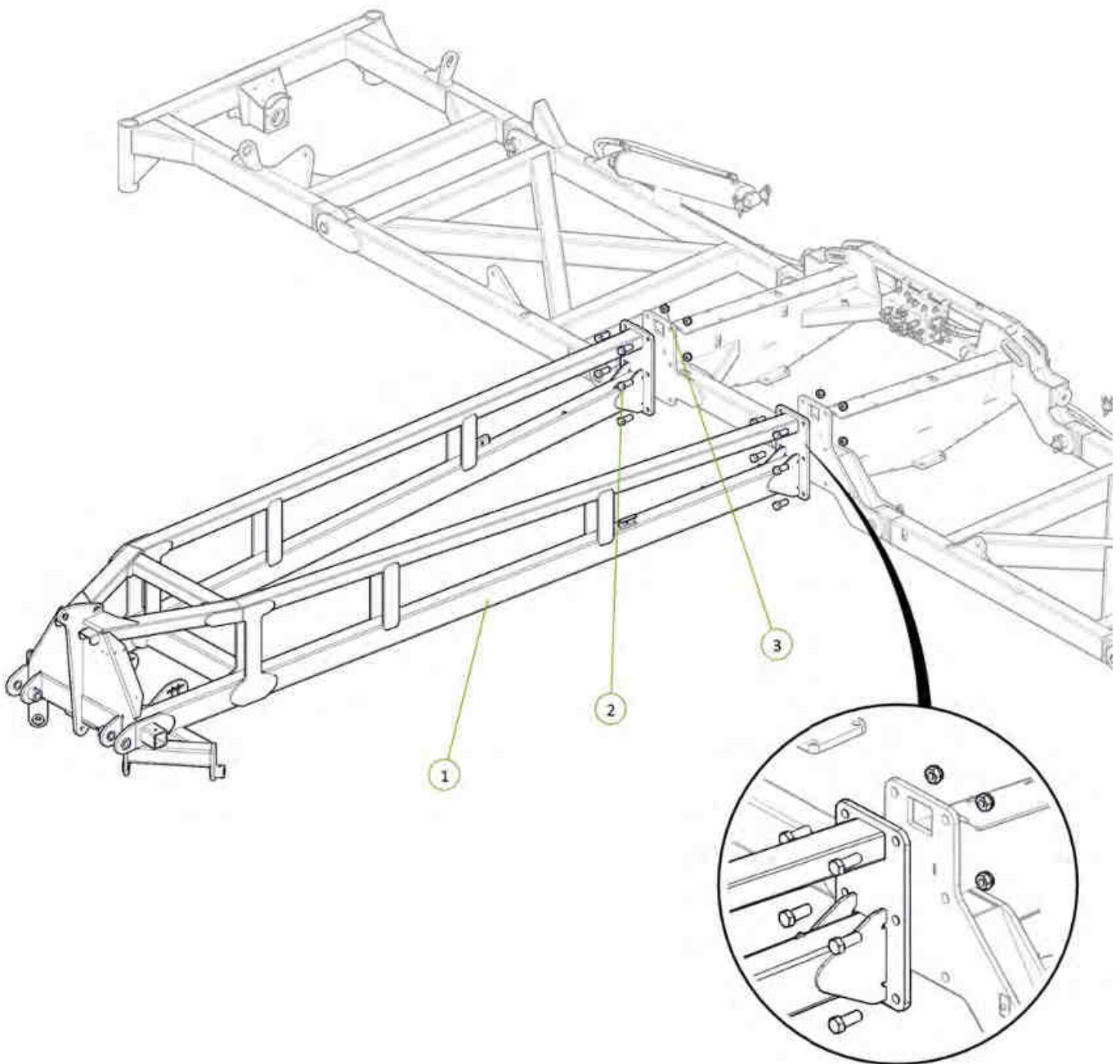
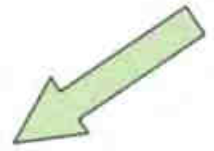
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212



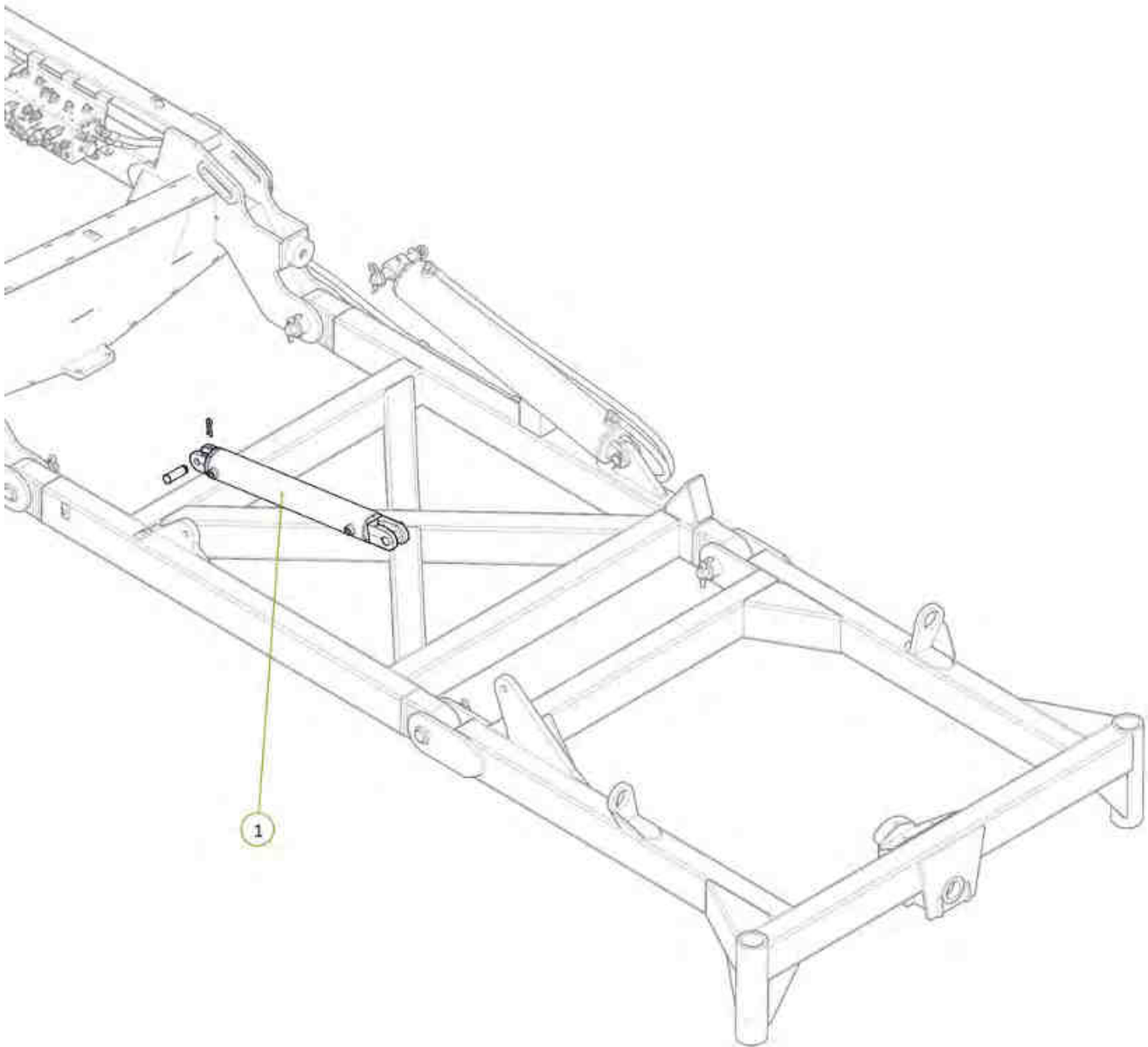
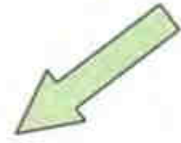
Item No.	Description	Qty	Number
1	Right CE Port to RH Main Wing Cylinder Extend Port	1	H9-21
2	Right CR Port to RH Main Wing Cylinder Retract Port	1	H9-22

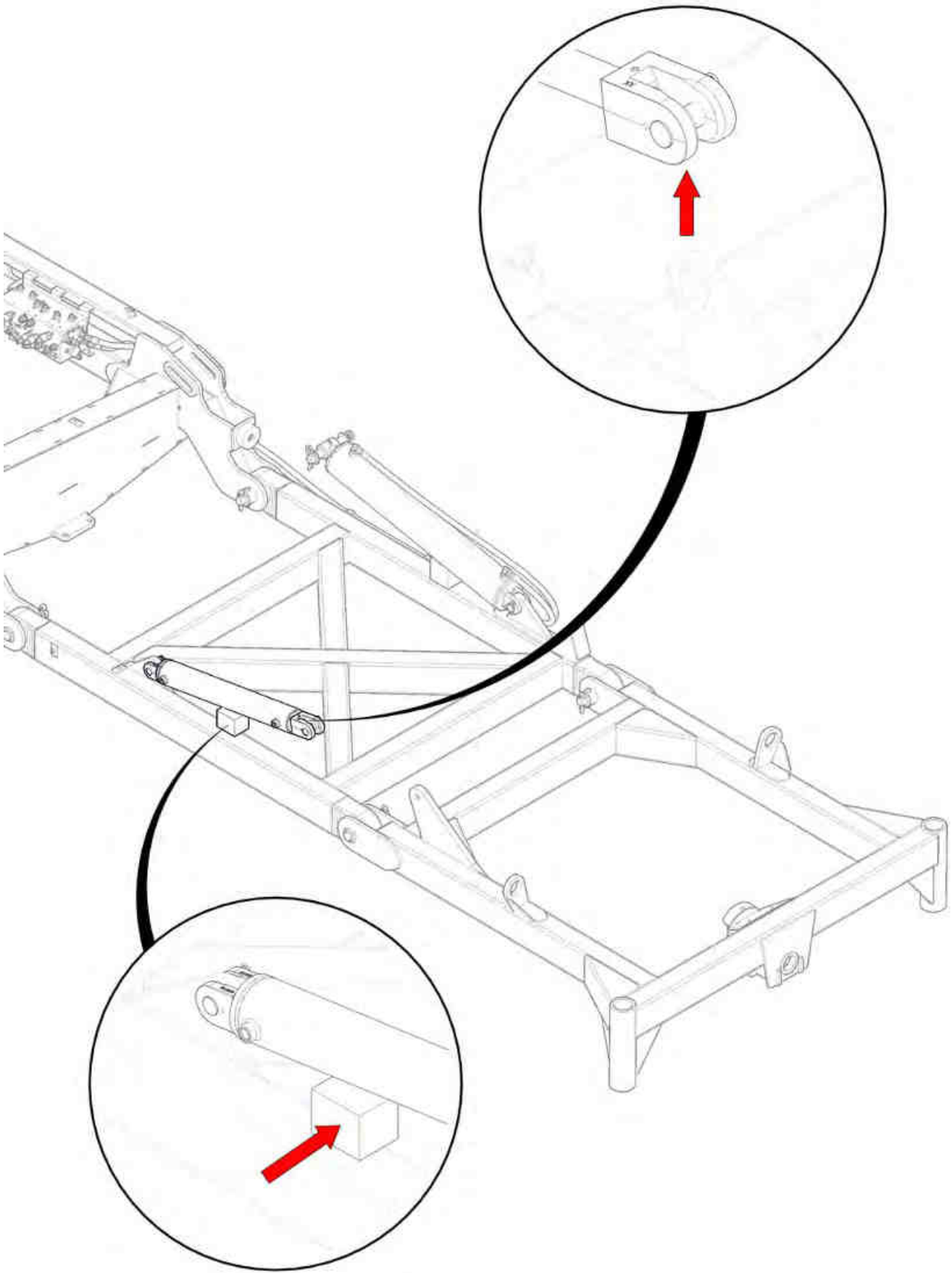


Item No.	Description	Qty	Number
1	9m Gen 2 Main Pull	1	1532-02
2	M24 x 65 grade 8.8 zp Bolt	12	0211-2465
3	Nyloc Nut M24	12	0221-NYL24

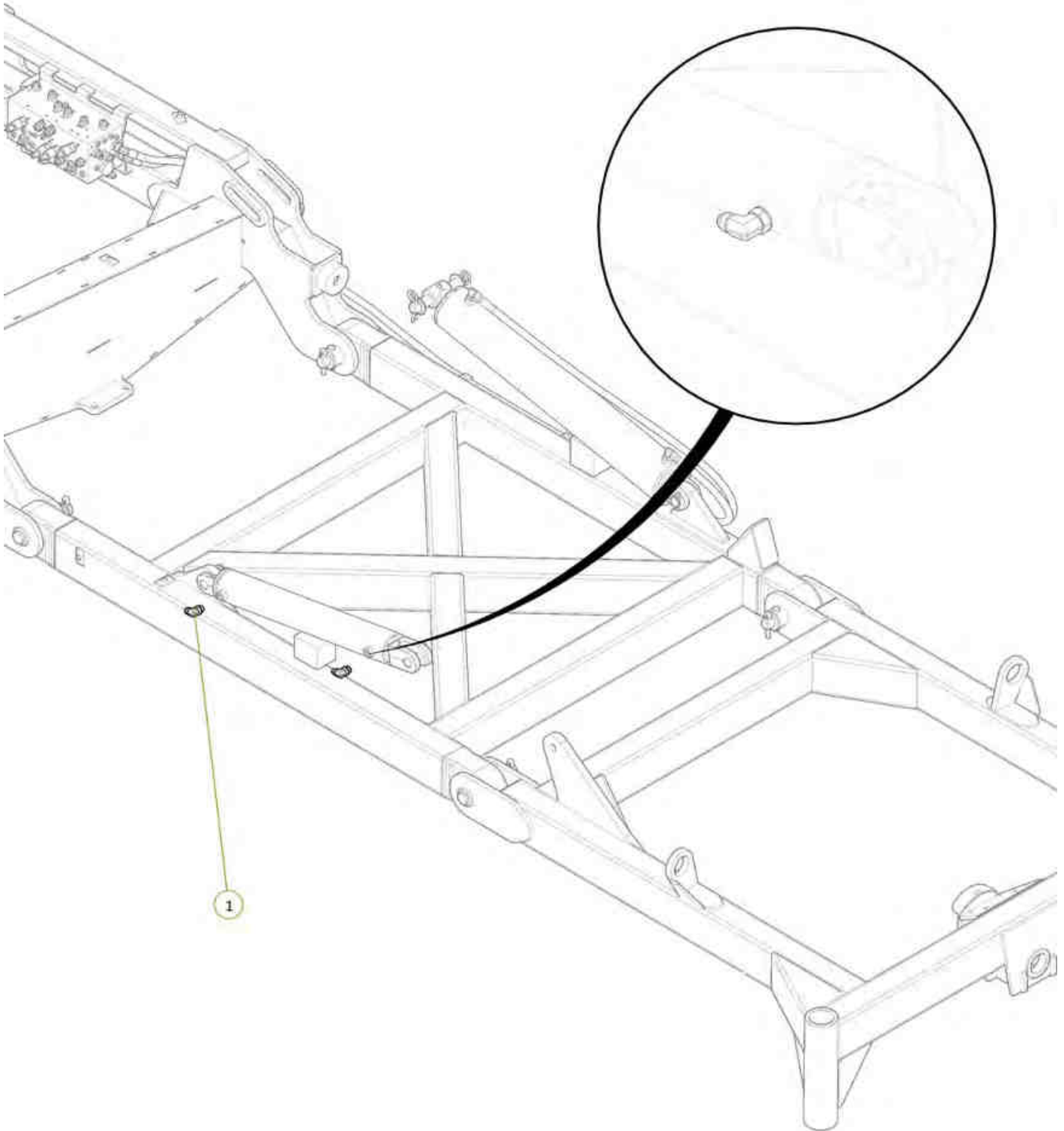
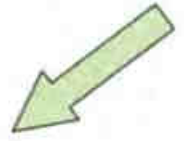


Item No.	Description	Qty	Number
1	3.5" Bore 24" Stroke 1.75" Rod Hydraulic Cylinder	1	0311-3524SP

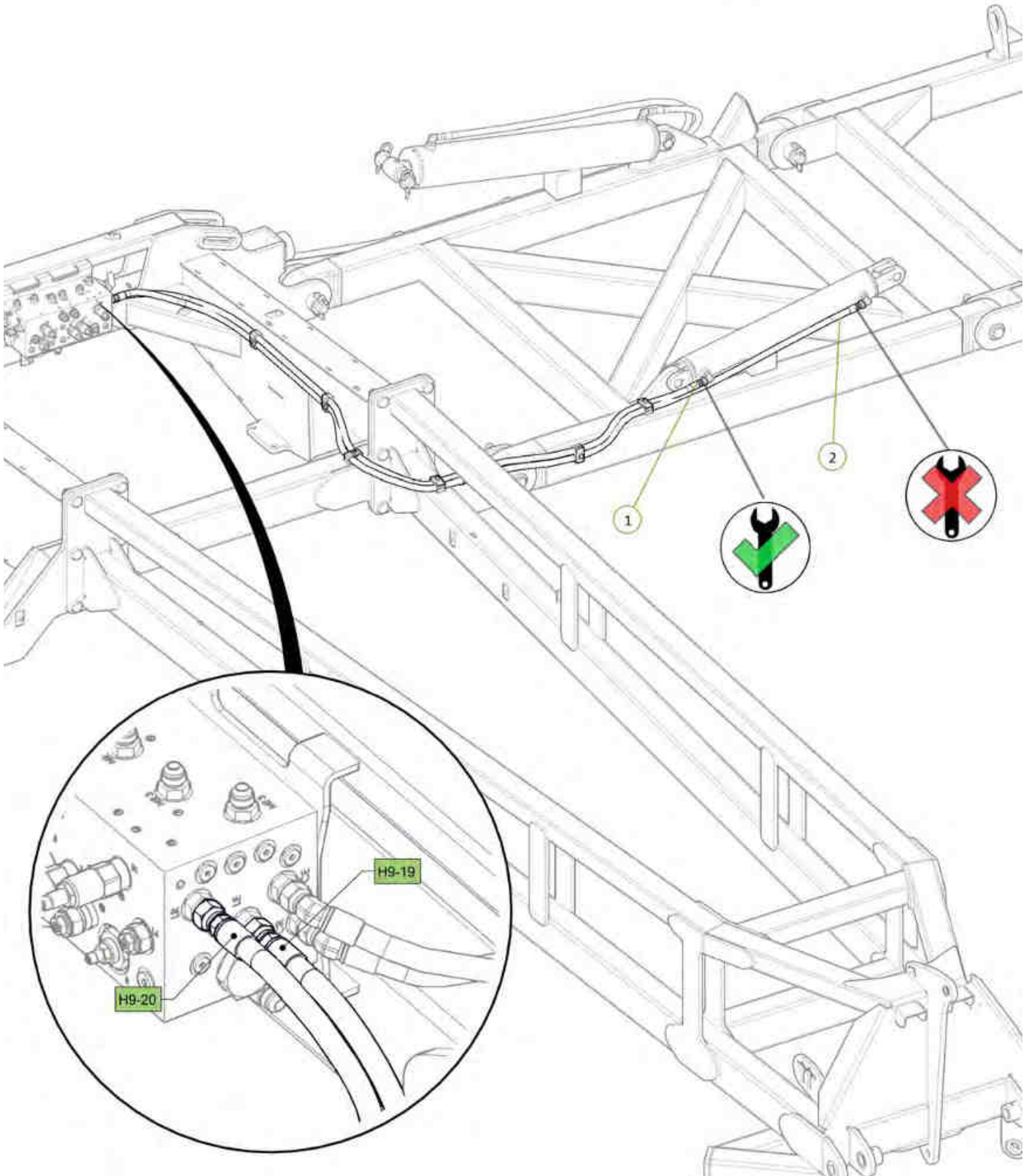




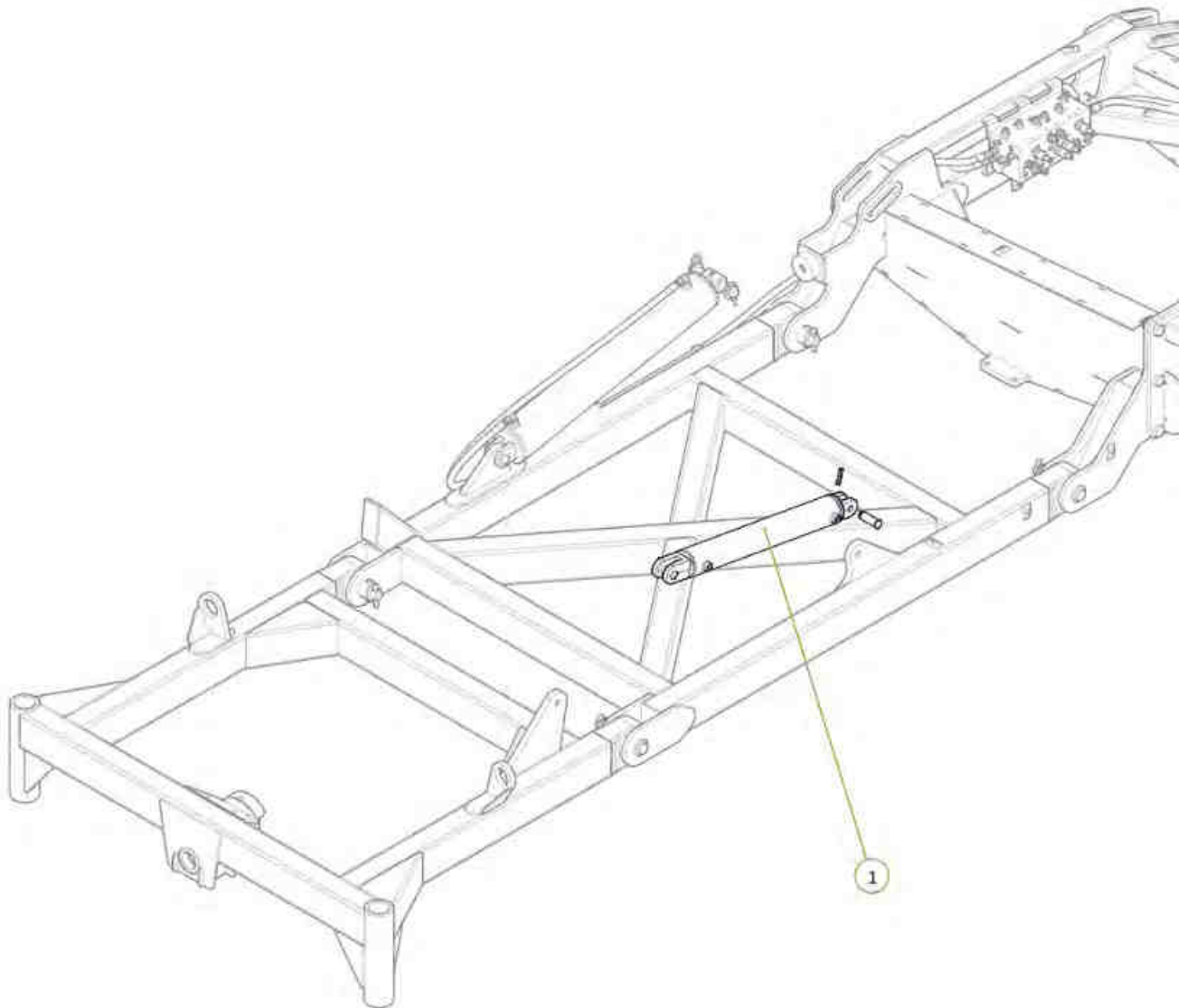
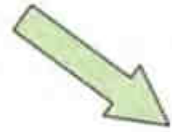
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

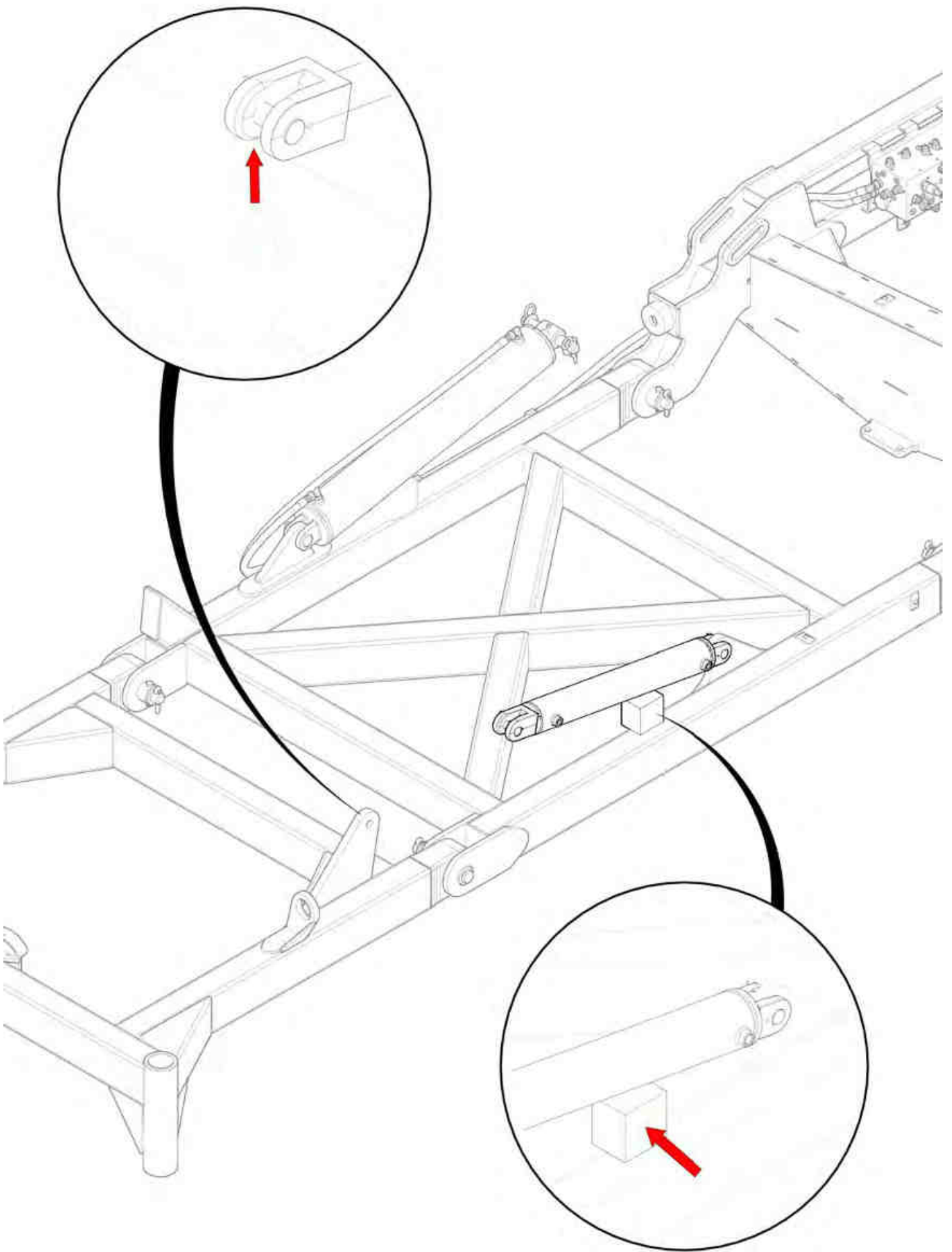


Item No.	Description	Qty	Number
1	LE Port to LH Outer Wing Cylinder Extend Port	1	H9-19
2	LR Port to LH Outer Wing Cylinder Retract Port	1	H9-20

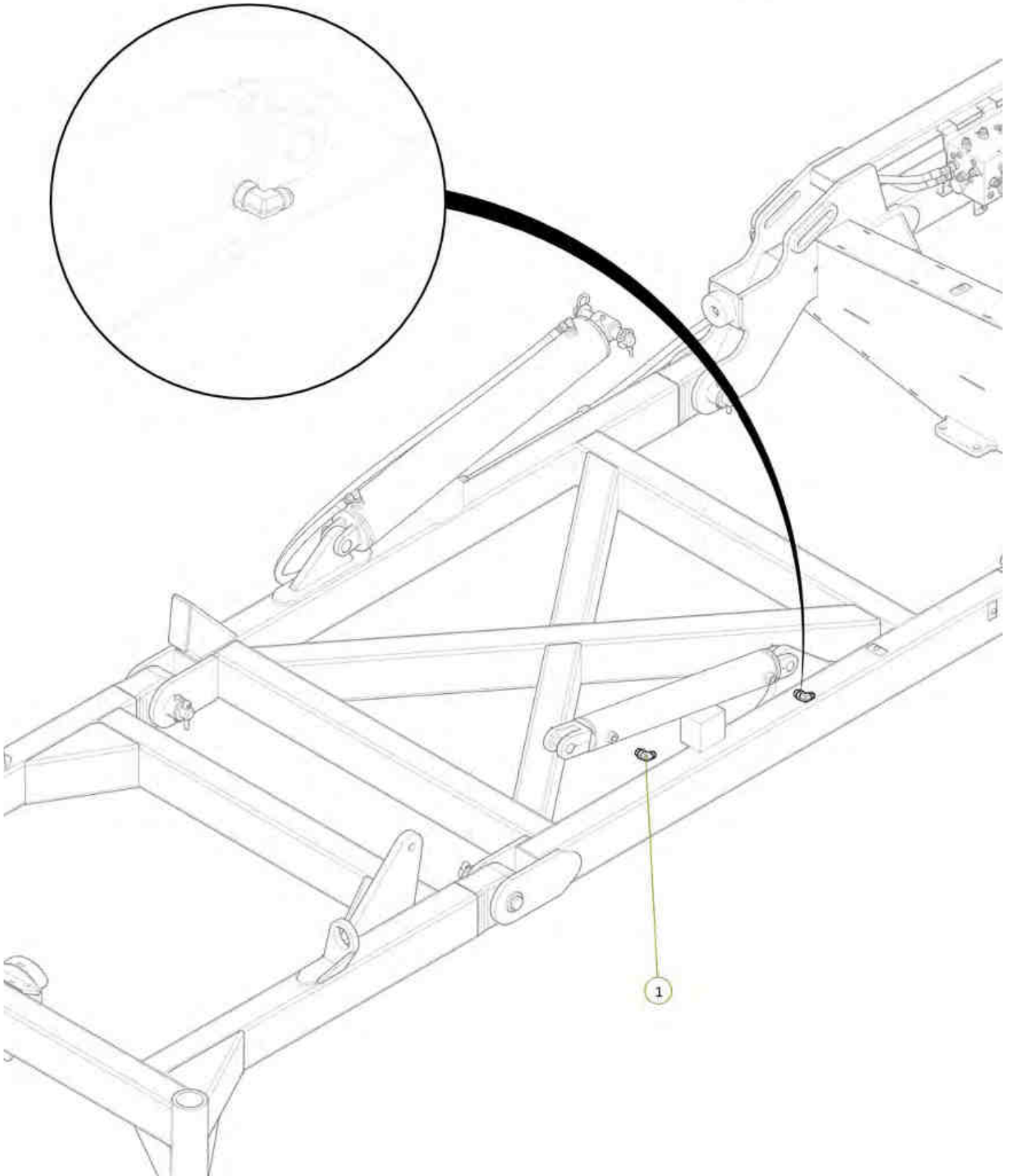
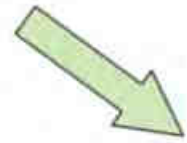


Item No.	Description	Qty	Number
1	3.5" Bore 24" Stroke 1.75" Rod Hydraulic Cylinder	1	0311-3524SP

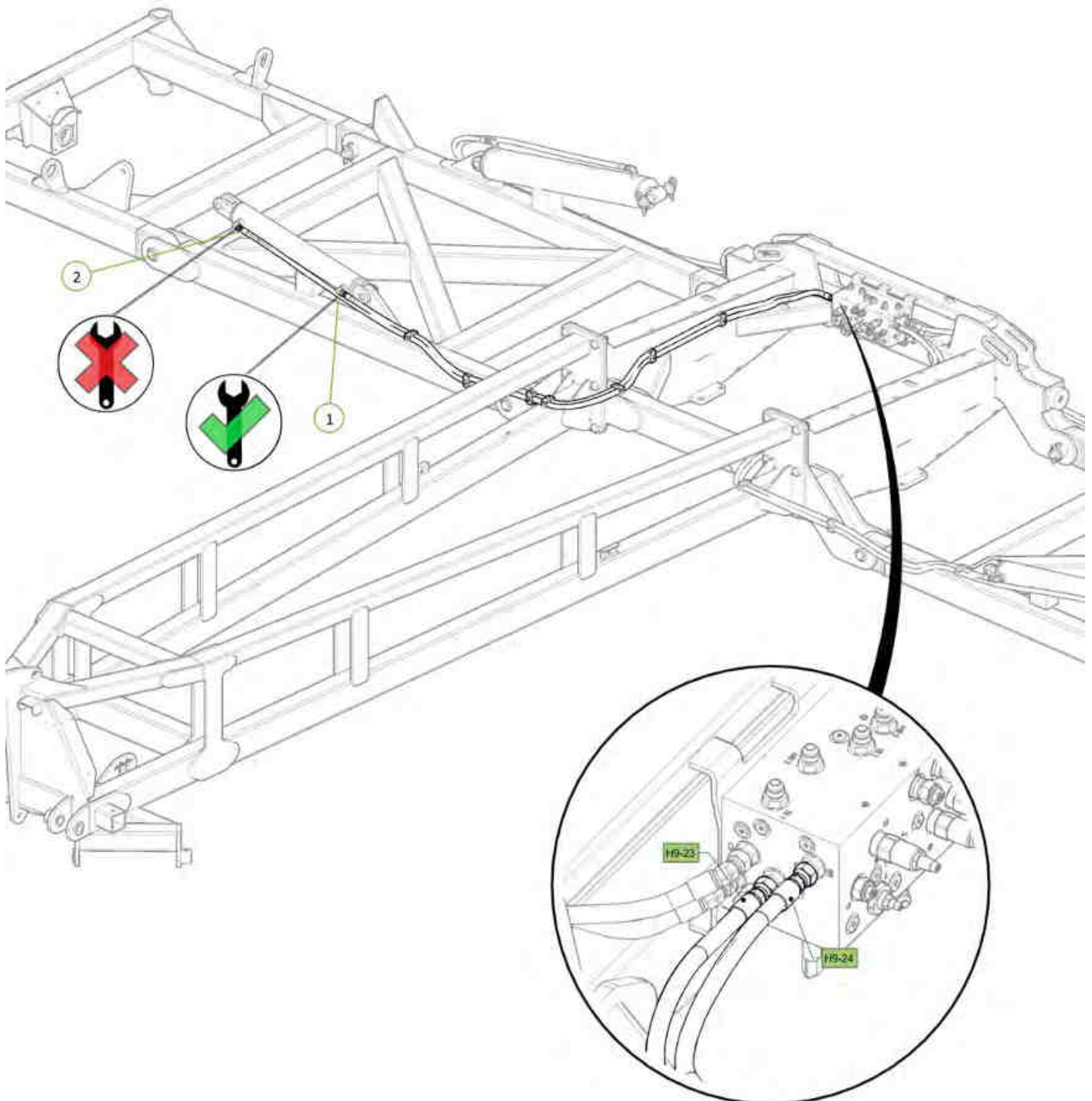
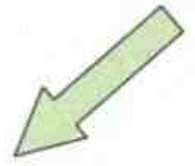
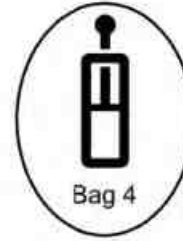




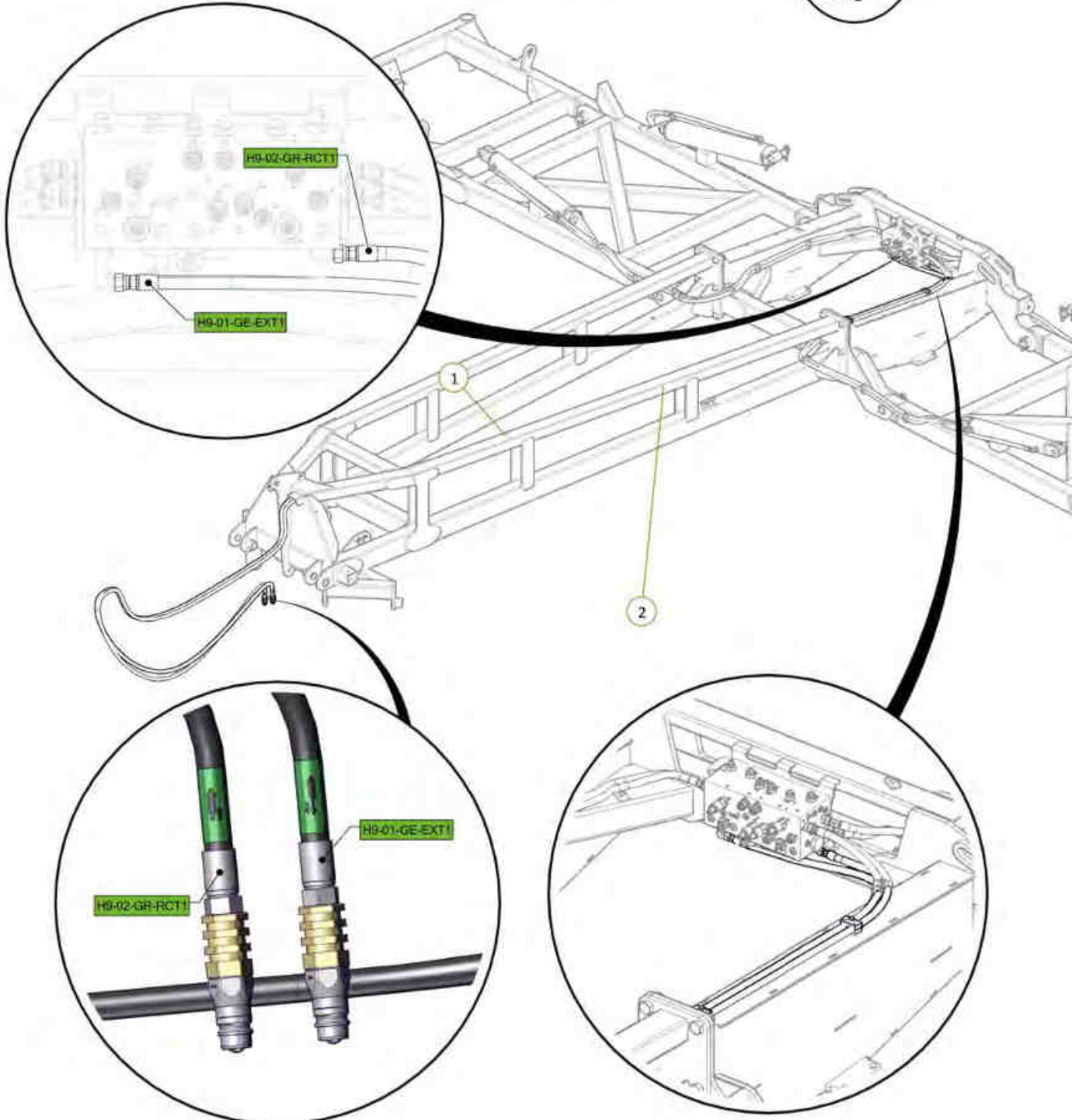
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212



Item No.	Description	Qty	Number
1	RE Port to RH Outer Wing Cylinder Extend Port	1	H9-23
2	RR Port to RH Outer Wing Cylinder Retract Port	1	H9-24



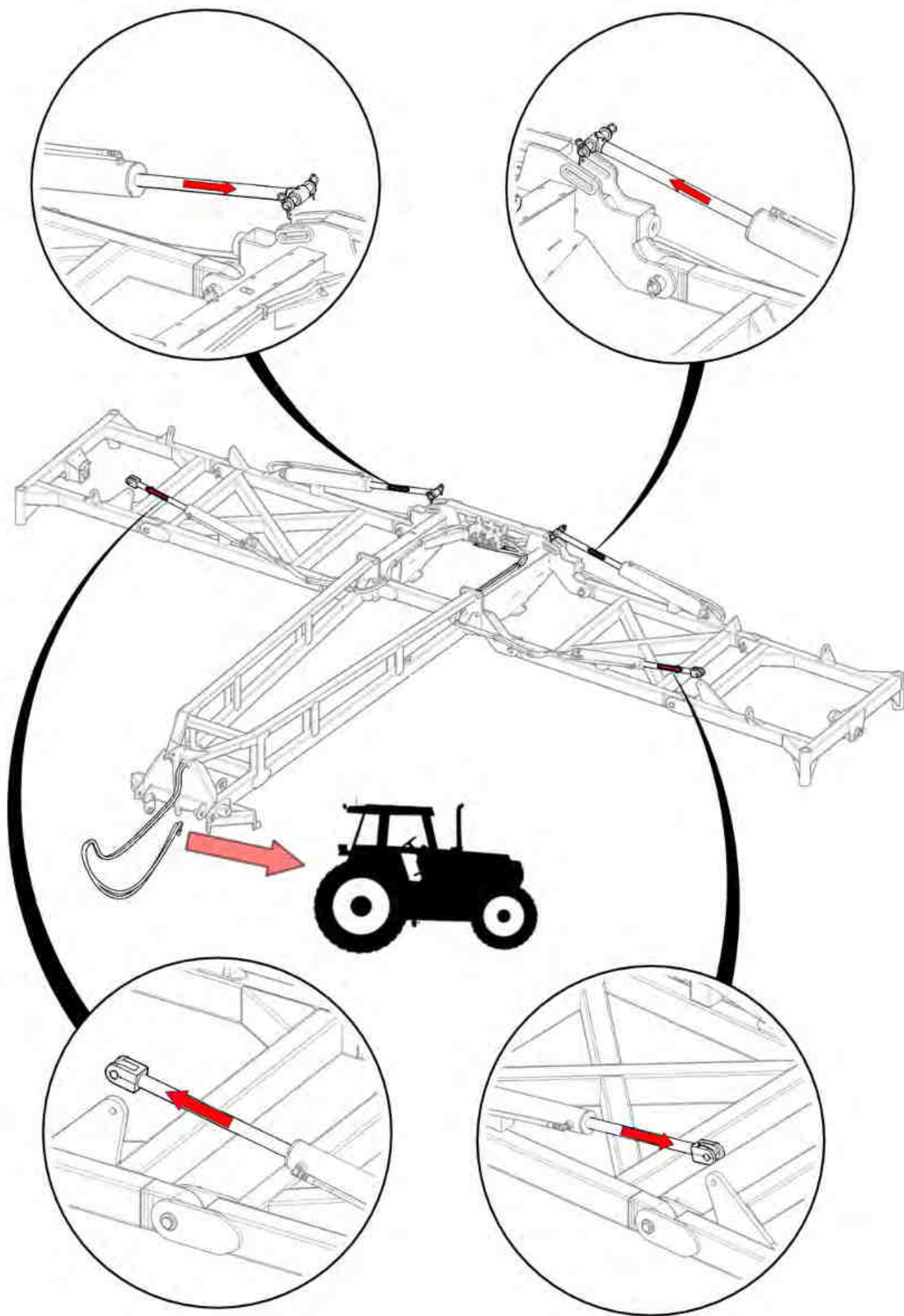
Item No.	Description	Qty	Number
1	Tractor to Sequence Valve EXT1 Port Fitted With Green EXT Decal	1	H9-01-GE-EXT1
2	Tractor to Sequence Valve RCT1 Port Fitted With Green RET Decal	1	H9-02-GR-RCT1

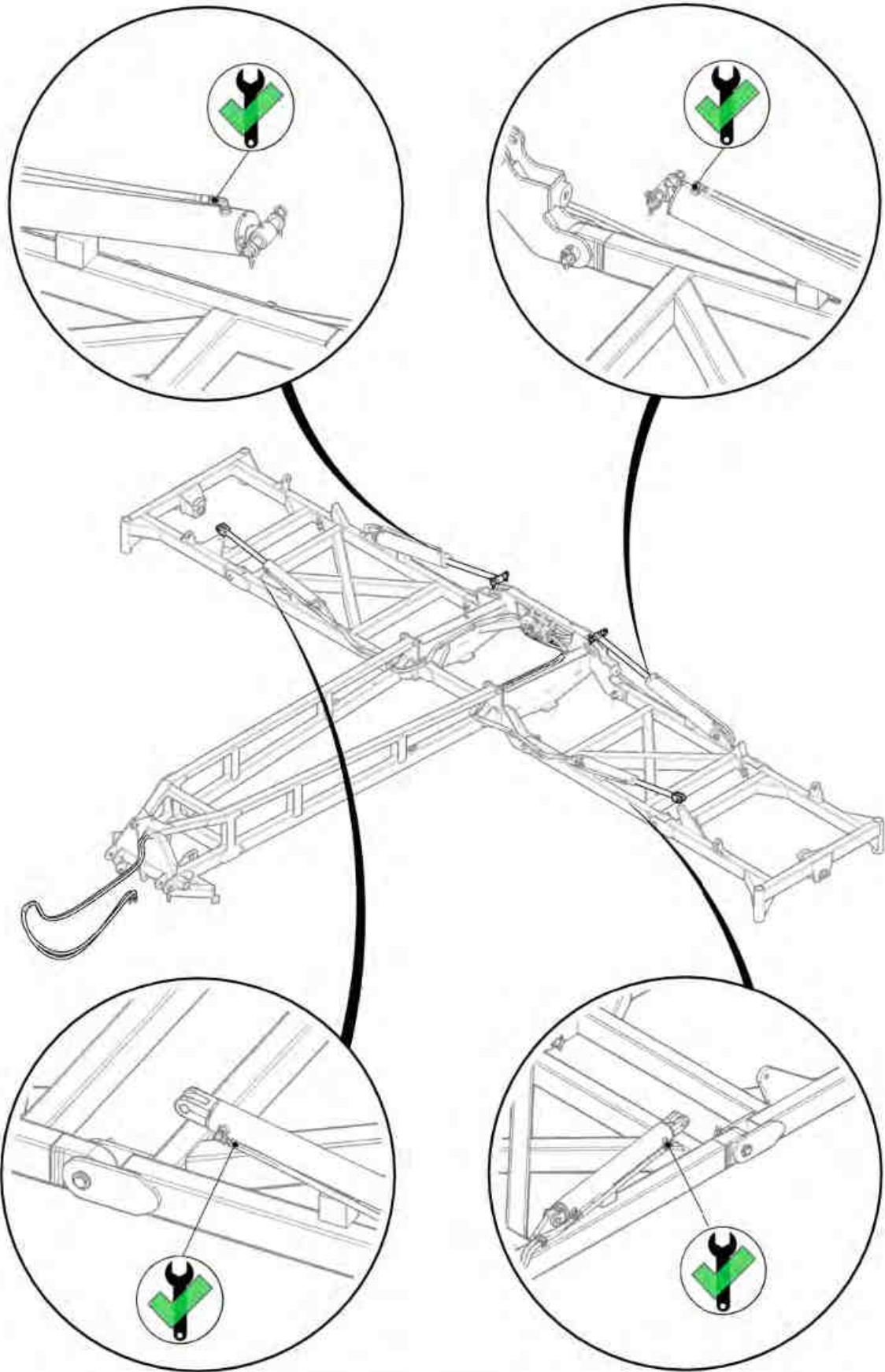


All retract hose fittings loose to allow air to escape

All cylinders chocked up to prevent clash during extend

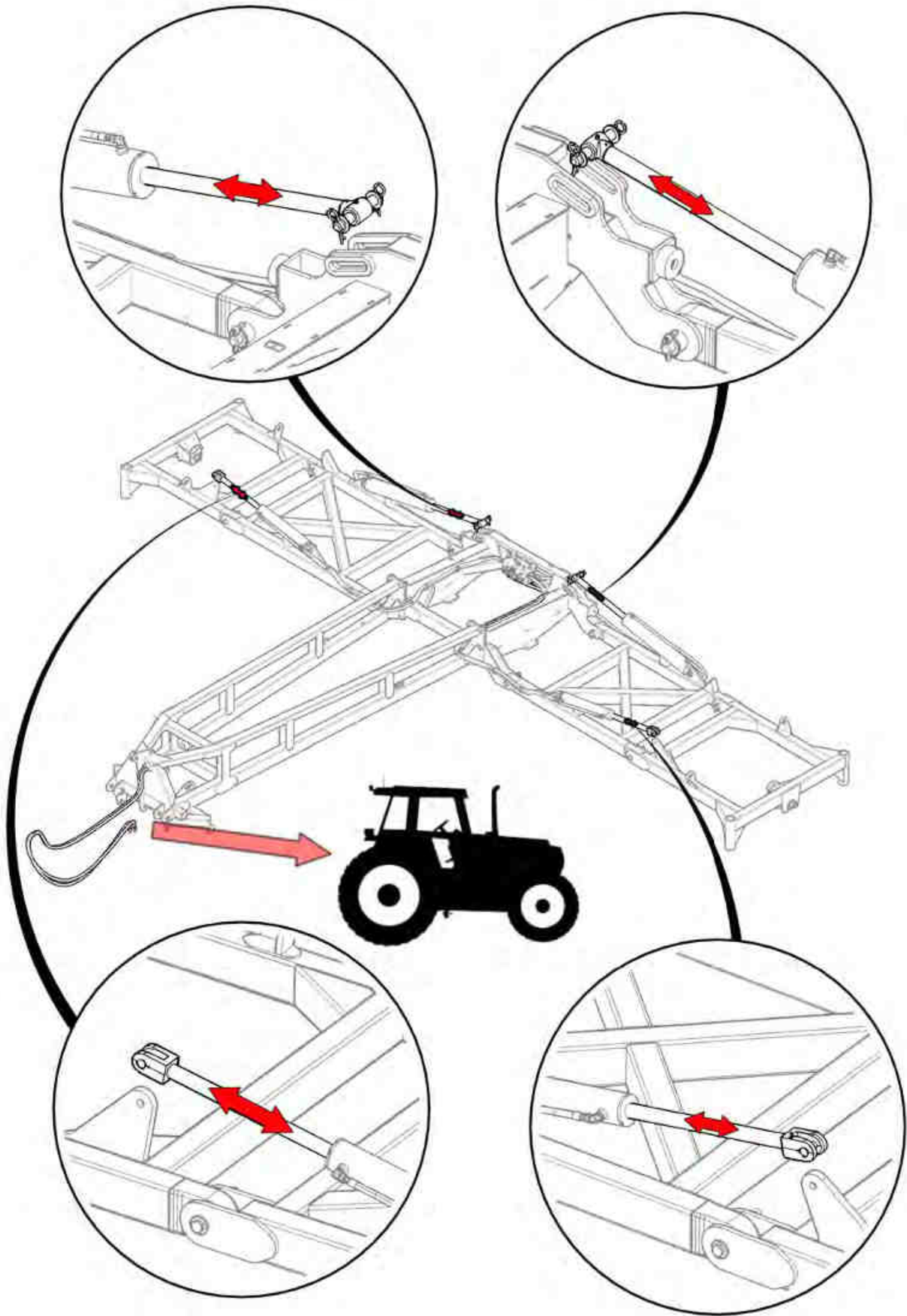
Signed _____ Date ___/___/___
 Unit Serial Number _____





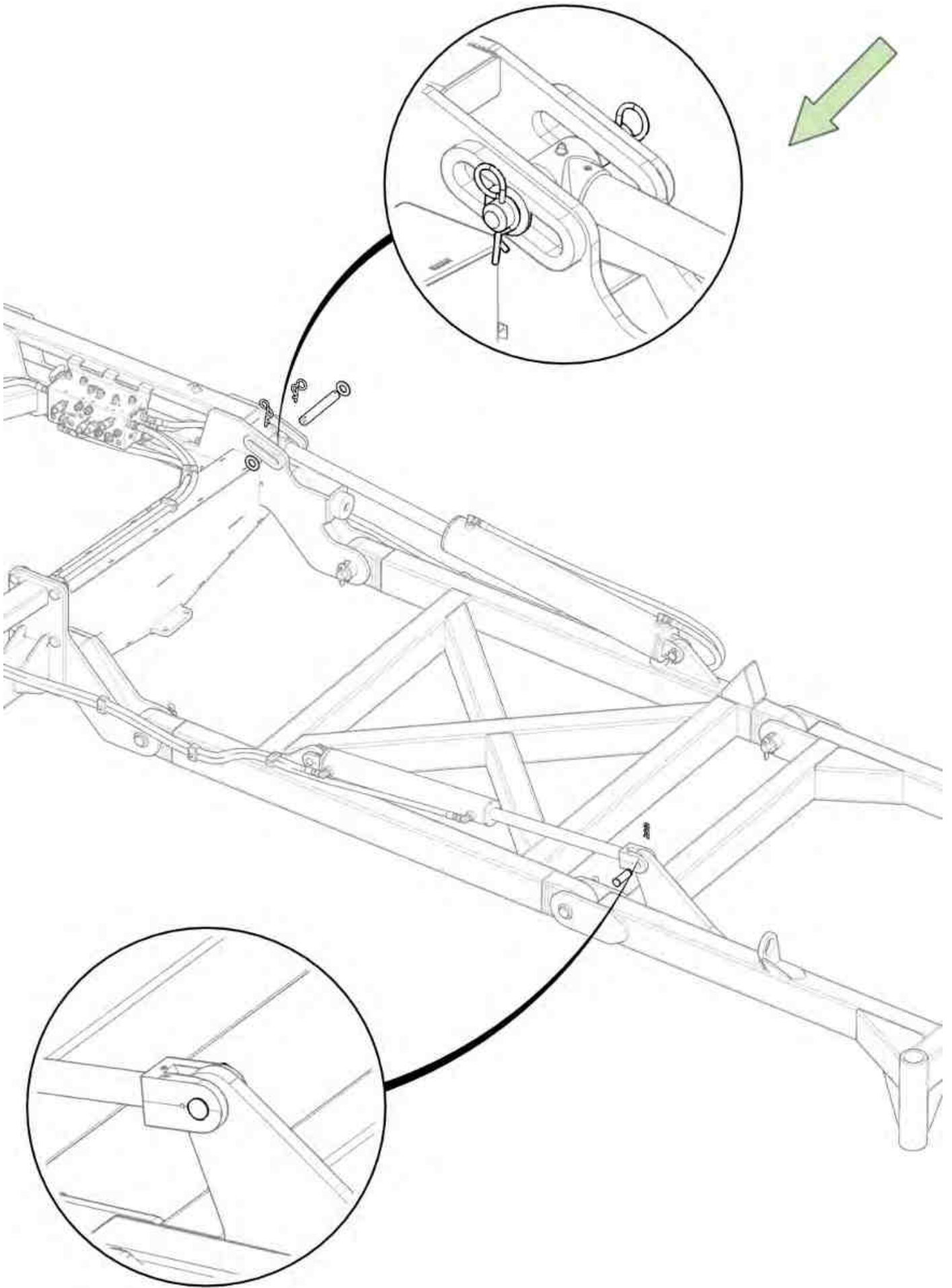
Retract fittings tightened 

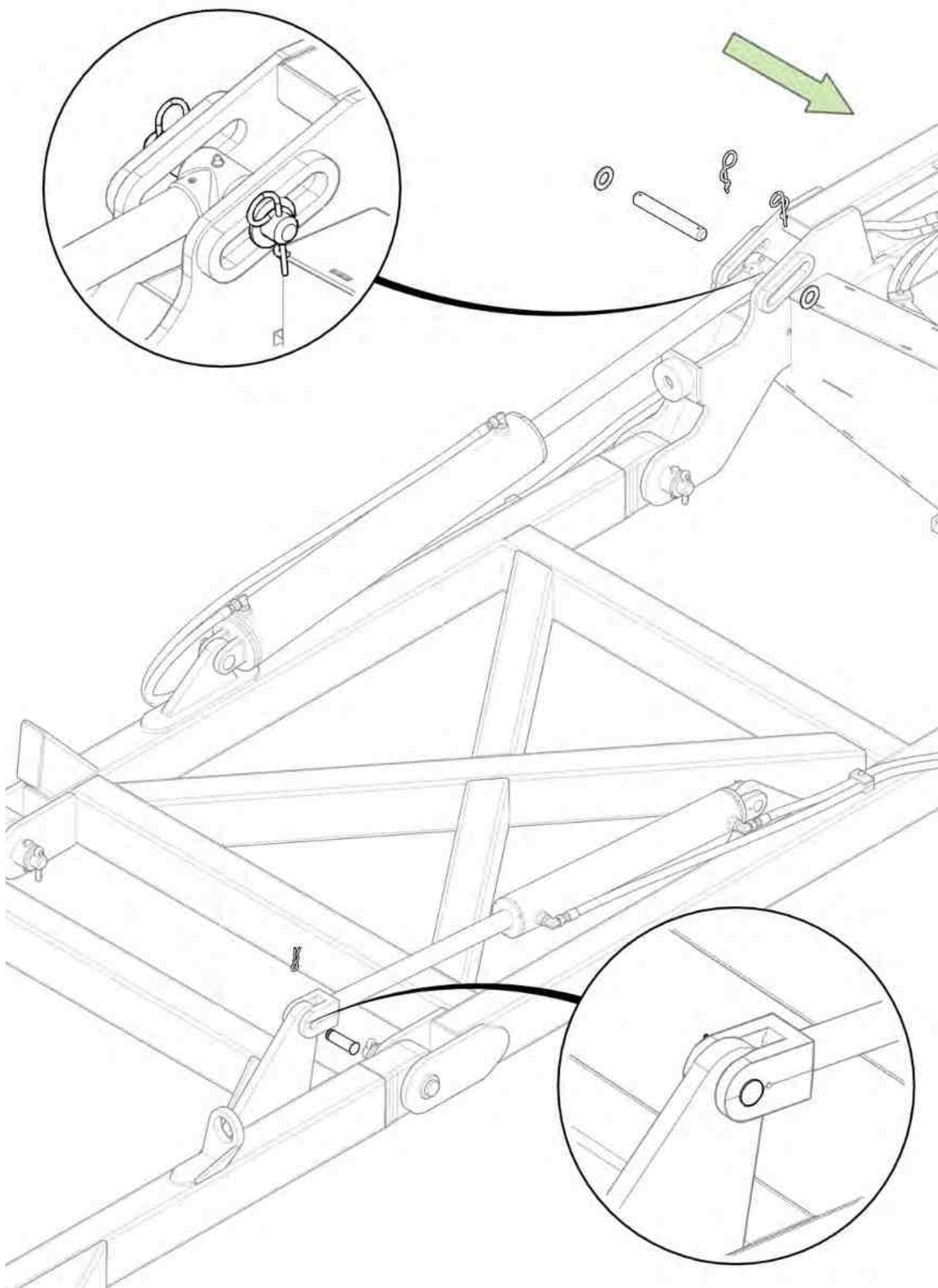
Signed _____ Date ____/____/____
Unit Serial Number _____



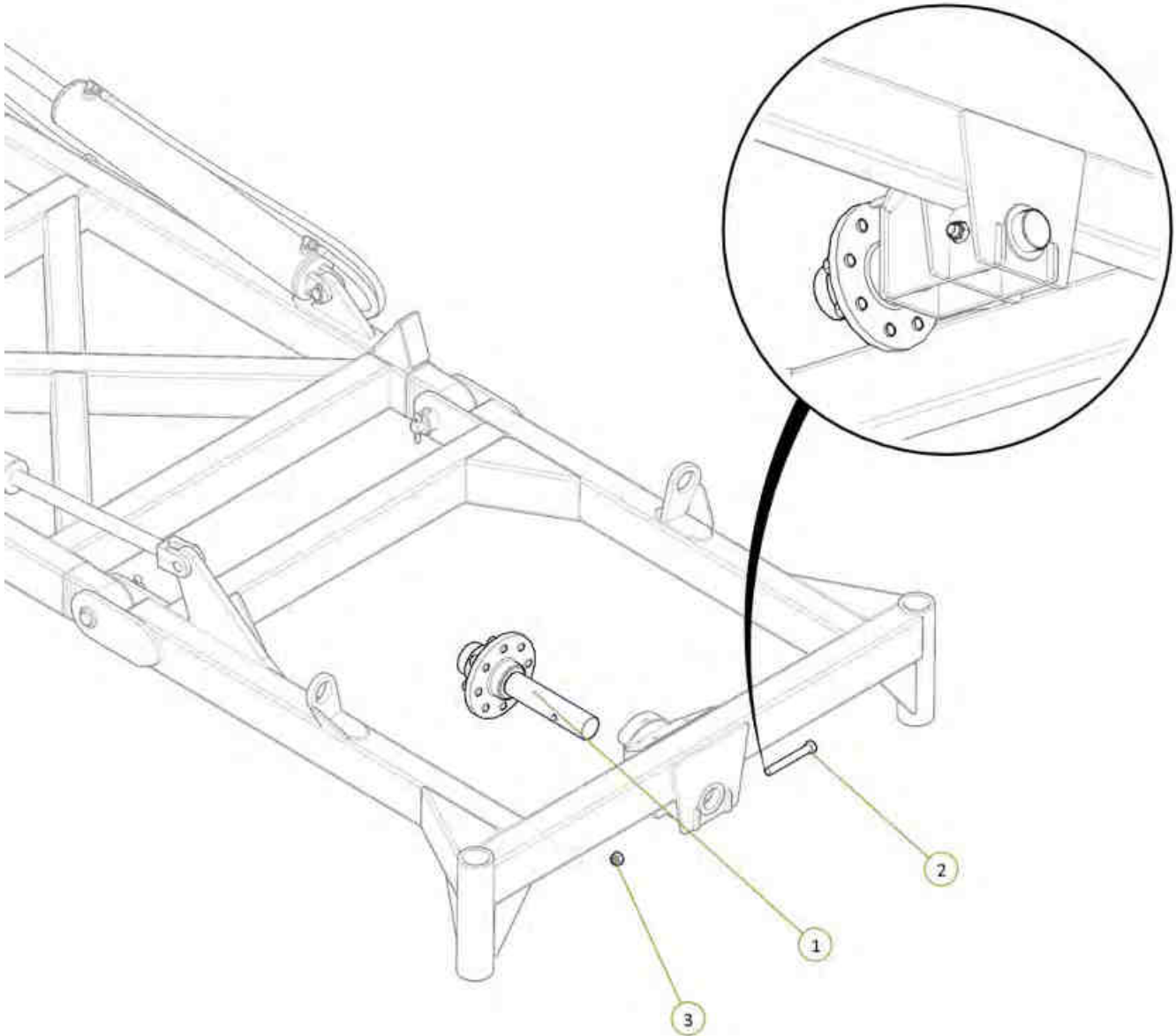
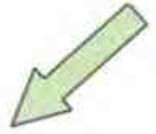
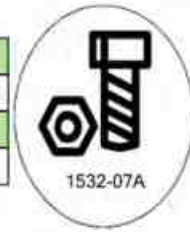
Cylinders cycled to expel air from system

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

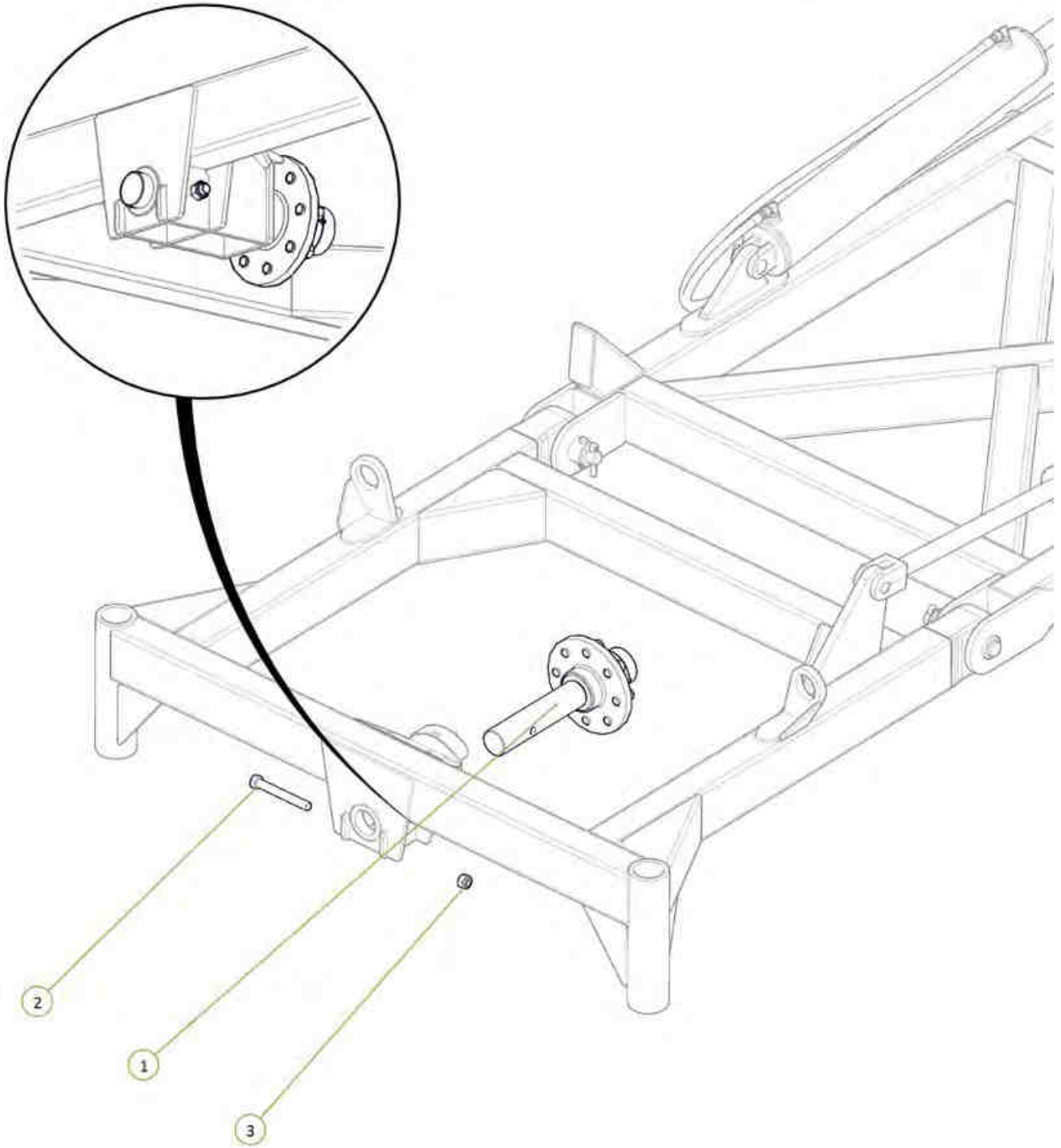




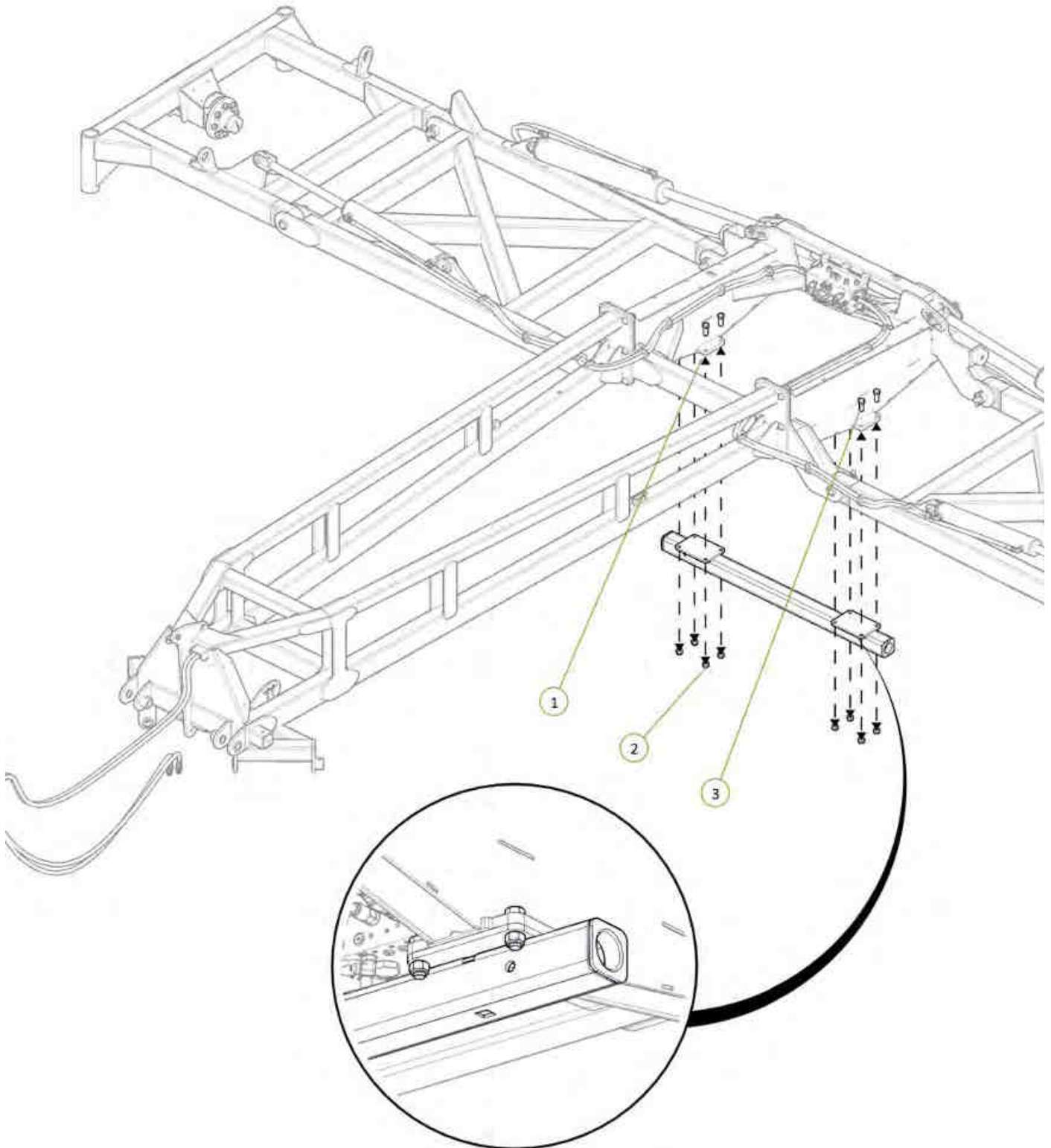
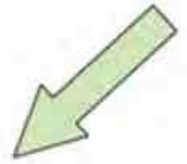
Item No.	Description	Qty	Number
1	2.75"R 6 Tonne 8 on 8" PCD Hub & Stub Complete	1	0733-SH27596880
2	M20 x 170 grade 8.8 ZP Bolt	1	0211-20170
3	Nyloc Nut M20	1	0221-NYL20



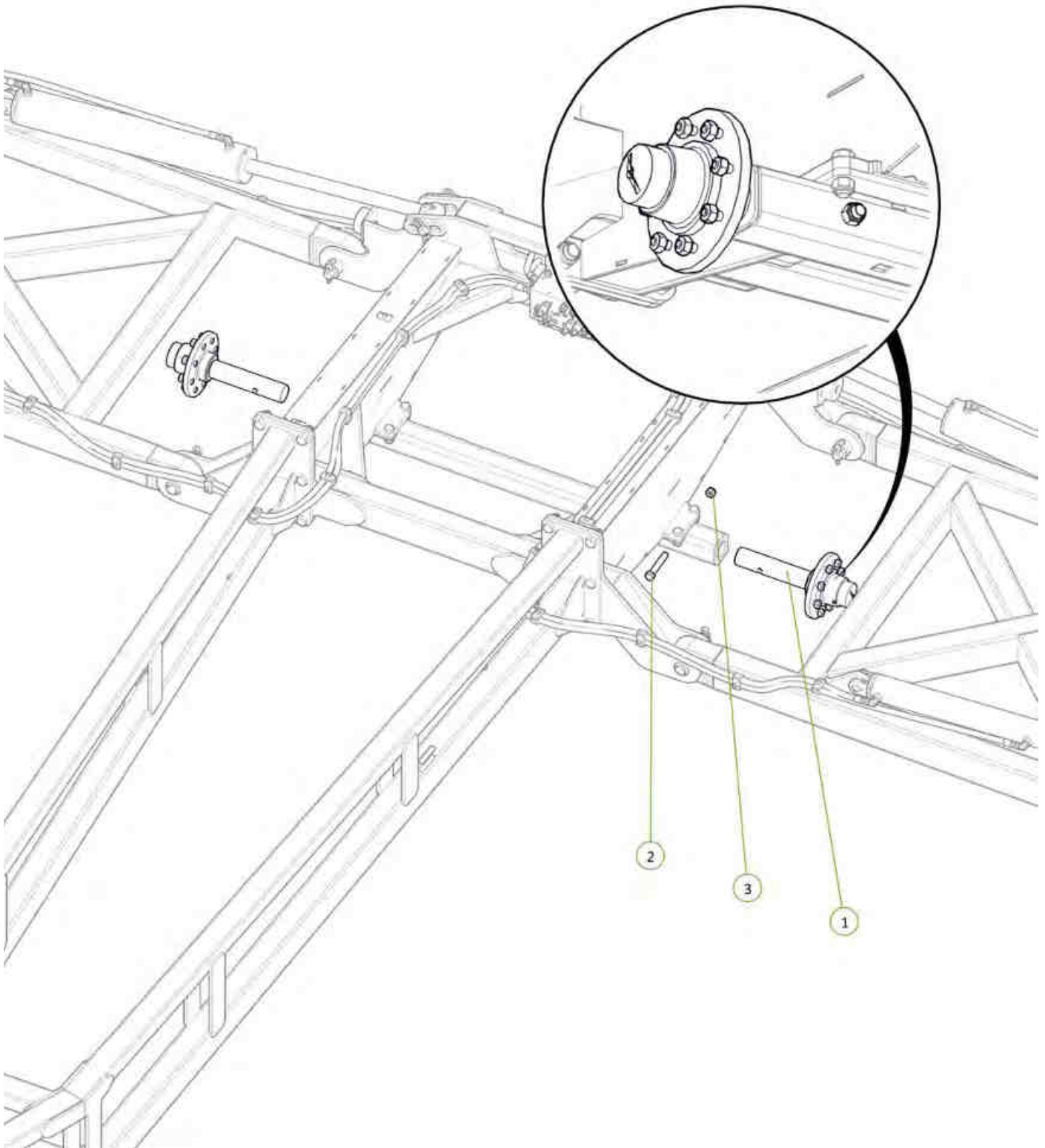
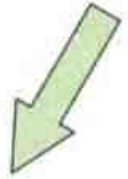
Item No.	Description	Qty	Number
1	2.75"R 6 Tonne 8 on 8" PCD Hub & Stub Complete	1	0733-SH27596880
2	M20 x 170 grade 8.8 ZP Bolt	1	0211-20170
3	Nyloc Nut M20	1	0221-NYL20



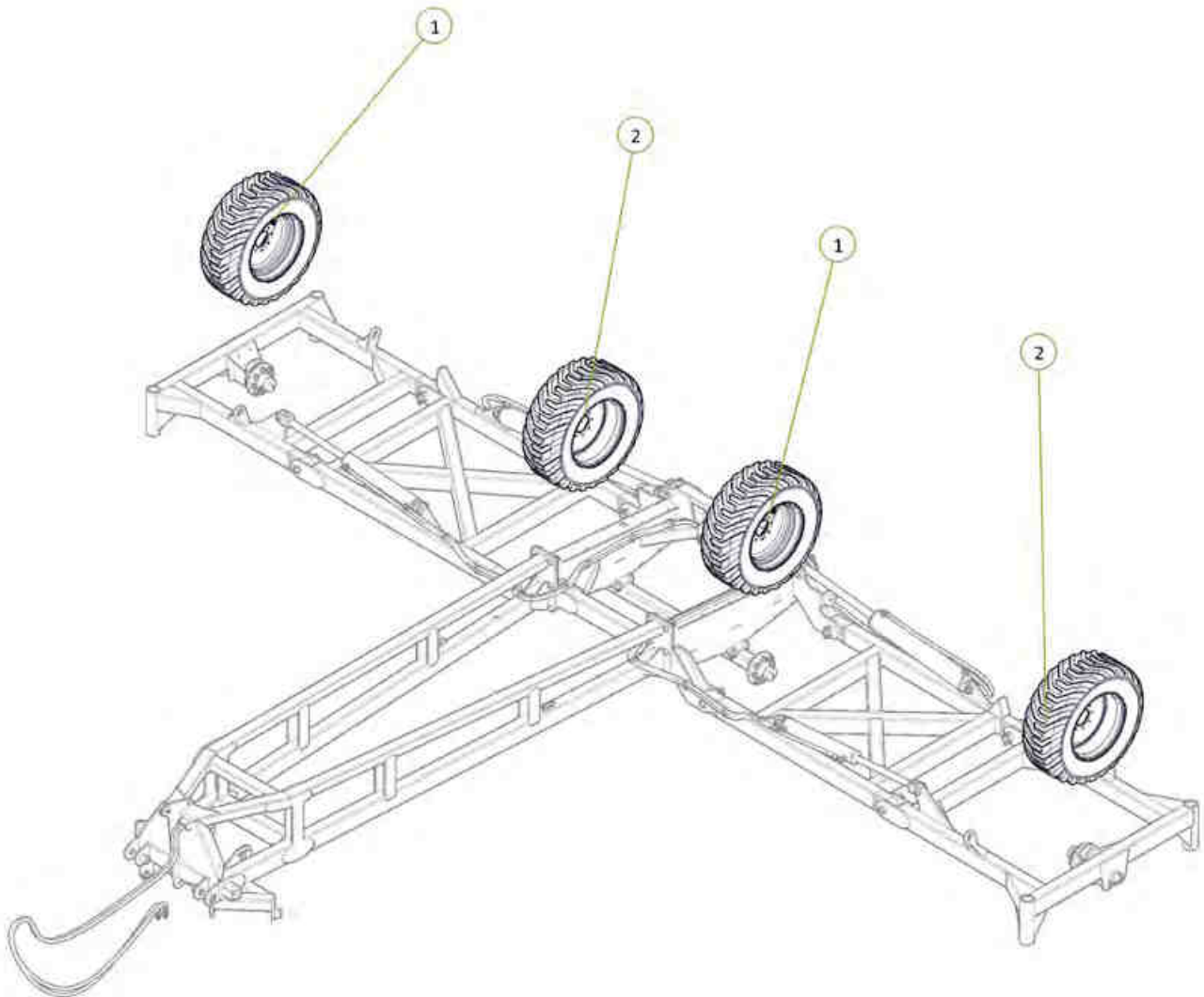
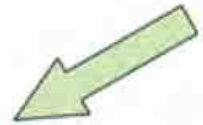
Item No.	Description	Qty	Number
1	9m Gen2 Axle Beam	1	1532-11-2
2	Nyloc Nut M20	8	0221-NYL20
3	M20 x 65 grade 8.8 ZP Bolt	8	0211-2060



Item No.	Description	Qty	Number
1	2.75"R 6 Tonne 8 on 8" PCD Hub & Stub Complete	2	0733-SH27596880
2	M20 x 130 grade 8.8 ZP Bolt	2	0211-20130
3	Nyloc Nut M20	2	0221-NYL20



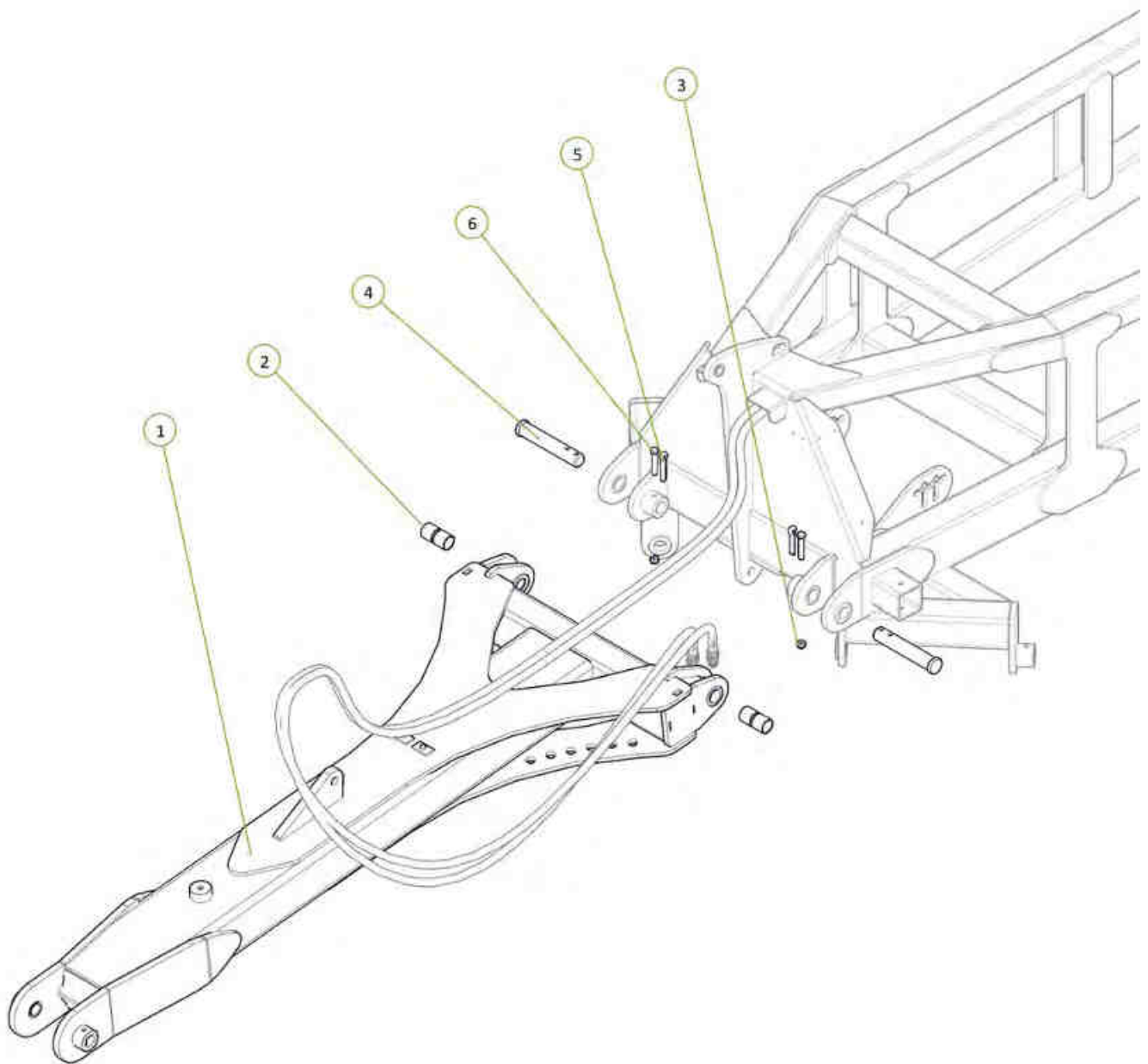
Item No.	Description	Qty	Number
1	400/55-22.5 Tyre on 8 on 8" PCD Rim (Right Hand)	2	0751-400-55-22.5TR-R
2	400/55-22.5 Tyre on 8 on 8" PCD Rim (Left Hand)	2	0751-400-55-22.5TR-L



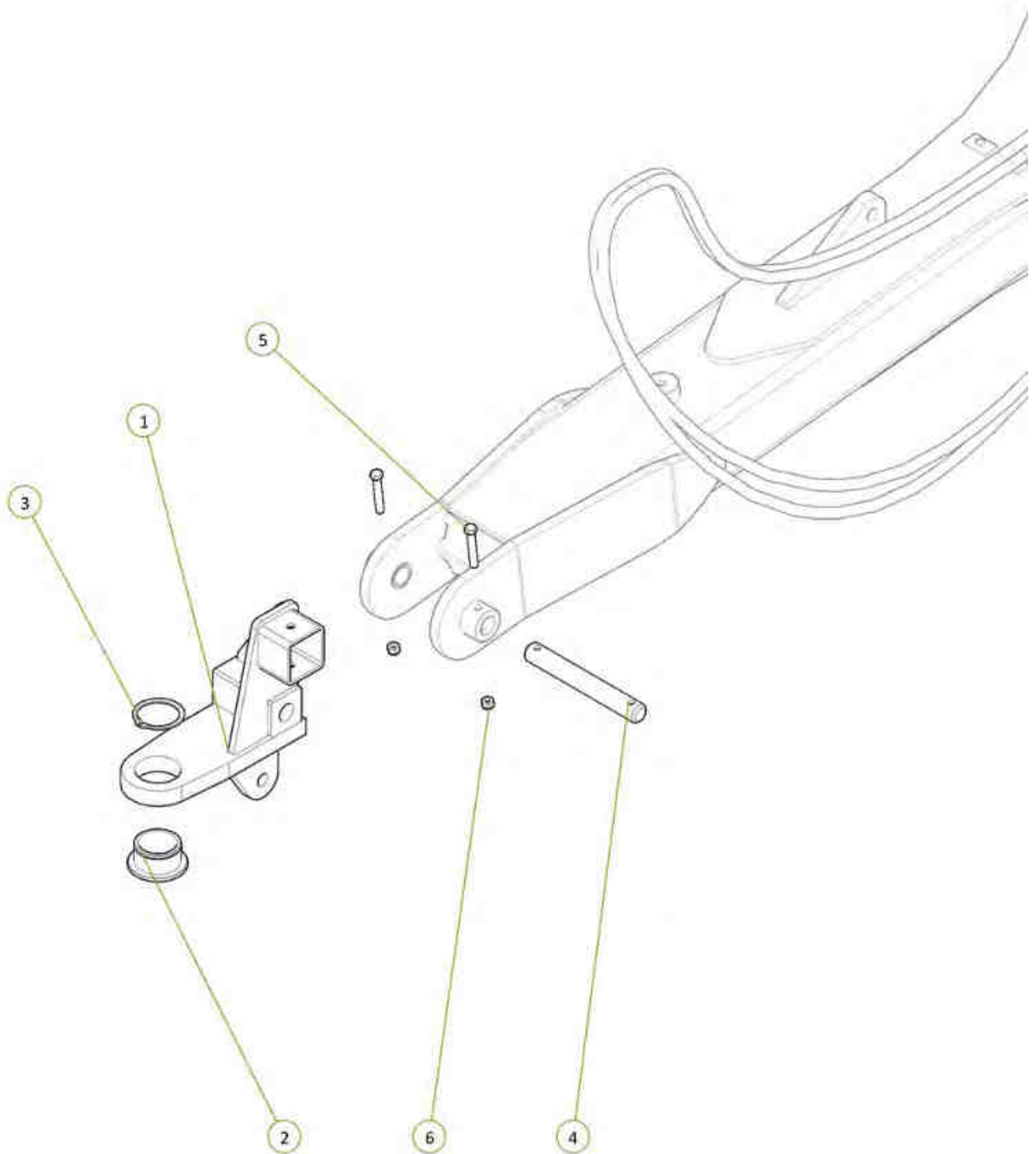
All wheel nuts tightened to 140Nm/100Ft Lb 

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

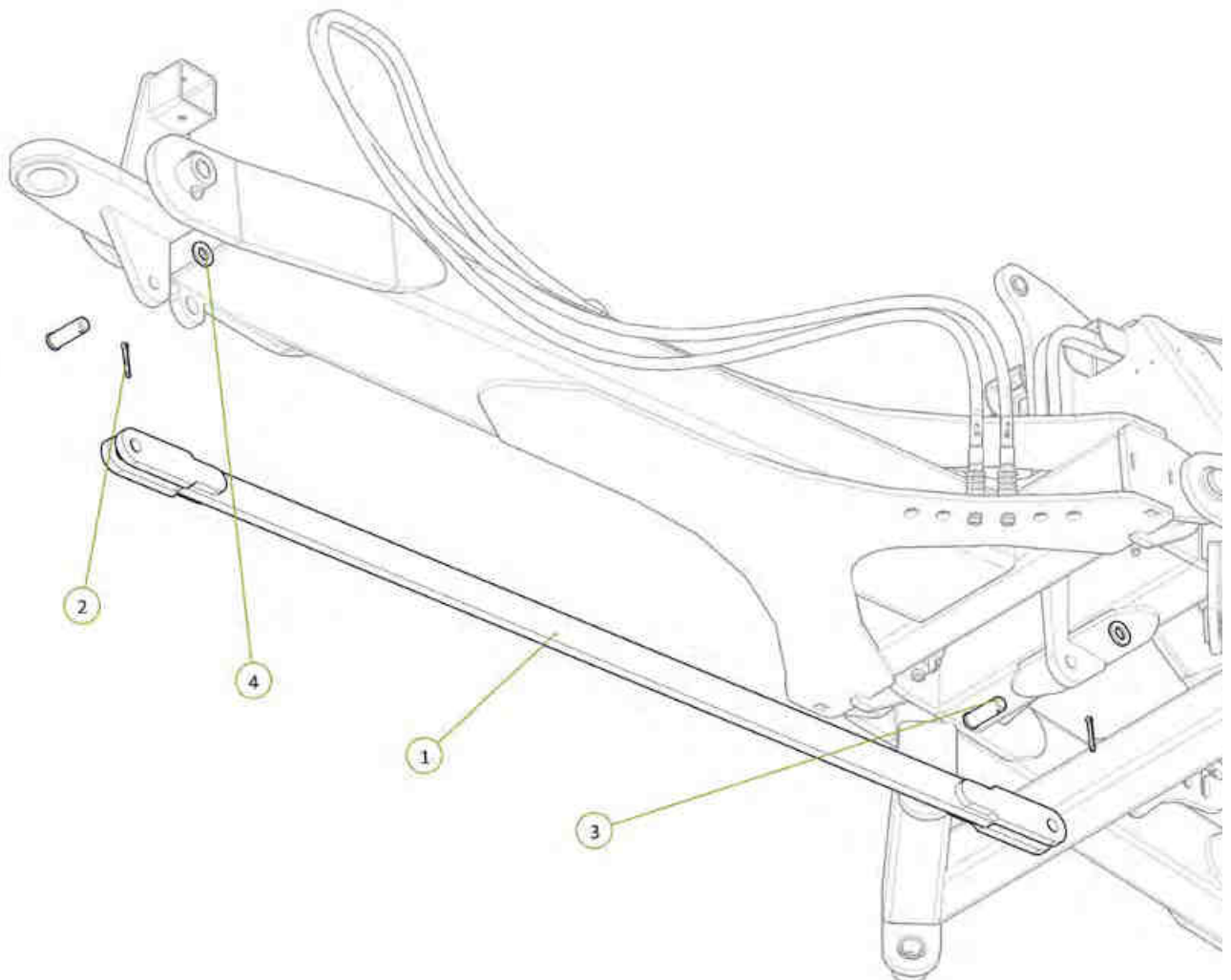
Item No.	Description	Qty	Number
1	Tapered T-Bar Drawbar	1	1510-08-2
2	Drawbar Pivot Bush	4	0801-B423838
3	Nyloc Nut M12	2	0221-NYL12
4	Walking Axle Linkage Pivot Pin	2	1601-P38-220
5	Cotter Pin M13 x 63	2	0261-PINC1363
6	M12 x 75 grade 8.8 ZP Bolt	2	0211-1275



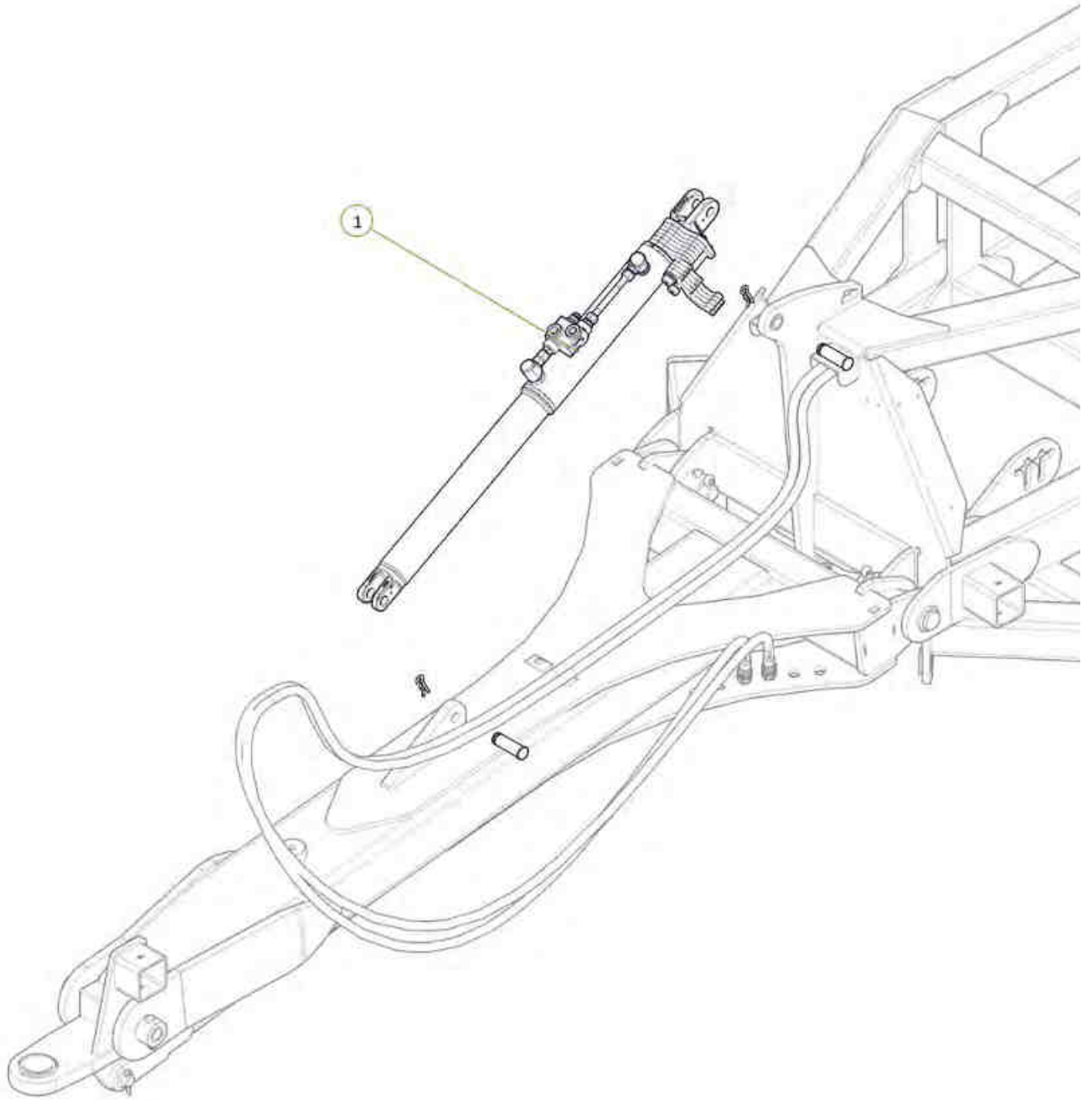
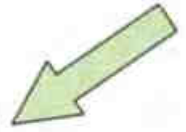
Item No.	Description	Qty	Number
1	Tow Hitch	1	0810-09
2	Hardened Tow Hitch Bush 2 1/4"	1	0801-KE-0905-1-B
3	Criclip External 82mm	1	0172-D1400-0820
4	Tow Hitch Pivot Pin	1	0801-10-06
5	M12 x 75 grade 8.8 ZP Bolt	2	0211-1275
6	Nyloc Nut M12	2	0221-NYL12



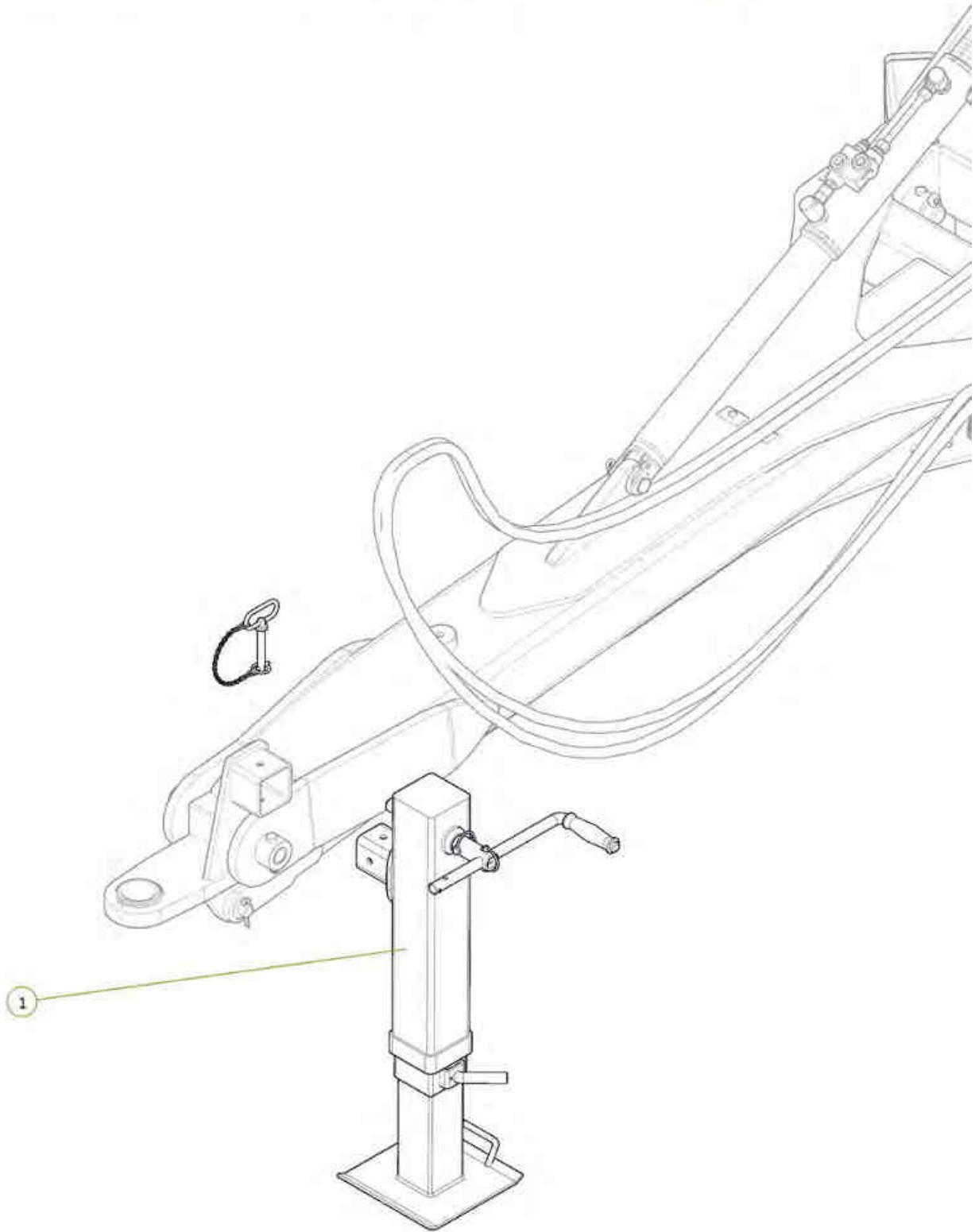
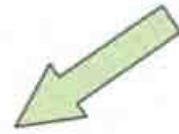
Item No.	Description	Qty	Number
1	Parallel Arm	1	0810-22
2	Cotter Pin M6 x 50mm	2	0261-PINC650
3	Clevis Pin 25mm x 75mm	2	0801-KE0307-1
4	Washer Flat M24	2	0231-F24



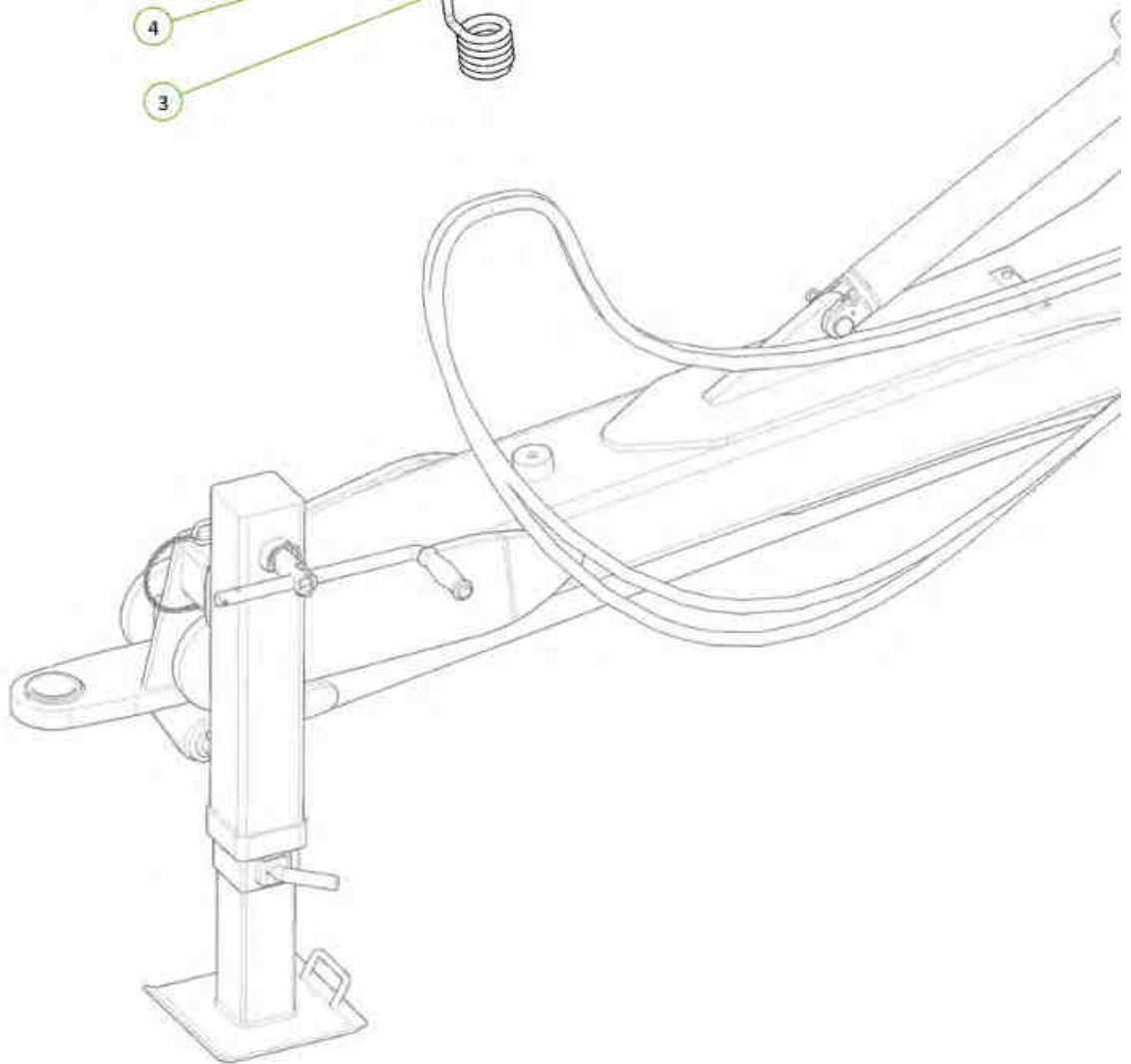
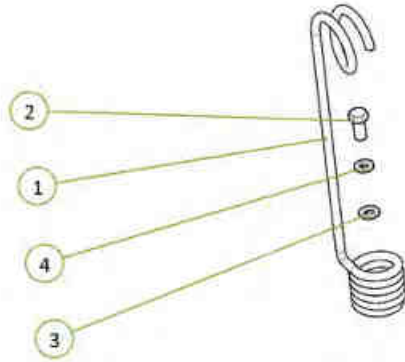
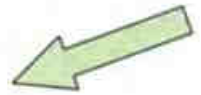
Item No.	Description	Qty	Number
1	3" Bore x 12" Stroke 1.5" Rod Extended Hydraulic Cylinder	1	0311-312EXT

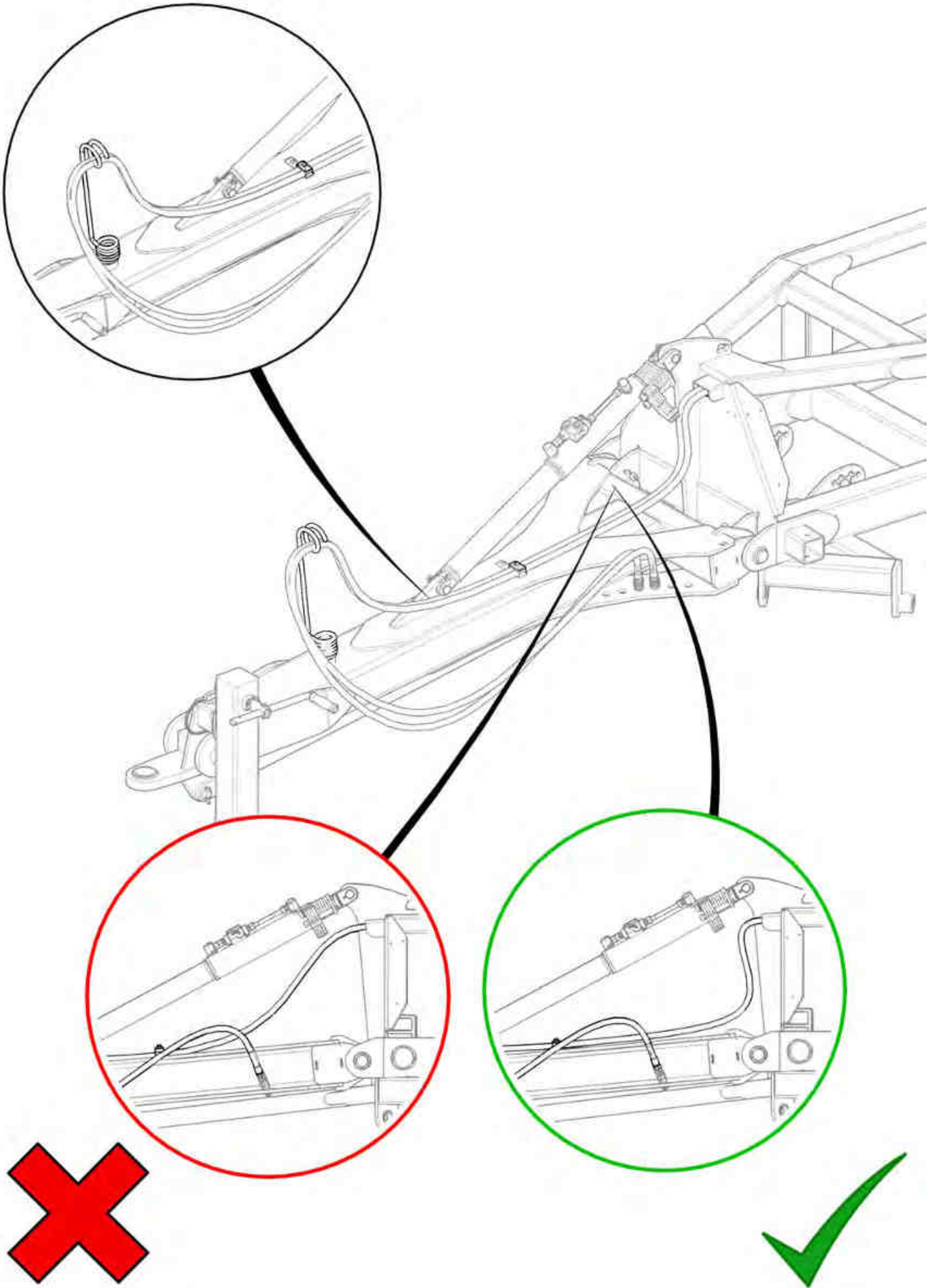


Item No.	Description	Qty	Number
1	Heavy Duty Jack Assembly	1	0810-37A

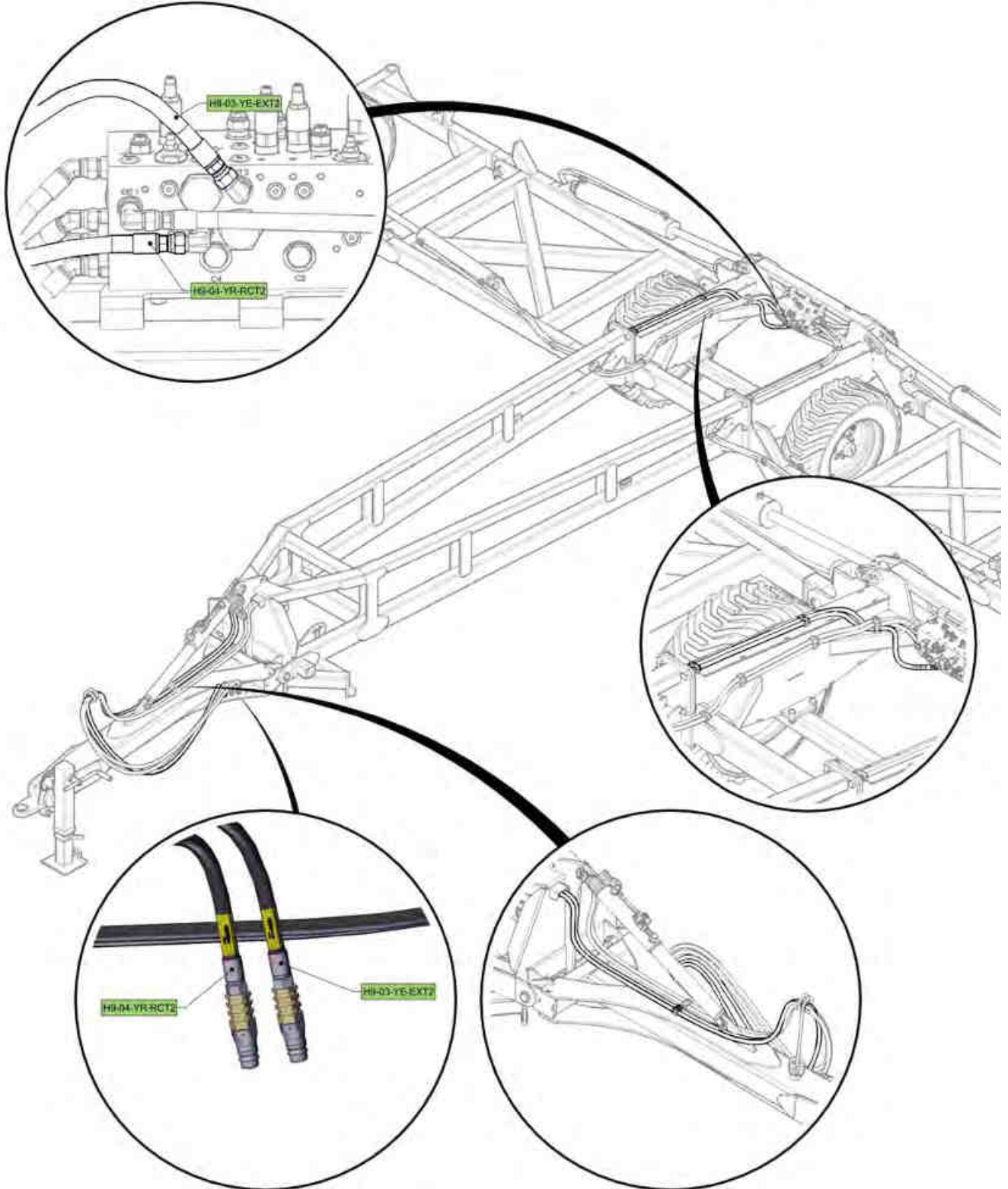
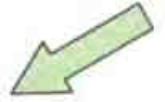


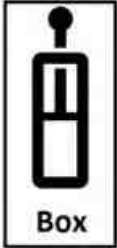
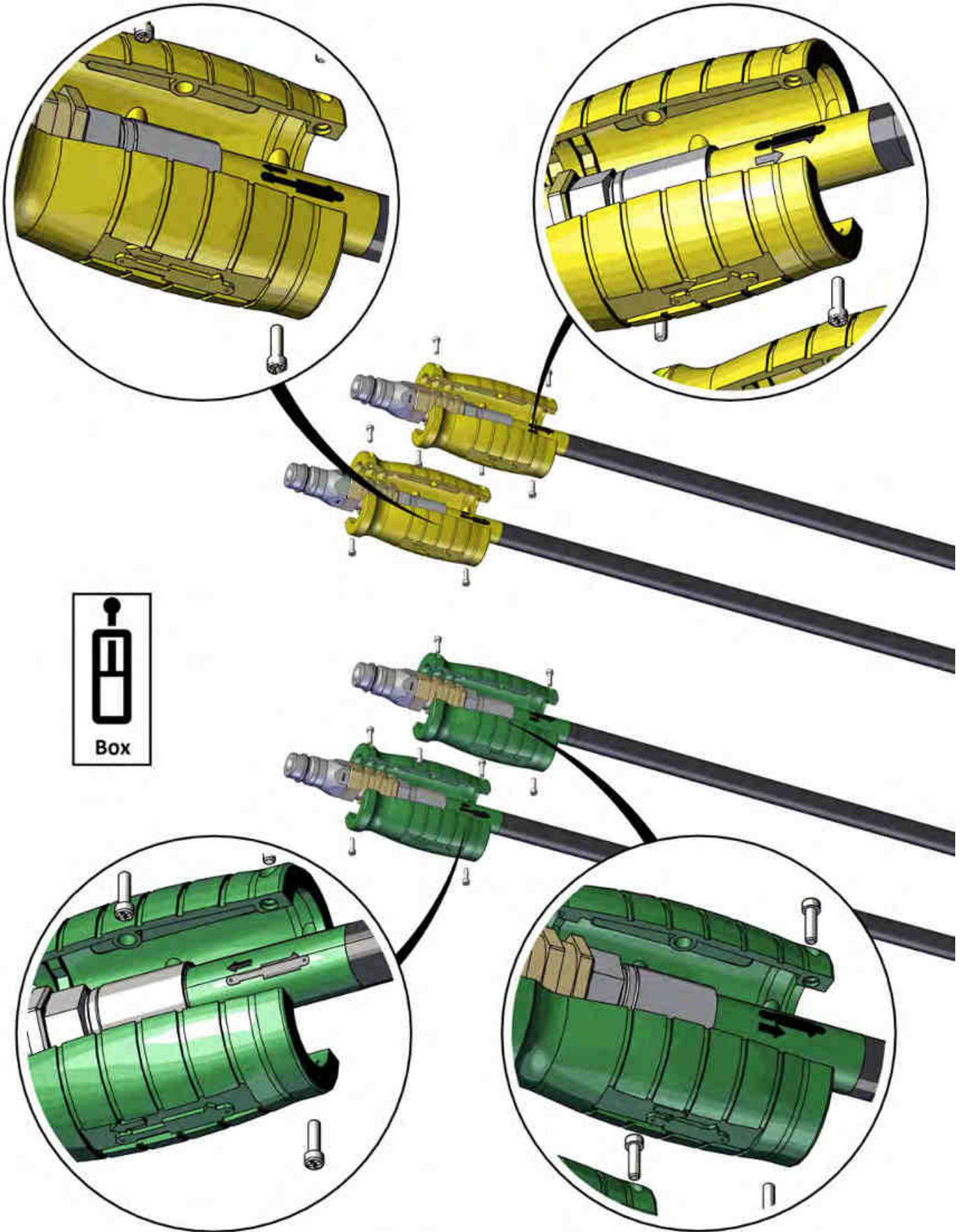
Item No.	Description	Qty	Number
1	Hose Post Spring	1	1601-CDB-00-0012
2	M16 x 35 grade 8.8 zp Bolt	1	0211-1635
3	Washer Flat M16	1	0231-F16
4	Washer Spring M16	1	0231-S16





Item No.	Description	Qty	Number
1	Tractor to Sequence Valve EXT2 Port Fitted With Yellow EXT Decal	1	H9-03-YE-EXT2
2	Tractor to Sequence Valve RTC2 Port Fitted With Yellow RTC Decal	1	H9-04-YR-RCT2

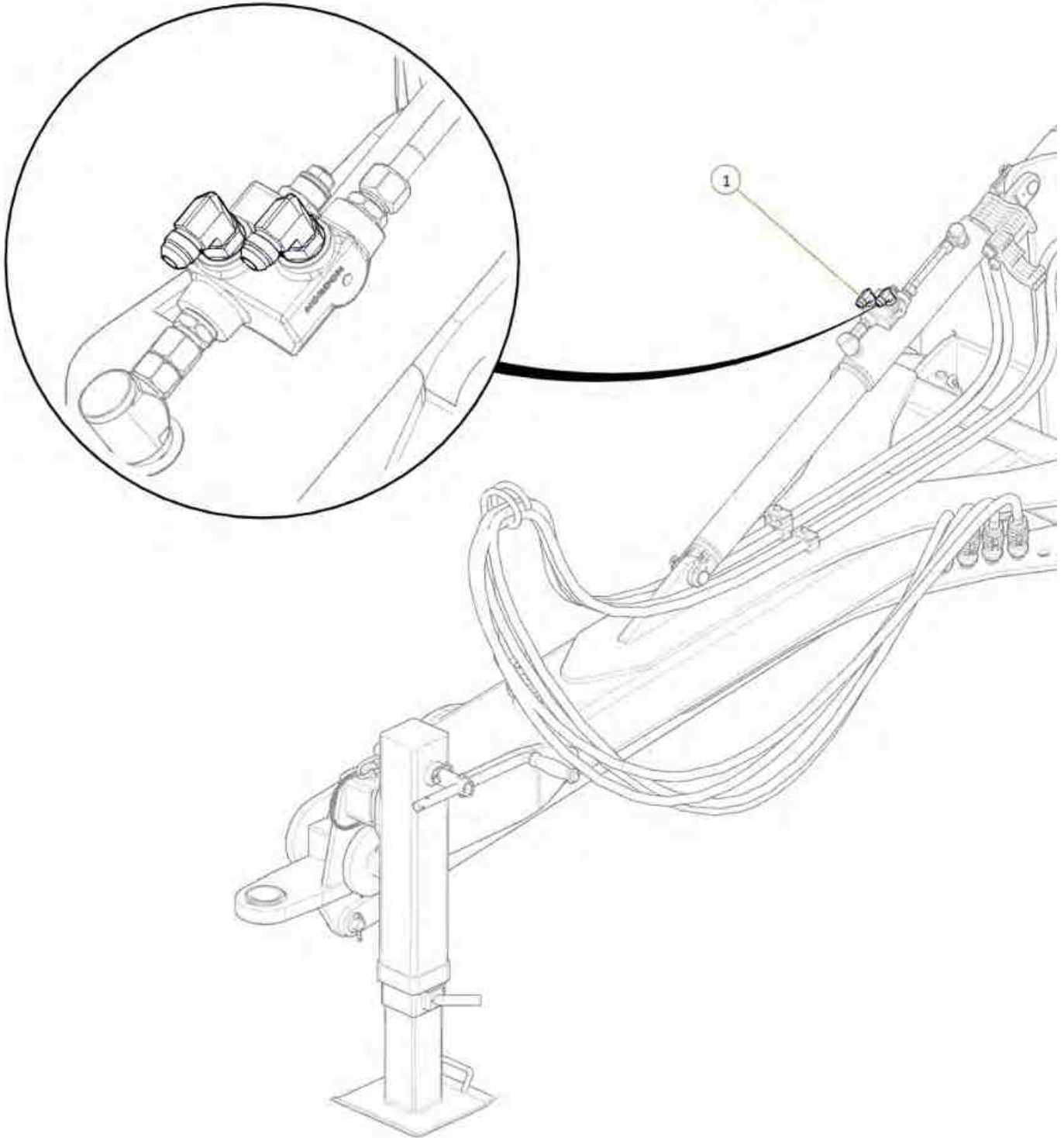
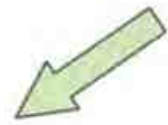




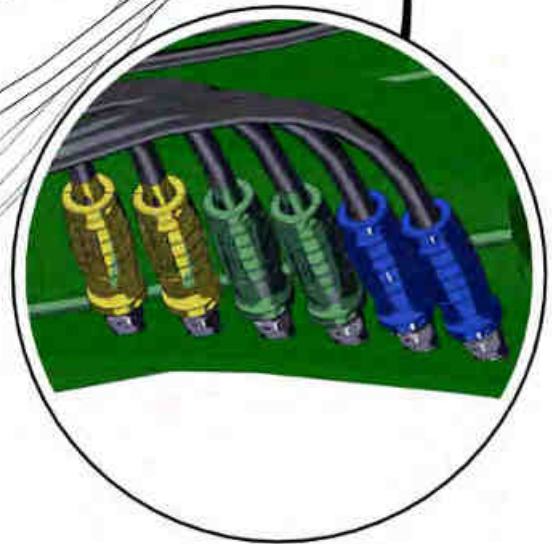
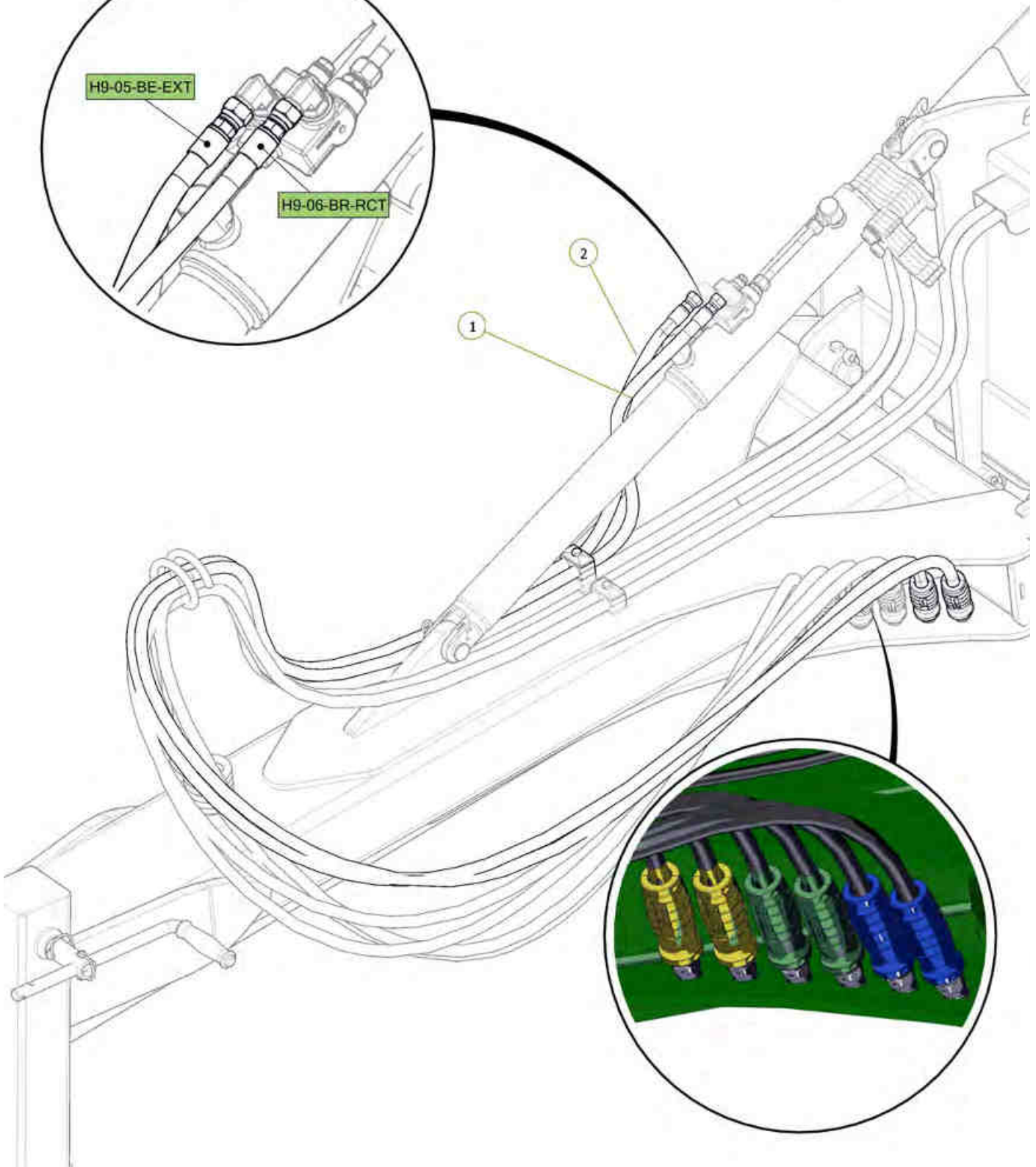
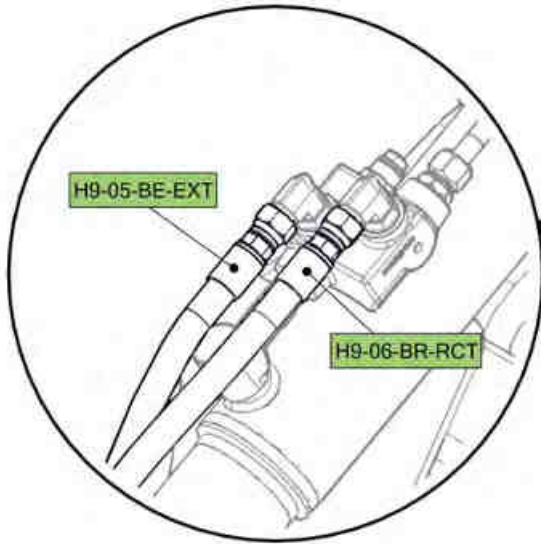
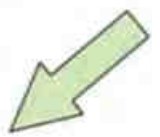
Hose grip handles fitted as per stickers on hoses

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 Unit Serial Number _____

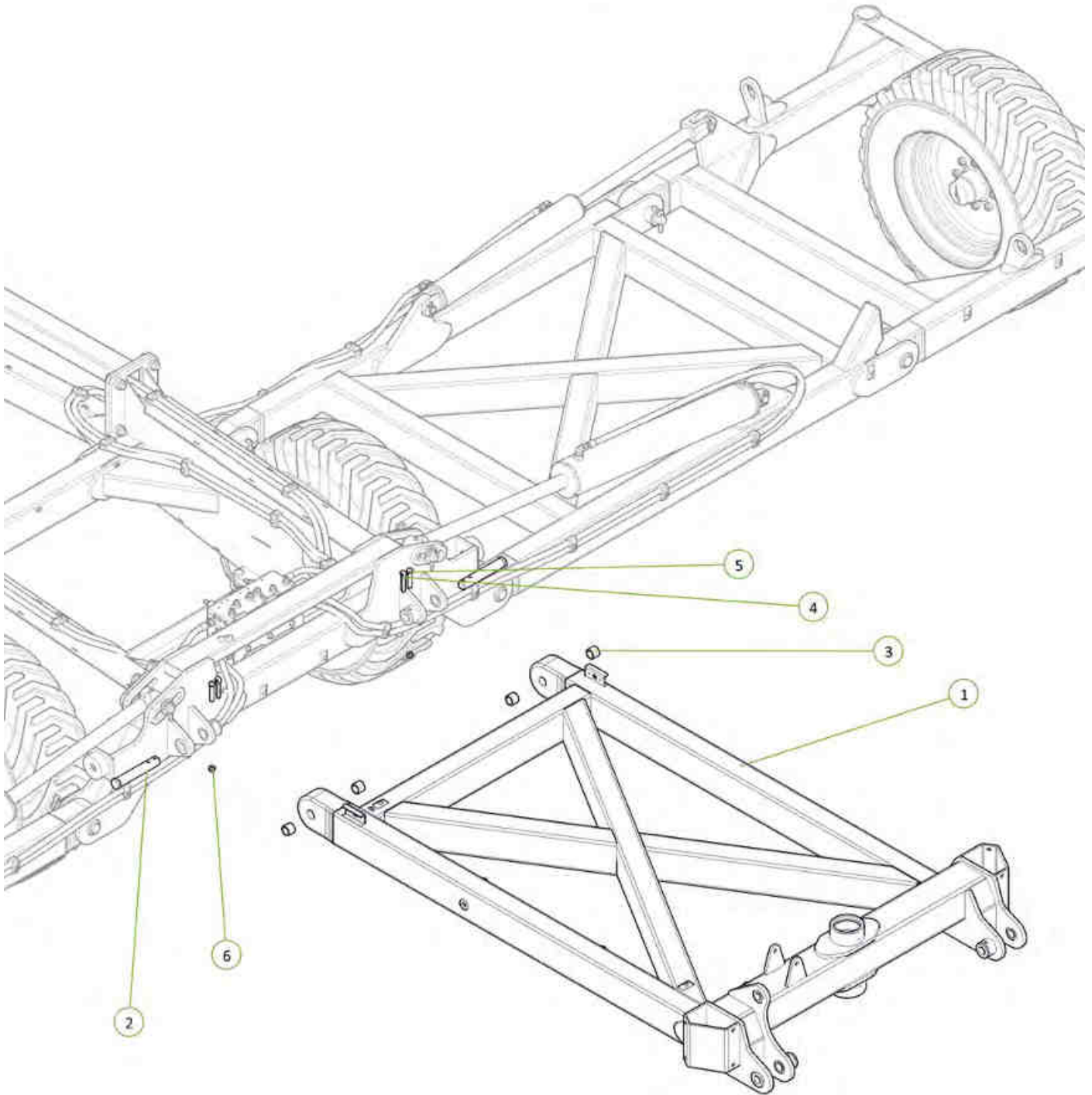
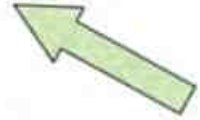
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

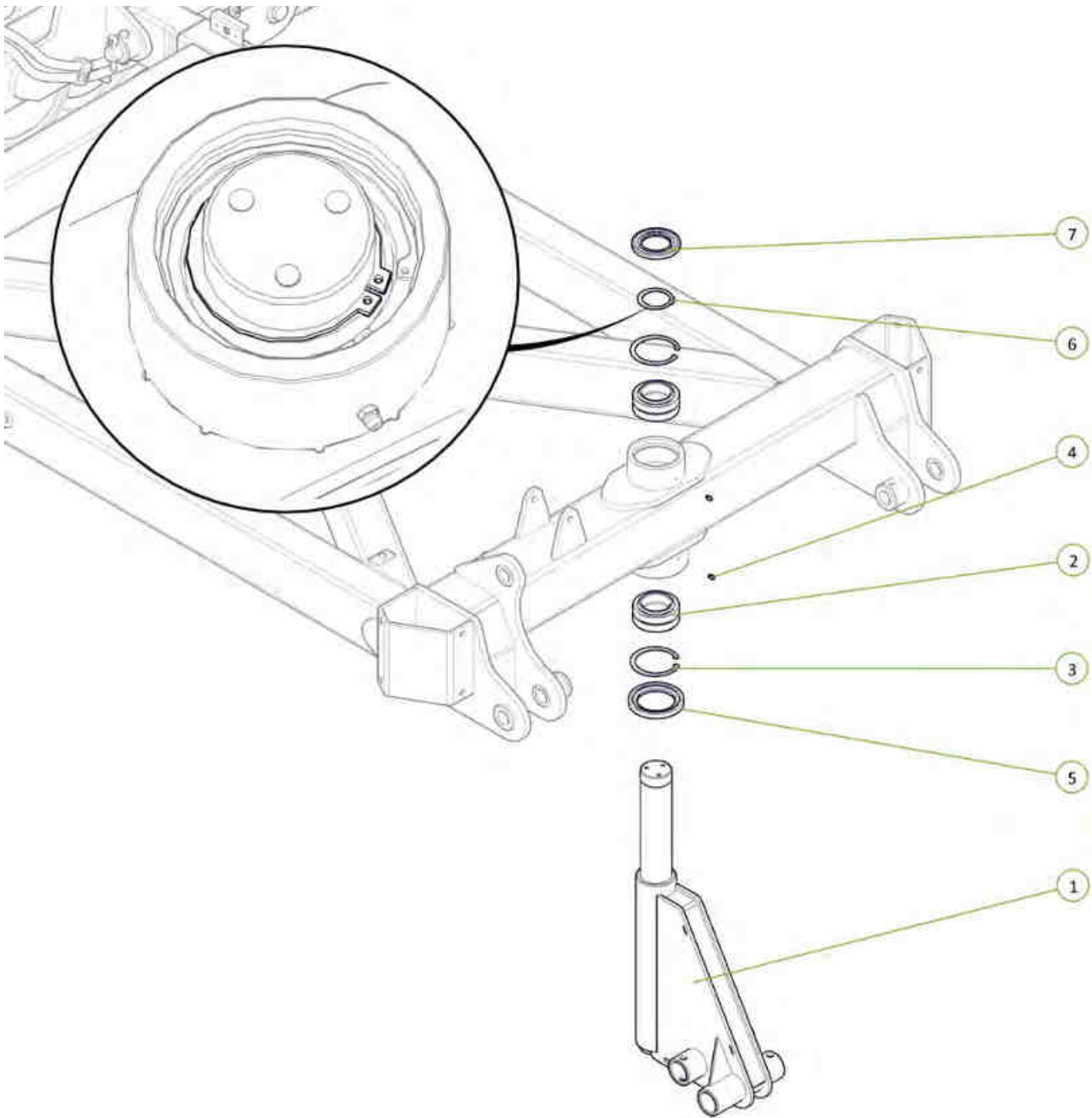


Item No.	Description	Qty	Number
1	Tractor to Front Lift Cylinder Extend Port Fitted With Blue RTC Grip	1	H9-06-BR-RCT
2	Tractor to Front Lift Cylinder Extend Port Fitted With Blue EXT Grip	1	H9-05-BE-EXT




Item No.	Description	Qty	Number
1	9m Gen 2 Rear A-Frame	1	1532-03
2	PCH Wing Pivot Pin	2	0801-10-08-235
3	35 ID x 30mm DU Bush	4	0113-MB 3530DU
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	M12 x 75 grade 8.8 ZP Bolt	2	0211-1275
6	Nyloc Nut M12	2	0221-NYL12



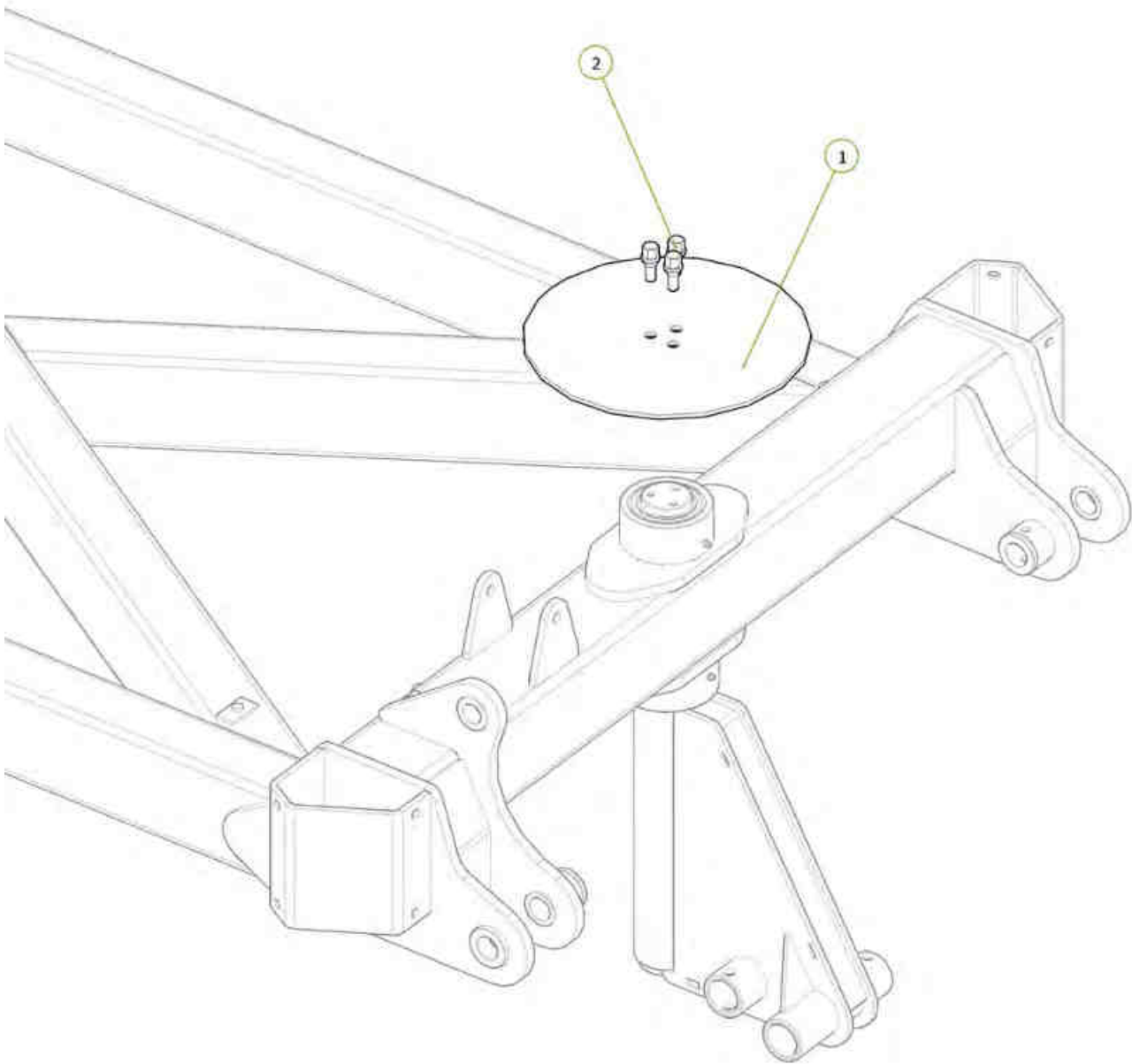
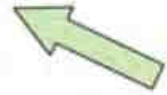


Item No.	Description	Qty	Number
1	70mm Jockey Wheel (Sleeved)	1	1610-12-70
2	Plain Spherical Bearing 70mm	2	0113-GE70DO-2RS
3	Circlip Internal 105mm	2	0171-J105
4	Grease Nipple 1/4" UNF	2	0181-GN1-4
5	TC Seal 90mm x 125mm x 13mm	1	0121-TC12681
6	Circlip External 70mm	1	0172-D1400-0700AAP
7	TC Seal 70mm x 110mm x 10mm	1	0121-TC12654

Circlip fitted to Jockey Wheel shaft 

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 Unit Serial Number _____

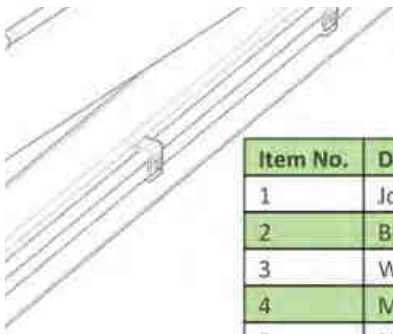
Item No.	Description	Qty	Number
1	Brake Disc	1	1600-405
2	M12 x 24 Wheel Bolt	3	0216-WB1224



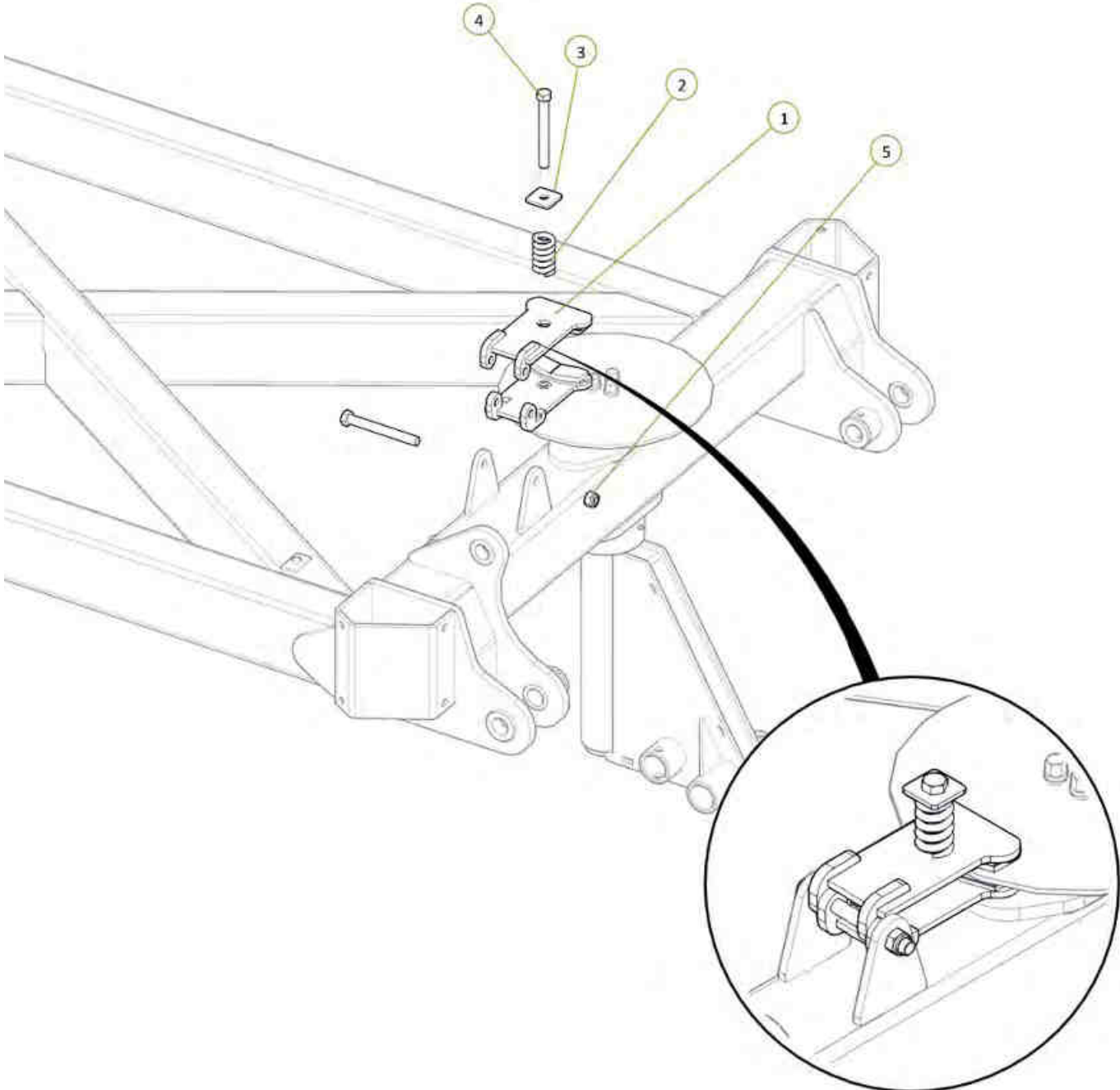
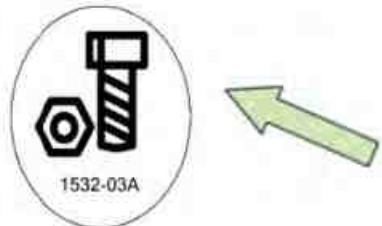
Wheel bolts torqued to 88Nm



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 Unit Serial Number _____



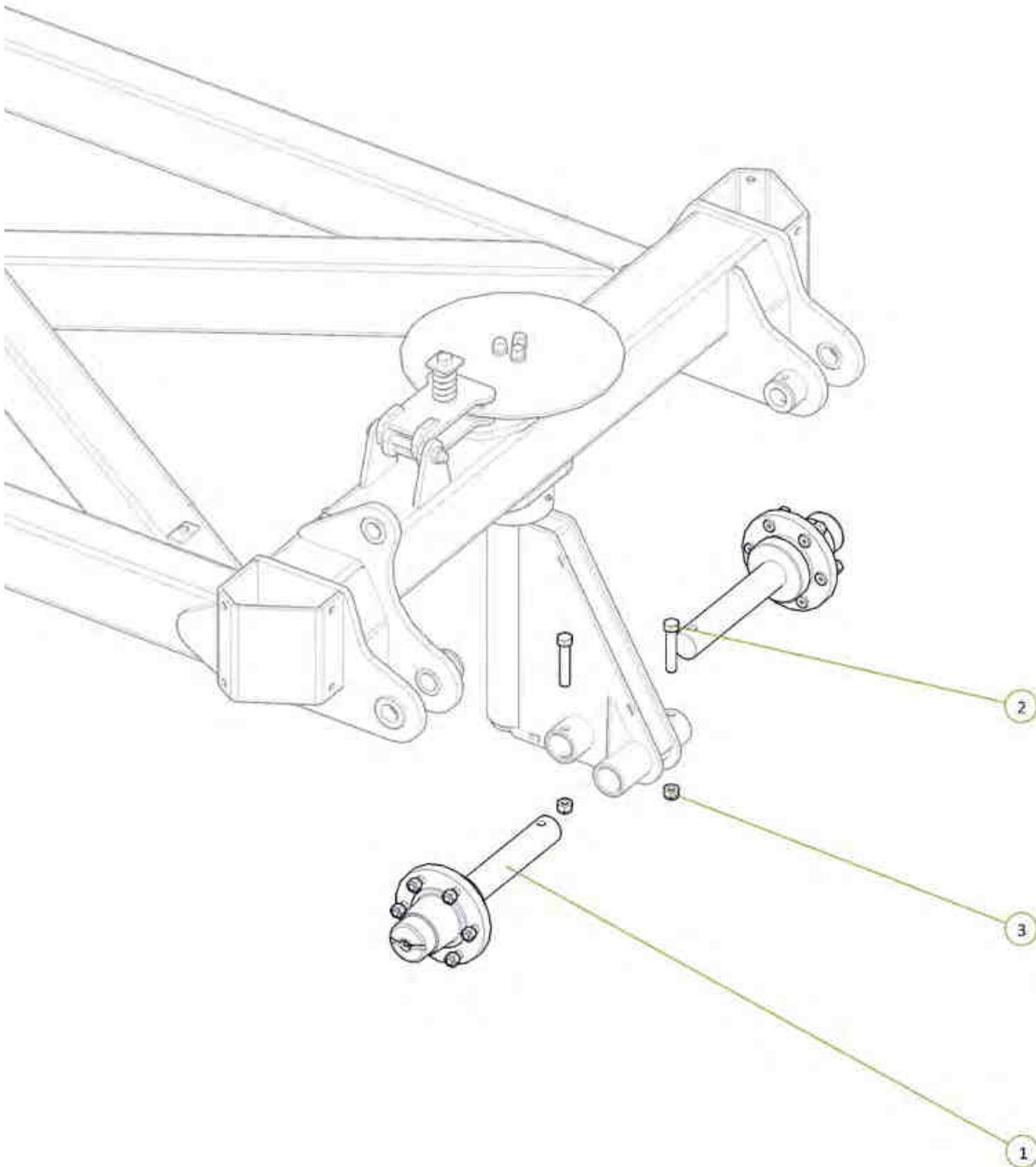
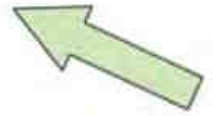
Item No.	Description	Qty	Number
1	Jockey Wheel Brake Caliper	1	0810-12CAL
2	Brake Compression Spring	1	0801-KE009
3	Washer Square M16 x 50 x 5	1	0231-SQ16505
4	M16 x 150 grade 8.8 zp Bolt	2	0211-16150
5	Nyloc Nut M16	1	0221-NYL16

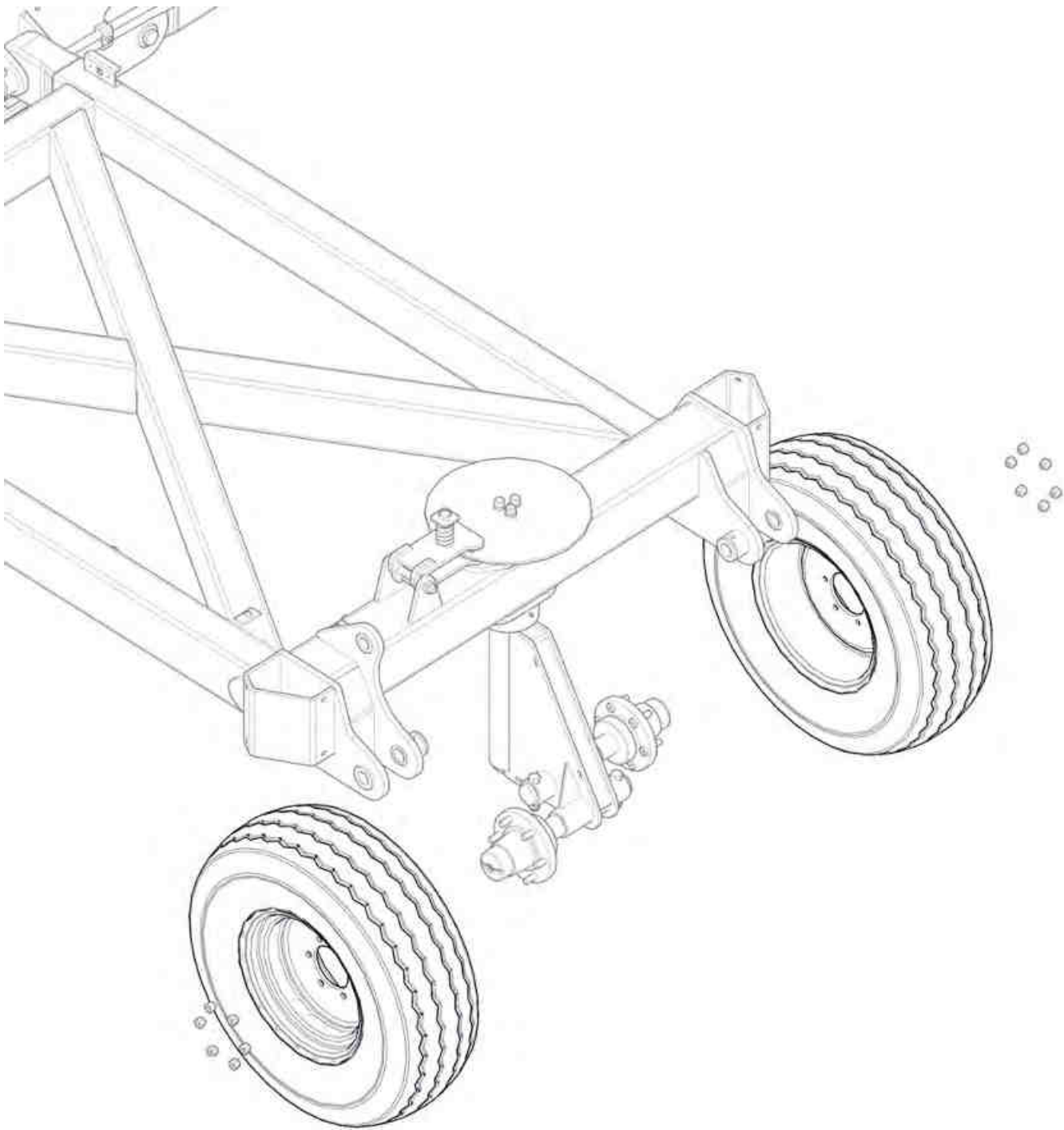


Check tension of brake caliper spring (50-63mm road transport) ○

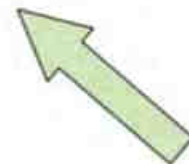
Signed _____ Date ____/____/____
 Unit Serial Number _____

Item No.	Description	Qty	Number
1	Axle 2"R 3T 6 on 6" PCD 330 OHF	2	0733-K5083T66S
2	M16 x 90 grade 8.8 zp Bolt	2	0211-1690
3	Nyloc Nut M16	2	0221-NYL16





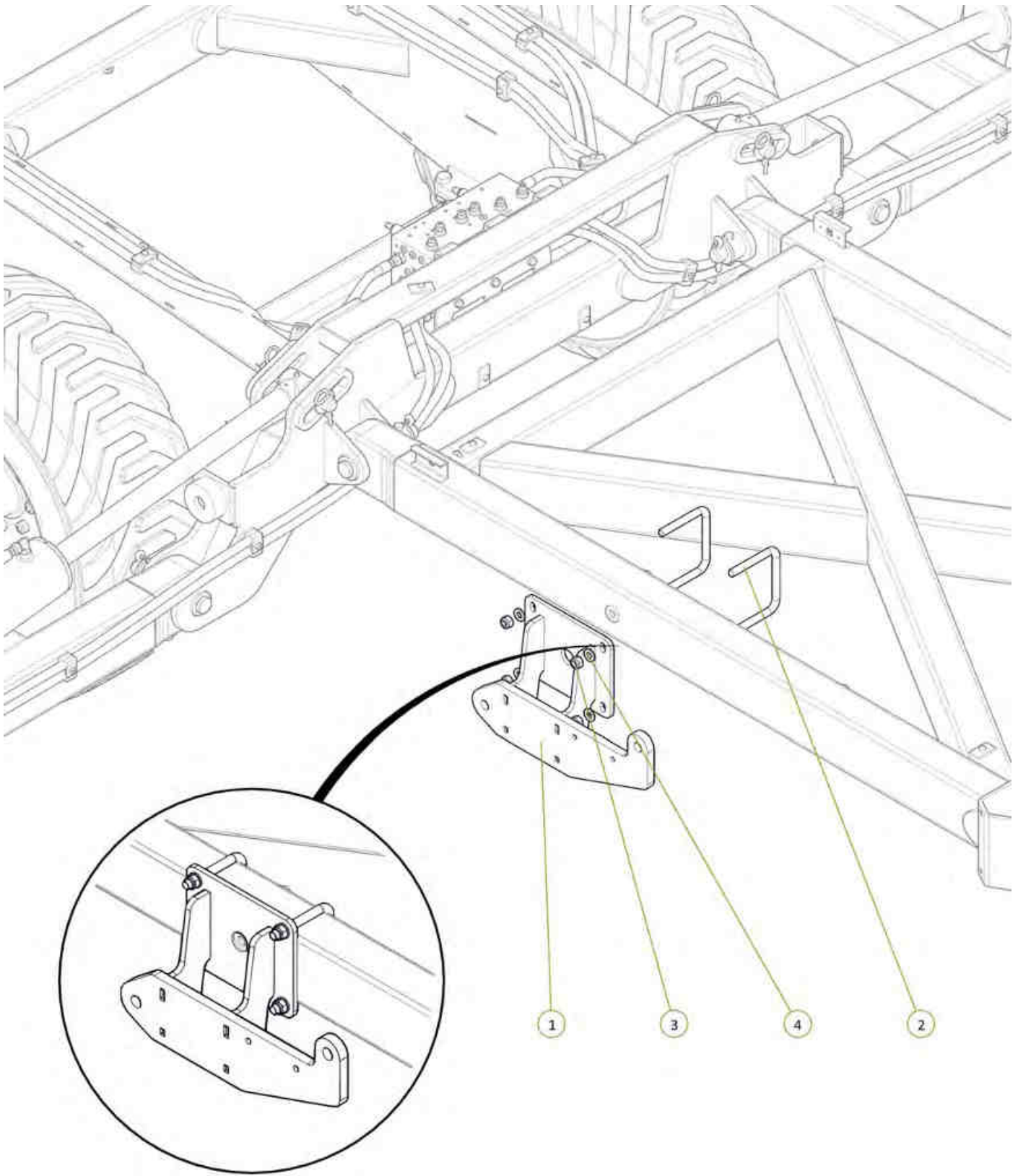
Item No.	Description	Qty	Number
1	11L15 F3 Tyre on 6 on 6" Stud Rim	2	0751-11L15



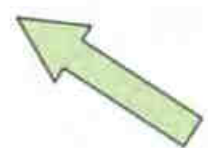
All wheel nuts tightened to 125Nm / 90ft lb



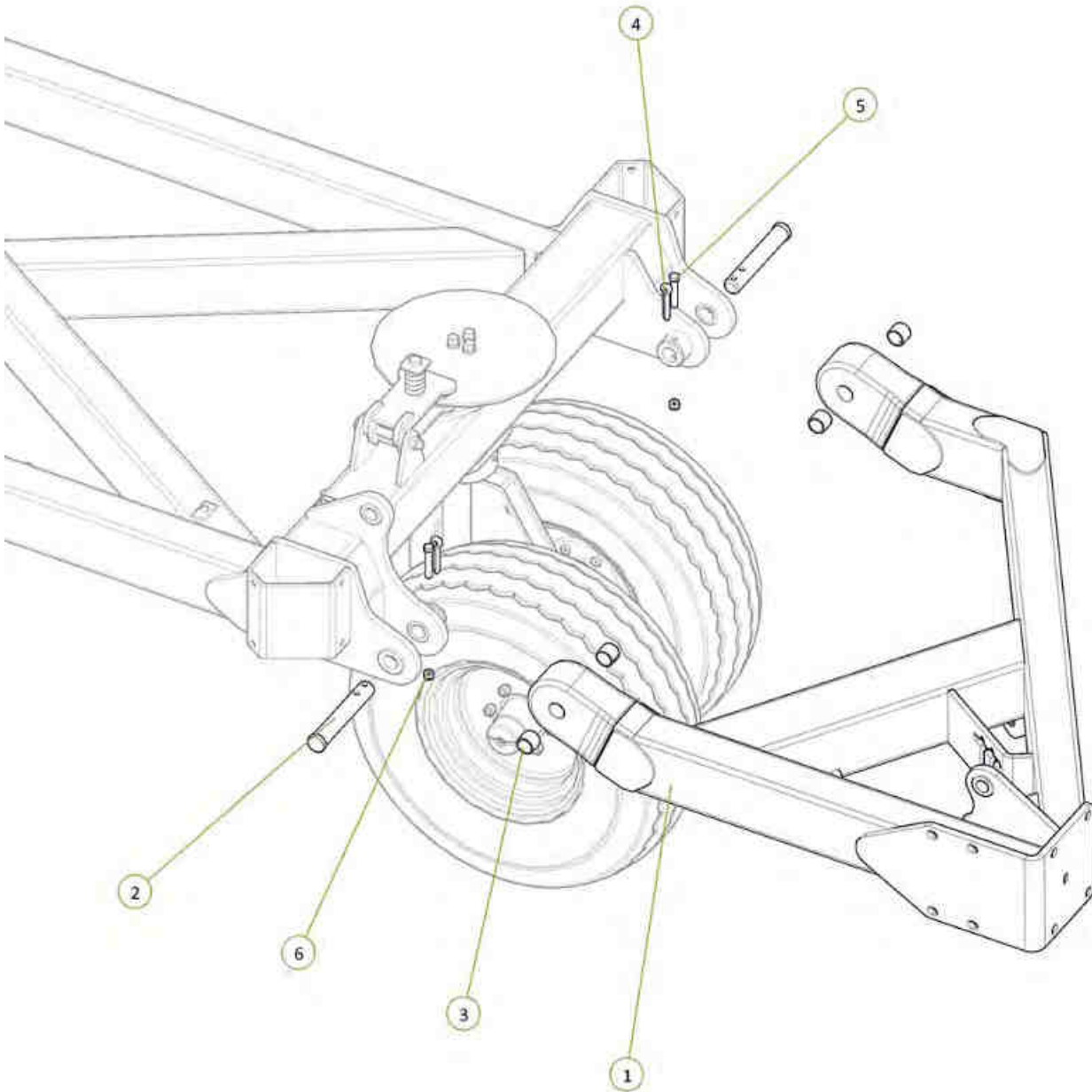
Signed _____ Date ___/___/___
 Unit Serial Number _____



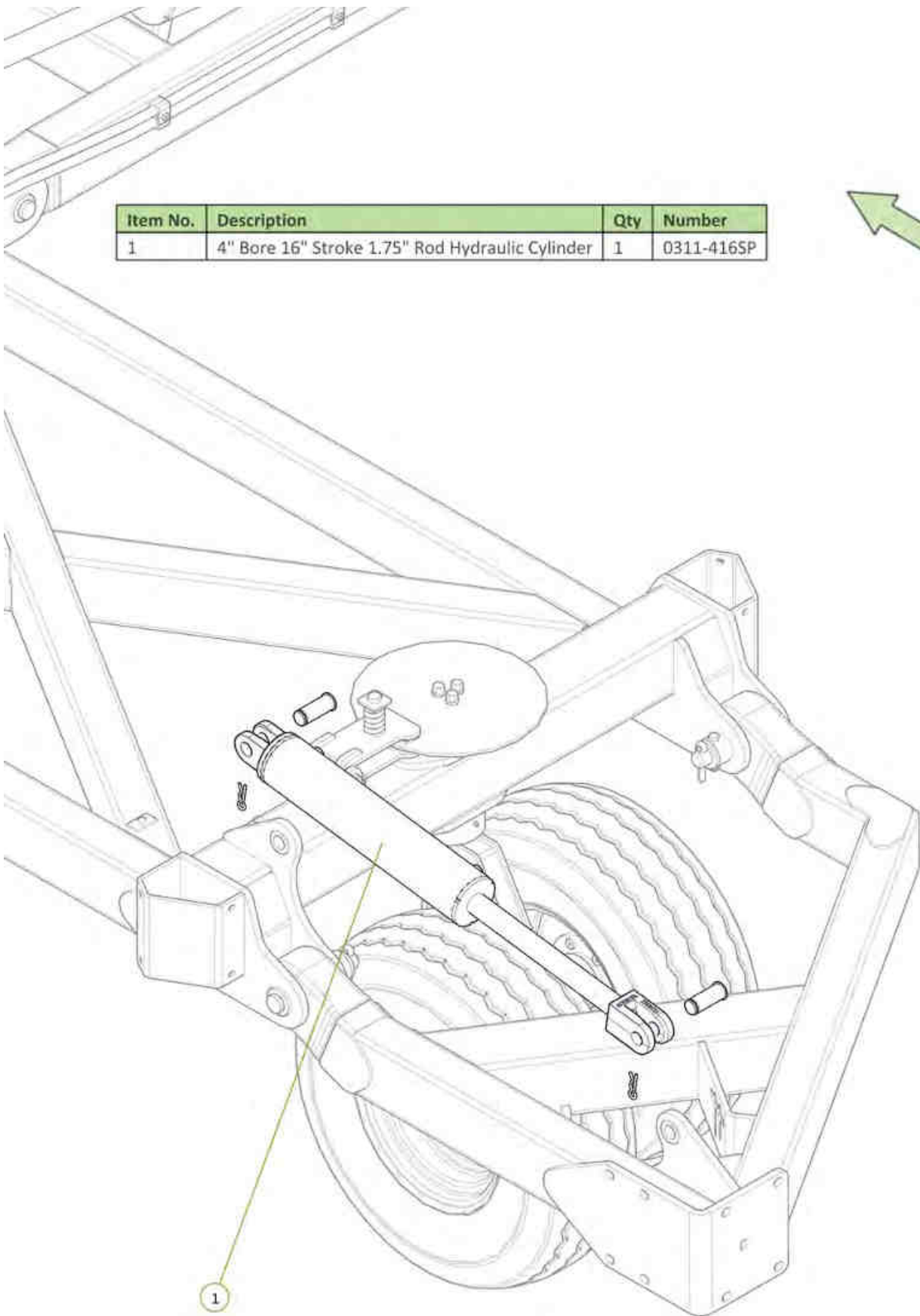
Item No.	Description	Qty	Number
1	Ubolt Module Lift Bracket	1	1510-41
2	U-Bolt M16 x 140 Deep x 154 Wide	2	0271-16140154
3	Nyloc Nut M16	4	0221-NYL16
4	Washer Flat M16	4	0231-F16



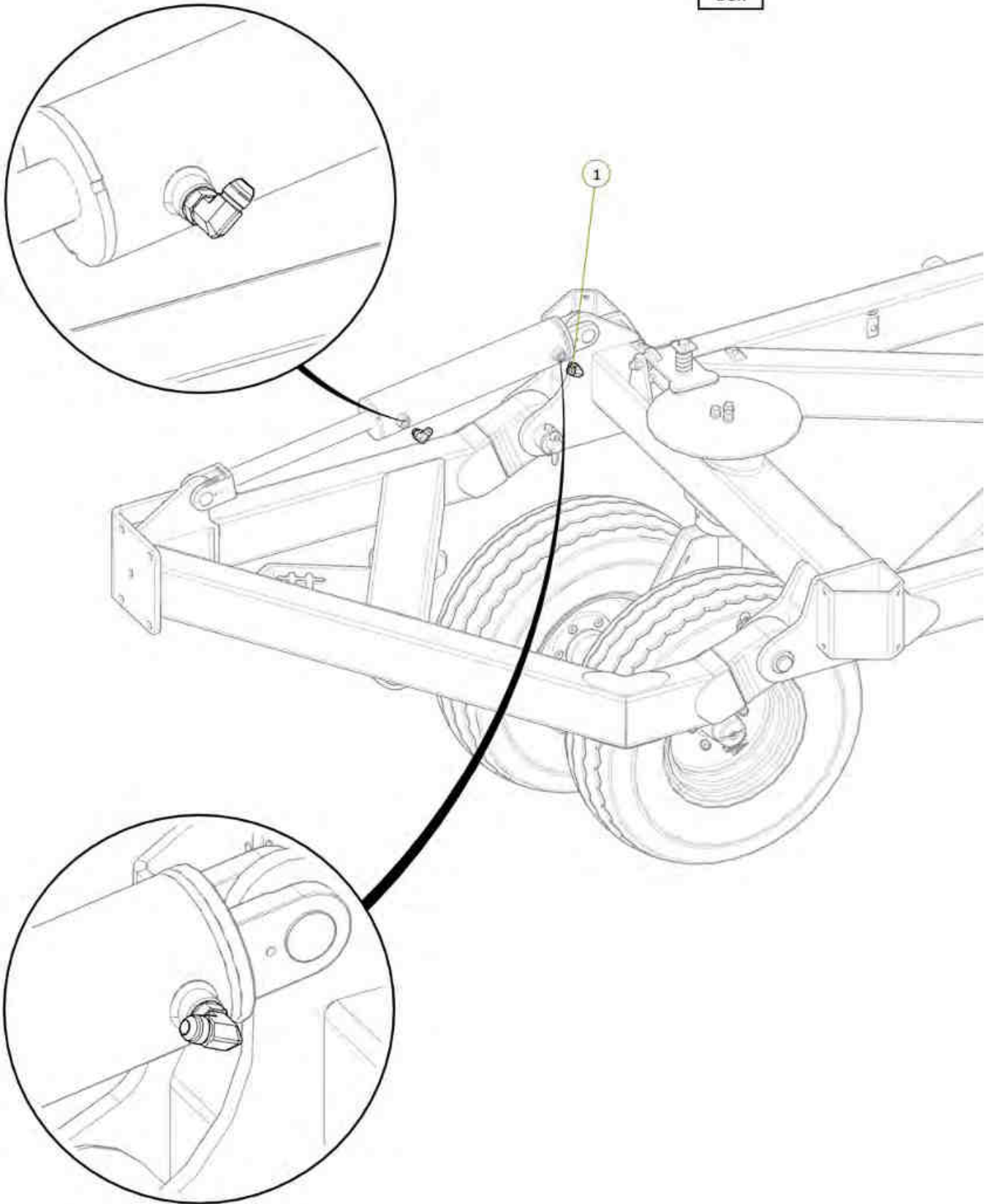
Item No.	Description	Qty	Number
1	9m Gen 2 Rear Tail	1	1532-10
2	PCH Wing Pivot Pin	2	0801-10-08-235
3	35 ID x 30mm DU Bush	4	0113-MB 3530DU
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	M12 x 75 grade 8.8 ZP Bolt	2	0211-1275
6	Nyloc Nut M12	2	0221-NYL12



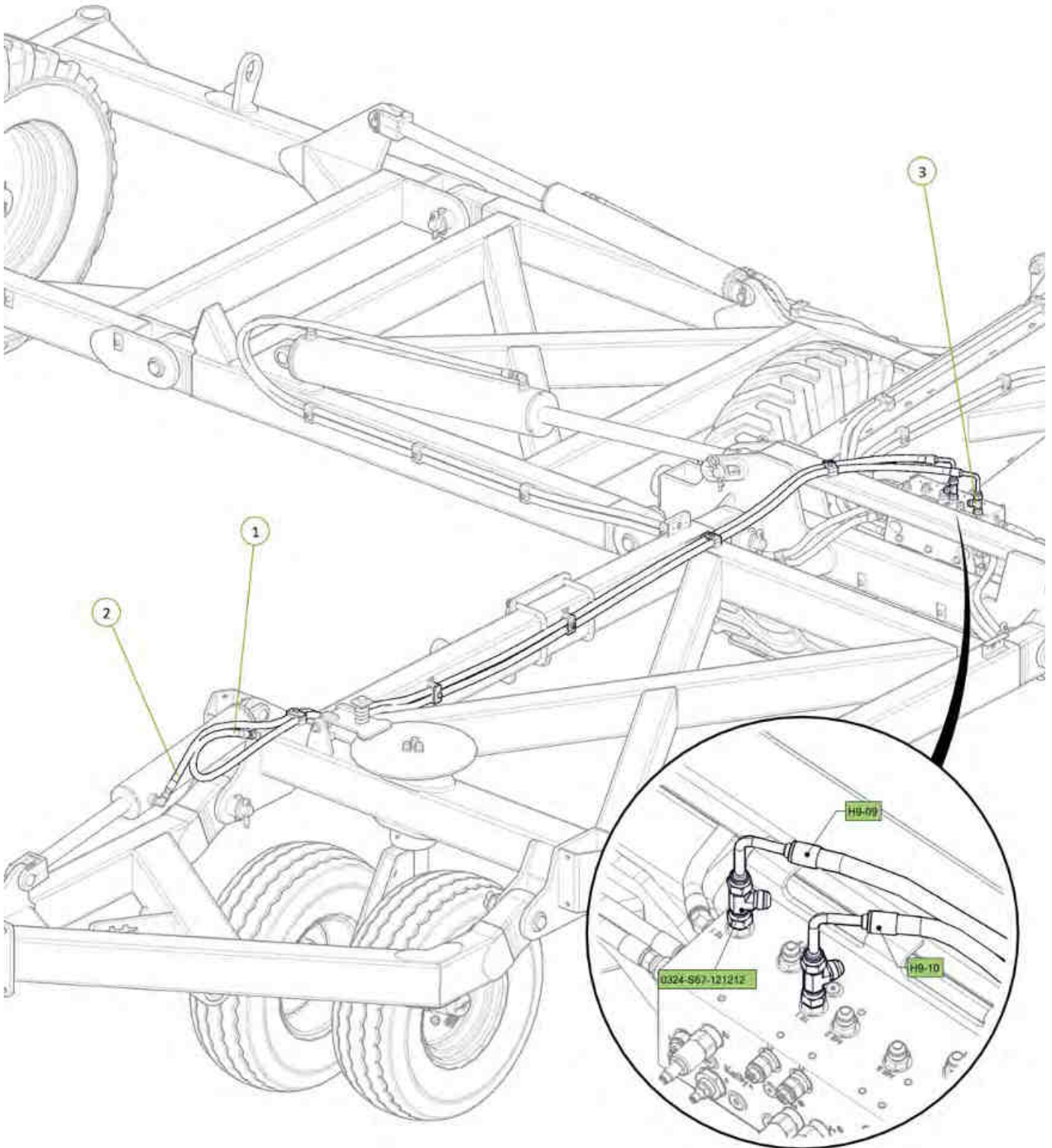
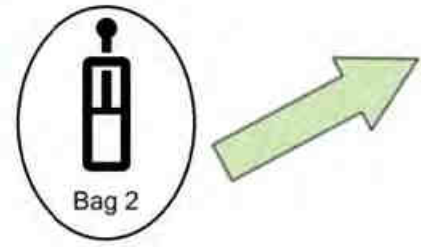
Item No.	Description	Qty	Number
1	4" Bore 16" Stroke 1.75" Rod Hydraulic Cylinder	1	0311-416SP



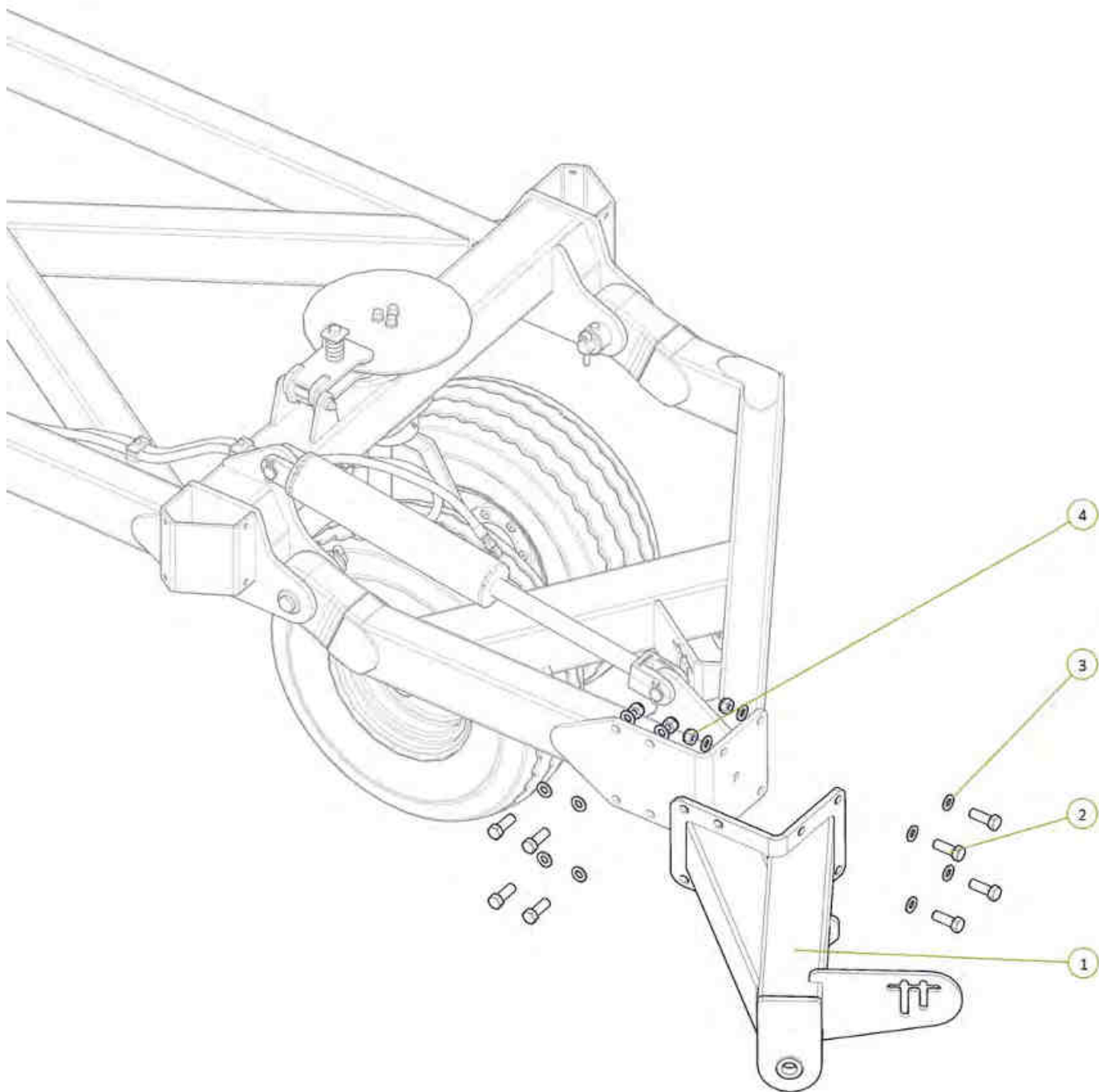
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Eibow	2	0323-S91-1212



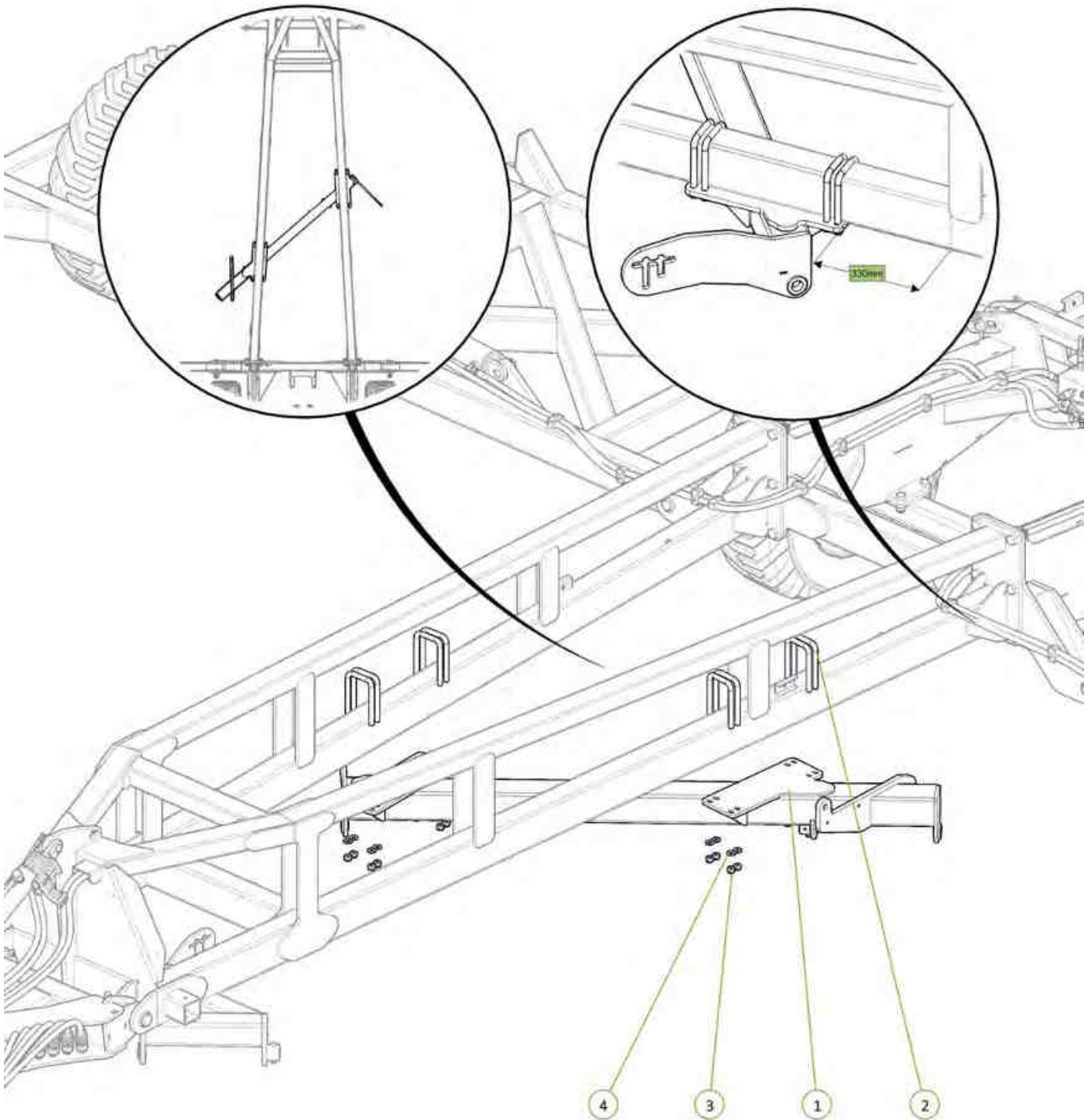
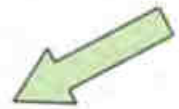
Item No.	Description	Qty	Number
1	TE1 Port to Tail Lift Cylinder Extend Port	1	H9-09
2	TR1 Port to Tail Lift Cylinder Retract Port	1	H9-10
3	3/4" JIC Male 3/4" JIC Female 3/4" JIC Male Tee	2	0324-S67-121212

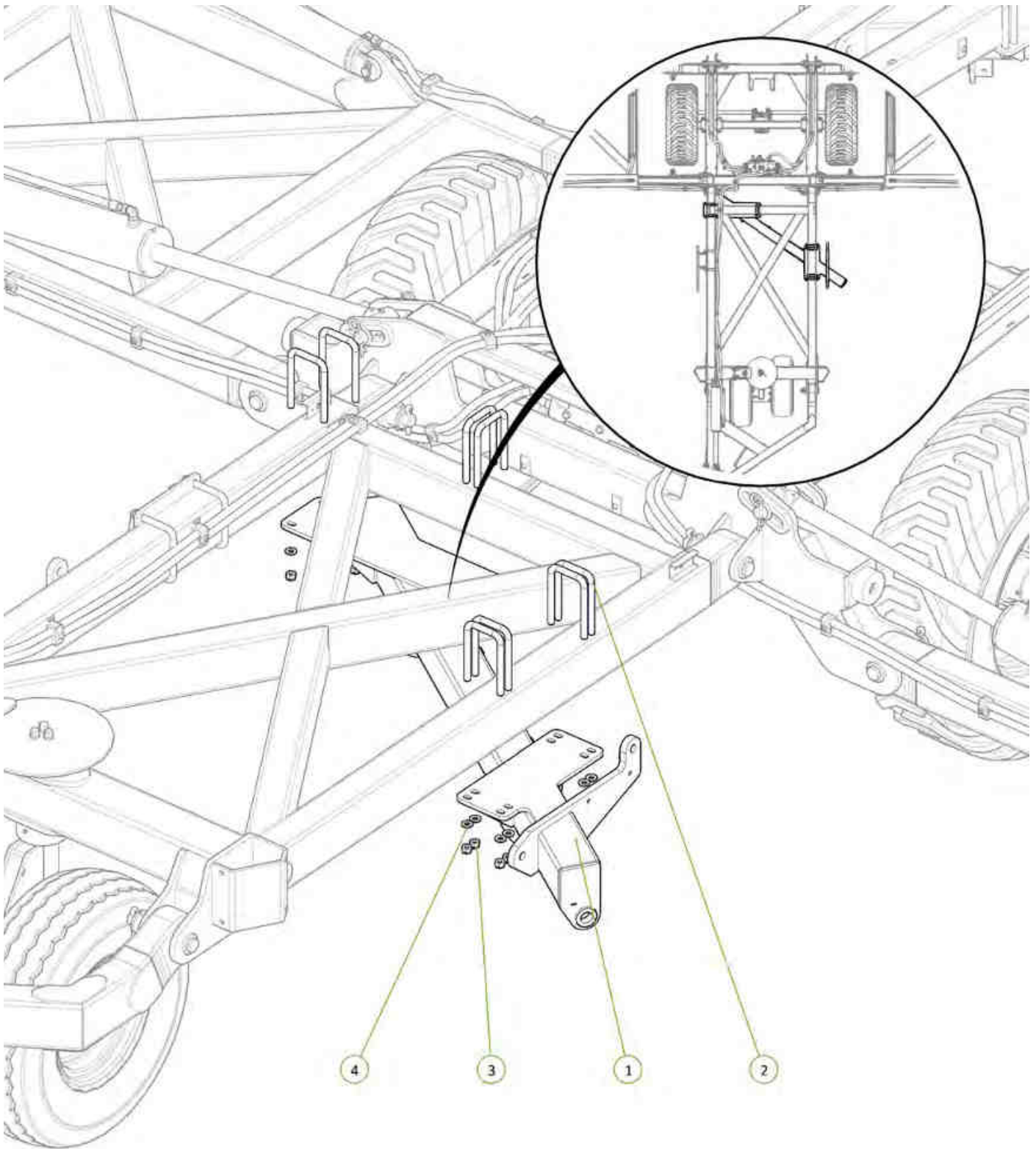


Item No.	Description	Qty	Number
1	9m Gen 2 Tail Extension	1	1532-10SE
2	M20 x 60 grade 8.8 ZP Bolt	8	0211-2060
3	Washer Flat M20	16	0231-F20
4	Nyloc Nut M20	8	0221-NYL20

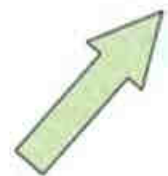


Item No.	Description	Qty	Number
1	9m Gen 2 Front Module	1	1532-28-30
2	U-Bolt M16 x 185 Deep x 104 Wide	8	0271-16185104
3	Nyloc Nut M16	16	0221-NYL16
4	Washer Flat M16	16	0231-F16

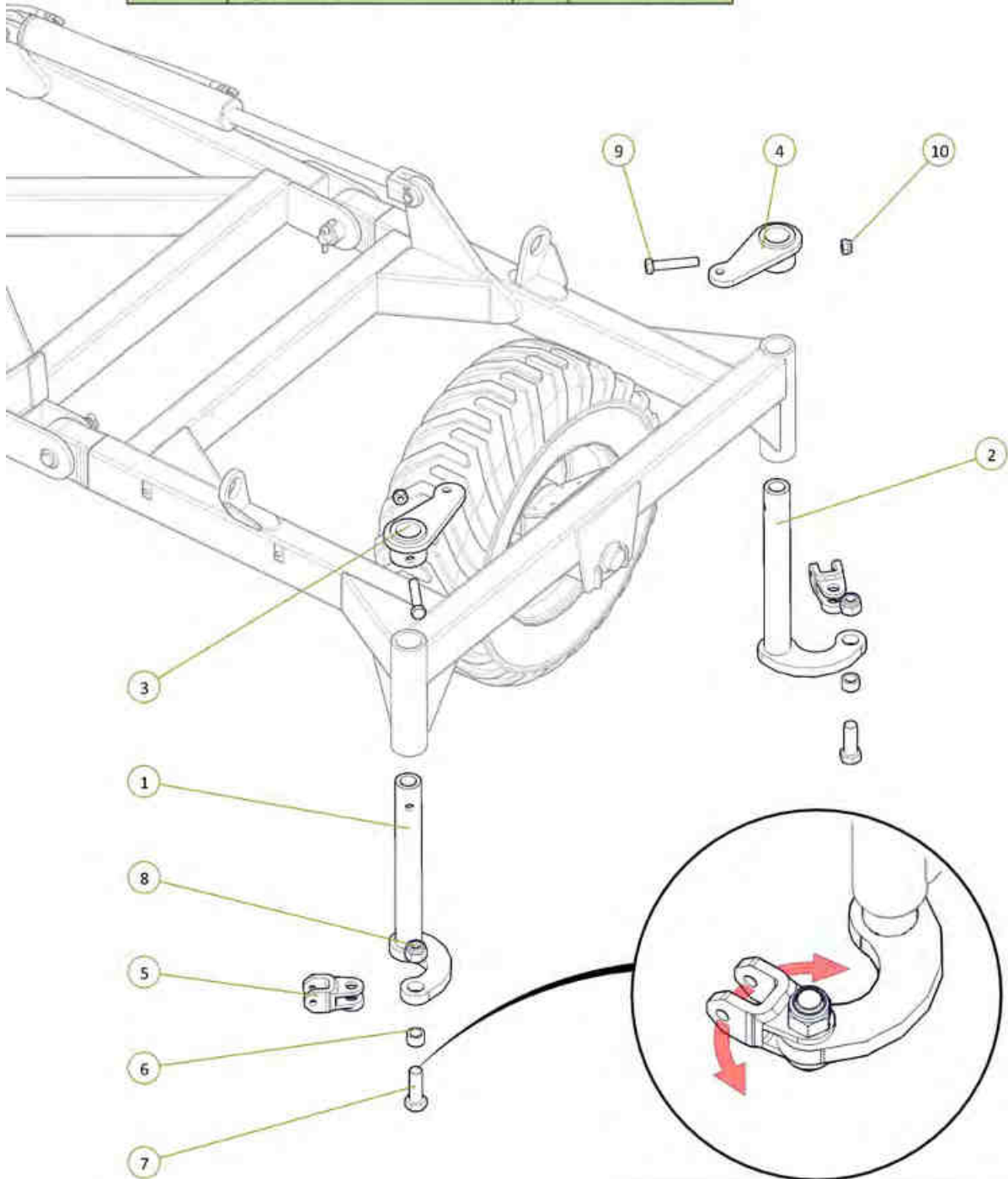
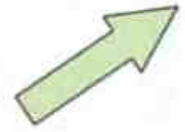




Item No.	Description	Qty	Number
1	9m Rear Module	1	1532-29-30
2	U-Bolt M16 x 185 Deep x 104 Wide	8	0271-16185104
3	Nyloc Nut M16	16	0221-NYL16
4	Washer Flat M16	16	0231-F16

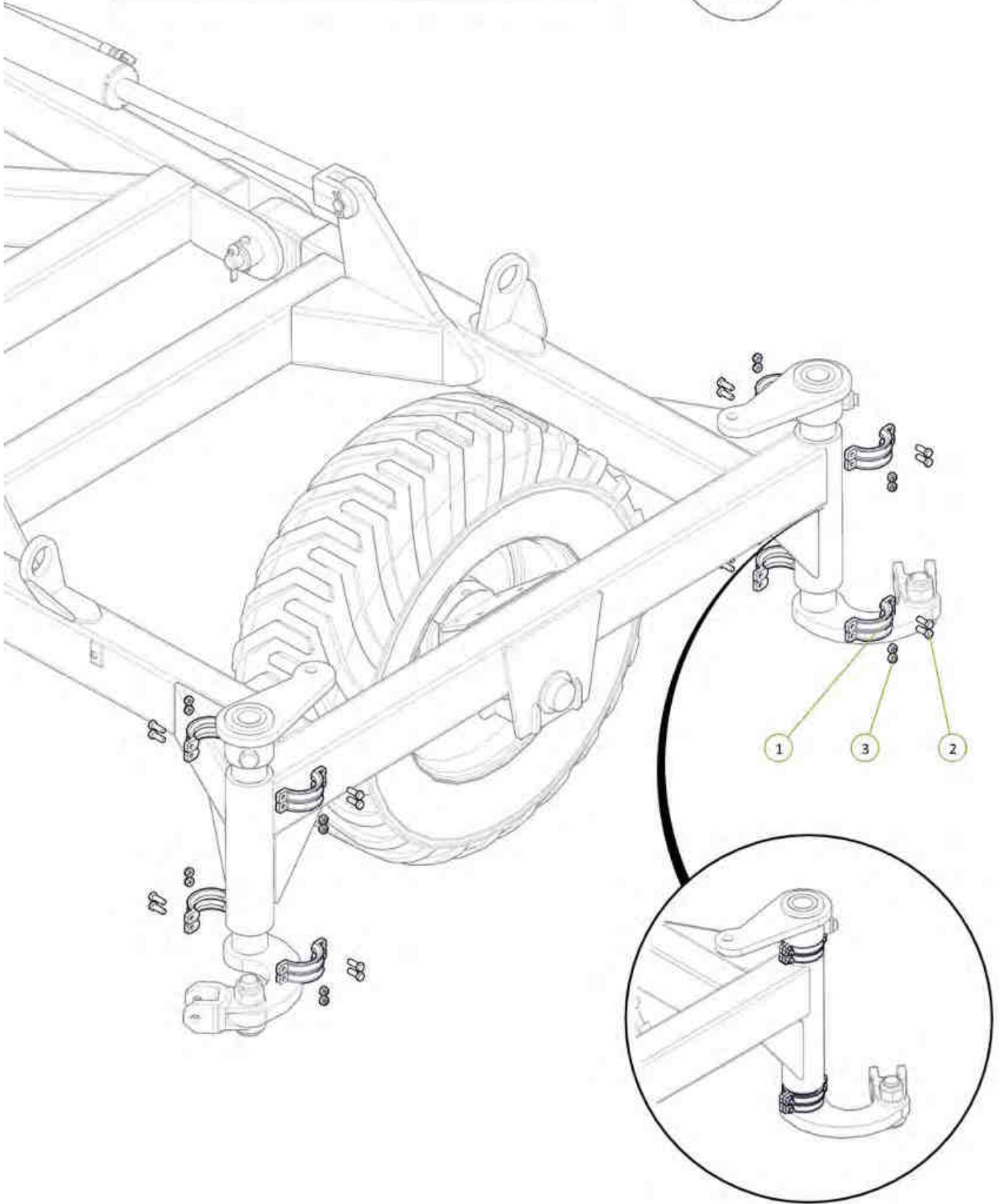
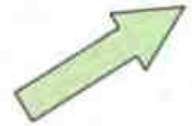


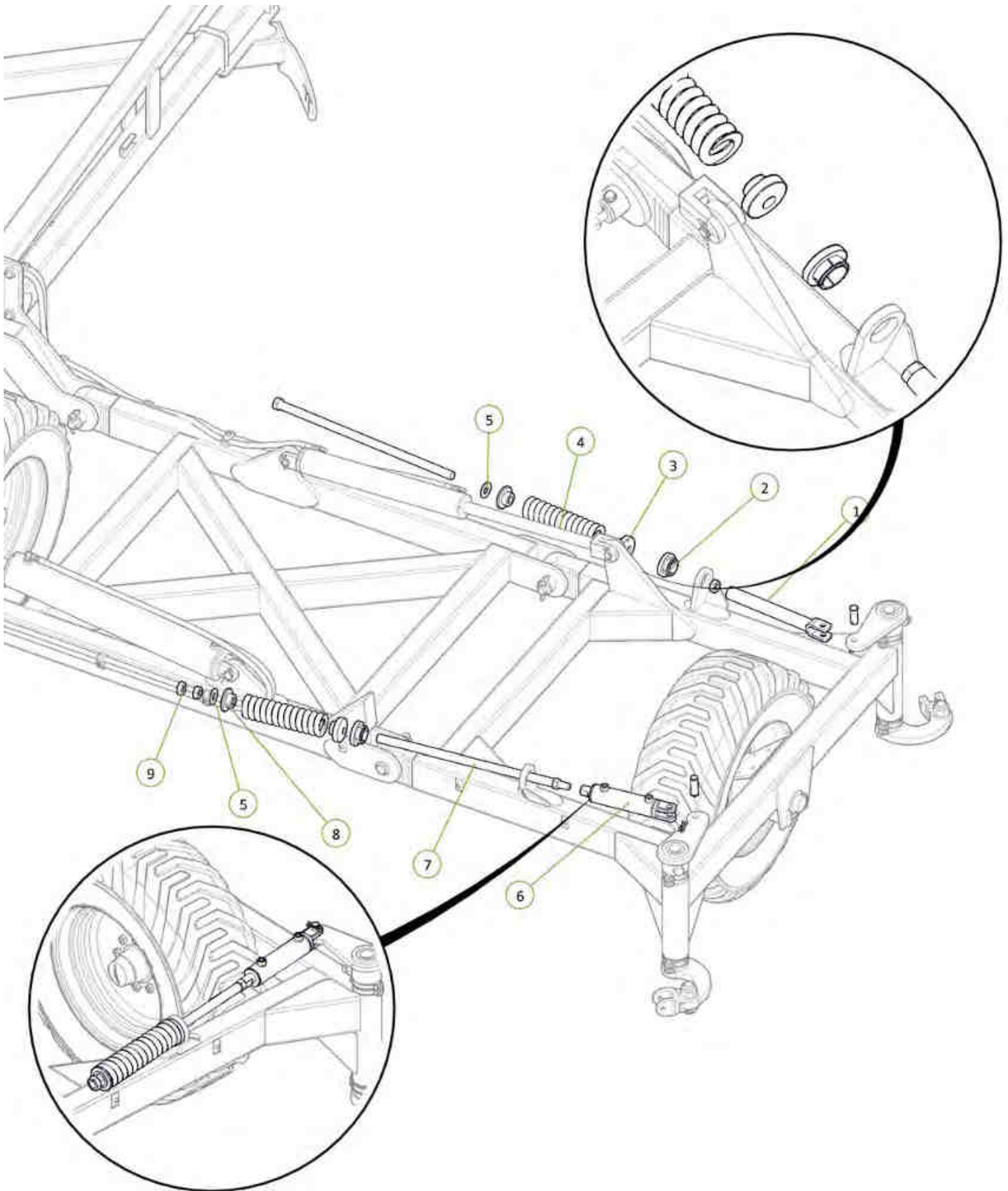
Item No.	Description	Qty	Number
1	LH Dropleg No Clevis	1	0810-24F
2	RH Dropleg No Clevis	1	0810-25F
3	LH Chain Adjusting Lug	1	0810-26
4	RH Chain Adjusting Lug	1	0810-27
5	Forged Clevis 21mm Bolt Hole	2	0801-FC21
6	Stainless Steel Wear Bush	2	1501-365033-SS
7	M36 x 105 grade 8.8 zp Bolt	2	0211-36105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



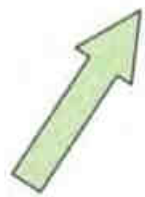
Ensure ALL clevis's can pivot after installation

Item No.	Description	Qty	Number
1	Cast 25mm Spacing	16	0801-CS25
2	M10 x 30 grade 8.8 ZP Bolt	16	0211-1030
3	Nyloc Nut M10	16	0221-NYL10

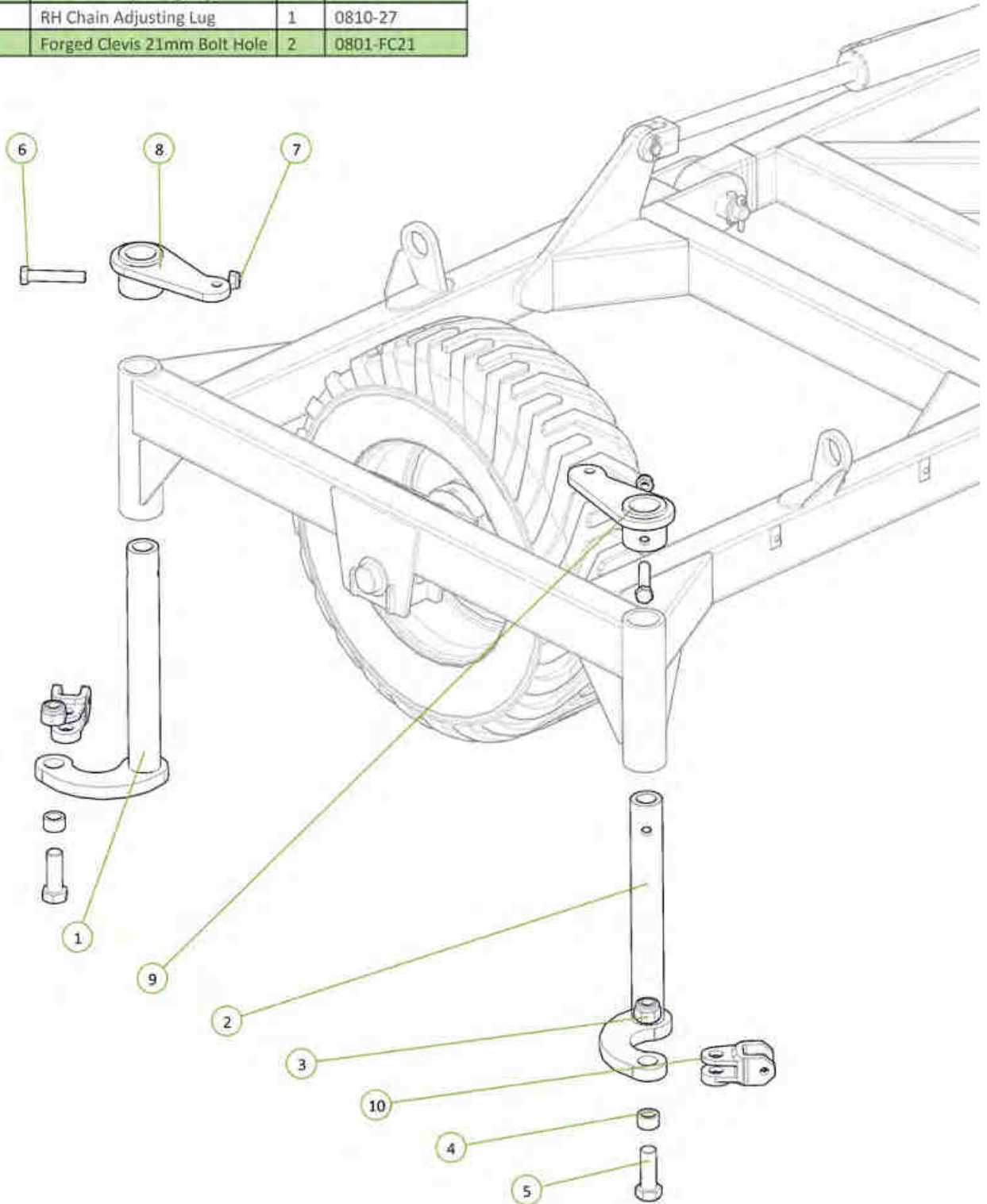




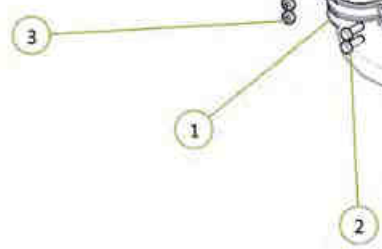
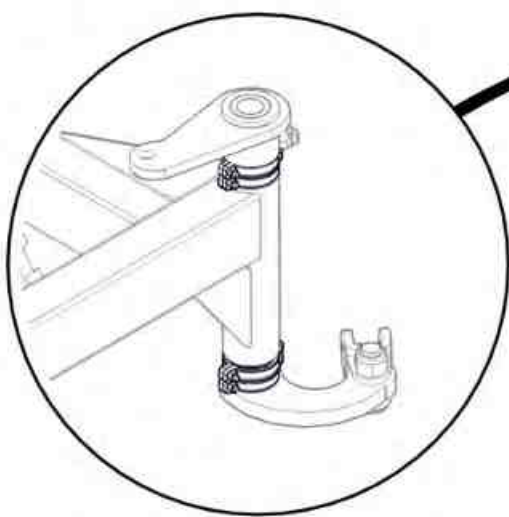
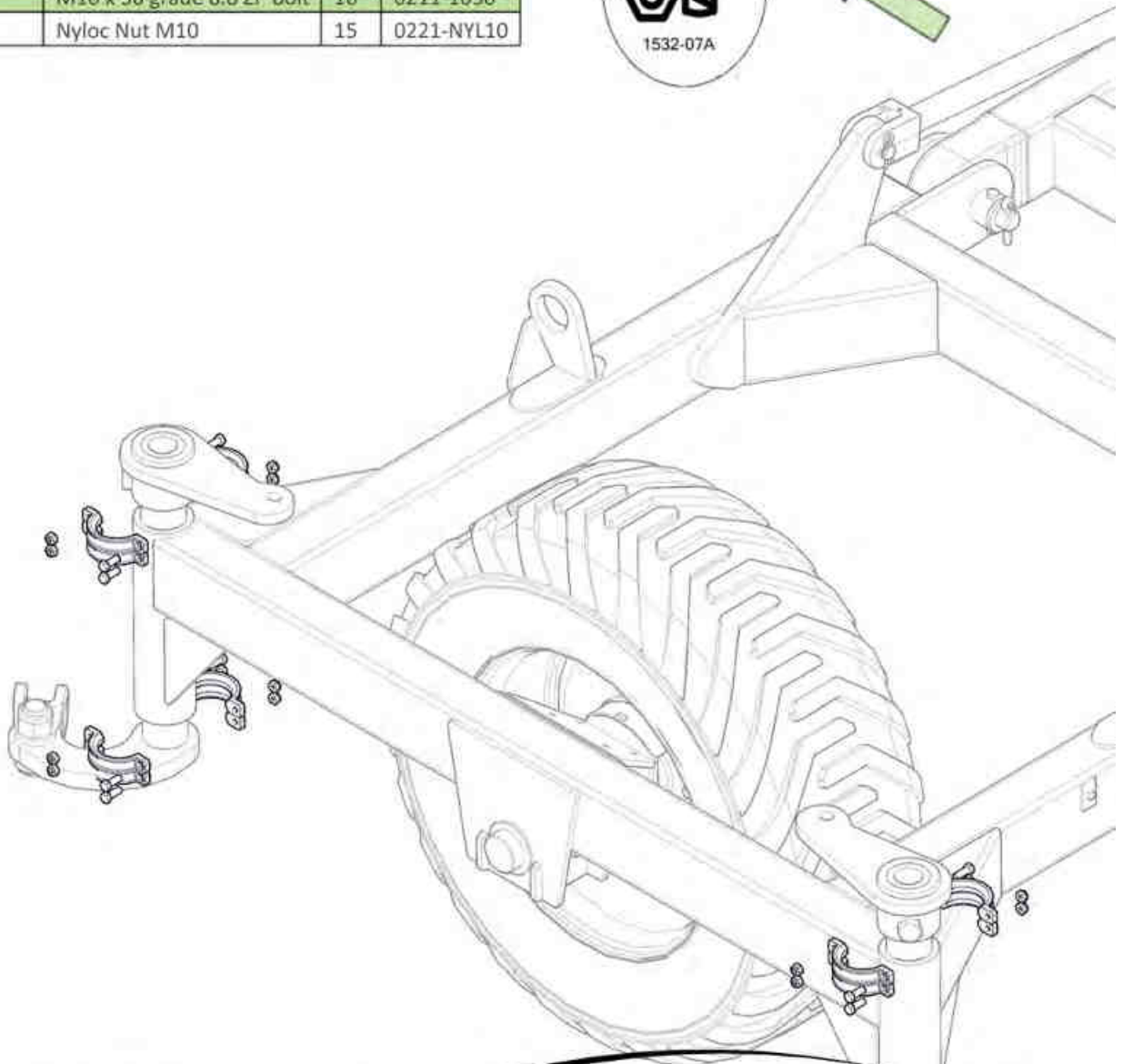
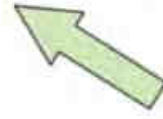
Item No.	Description	Qty	Number
1	Chain Tension Adjustor	1	0802-PCHTA
2	Female Spring Locator	2	0801-KE0805-4
3	Tensioner Cup - Male	2	0801-KE0805-3
4	20mm Compression Spring	2	0801-XX9261S
5	Washer High Tensile 1 1/4"	2	0232-HT11-4
6	2.5" Bore x 6" Stroke x 1.5" Rod Side Port Wing Tensioner	1	0311-256SP-WT
7	ACME Threaded Rod	1	0810-06
8	Steel Spring Retaining Bush	1	0801-PCHTA-SB
9	ACME Lock Nut 1 1/4 - SNA - 2G	2	0801-PCHTA-N6



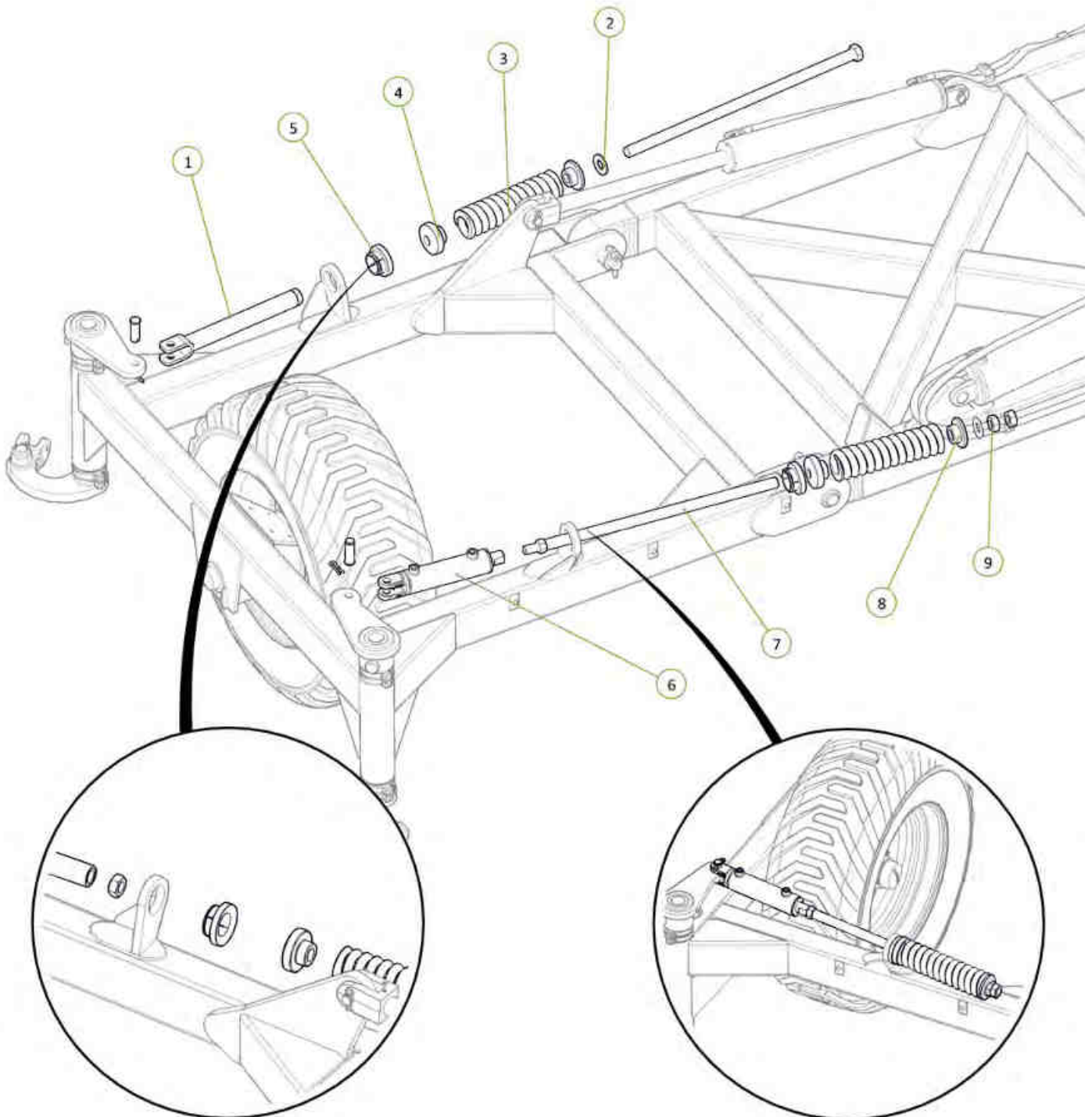
Item No.	Description	Qty	Number
1	LH Dropleg No Clevis	1	0810-24F
2	RH Dropleg No Clevis	1	0810-25F
3	Nyloc Nut M36	2	0221-NYL36
4	Stainless Steel Wear Bush	2	1501-365033-SS
5	M36 x 105 grade 8.8 zp Bolt	2	0211-36105
6	M24 x 140 grade 8.8 zp Bolt	2	0211-24140
7	Nyloc Nut M24	2	0221-NYL24
8	LH Chain Adjusting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



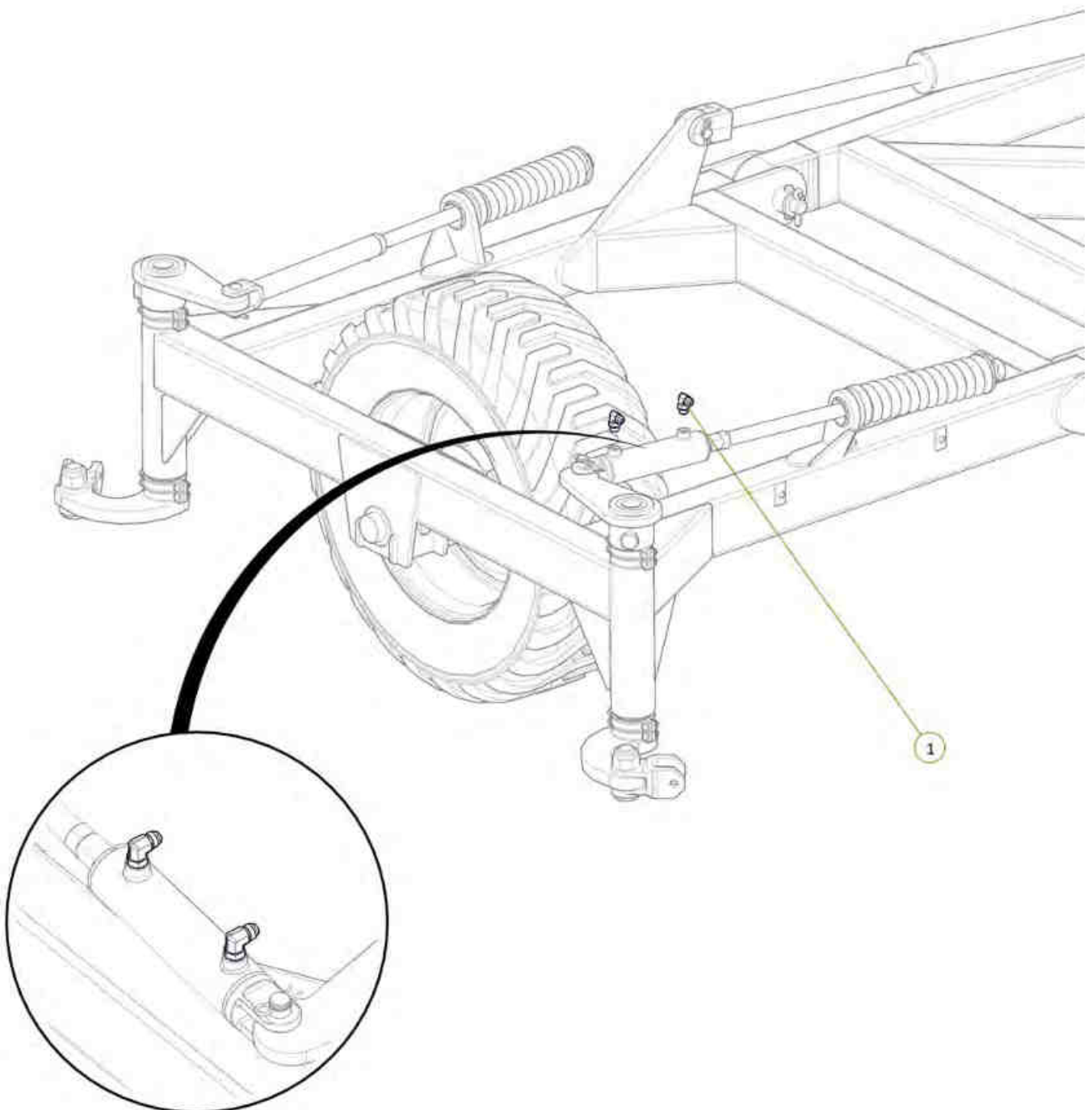
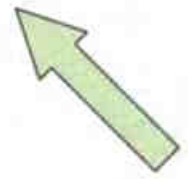
Item No.	Description	Qty	Number
1	Cast 25mm Spacing	16	0801-CS25
2	M10 x 30 grade 8.8 ZP Bolt	16	0211-1030
3	Nyloc Nut M10	15	0221-NYL10



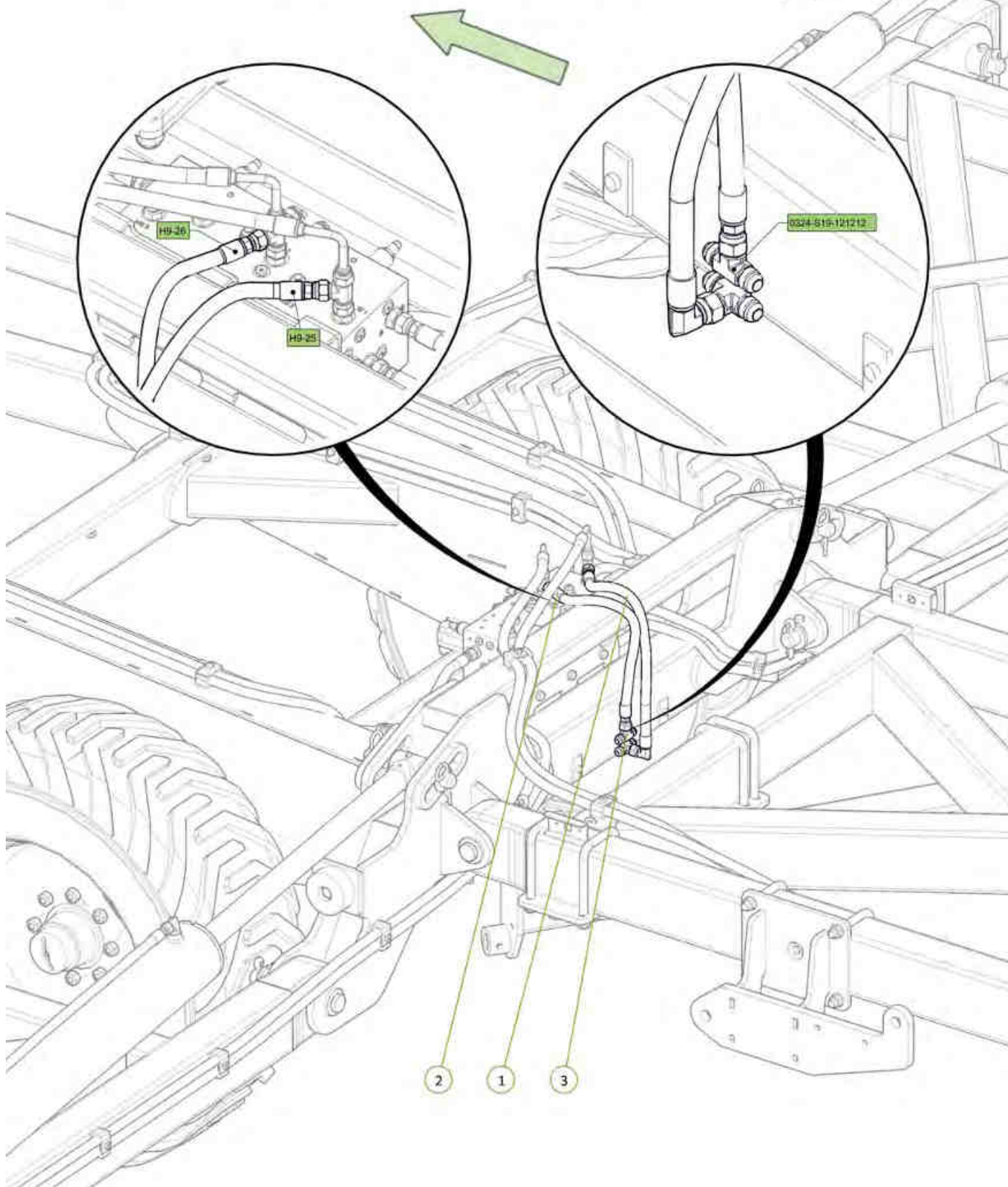
Item No.	Description	Qty	Number
1	Chain Tension Adjuster	2	0802-PCHTA
2	Washer High Tensile 1 1/4"	2	D232-HT11-4
3	20mm Compression Spring	2	0801-XK9261S
4	Tensioner Cup - Male	2	0801-KE0805-3
5	Female Spring Locator	2	0801-KE0805-4
6	2.5" Bore x 6" Stroke x 1.5" Rod Side Port Wing Tensioner	1	0311-256SP-WT
7	ACME Threaded Rod	1	0810-06
8	Steel Spring Retaining Bush	1	0801-PCHTA-SB
9	ACME Lock Nut 1 1/4 - SNA - 2G	2	0801-PCHTA-N6



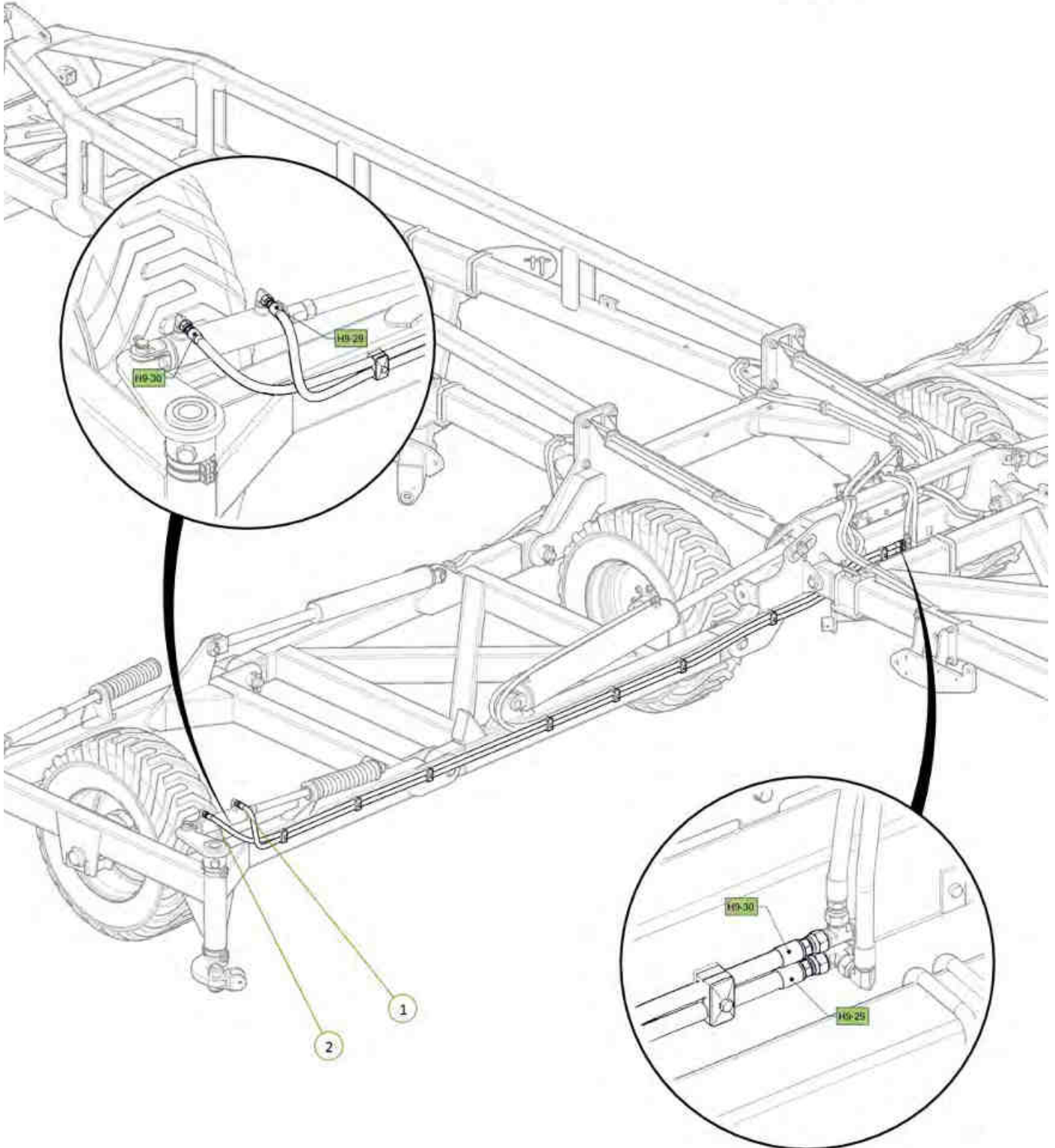
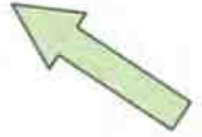
Item No.	Description	Qty	Number
1.	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212



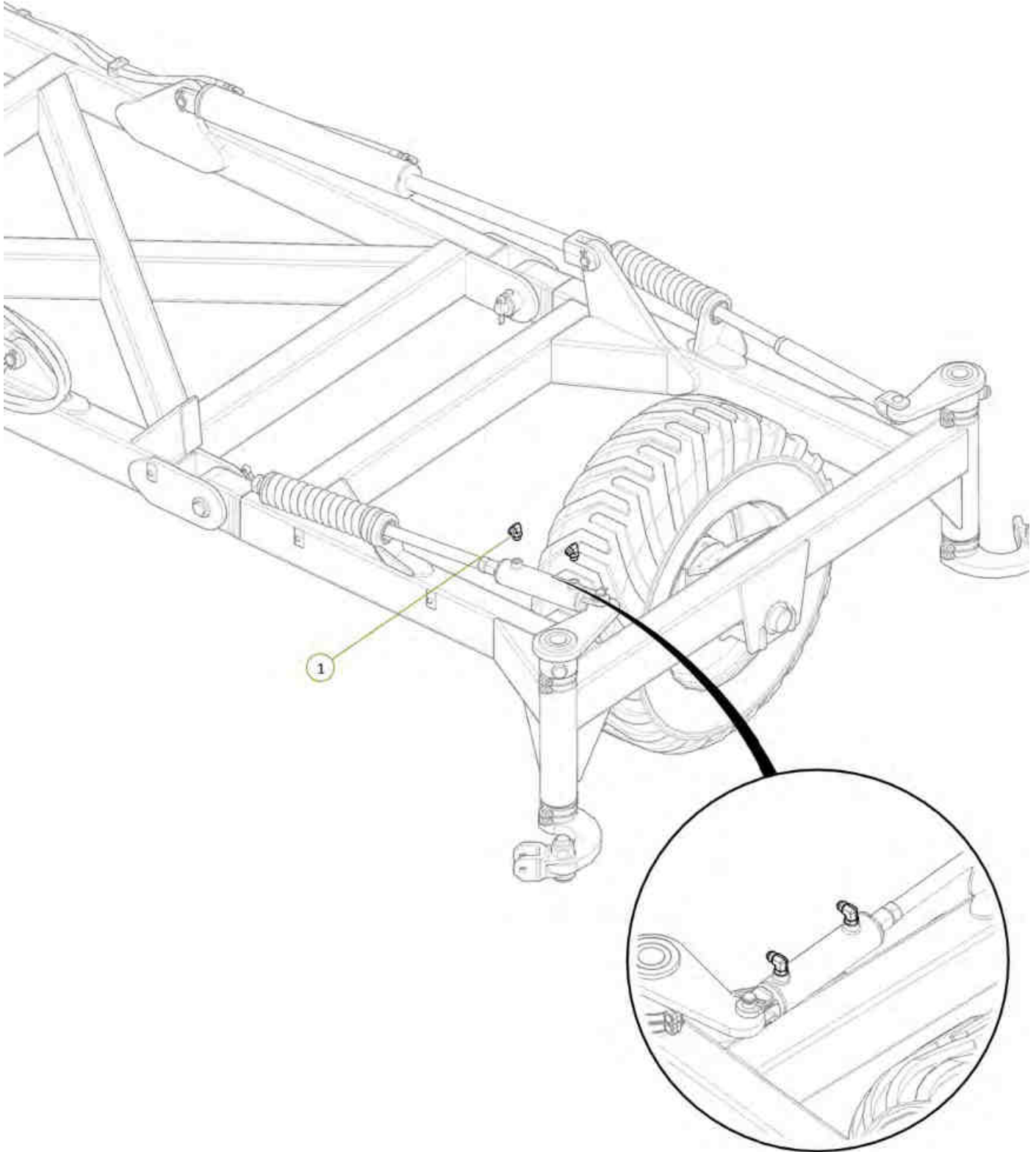
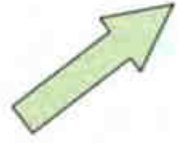
Item No.	Description	Qty	Number
1	TE1 Bridge to Tee Chain Tension Retract	1	H9-25
2	TR1 Bridge To Tee Chain Tension Extend	1	H9-26
3	3/4" JIC Male Tee 3/4" JIC Male Tee 3/4" JIC Male Tee	2	0324-S19-121212



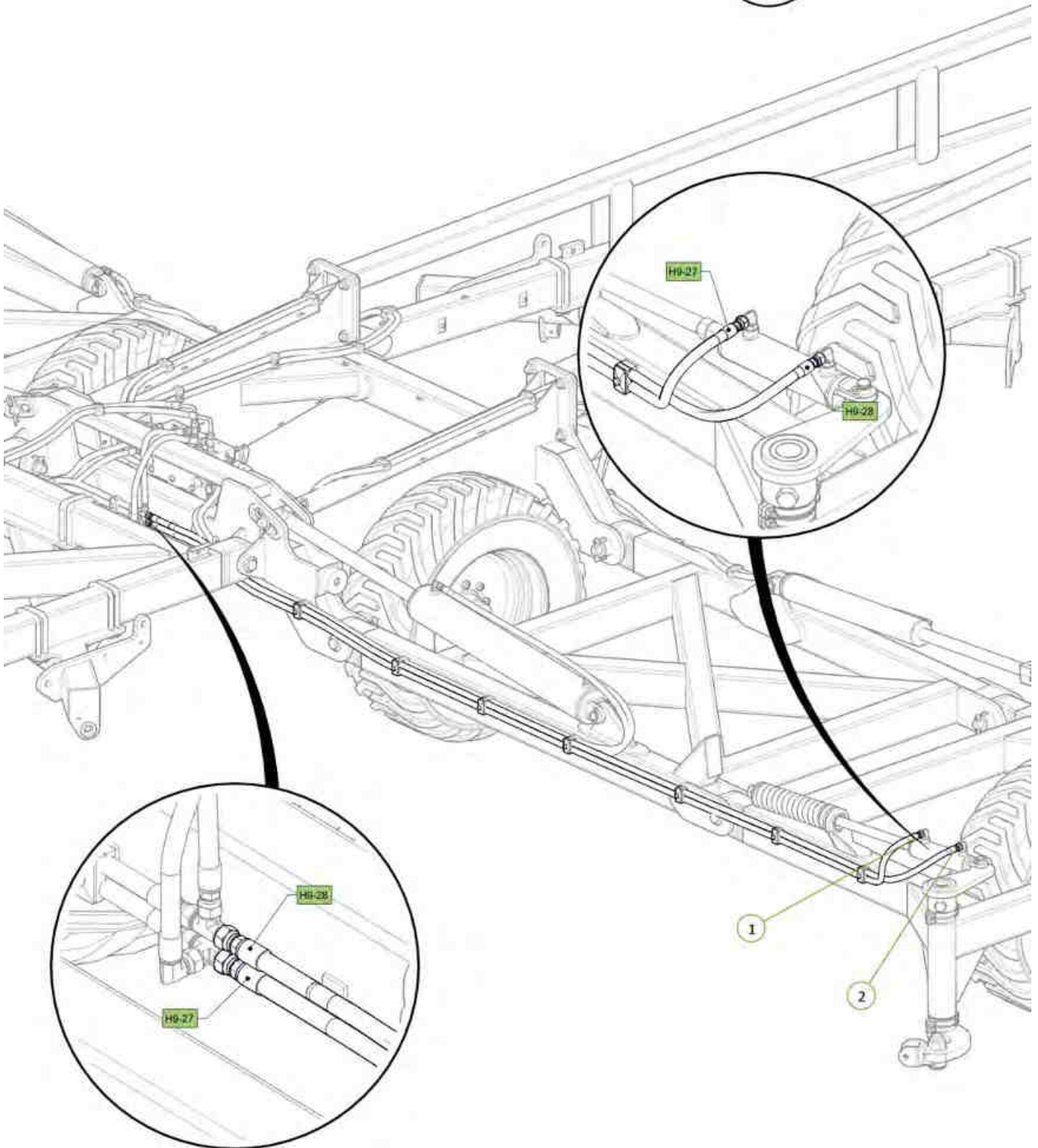
Item No.	Description	Qty	Number
1	TE1 To Left Hand Wing Tension Retract	1	H9-29
2	TR1 To Left Hand Wing Tension Extend	1	H9-30

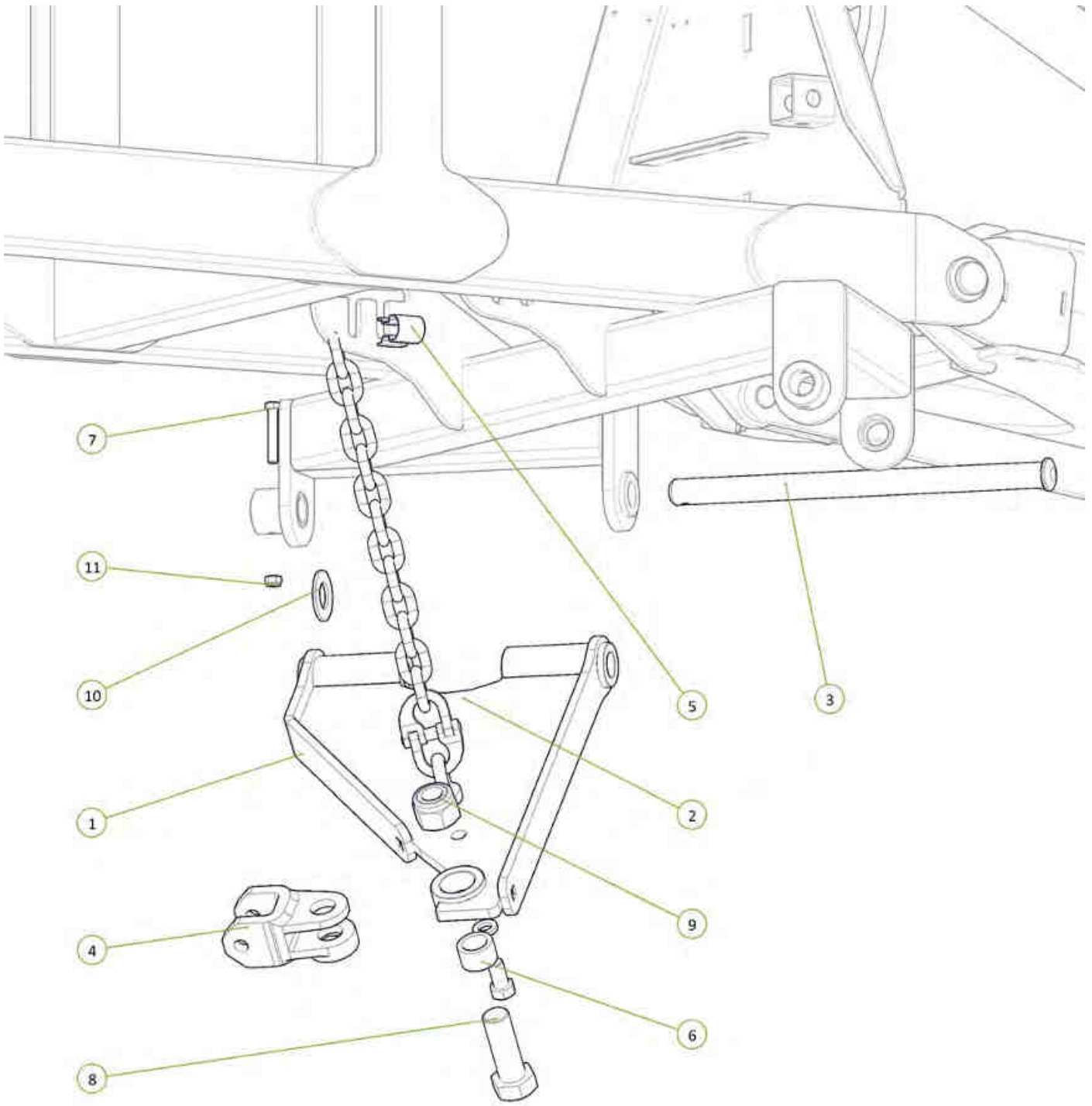


Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

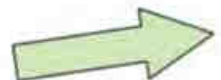


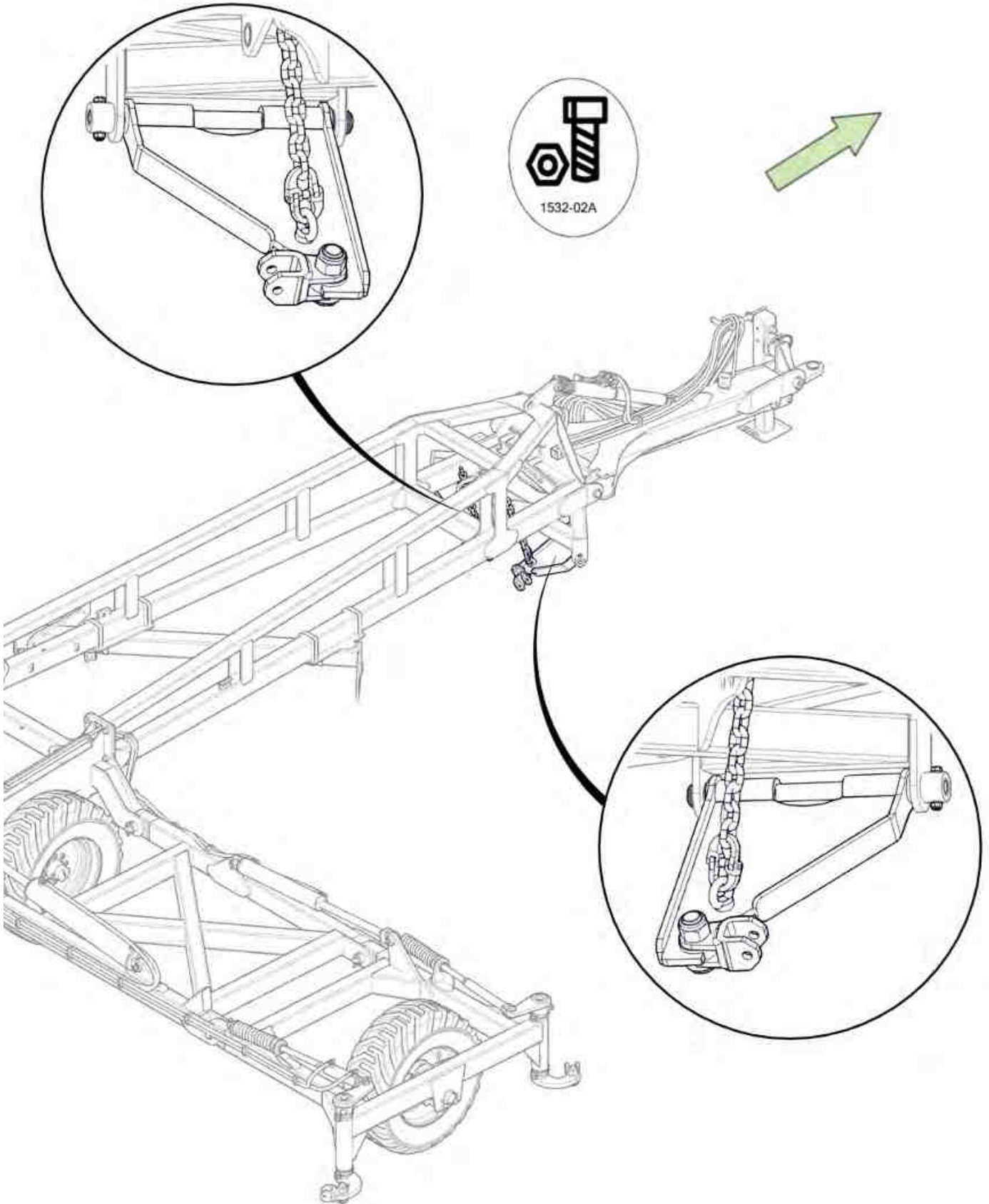
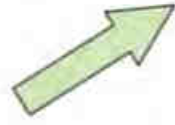
Item No.	Description	Qty	Number
1	TE1 To Right Hand Wing Tension Retract	1	H9-27
2	TR1 To Right Hand Wing Tension Extend	1	H9-28



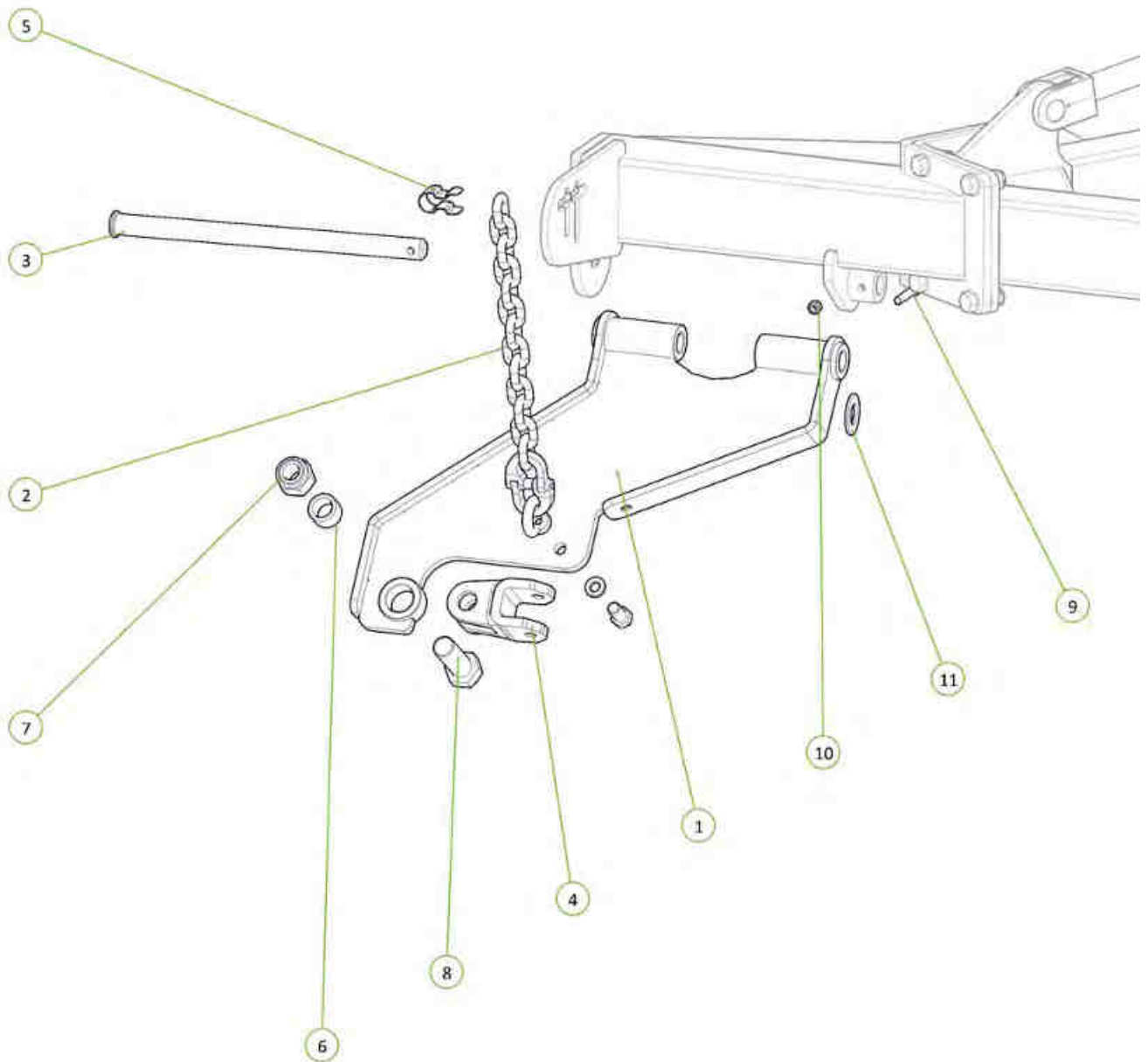
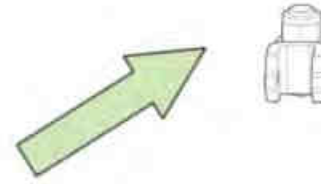
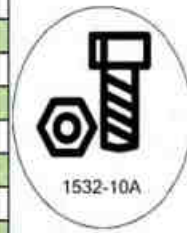


Item No.	Description	Qty	Number
1	Standard Chain Mount Plate	1	0810-20
2	Height Adjusting Chain Assembly 13 Link	1	0801-20MCA
3	Chain Mount Pivot Pin	1	0801-10-51
4	Forged Clevis 21mm Bolt Hole	1	0801-FC21
5	Height Adjustor Retaining Clip	1	0801-KE014
6	Stainless Steel Wear Bush	1	1501-365033-SS
7	M12 x 75 grade 8.8 ZP Bolt	1	0211-1275
8	M36 x 105 grade 8.8 zp Bolt	1	0211-36105
9	Nyloc Nut M36	1	0221-NYL36
10	Washer High Tensile 1 3/8"	1	0232-HT13-8
11	Nyloc Nut M12	1	0221-NYL12

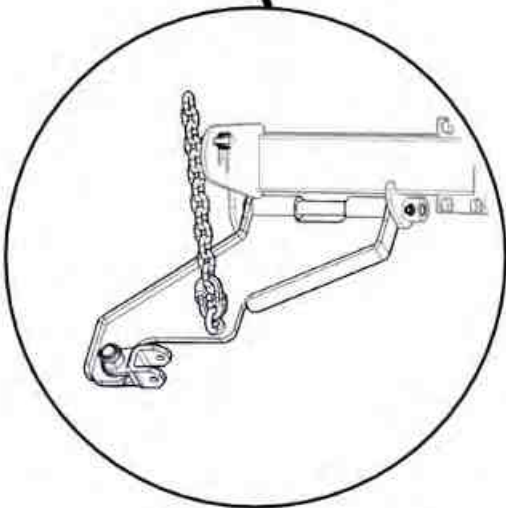
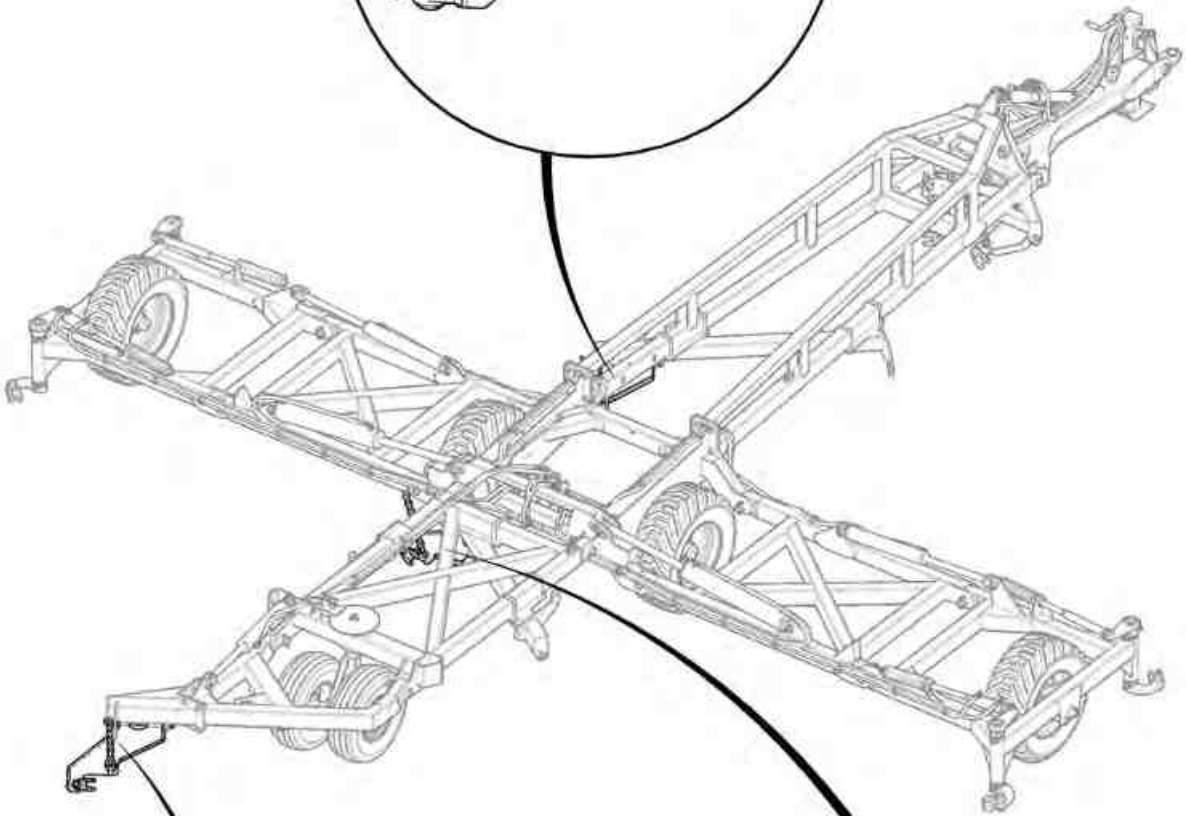
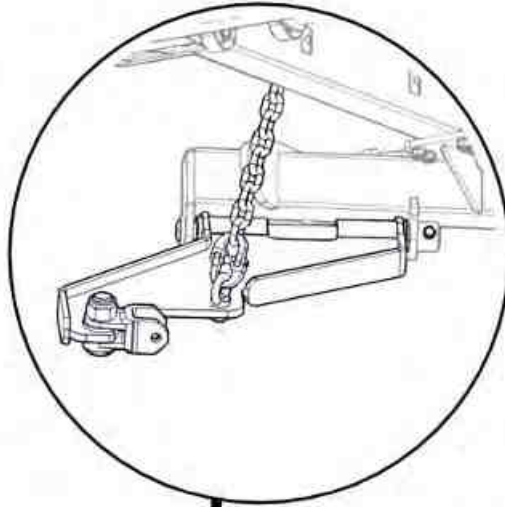




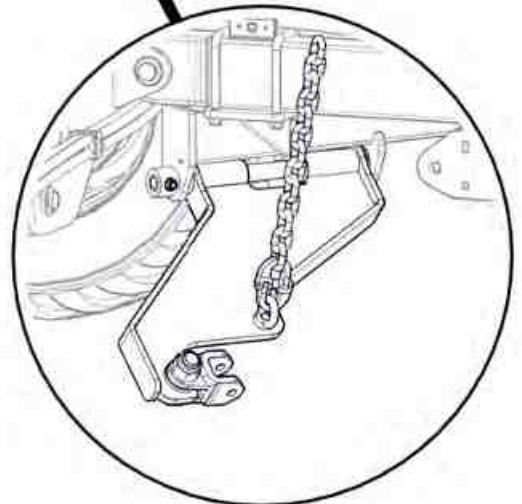
Item No.	Description	Qty	Number
1	Extended Chain Mount Plate	1	0810-21
2	Height Adjusting Chain Assembly 13 Link	1	0801-20MCA
3	Chain Mount Pivot Pin	1	0801-10-51
4	Forged Clevis 21mm Bolt Hole	1	0801-FC21
5	Height Adjustor Retaining Clip	1	0801-KE014
6	Stainless Steel Wear Bush	1	1501-365033-SS
7	Nyloc Nut M36	1	0221-NYL36
8	M36 x 105 grade 8.8 zp Bolt	1	0211-36105
9	M12 x 75 grade 8.8 ZP Bolt	1	0211-1275
10	Nyloc Nut M12	1	0221-NYL12
11	Washer High Tensile 1 3/8"	1	0232-HT13-8



1532-28-30A

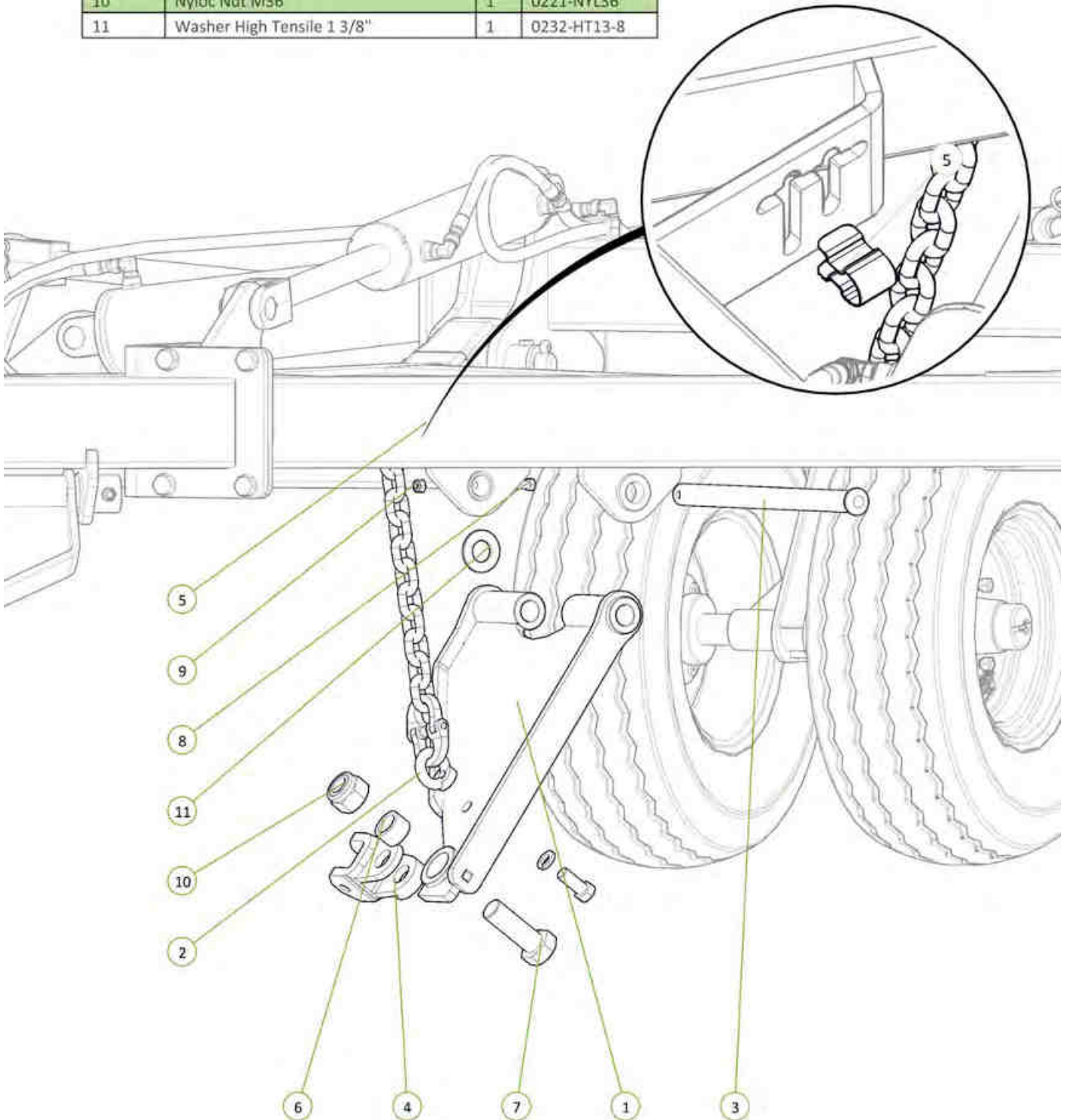


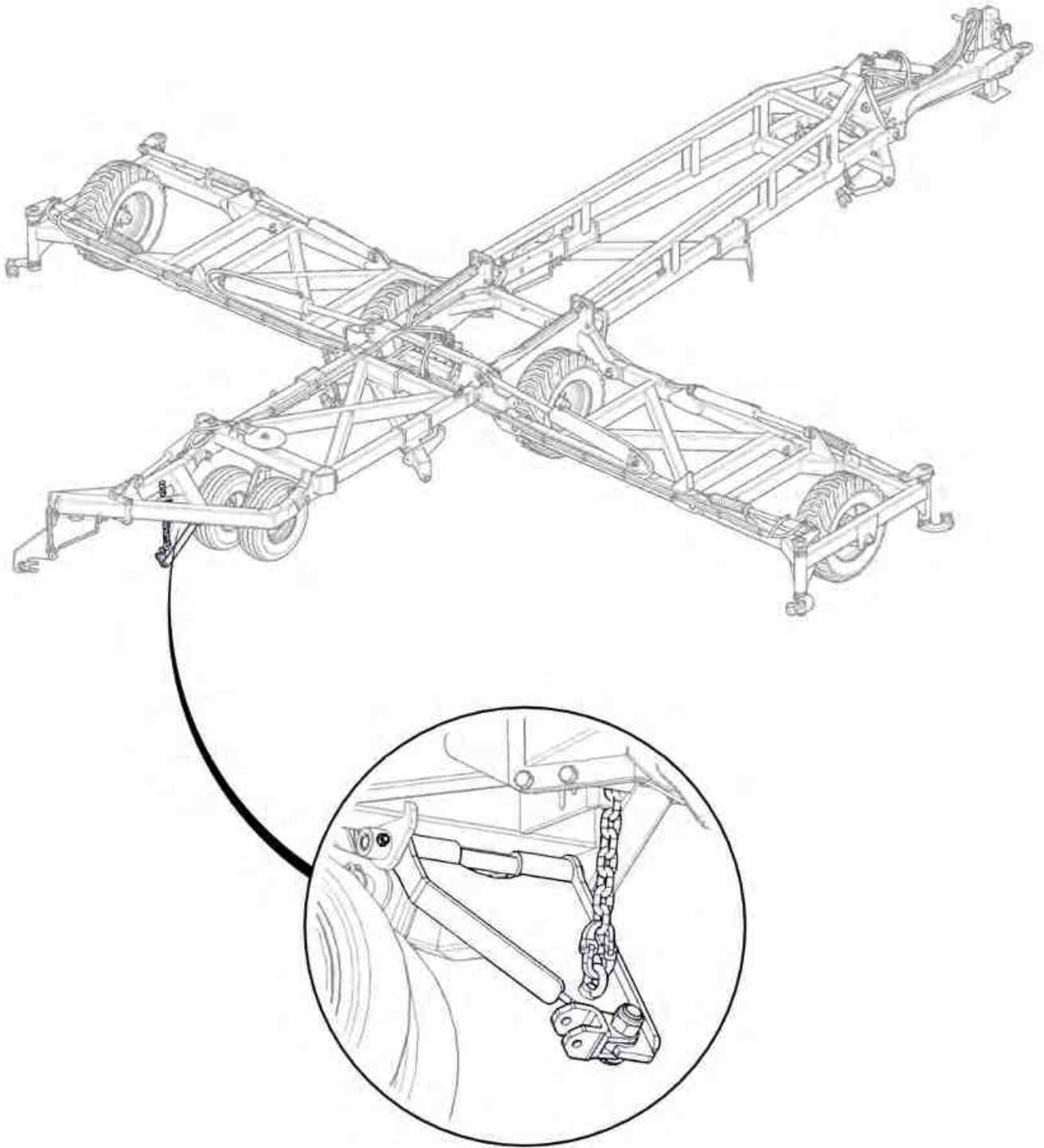
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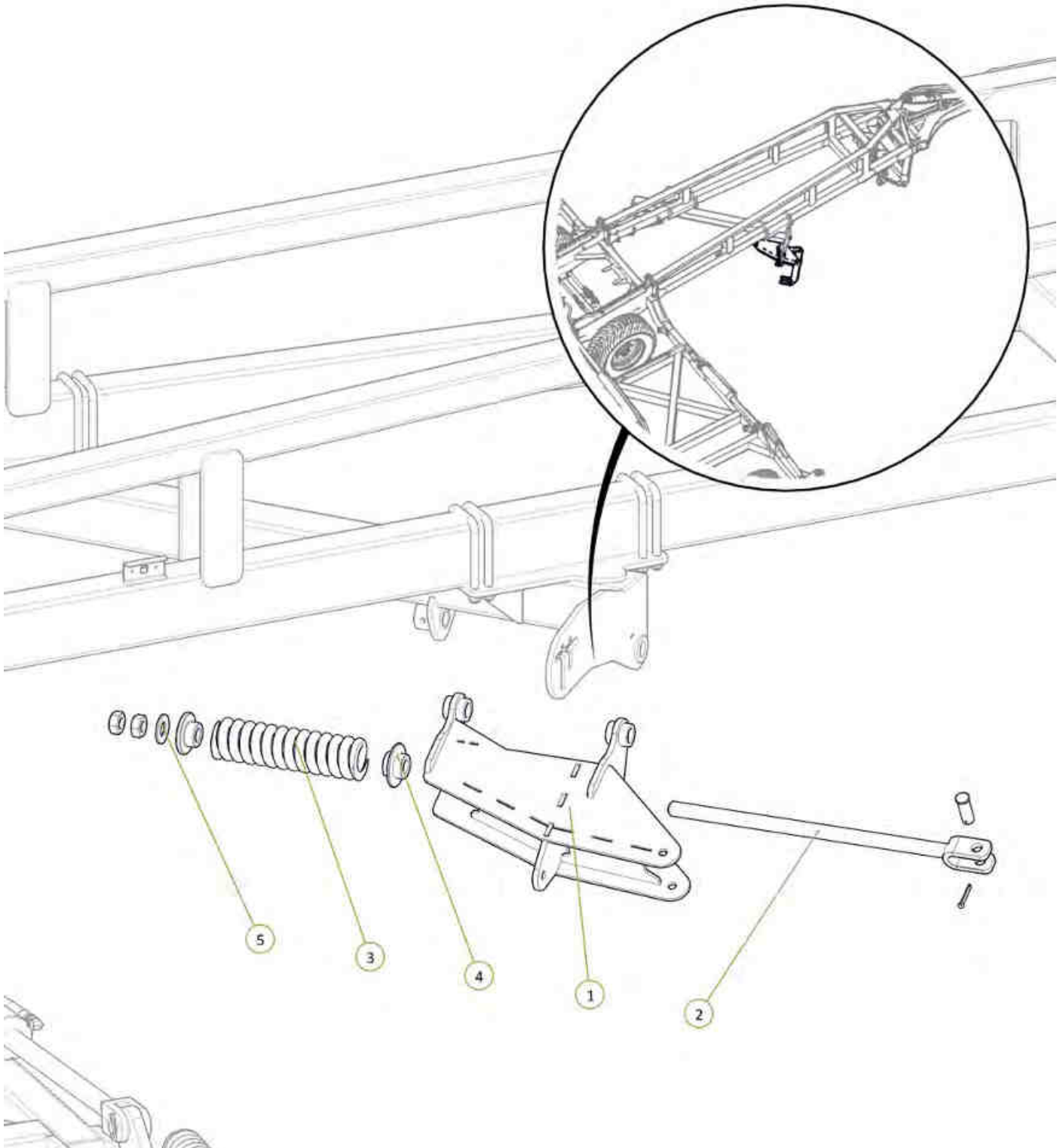
Item No.	Description	Qty	Number
1	Standard Chain Mount Plate	1	0810-20
2	Height Adjusting Chain Assembly 13 Link	1	0801-20MCA
3	Chain Mount Pivot Pin	1	0801-10-51
4	Forged Clevis 21mm Bolt Hole	1	0801-FC21
5	Height Adjustor Retaining Clip	1	0801-KE014
6	Stainless Steel Wear Bush	1	1501-365033-SS
7	M36 x 105 grade 8.8 zp Bolt	1	0211-36105
8	M12 x 75 grade 8.8 ZP Bolt	1	0211-1275
9	Nyloc Nut M12	1	0221-NYL12
10	Nyloc Nut M36	1	0221-NYL36
11	Washer High Tensile 1 3/8"	1	0232-HT13-8

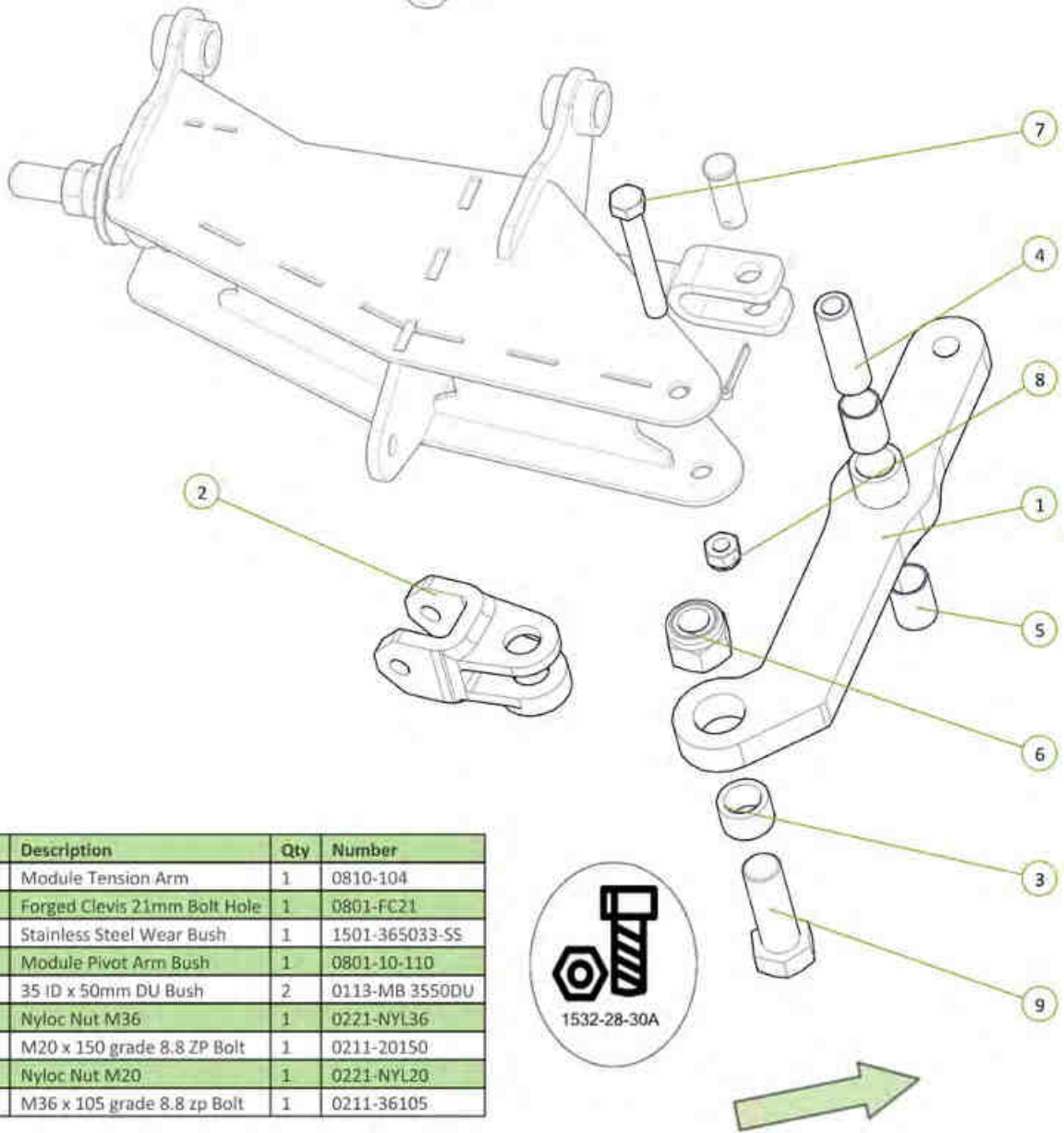
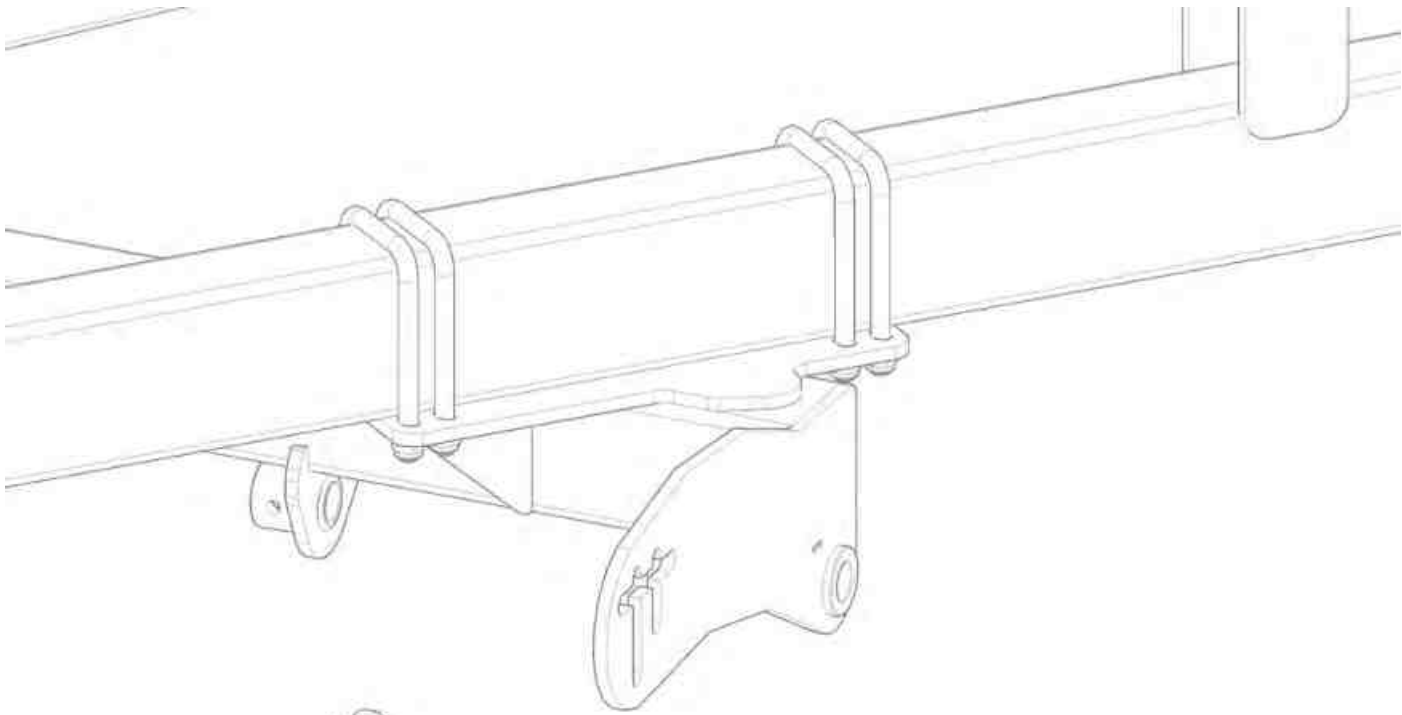




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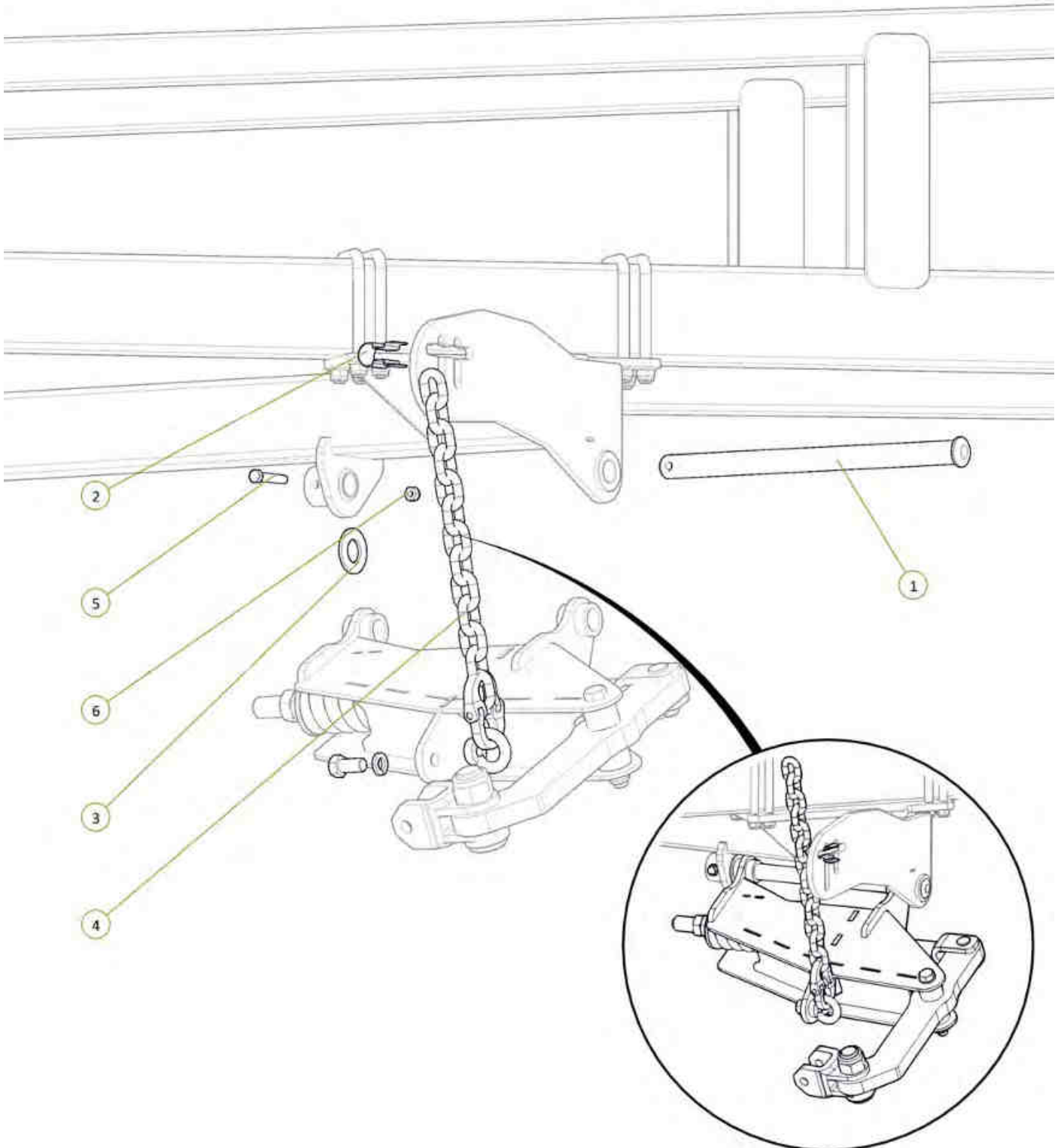
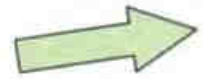
Item No.	Description	Qty	Number
1	Rear Module Tension Body	1	0810-103R
2	Module Tension Rod Assembly	1	0810-105A
3	20mm Compression Spring	1	0801-XK9261S
4	Rigid Spring Locator	1	0801-10-S2L
5	Washer High Tensile 1 1/4"	1	0232-HT11-4

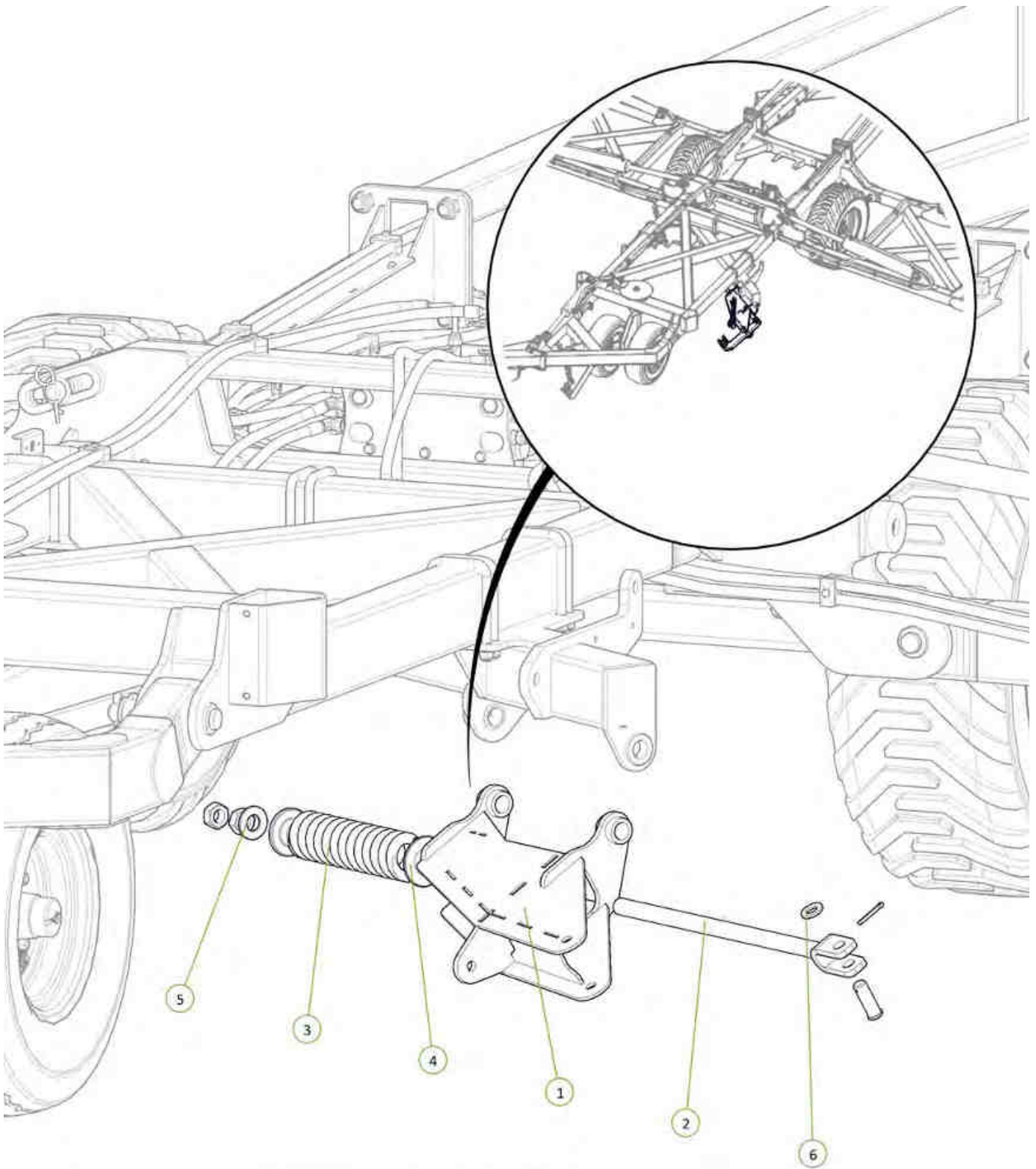




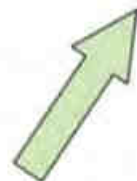
Item No.	Description	Qty	Number
1	Module Tension Arm	1	0810-104
2	Forged Clevis 21mm Bolt Hole	1	0801-FC21
3	Stainless Steel Wear Bush	1	1501-365033-SS
4	Module Pivot Arm Bush	1	0801-10-110
5	35 ID x 50mm DU Bush	2	0113-MB 3550DU
6	Nyloc Nut M36	1	0221-NYL36
7	M20 x 150 grade 8.8 ZP Bolt	1	0211-20150
8	Nyloc Nut M20	1	0221-NYL20
9	M36 x 105 grade 8.8 zp Bolt	1	0211-36105

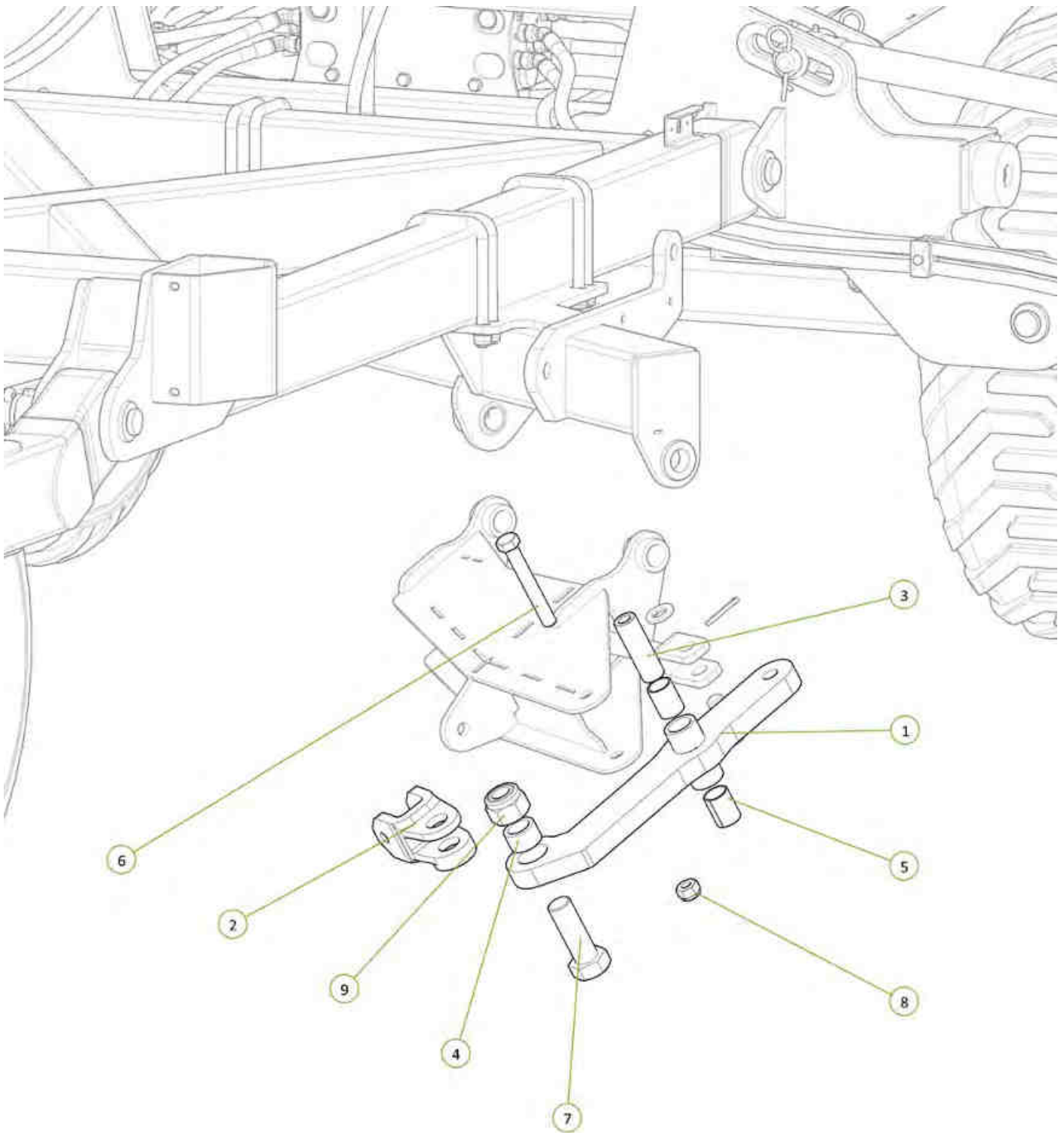
Item No.	Description	Qty	Number
1	Chain Mount Pivot Pin	1	0801-10-51
2	Height Adjustor Retaining Clip	1	0801-KE014
3	Washer High Tensile 1 3/8"	1	0232-HT13-8
4	Height Adjusting Chain Assembly 13 Link	1	0801-20MCA
5	M12 x 75 grade 8.8 ZP Bolt	1	0211-1275
6	Nyloc Nut M12	1	0221-NYL12





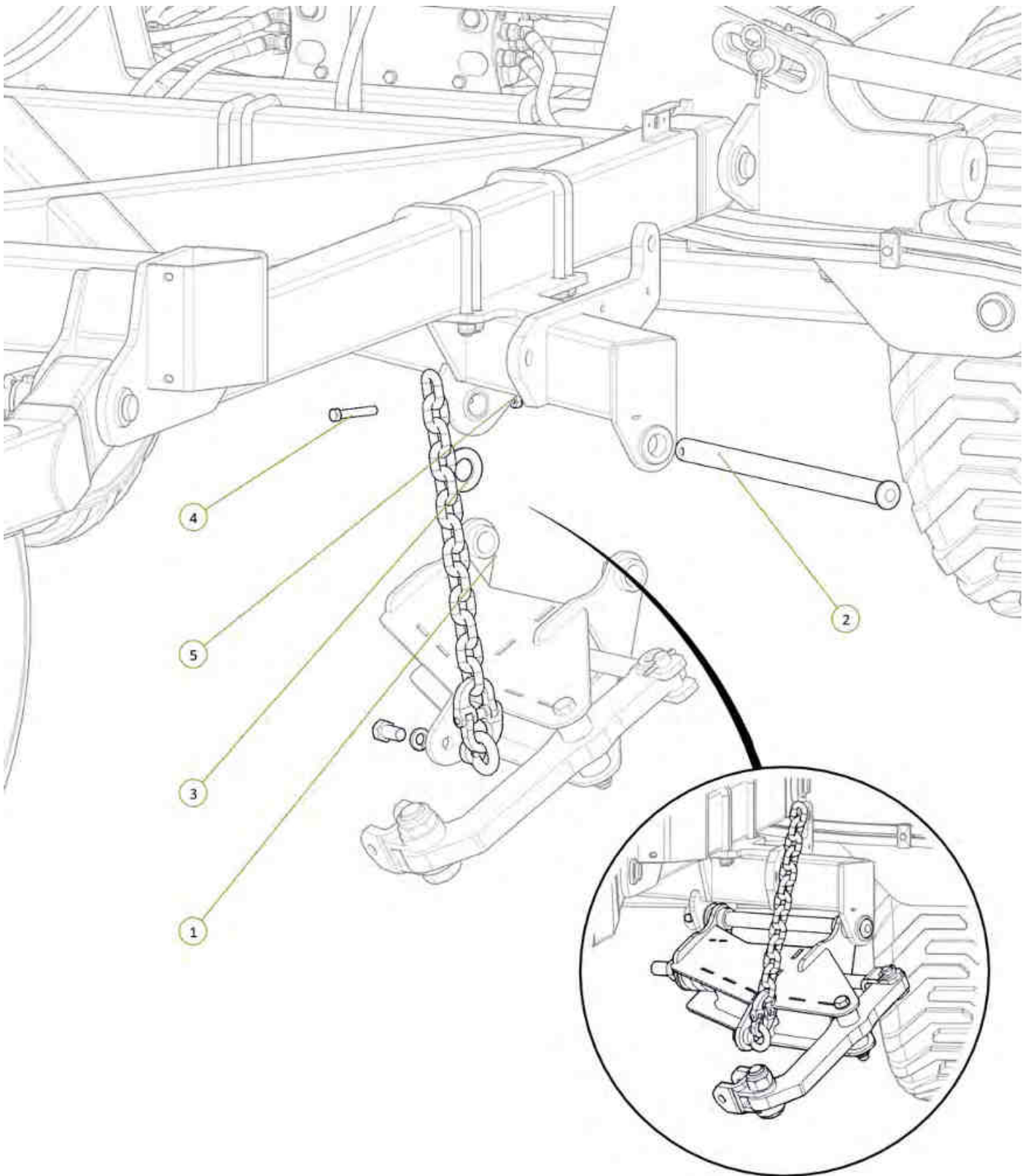
Item No.	Description	Qty	Number
1	Rear Module Tension Body	1	0810-103R
2	Module Tension Rod Assembly	1	0810-105A
3	20mm Compression Spring	1	0801-XK9261S
4	Rigid Spring Locator	1	0801-10-S2L
5	Washer High Tensile 1 1/4"	1	0232-HT11-4
6	Washer Flat M24	1	0231-F24



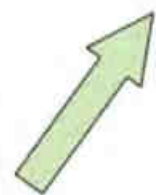


Item No.	Description	Qty	Number
1	Module Tension Arm No Clevis	1	0810-104
2	Forged Clevis 21mm Bolt Hole	1	0801-FC21
3	Module Pivot Arm Bush	1	0801-10-110
4	Stainless Steel Wear Bush	1	1501-365033-SS
5	35 ID x 50mm DU Bush	2	0113-MB 3550DU
6	M20 x 150 grade 8.8 ZP Bolt	1	0211-20150
7	M36 x 105 grade 8.8 zp Bolt	1	0211-36105
8	Nyloc Nut M20	1	0221-NYL20
9	Nyloc Nut M36	1	0221-NYL36

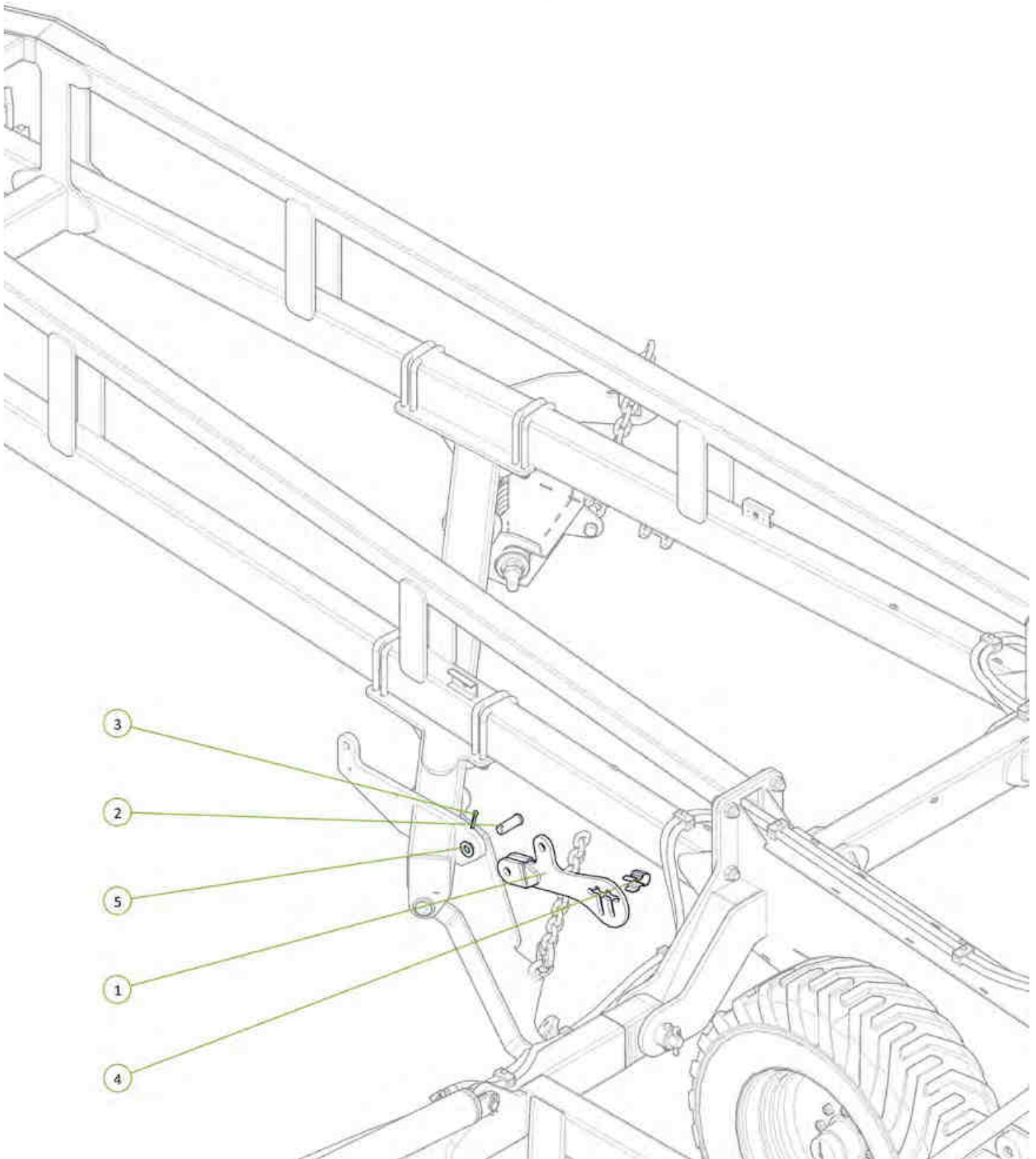




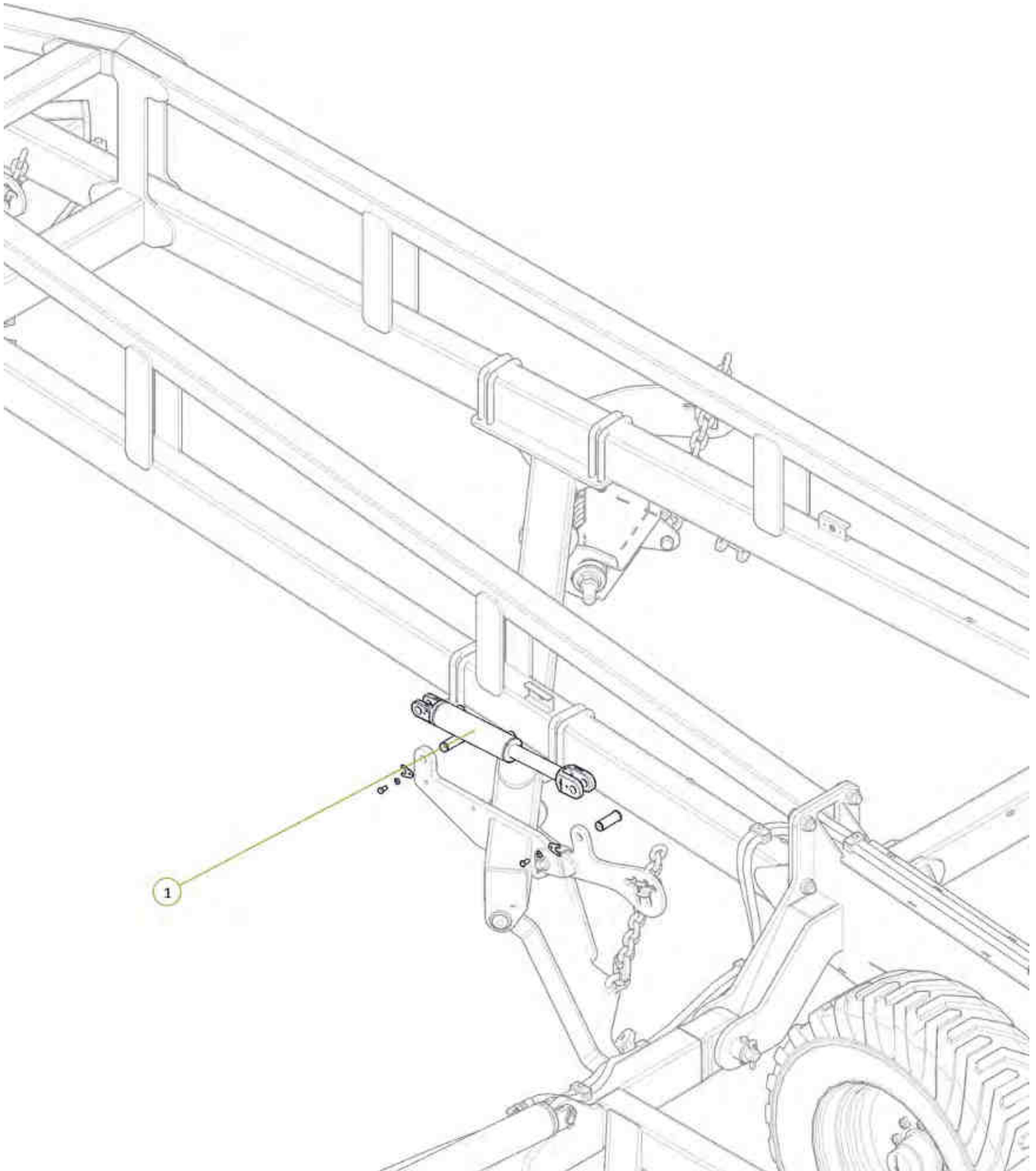
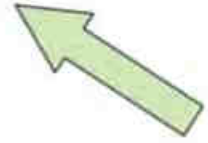
Item No.	Description	Qty	Number
1	Height Adjusting Chain Assembly 13 Link	1	0801-20MCA
2	Chain Mount Pivot Pin	1	0801-10-51
3	Washer High Tensile 1 3/8"	1	0232-HT13-8
4	M12 x 75 grade 8.8 ZP Bolt	1	0211-1275
5	Nyloc Nut M12	1	0221-NYL12



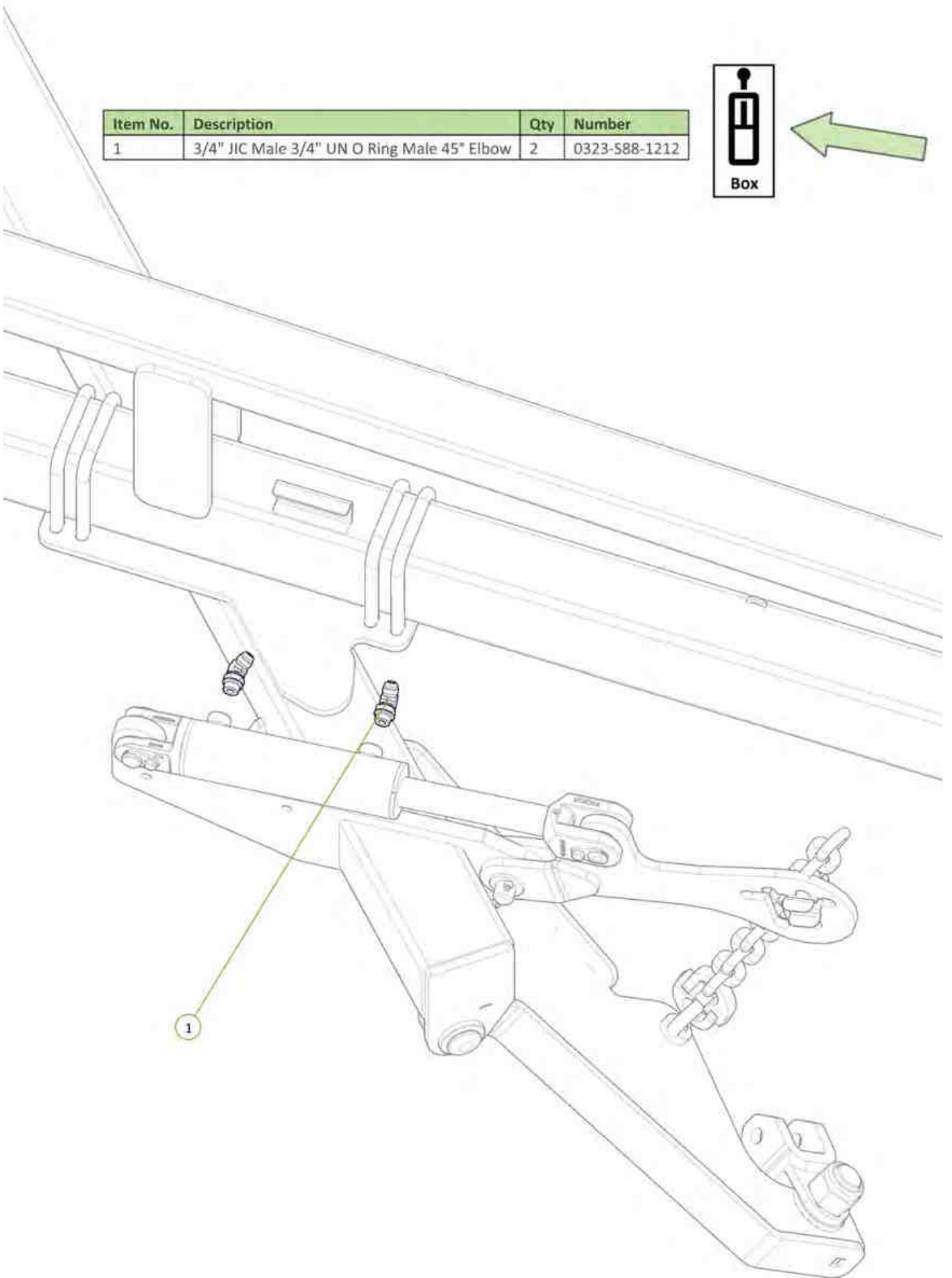
Item No.	Description	Qty	Number
1	30' Module Lift Plate	1	0810-106
2	Clevis Pin 25mm x 75mm	1	0801-KE0307-1
3	Cotter Pin M5 x 50	1	0261-PINC550
4	Height Adjustor Retaining Clip	1	0801-KE014
5	Washer Flat M24	1	0231-F24



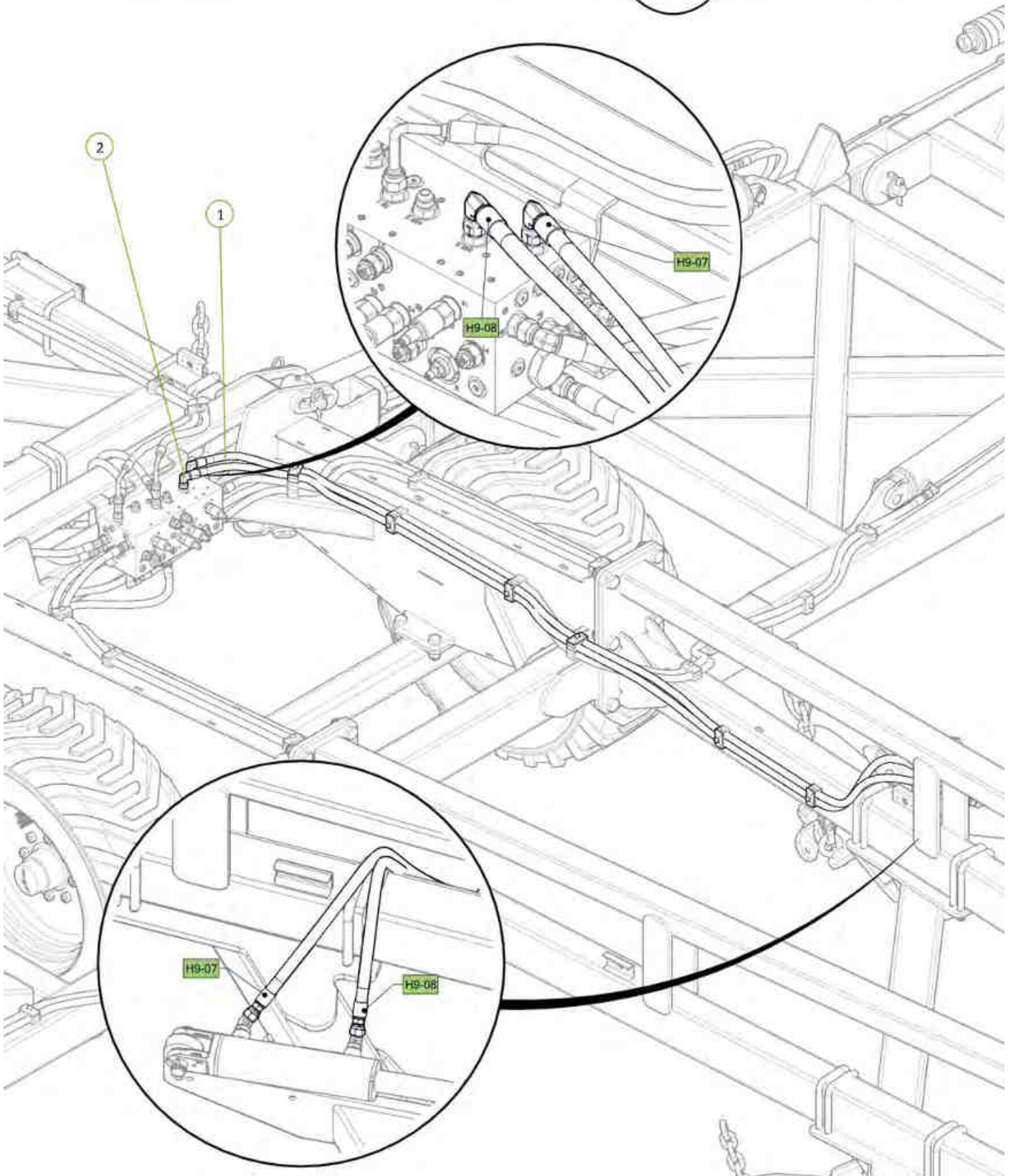
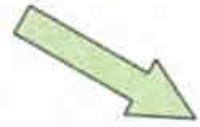
Item No.	Description	Qty	Number
1	2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder	1	0311-256SP

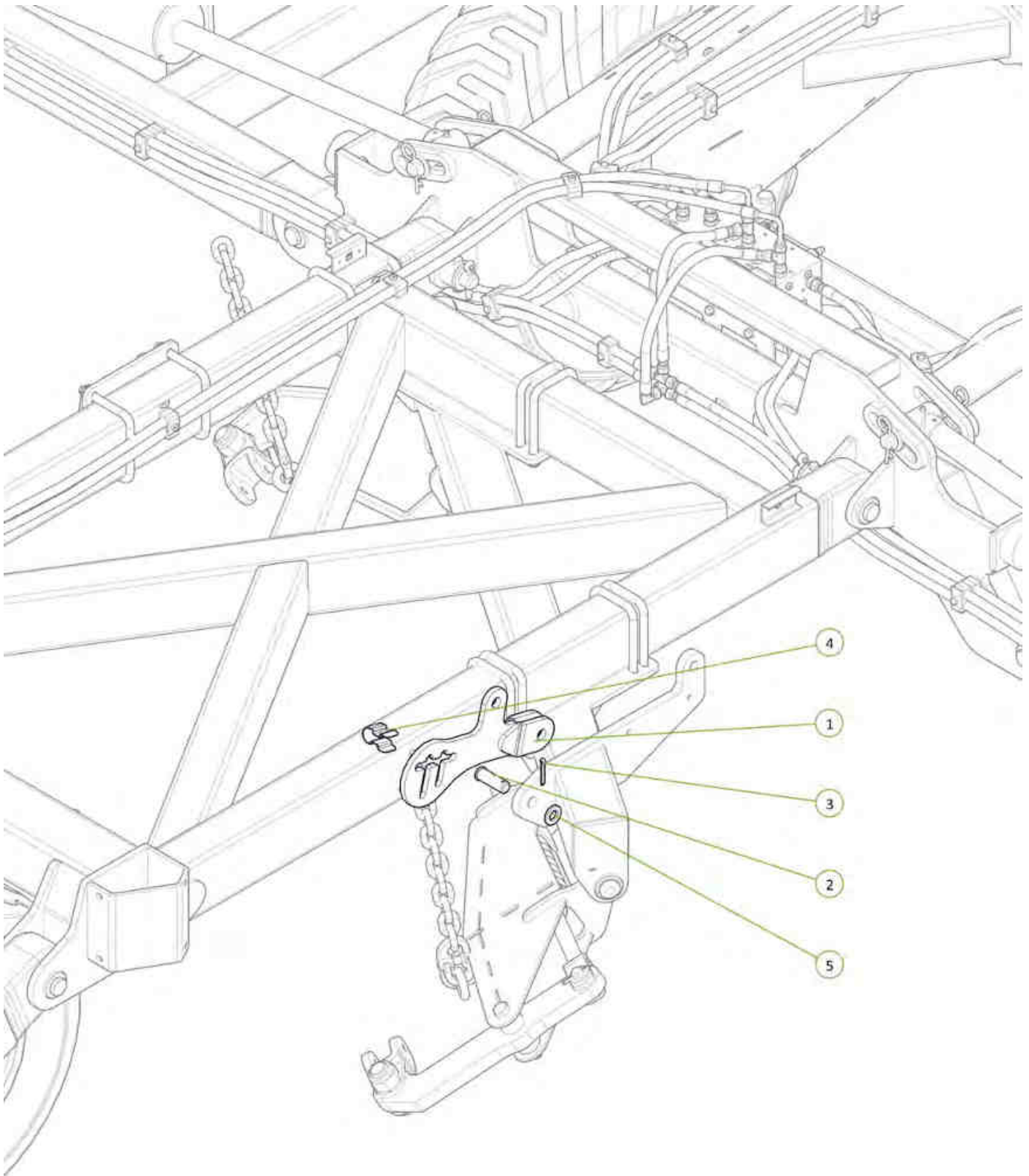


Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 45° Elbow	2	0323-S88-1212

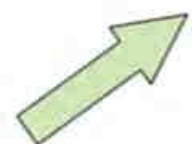


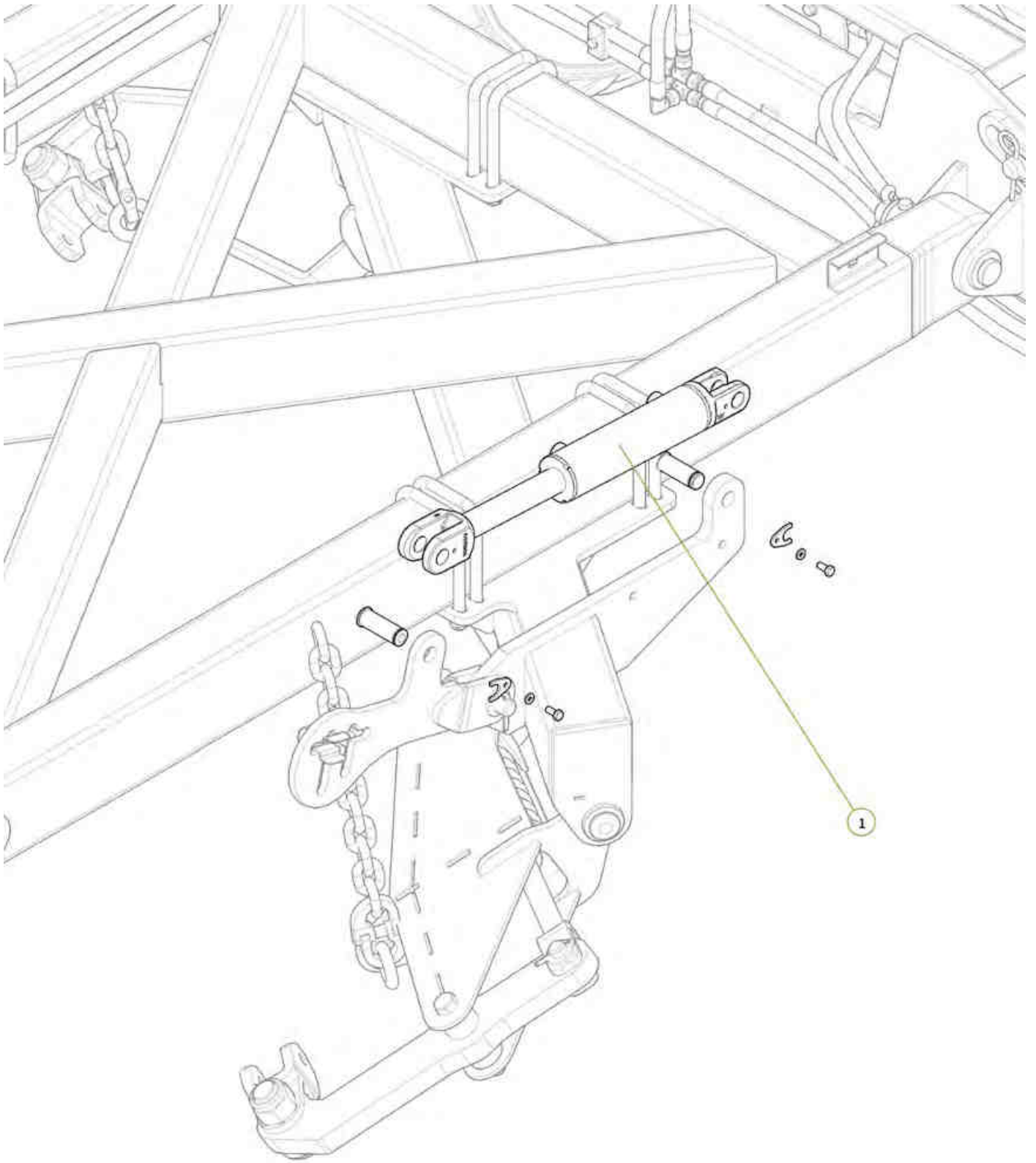
Item No.	Description	Qty	Number
1	ME3 to Front Cylinder Extend Port	1	H9-07
2	MR3 to Front Module Retract Port	1	H9-08



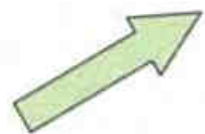


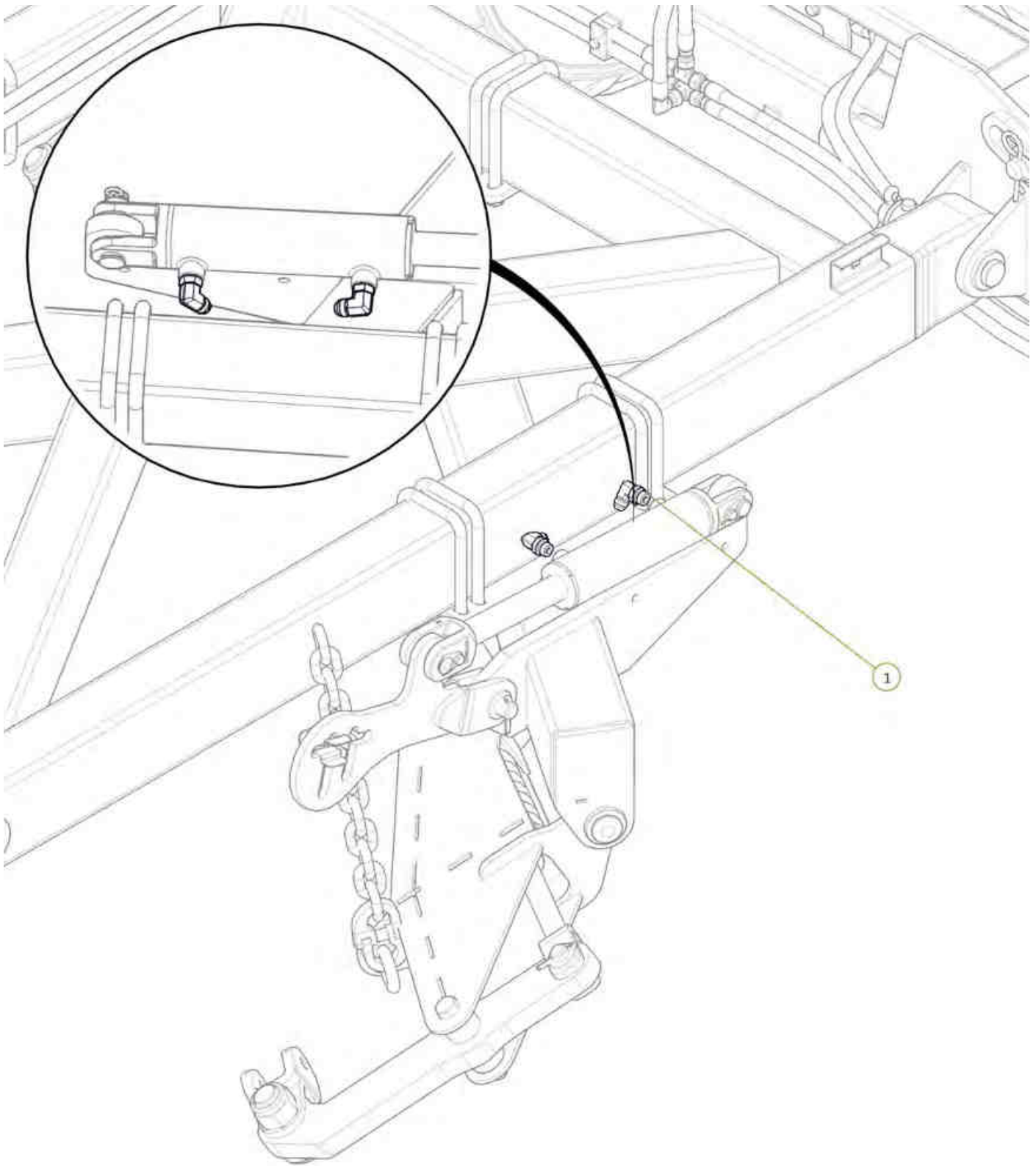
Item No.	Description	Qty	Number
1	30' Short Module Lift Arm	1	0810-107
2	Clevis Pin 25mm x 75mm	1	0801-KE0307-1
3	Cotter Pin M6 x 50mm	1	0261-PINC650
4	Height Adjustor Retaining Clip	1	0801-KE014
5	Washer Flat M24	1	0231-F24



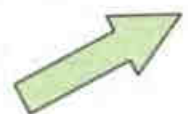
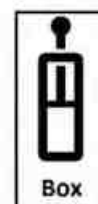


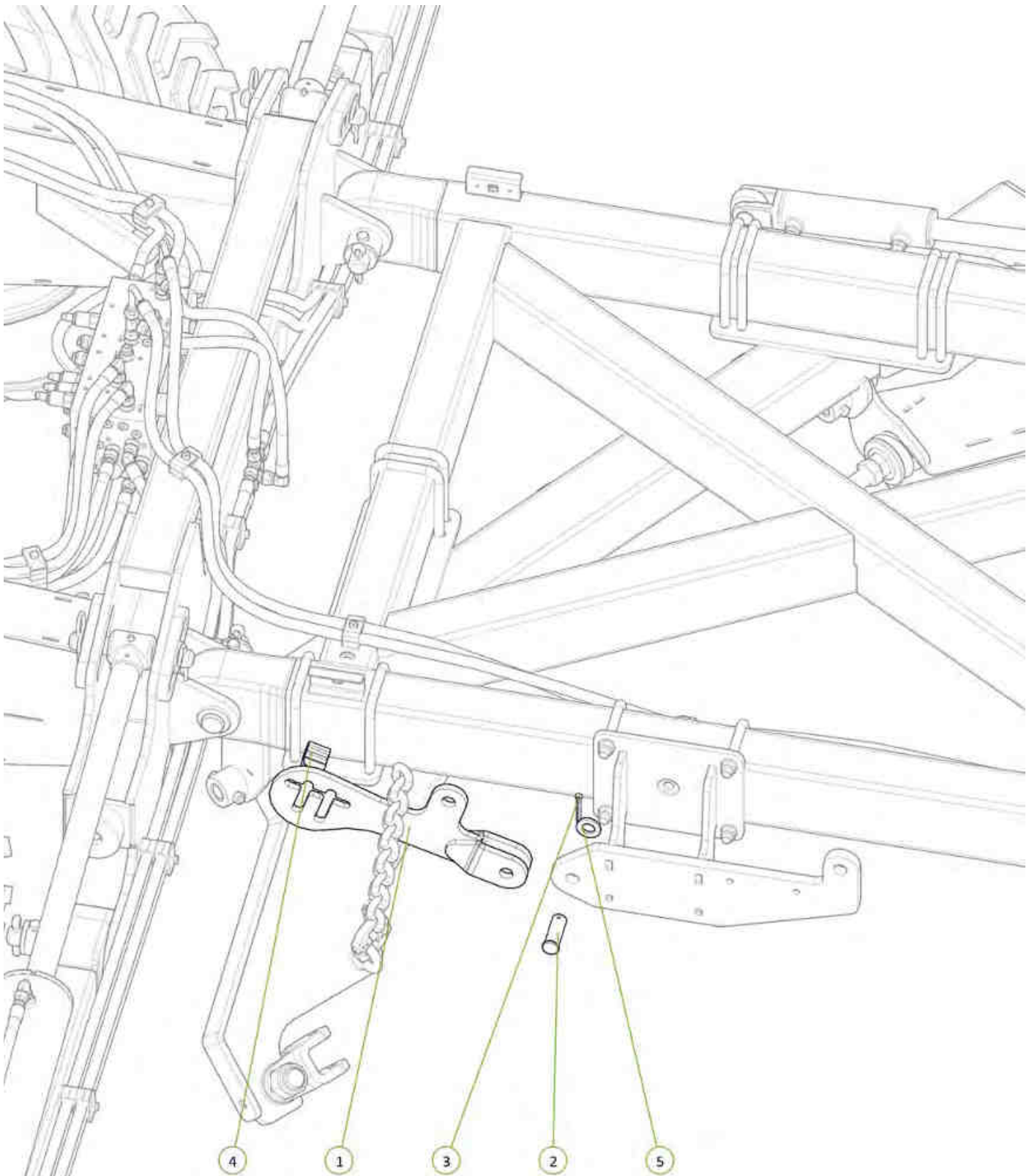
Item No.	Description	Qty	Number
1	2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder	1	0311-256SP



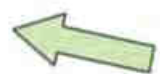


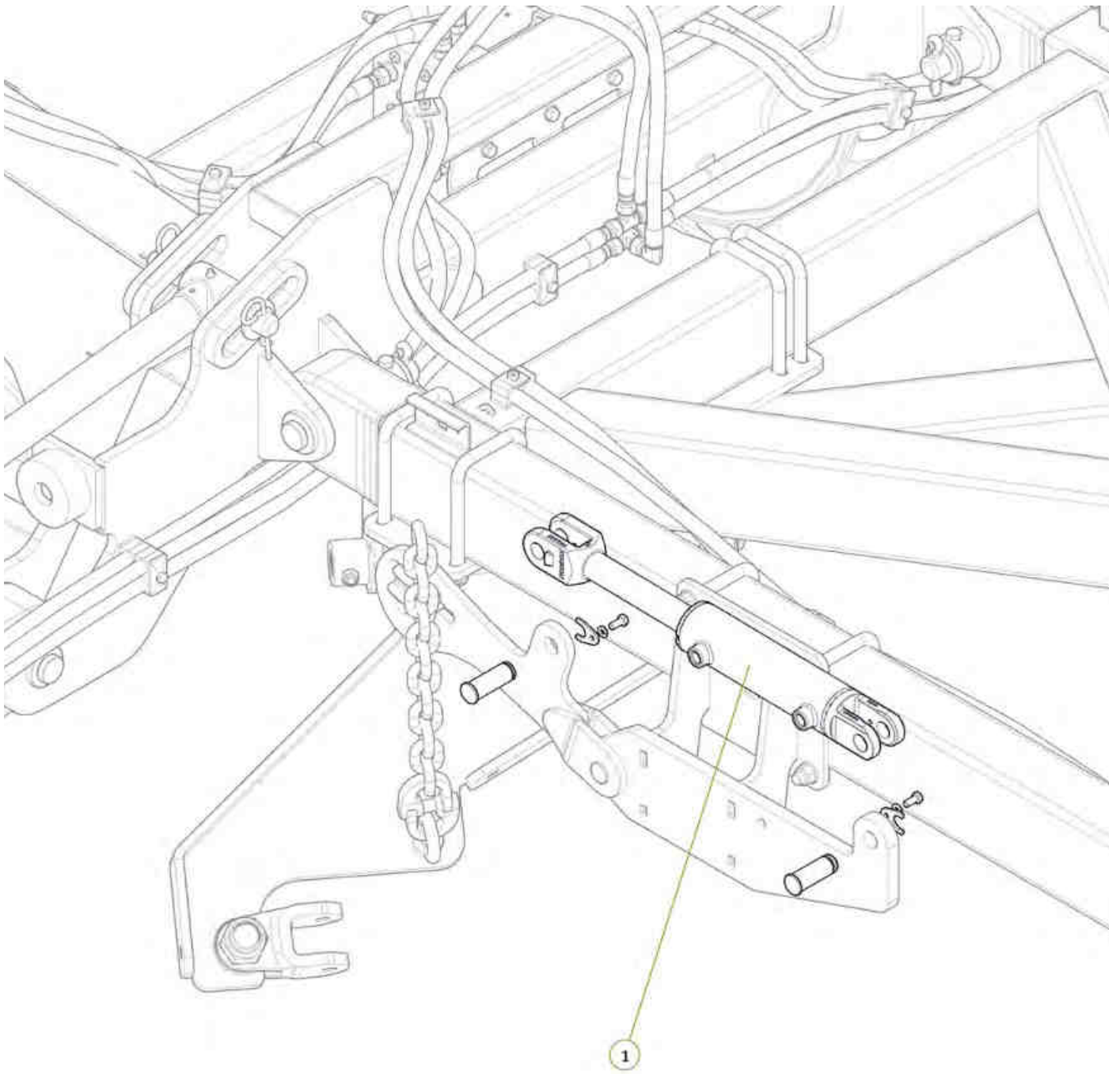
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212



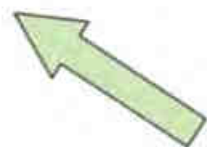


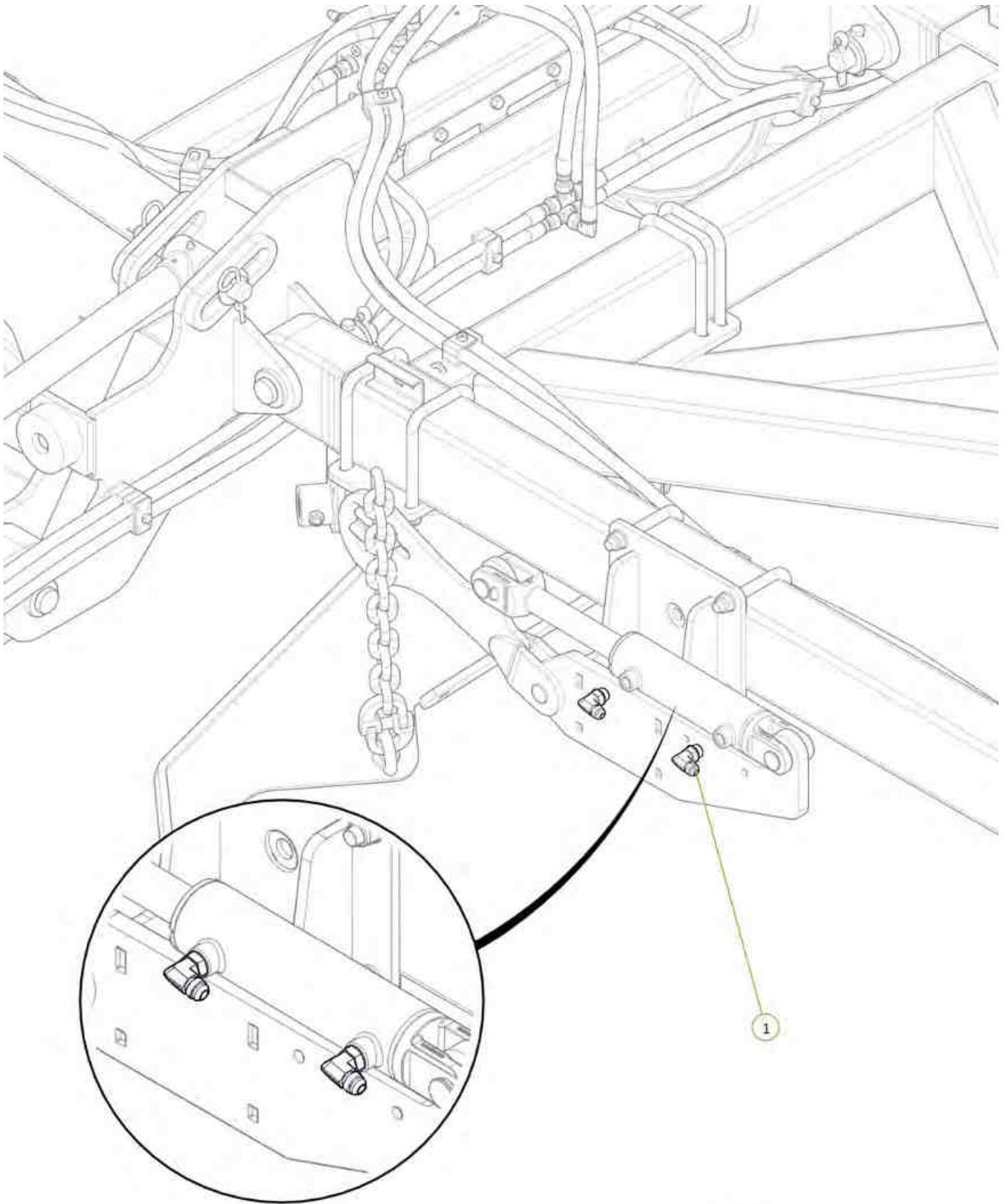
Item No.	Description	Qty	Number
1	30' Module Lift Plate	1	0810-106
2	Clevis Pin 25mm x 75mm	1	0801-KE0307-1
3	Cotter Pin M6 x 50mm	1	0261-PINC650
4	Height Adjustor Retaining Clip	1	0801-KE014
5	Washer Flat M24	1	0231-F24





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

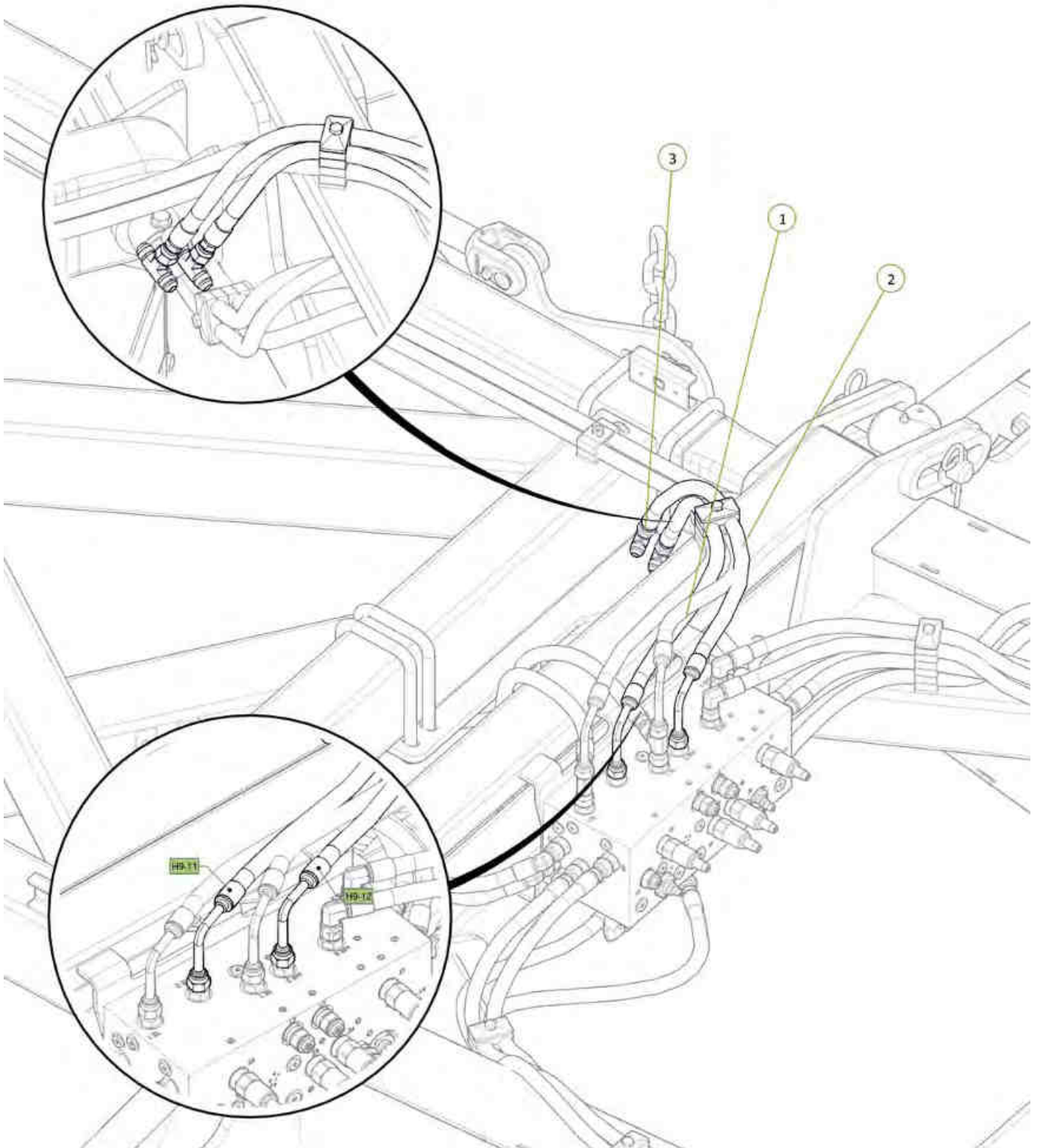
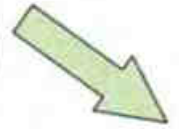


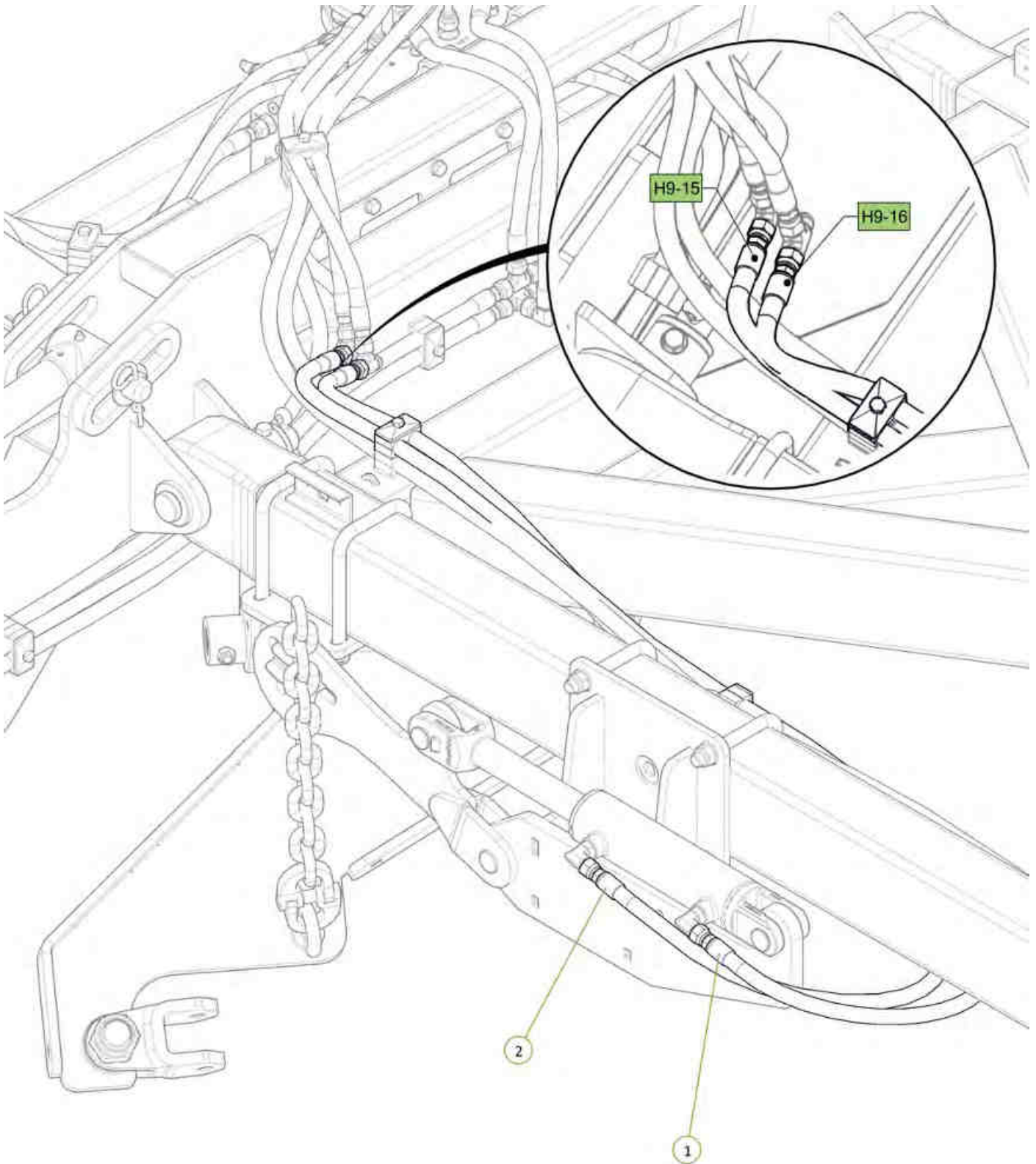


Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

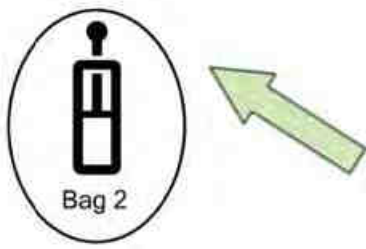


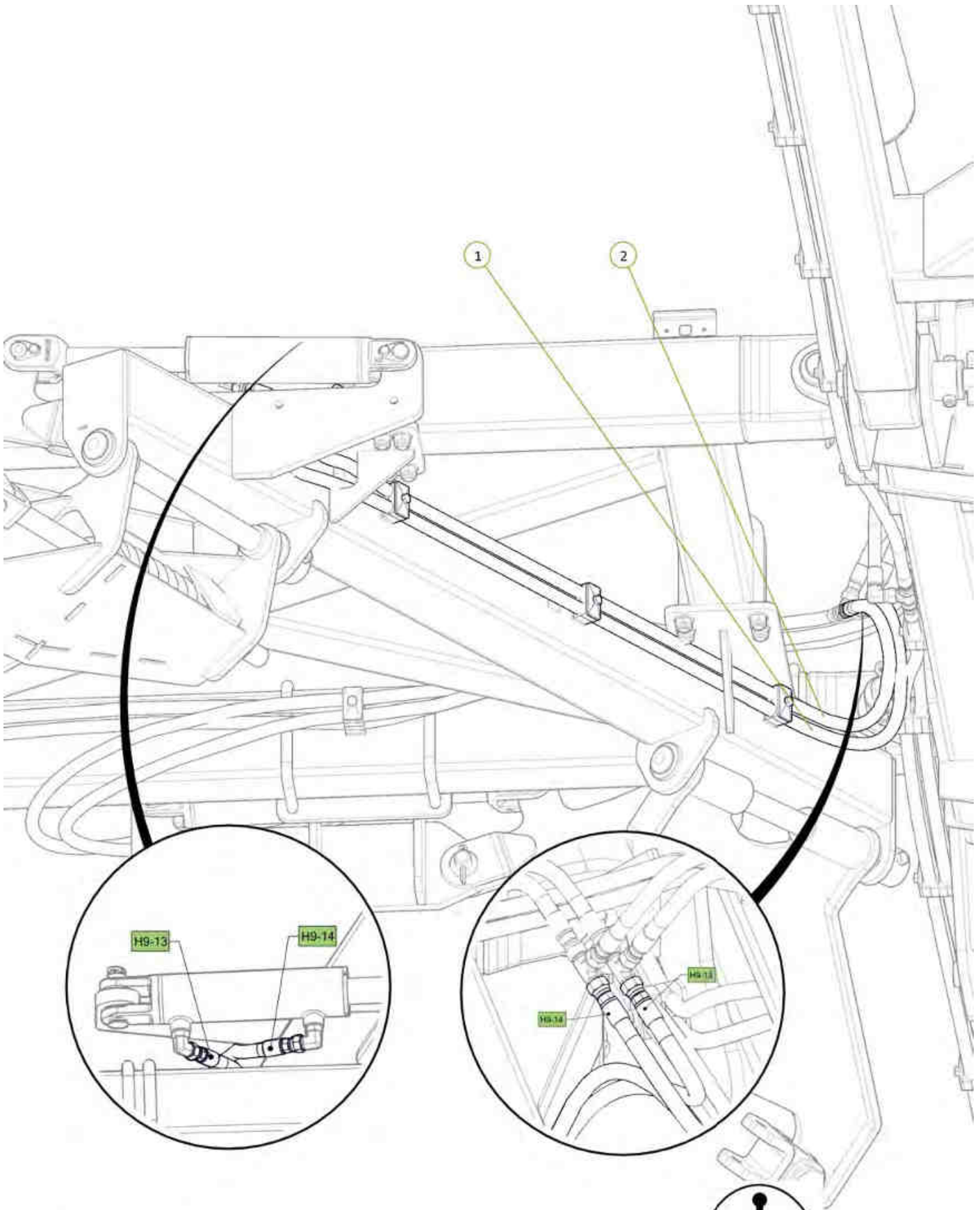
Item No.	Description	Qty	Number
1	ME2 Port to Rear Module Extend Tee	1	H9-11
2	MR2 Port to Rear Module Retract Tee	1	H9-12
3	3/4" JIC Male Tee	2	0324-S19-121212



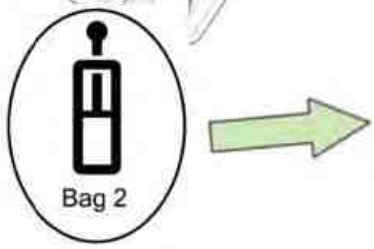


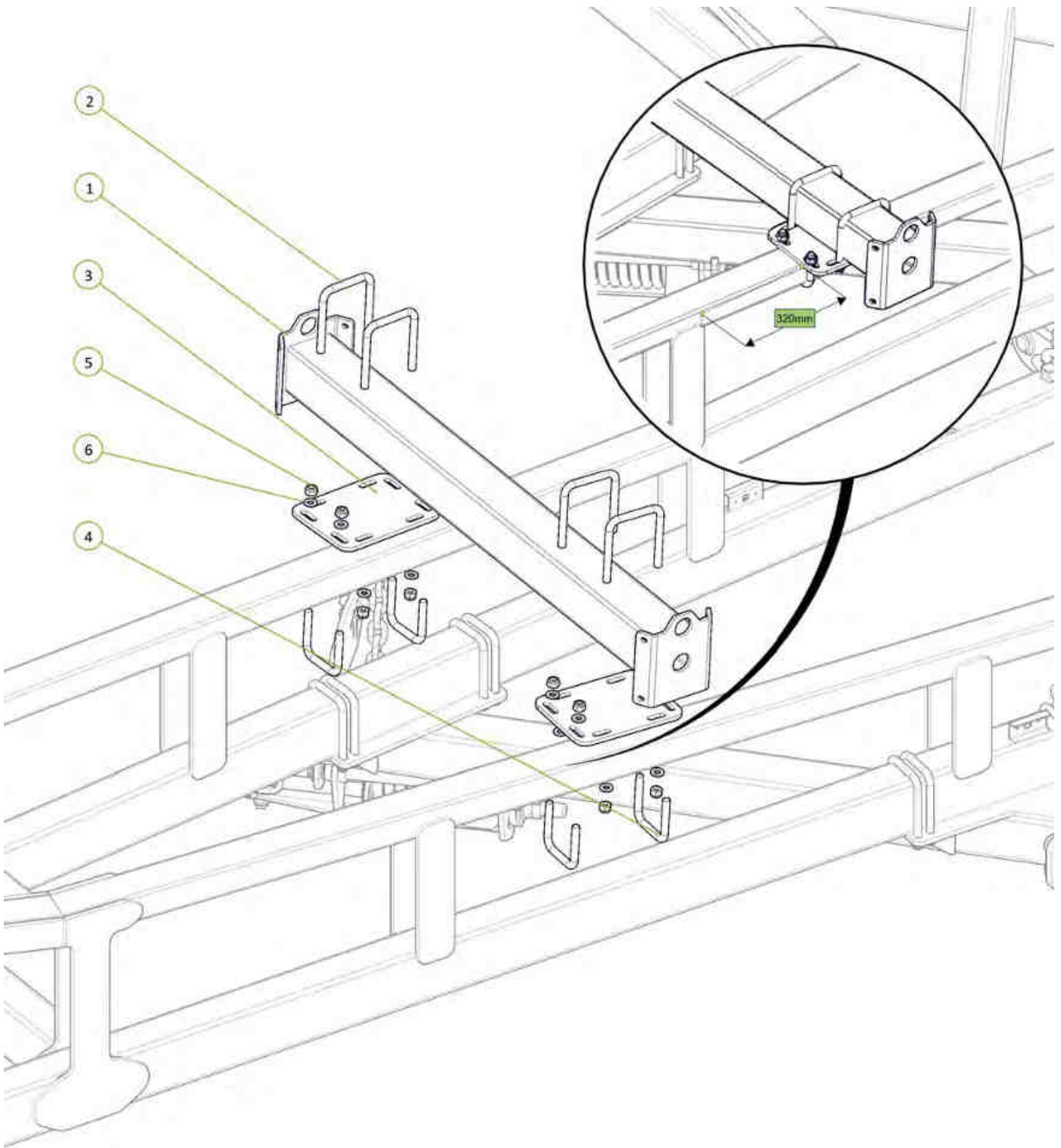
Item No.	Description	Qty	Number
1	Rear Module Extend Tee to LH Rear Module Cyl Extend Port	1	H9-15
2	Rear Module Retract Tee to LH Rear Module Cyl Retract Port	1	H9-16





Item No.	Description	Qty	Number
1	Rear Module Extend Tee to RH Rear Module Cyl Extend Port	1	H9-13
2	Rear Module Retract Tee to RH Rear Module Cyl Retract Port	1	H9-14

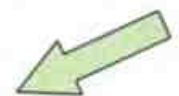


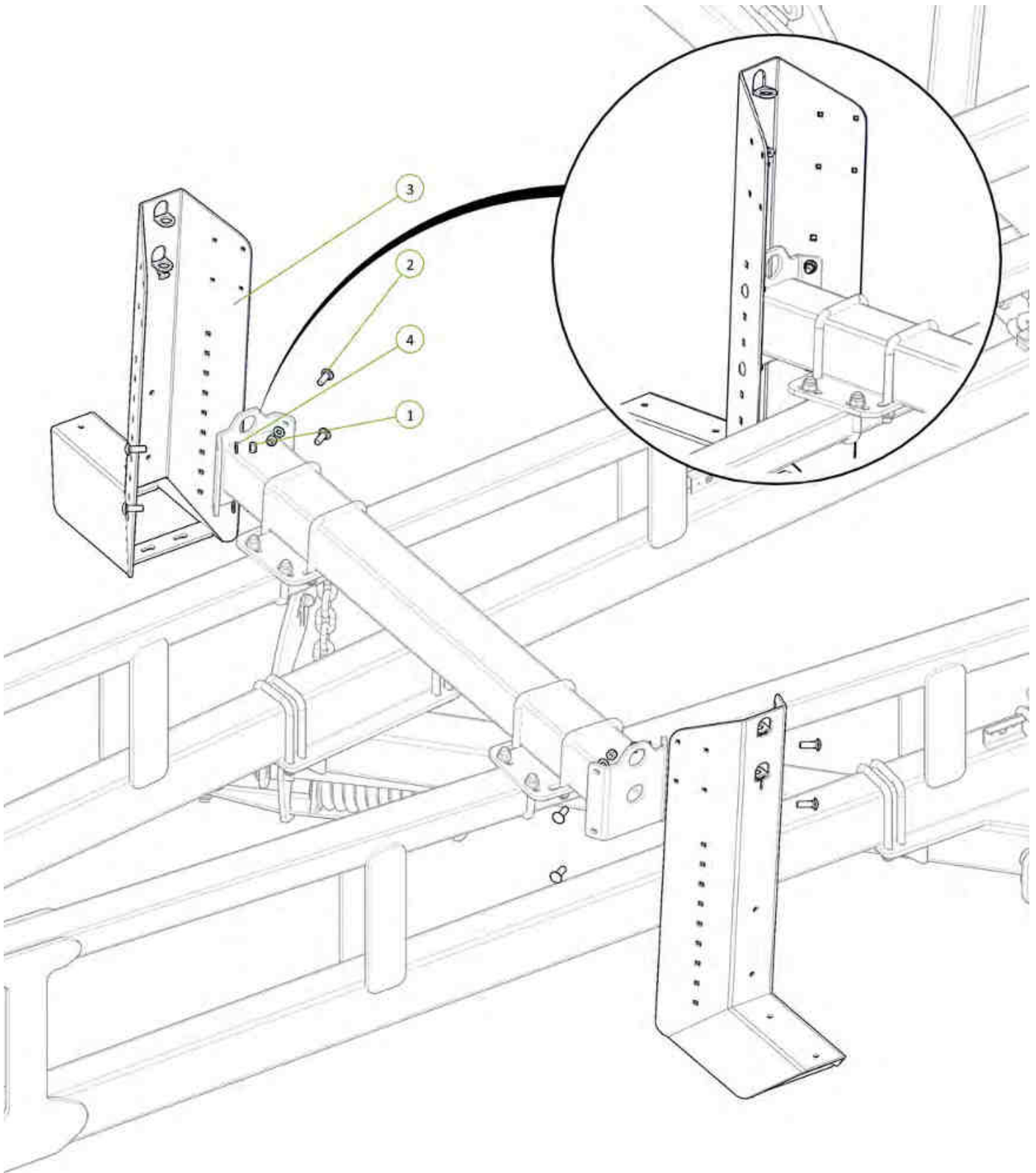


Item No.	Description	Qty	Number
1	9m Gen 2 Chain Carrier	1	1532-17-30
2	U-Bolt M16 x 160 Deep x 127 Wide	4	0271-16160127
3	Chain Carrier Mount Plate	2	0800-139.1
4	U-Bolt M16 x 112 Deep x 104 Wide	4	0271-16112104
5	Nyloc Nut M16	16	0221-NYL16
6	Washer Flat M16	16	0231-F16

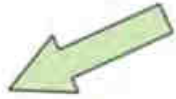


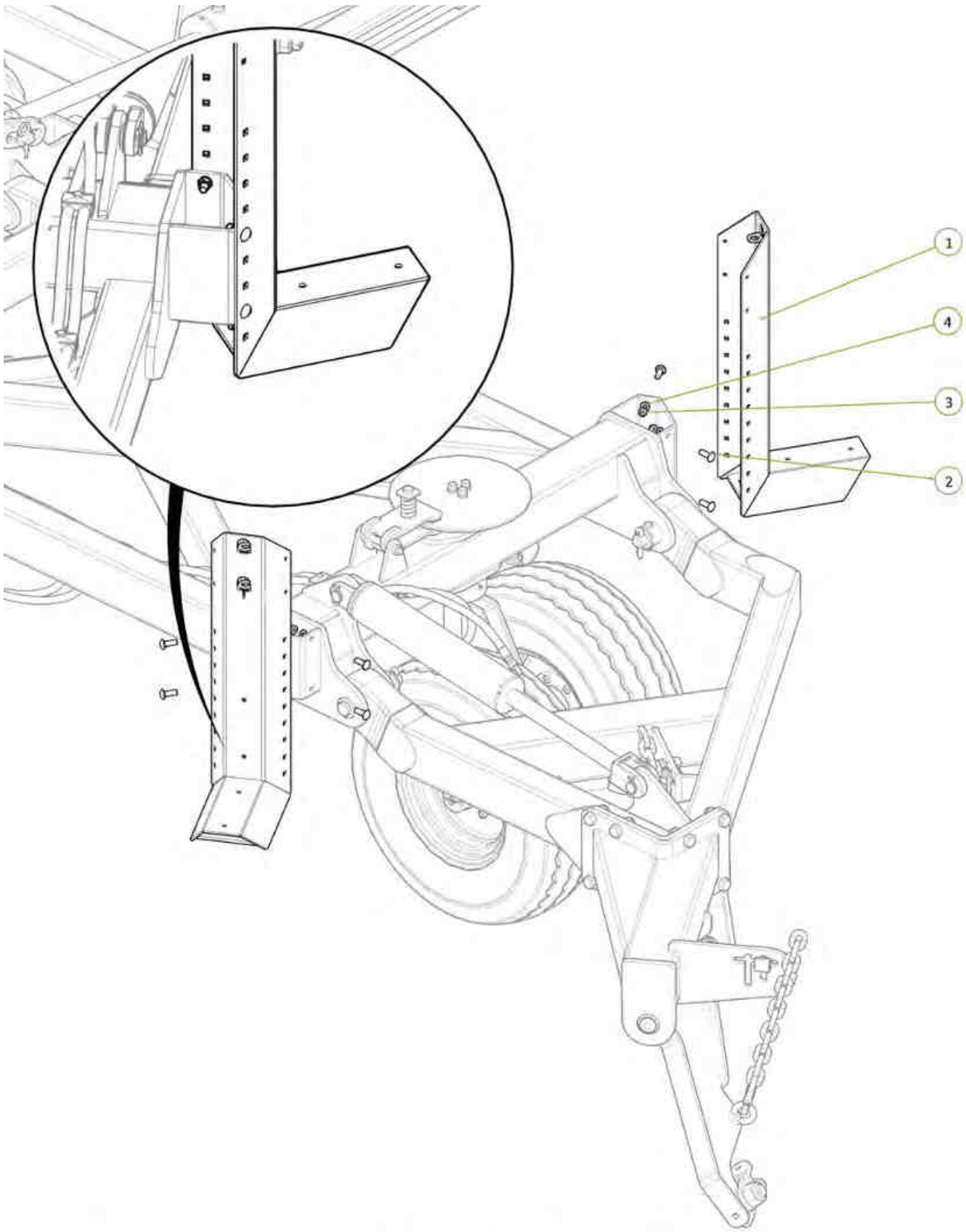
1532-02A



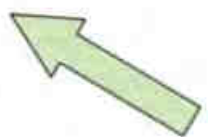


Item No.	Description	Qty	Number
1	Nyloc Nut M12	8	0221-NYL12
2	M12 x 40 Coach Head Bolt	8	0215-CH1240
3	Extended Chain Carrier Bolt on End	2	0810-17L_SD
4	Washer Flat M12	8	0231-F12

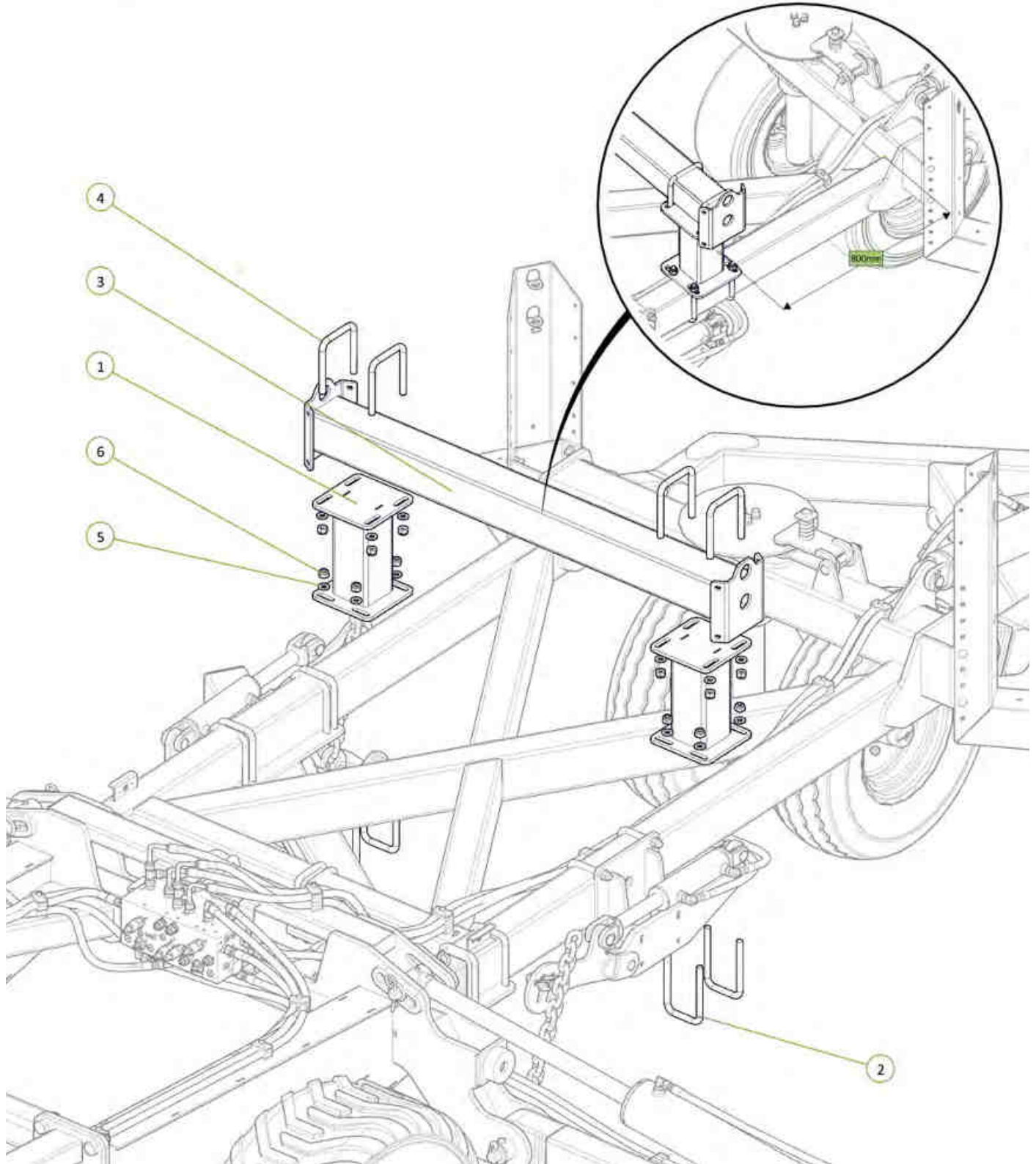
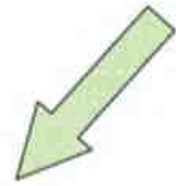




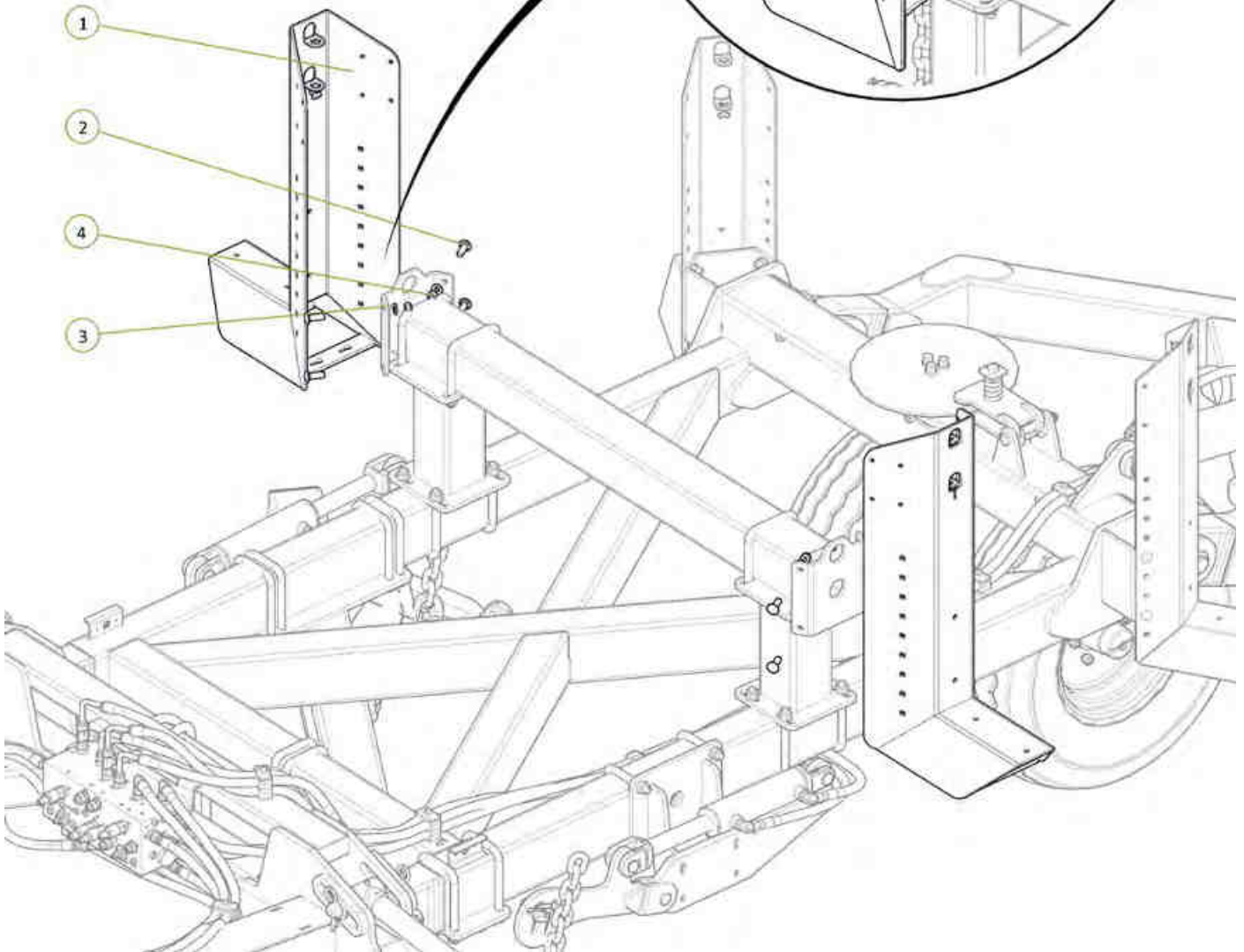
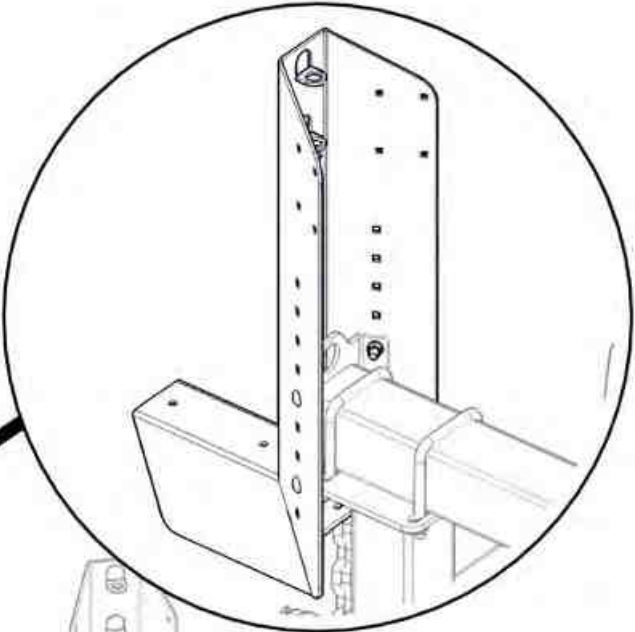
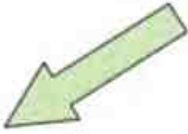
Item No.	Description	Qty	Number
1	Chain Carrier Bolt on End	2	0810-17L
2	M12 x 40 Coach Head Bolt	8	0215-CH1240
3	Nyloc Nut M12	8	0221-NYL12
4	Washer Flat M12	8	0231-F12



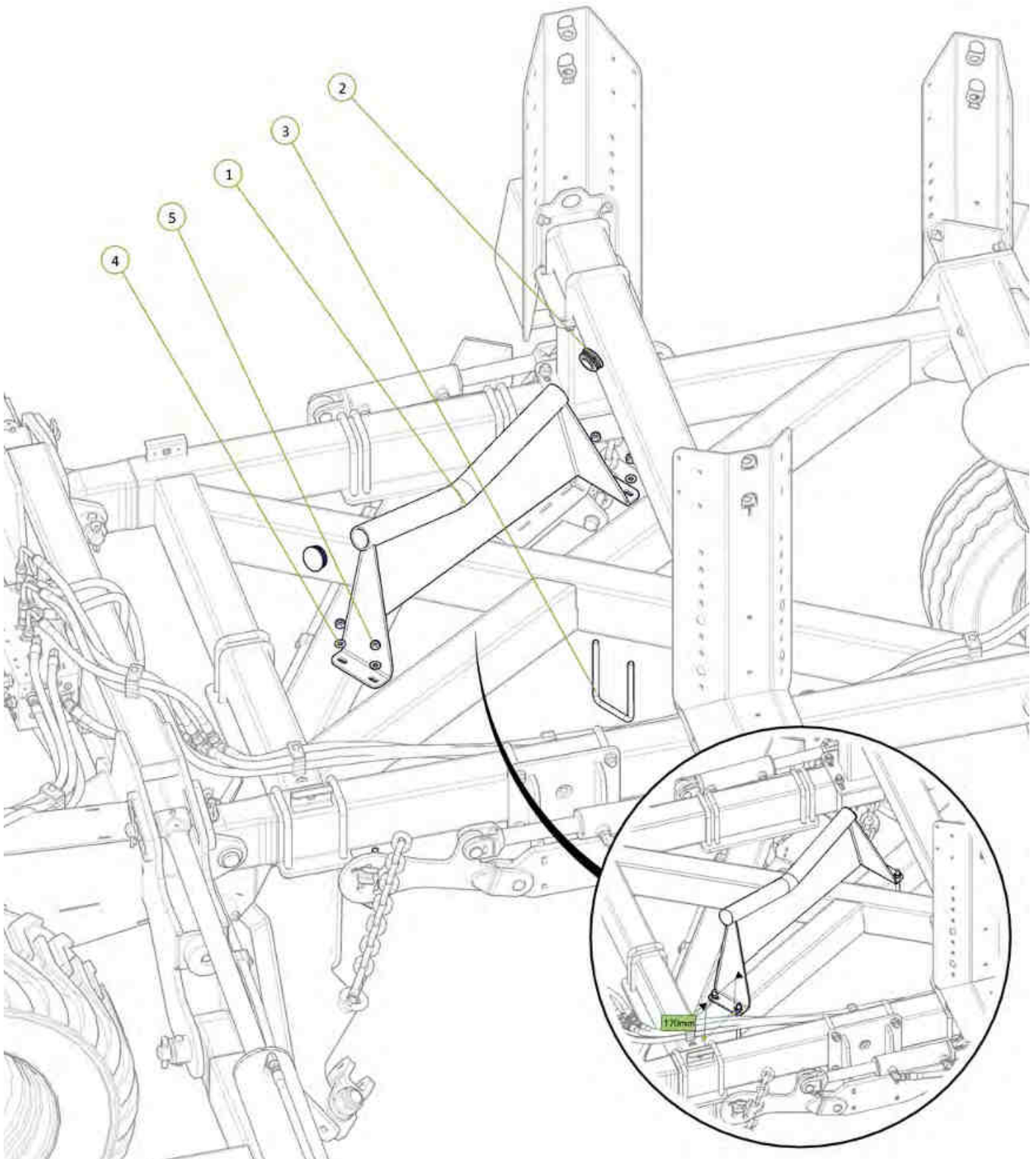
Item No.	Description	Qty	Number
1	300mm Chain Carrier Pedestal	2	1510-43
2	U-Bolt M16 x 185 Deep x 104 Wide	4	0271-16185104
3	9m Gen 2 Chain Carrier	1	1532-17-30
4	U-Bolt M16 x 160 Deep x 127 Wide	4	0271-16160127
5	Washer Flat M16	16	0231-F16
6	Nyloc Nut M16	16	0221-NYL16



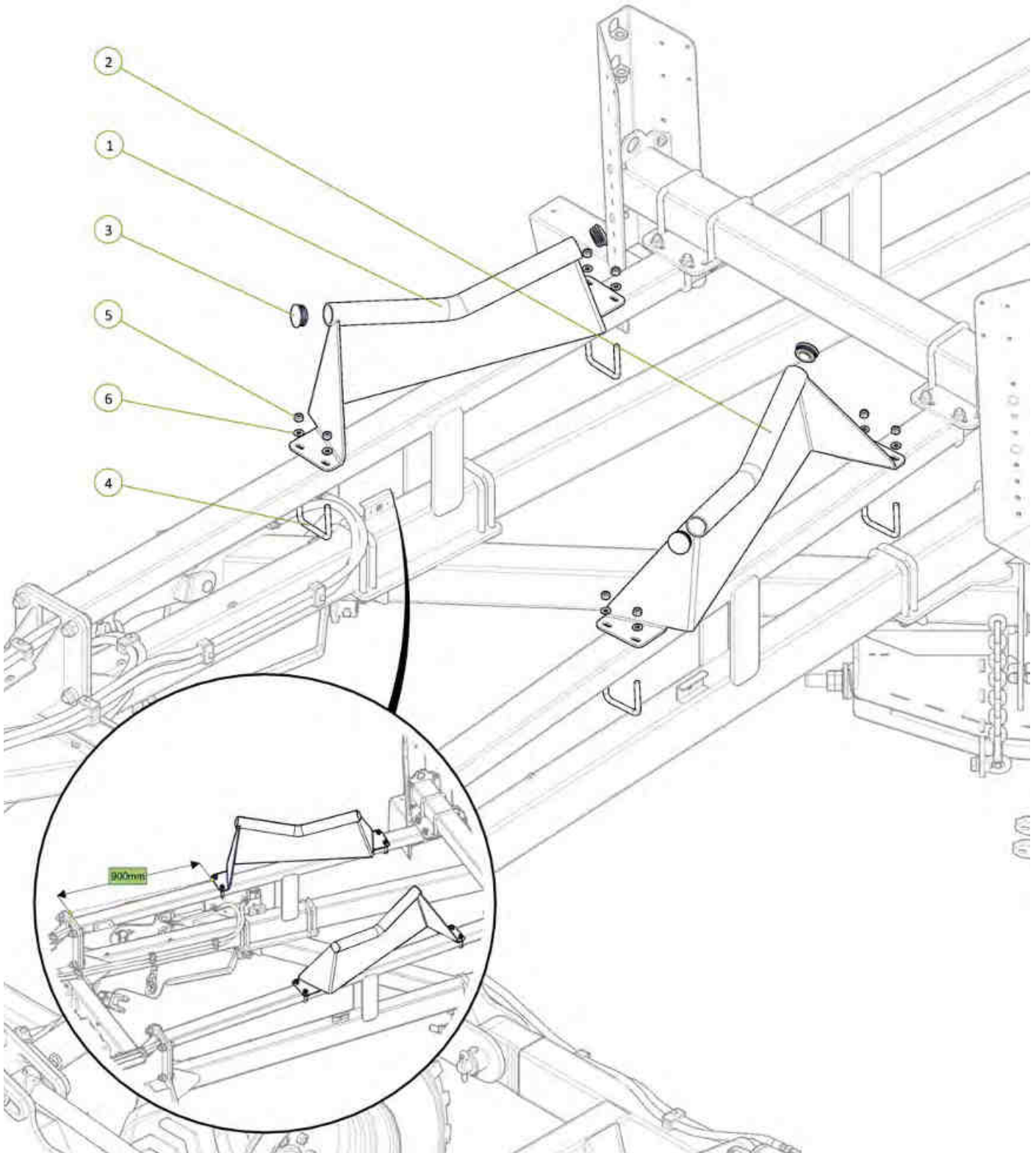
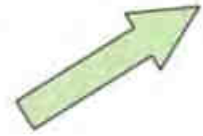
Item No.	Description	Qty	Number
1	Extended Chain Carrier Bolt on End	2	0810-17L_SD
2	M12 x 40 Coach Head Bolt	8	0215-CH1240
3	Washer Flat M12	8	0231-F12
4	Nyloc Nut M12	8	0221-NYL12

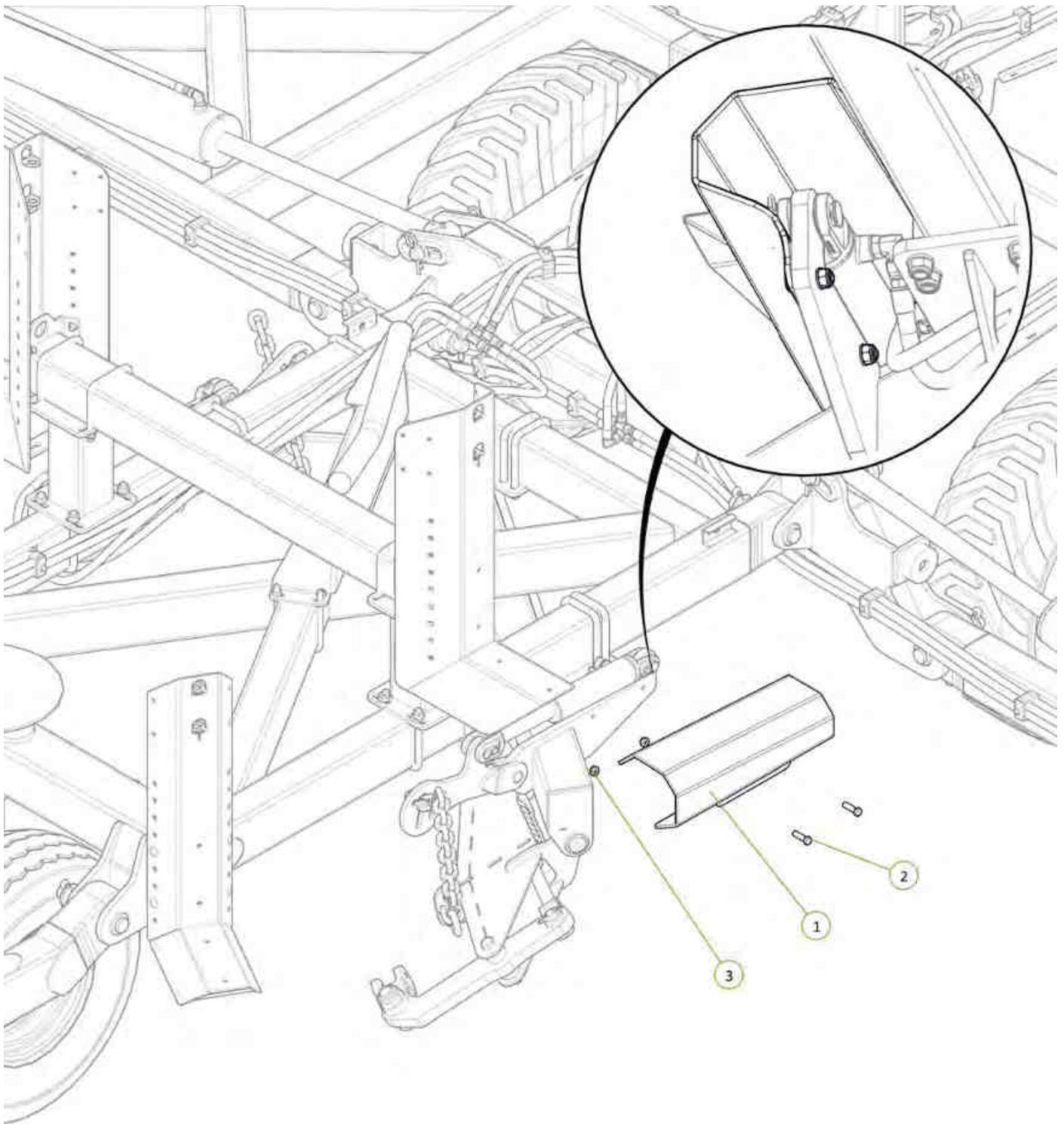


Item No.	Description	Qty	Number
1	Straight Chain Carrier M	1	0810-19
2	Round Tube Insert 60.3 x 3.2-5mm	2	0264-RTRI-5584
3	U-Bolt M12 x 185 Deep x 104 Wide	2	0271-12185104
4	Washer Flat M12	4	0231-F12
5	Nyloc Nut M12	4	0221-NYL12

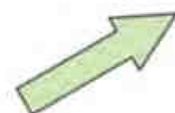


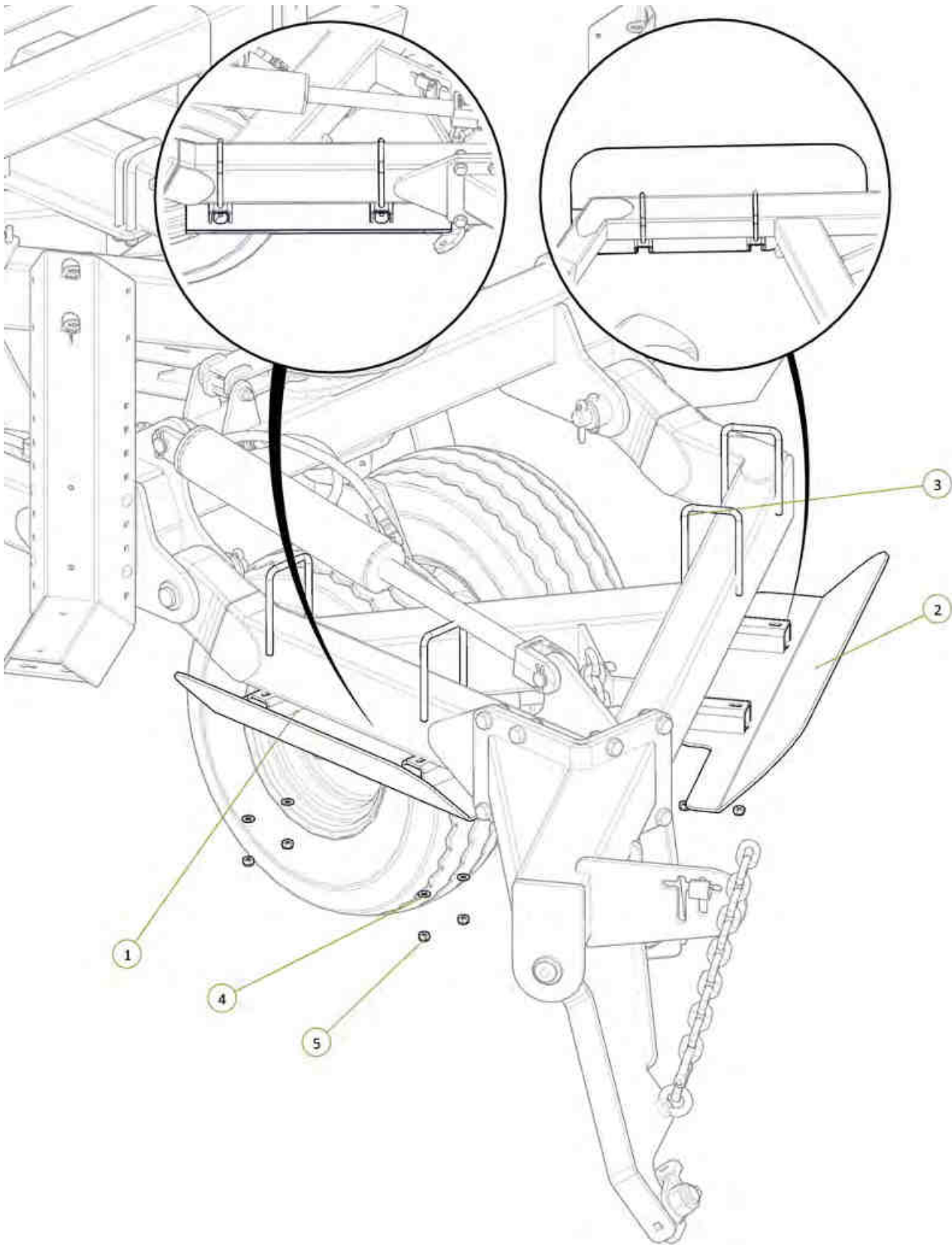
Item No.	Description	Qty	Number
1	Left Hand Off Set M	1	0810-19L
2	Right Hand Off Set M	1	0810-18R
3	Round Tube Insert 60.3 x 3.2-5mm	4	0264-RTRi-5584
4	U-Bolt M12 x 105 Deep x 104 Wide	4	0271-12105104
5	Nyloc Nut M12	8	0221-NYL12
6	Washer Flat M12	8	0231-F12



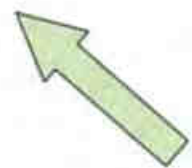


Item No.	Description	Qty	Number
1	Module Cylinder Guard	1	0800-167.3
2	M12 x 45 grade 8.8 ZP Bolt	2	0211-1245
3	Nyloc Nut M12	2	0221-NYL12

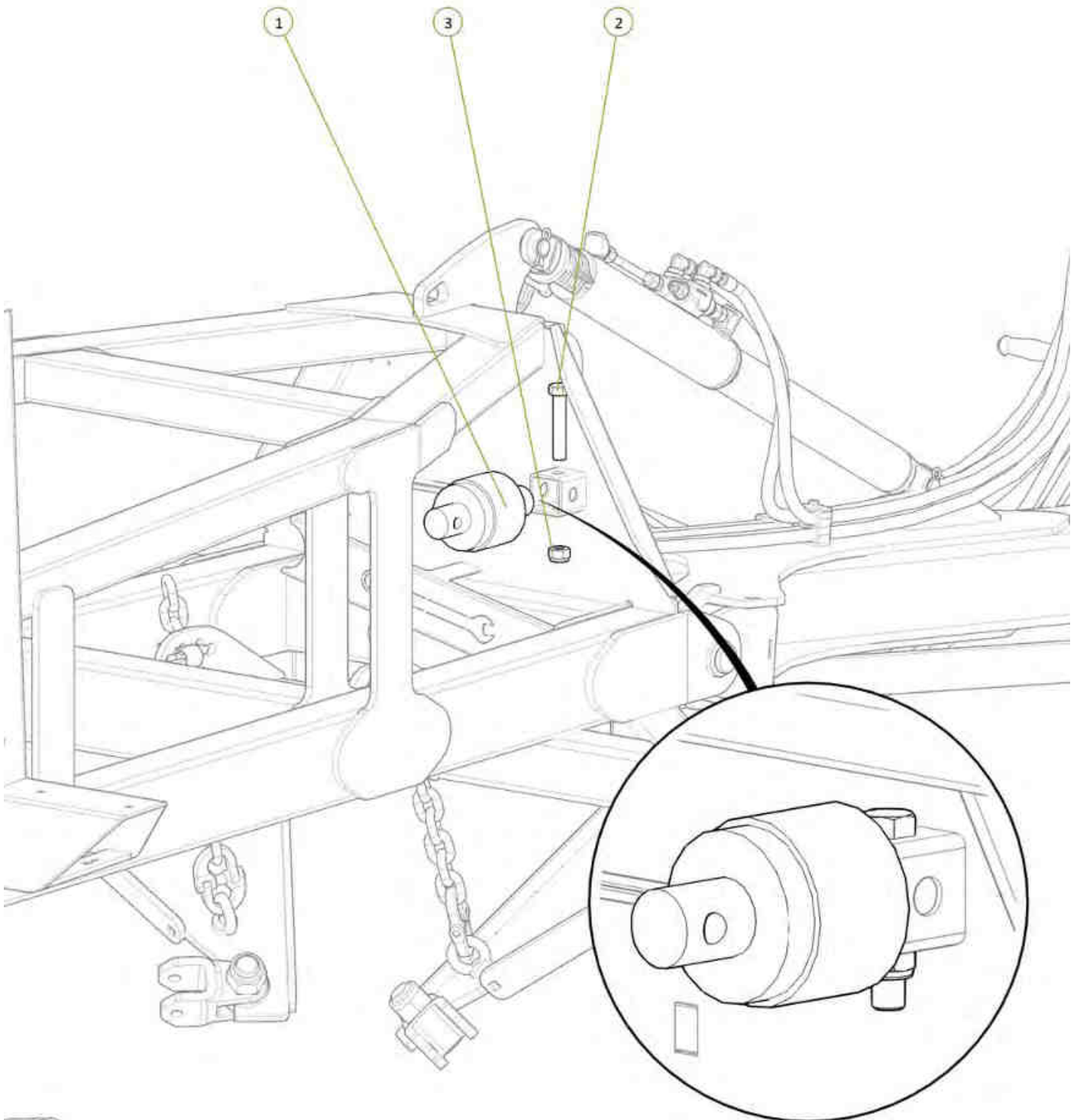
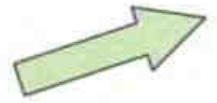




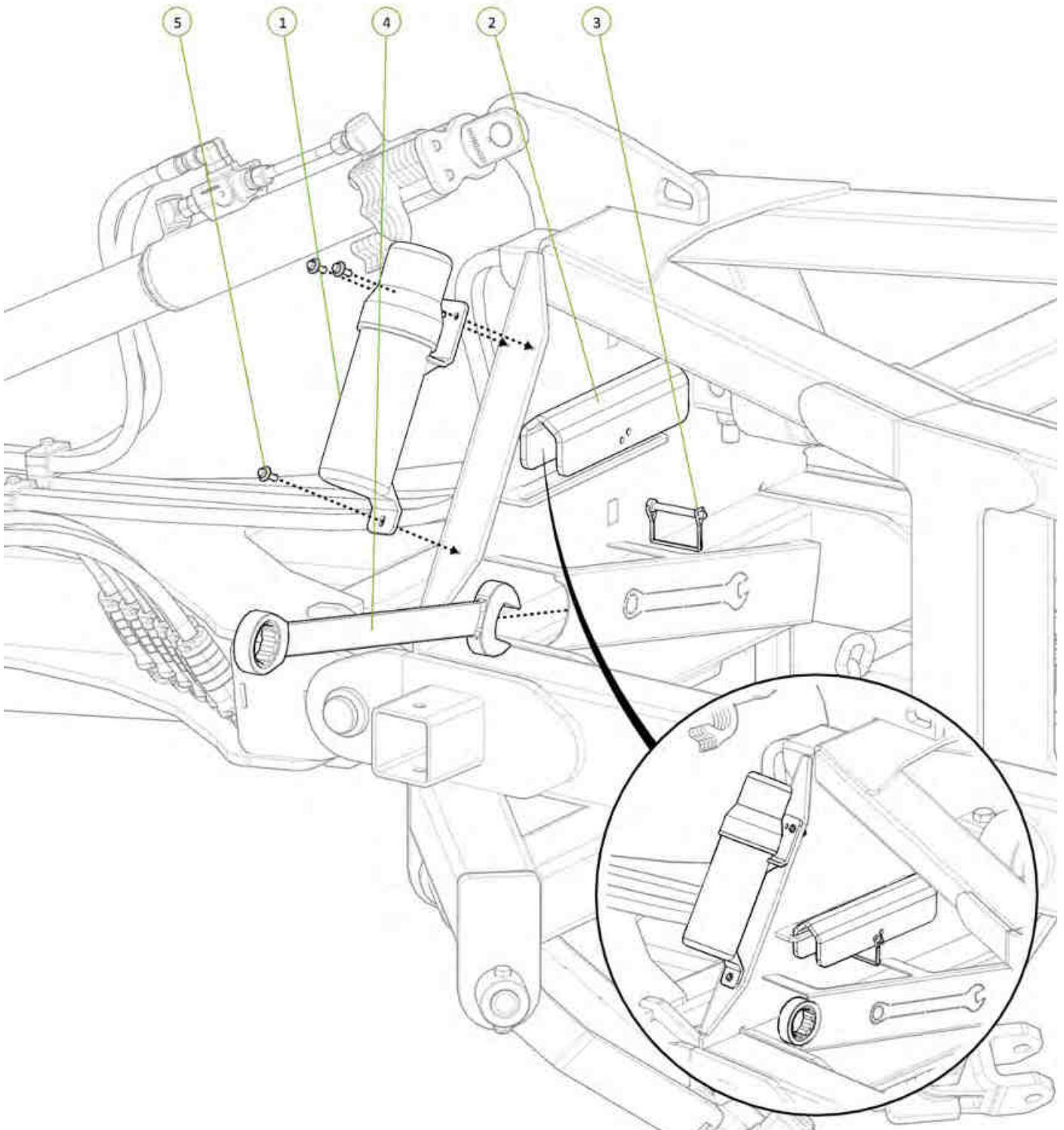
Item No.	Description	Qty	Number
1	Tail Guard Short	1	1510-242
2	9m Gen 2 RH Tail Guard	1	1510-231
3	U-Bolt M12 x 185 Deep x 104 Wide	4	0271-12185104
4	Washer Flat M12	8	0231-F12
5	Nyloc Nut M12	8	0221-NYL12



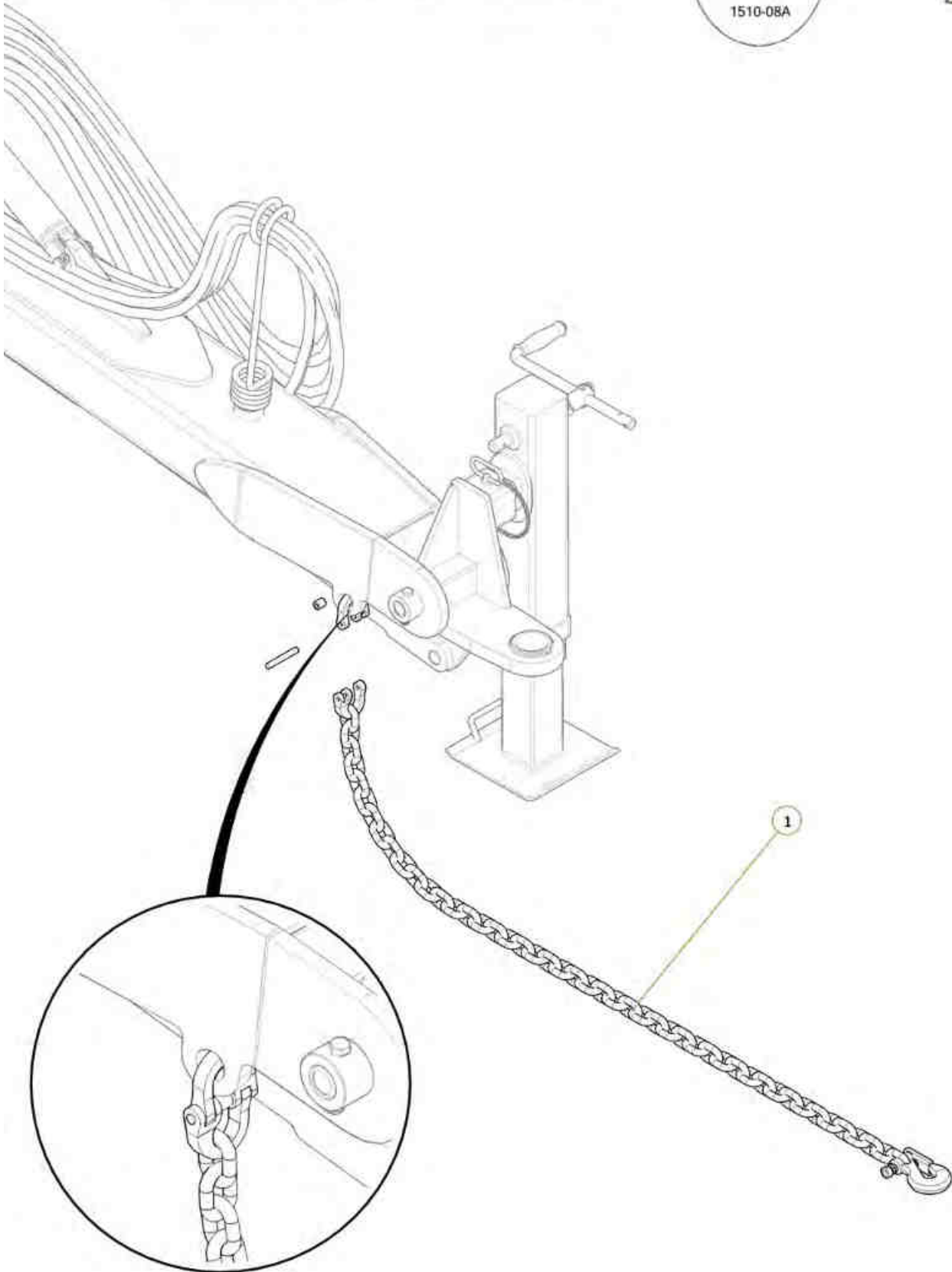
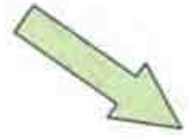
Item No.	Description	Qty	Number
1	20mm Bolt Swivel Unit	1	0802-PCHB55
2	M20 x 110 grade 10.9 ZP Short Thread Bolt	1	0211-20110 ST
3	Nyloc Nut M20	1	0221-NYL20

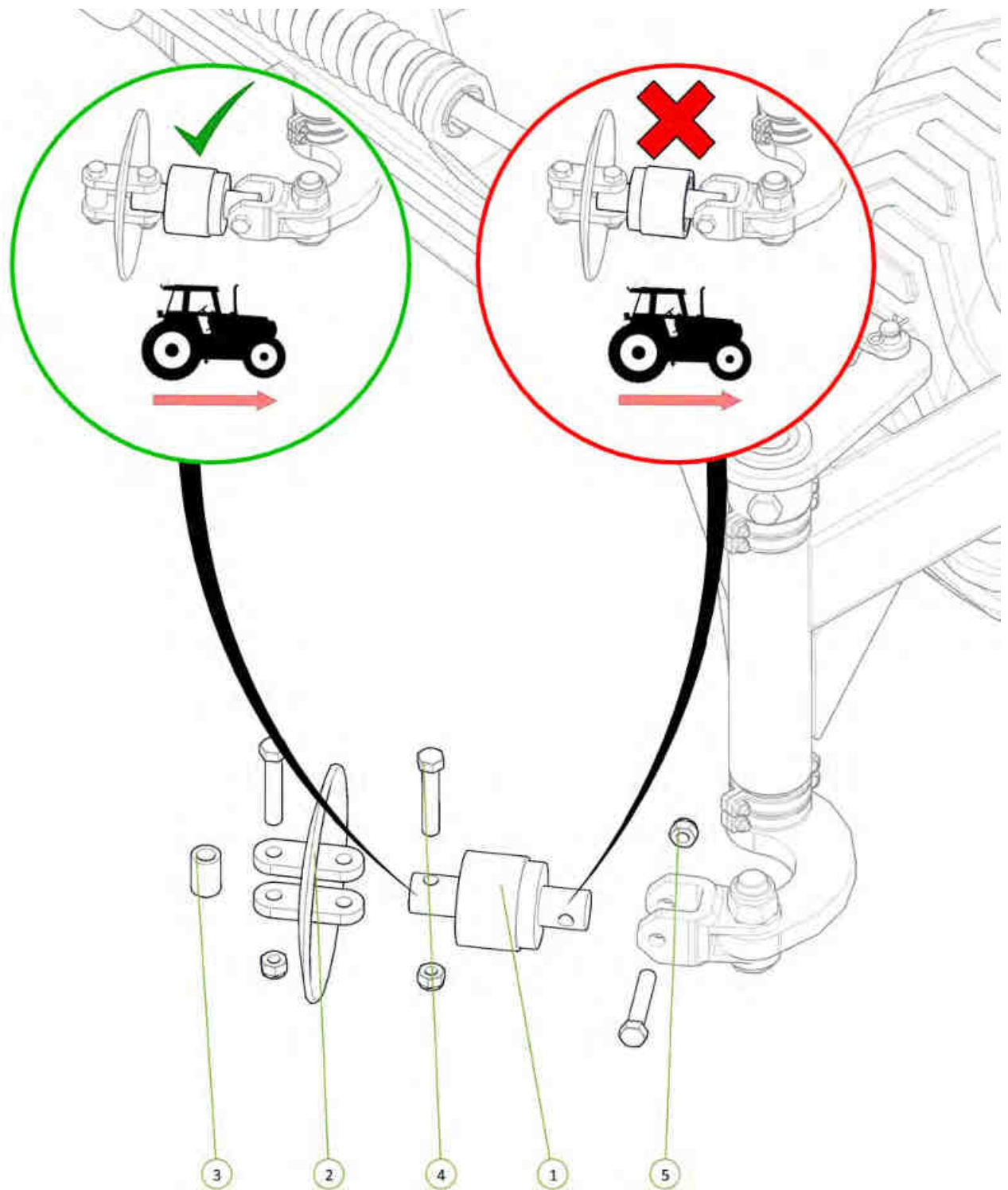


Item No.	Description	Qty	Number
1	Operator Manual Cannister	1	0801-OMC-1
2	Cylinder Safety Stop	1	0800-212.1
3	Square Loop Pin M8 x 63	1	0511-PINLOOPSQ863
4	Ratcheting Gear Wrench 1 3/4"	1	0802-GW1 3-4
5	M6 x 20 Trilobe self tapping ScREW	3	0211-M620MZPHTF

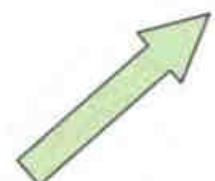


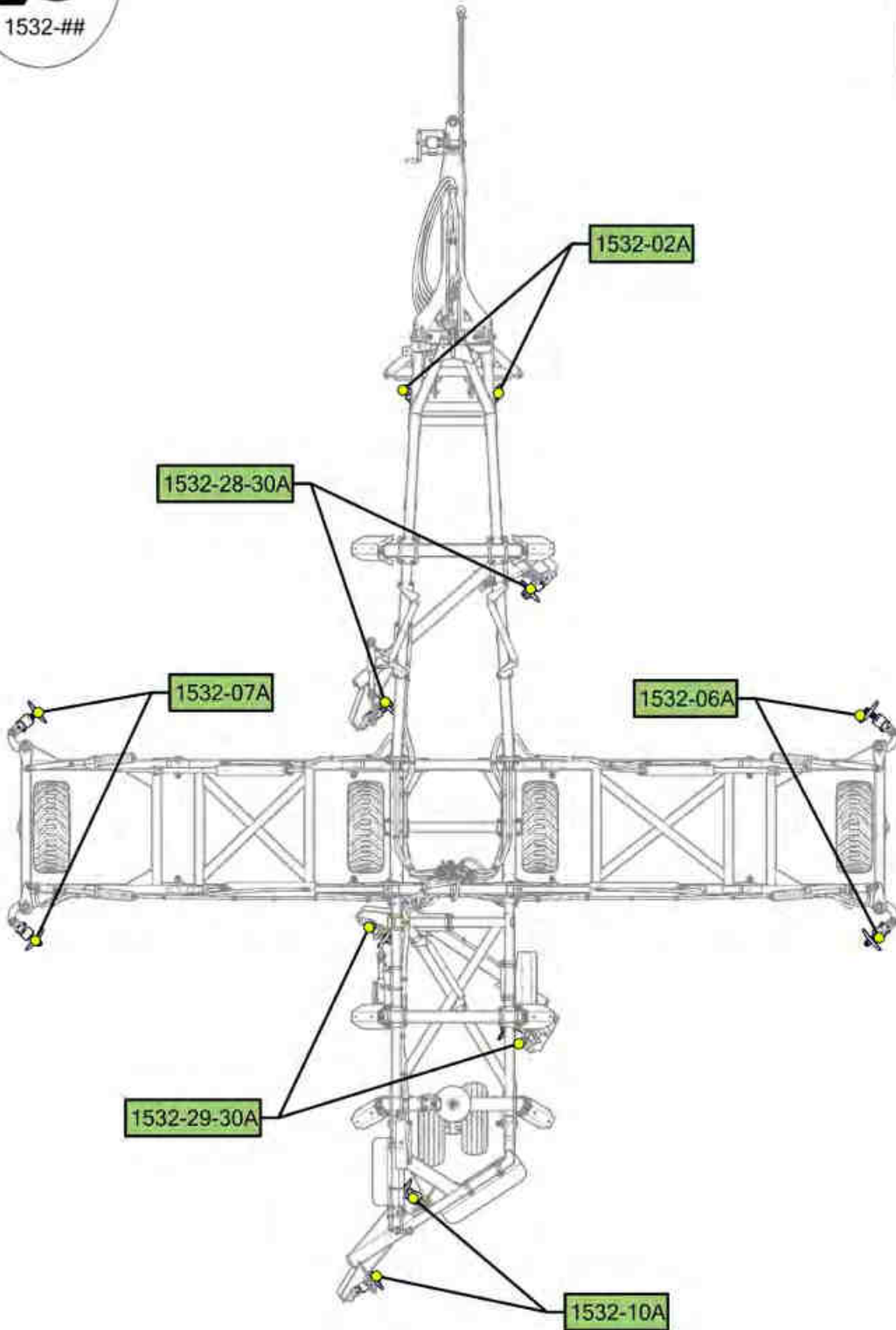
Item No.	Description	Qty	Number
1	Safety Chain Assembly	1	0810-16

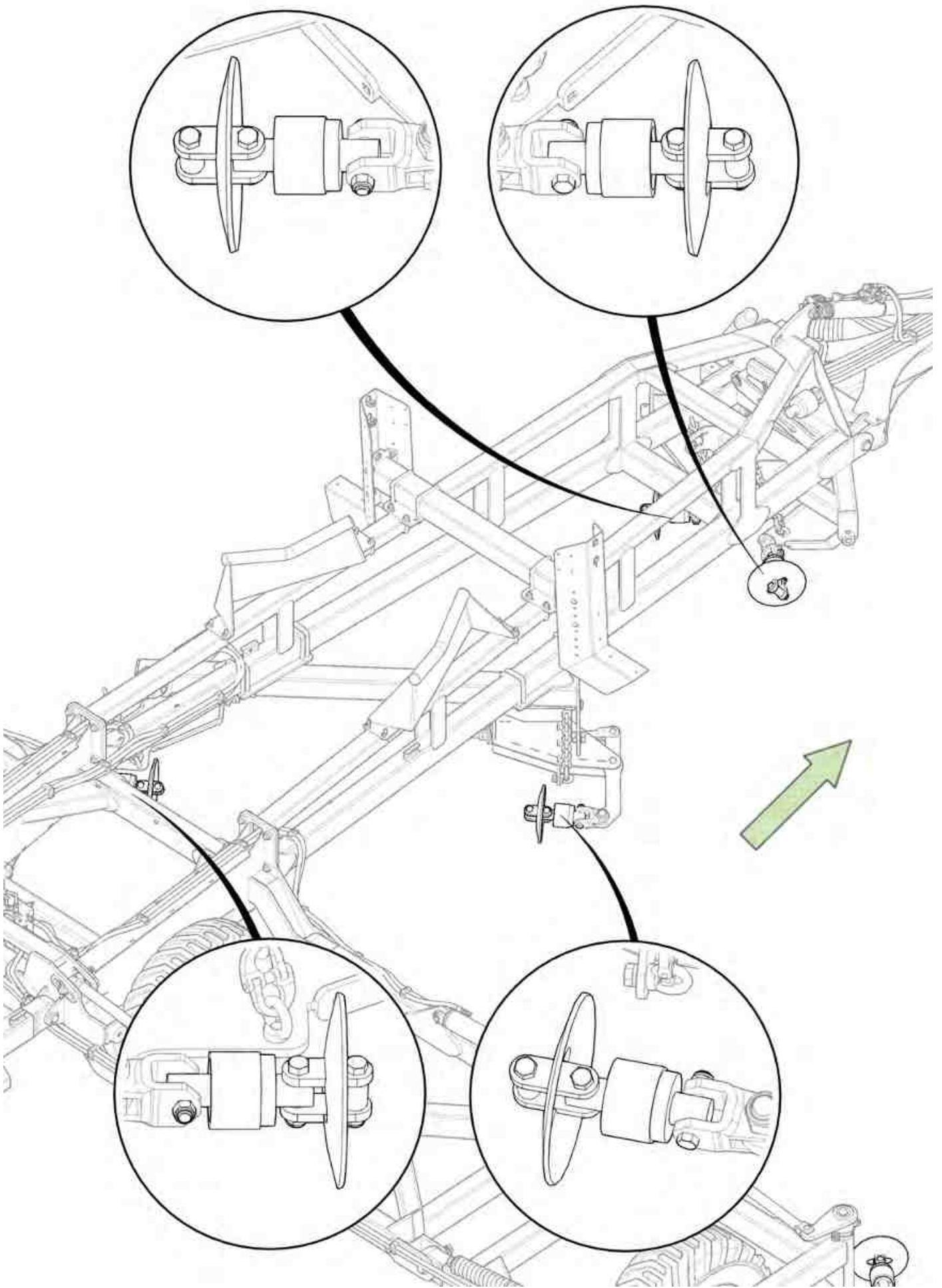


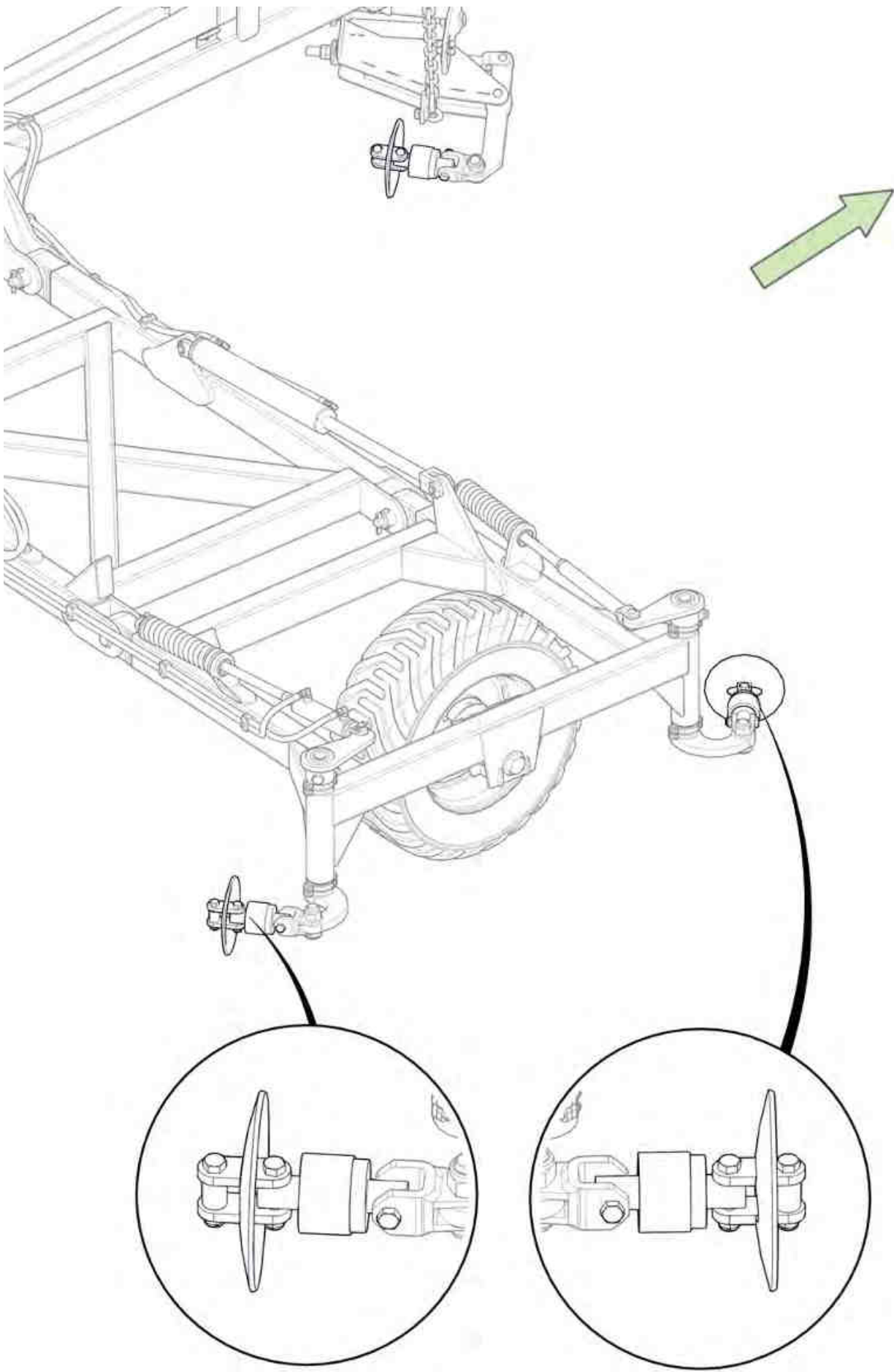


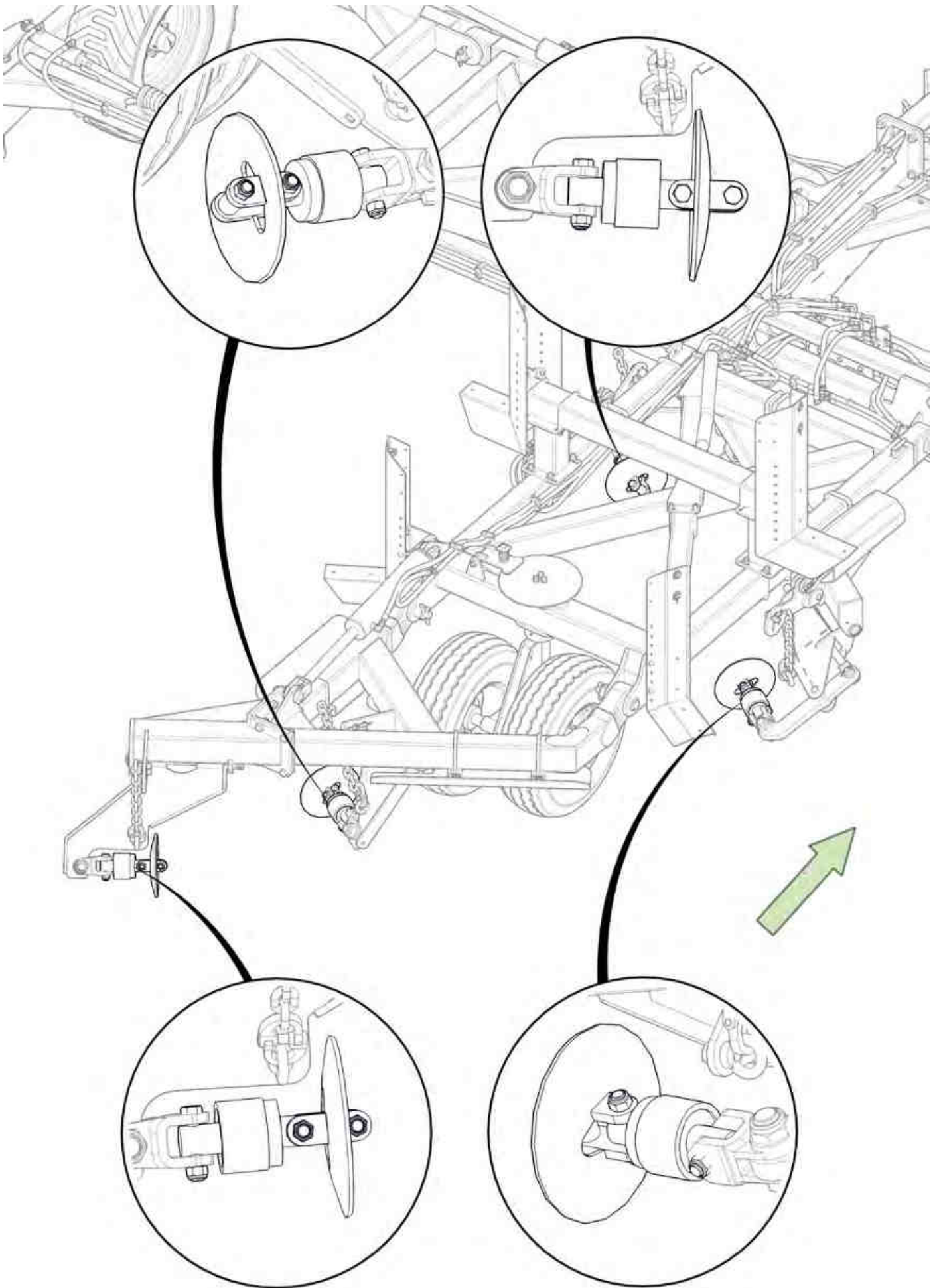
Item No.	Description	Qty	Number
1	20mm Bolt Swivel Unit	1	0802-PCHB55
2	Disc Chain Tie Plate Link 20mm	1	0802-DCTP-20
3	Tie Plate Bush	1	0801-PCDCS55
4	M20 x 110 grade 10.9 ZP Short Thread Bolt	3	0211-20110 ST
5	Nyloc Nut M20	3	0221-NYL20

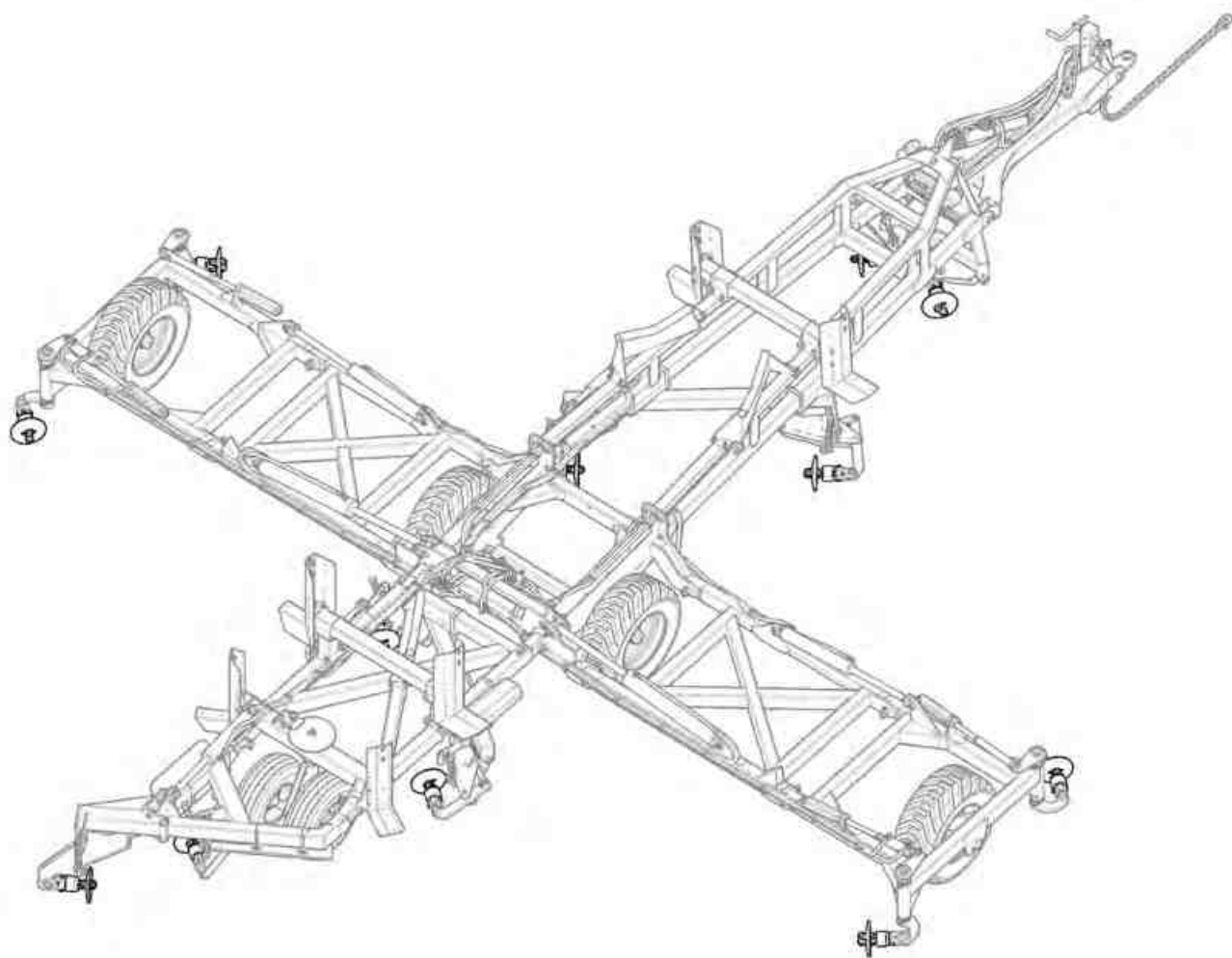












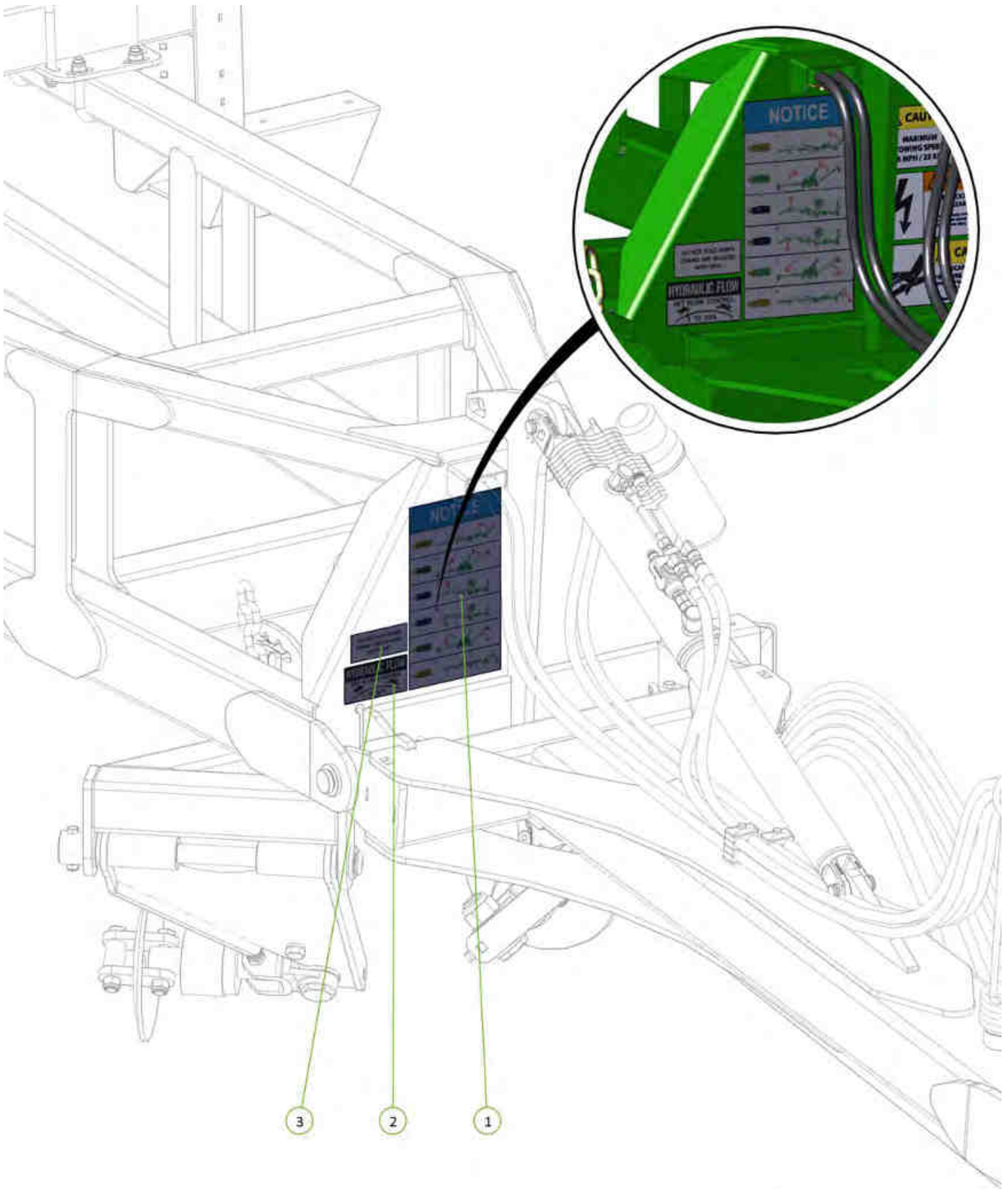
All bearings correctly orientated with seal facing rear of the machine



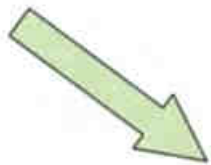
Signed _____ Date _/ _/ _
Unit Serial Number _____

Section 3

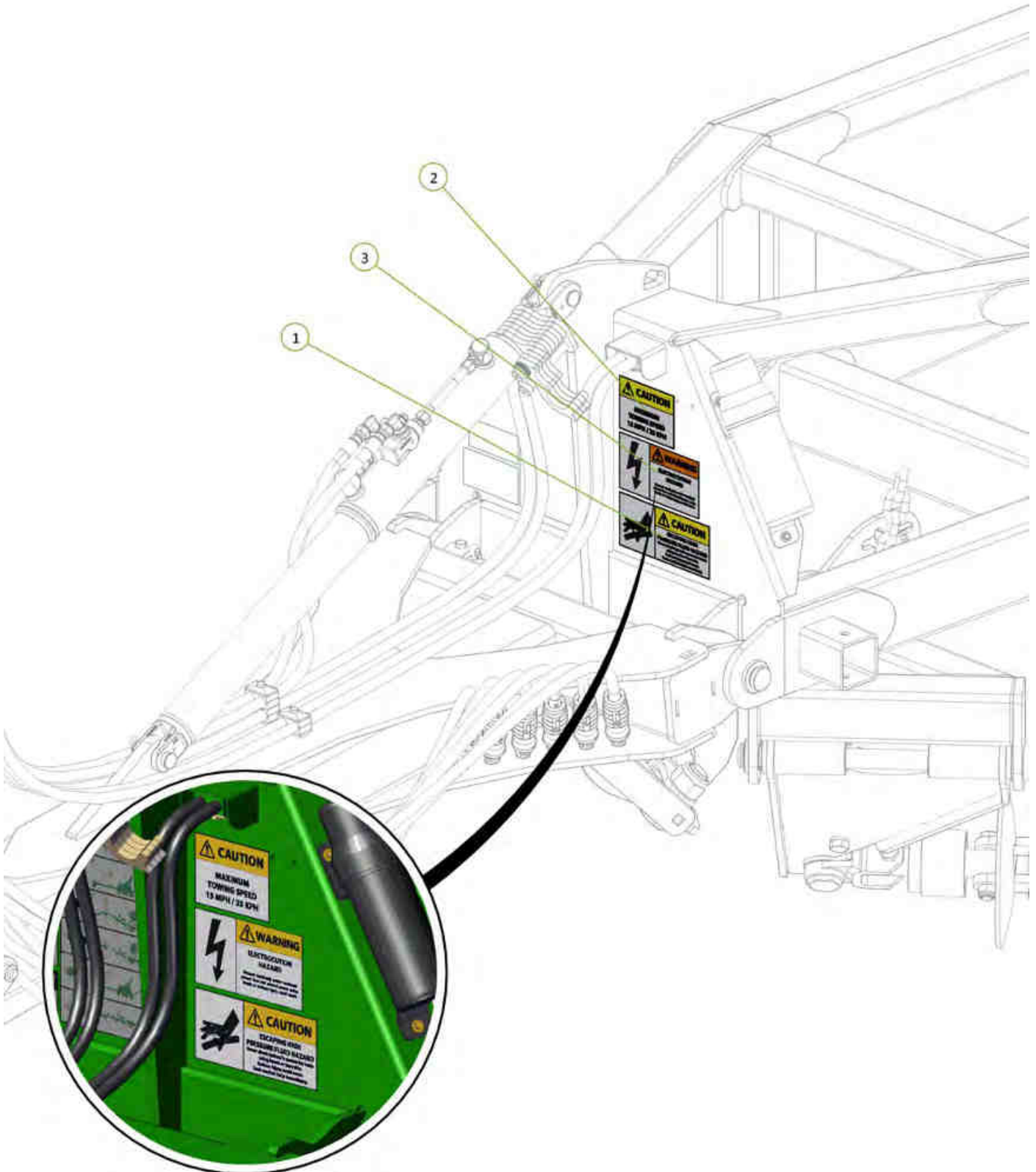
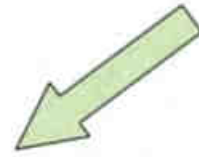
Decal Placement



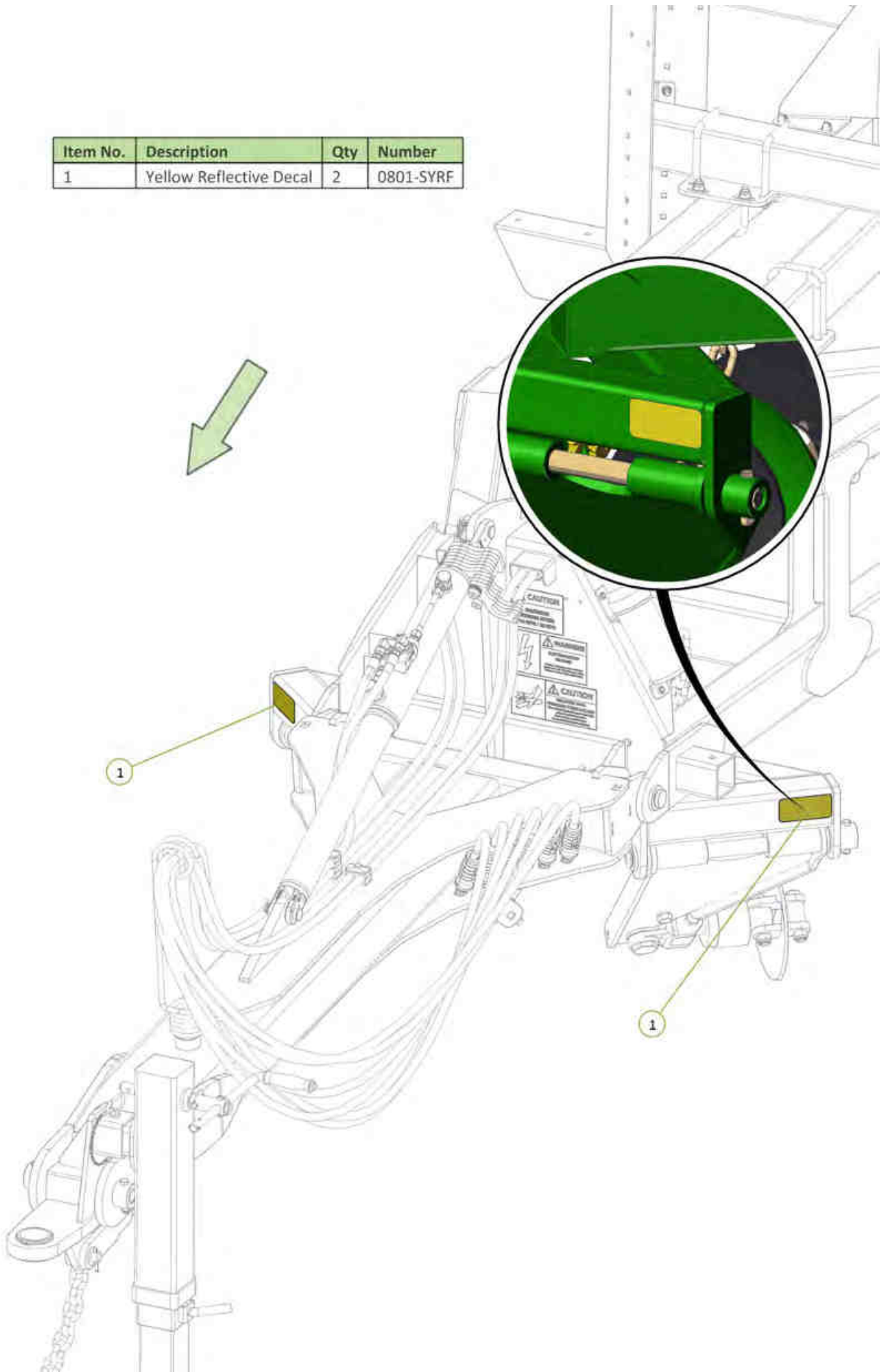
Item No.	Description	Qty	Number
1	'NOTICE' Hydra Grip Sequence Decal 200x360mm	1	0801-S20
2	Hydraulic Flow Decal	1	0801-S21
3	Mud Folding Warning Decal	1	0801-S22



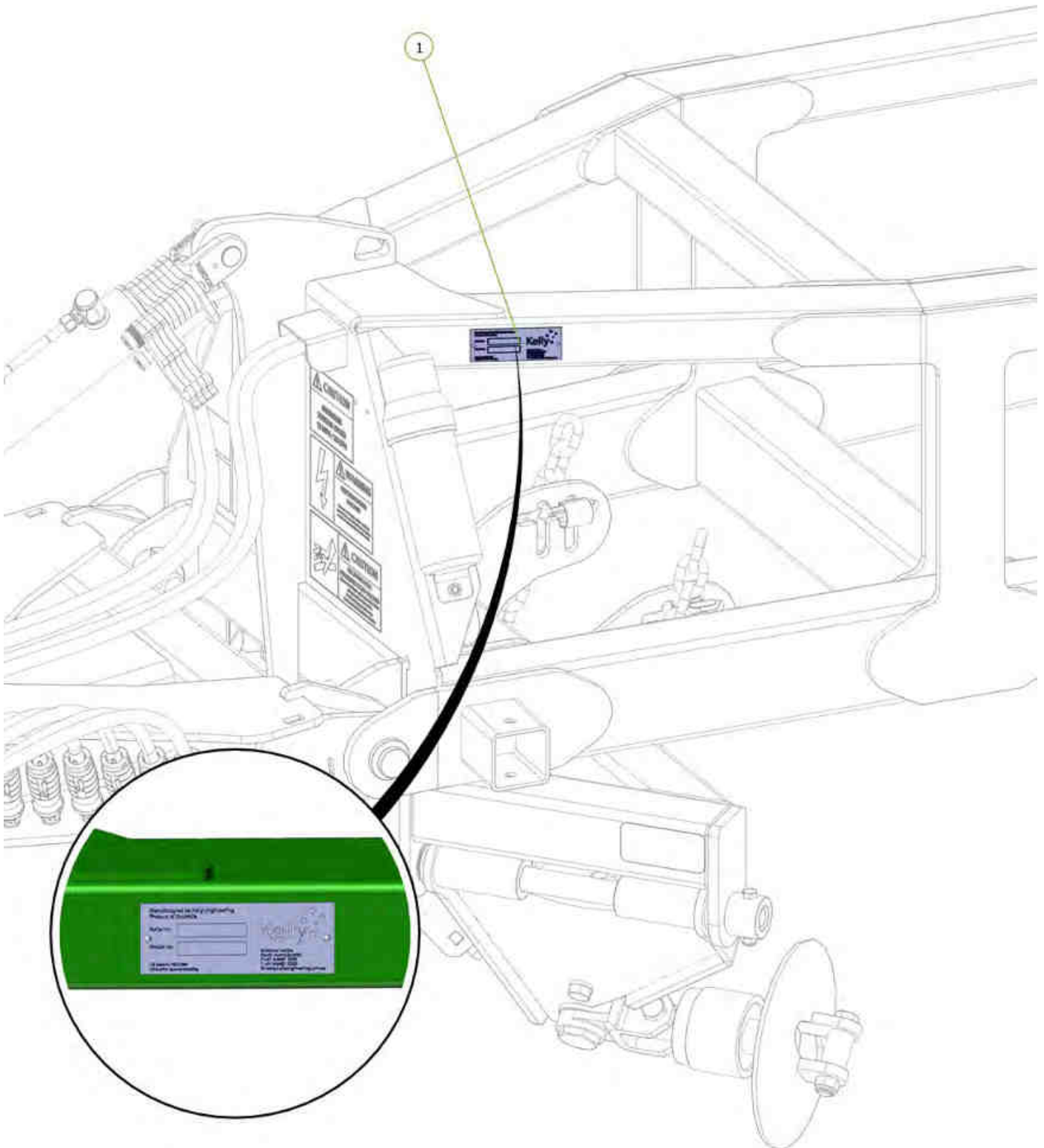
Item No.	Description	Qty	Number
1	Hydraulic Pressure Caution Decal	1	0801-S4
2	Towing Speed Decal	1	0801-S5
3	Electrocution Hazard Decal	1	0801-S6



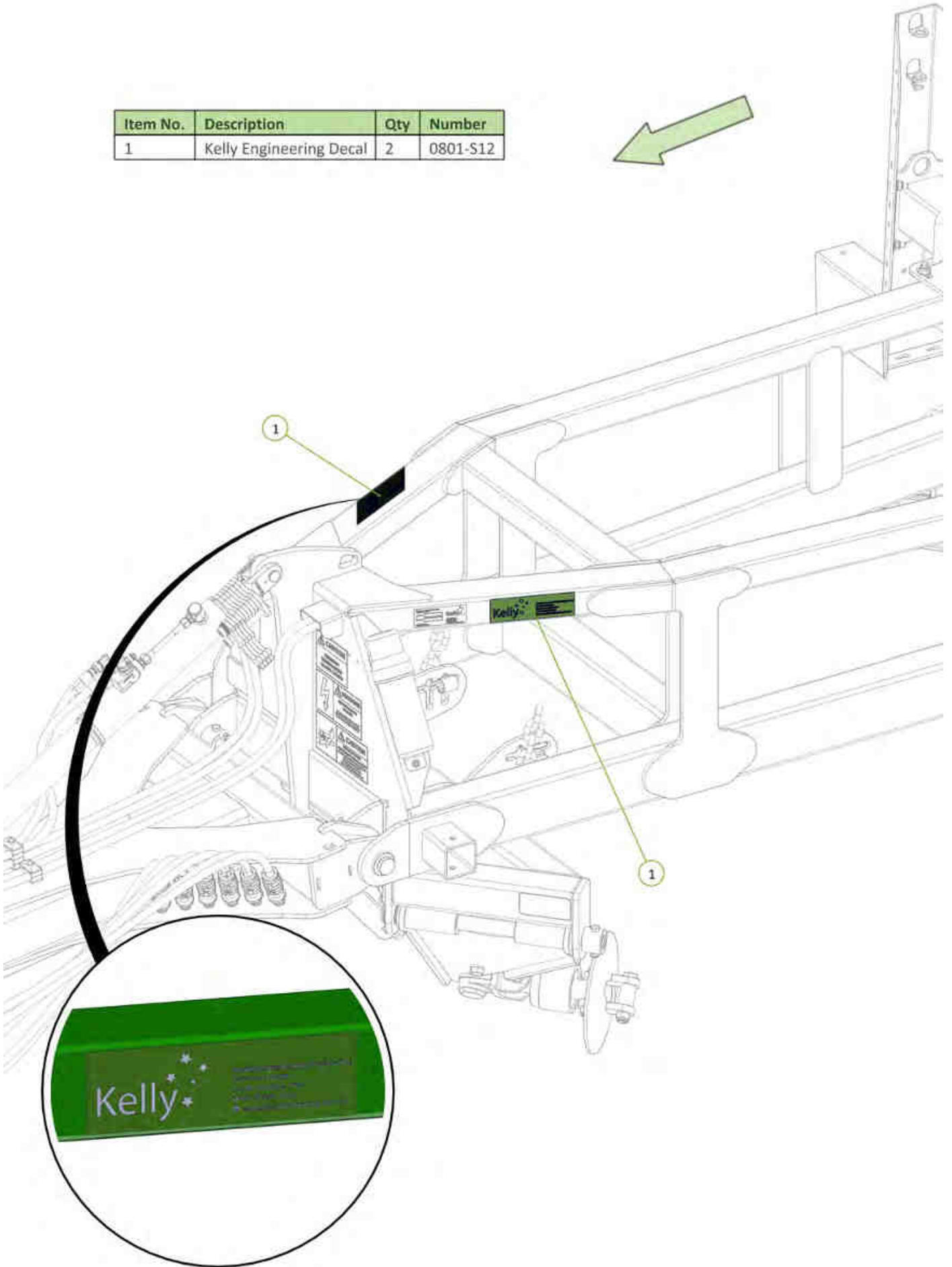
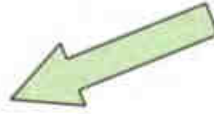
Item No.	Description	Qty	Number
1	Yellow Reflective Decal	2	0801-SYRF



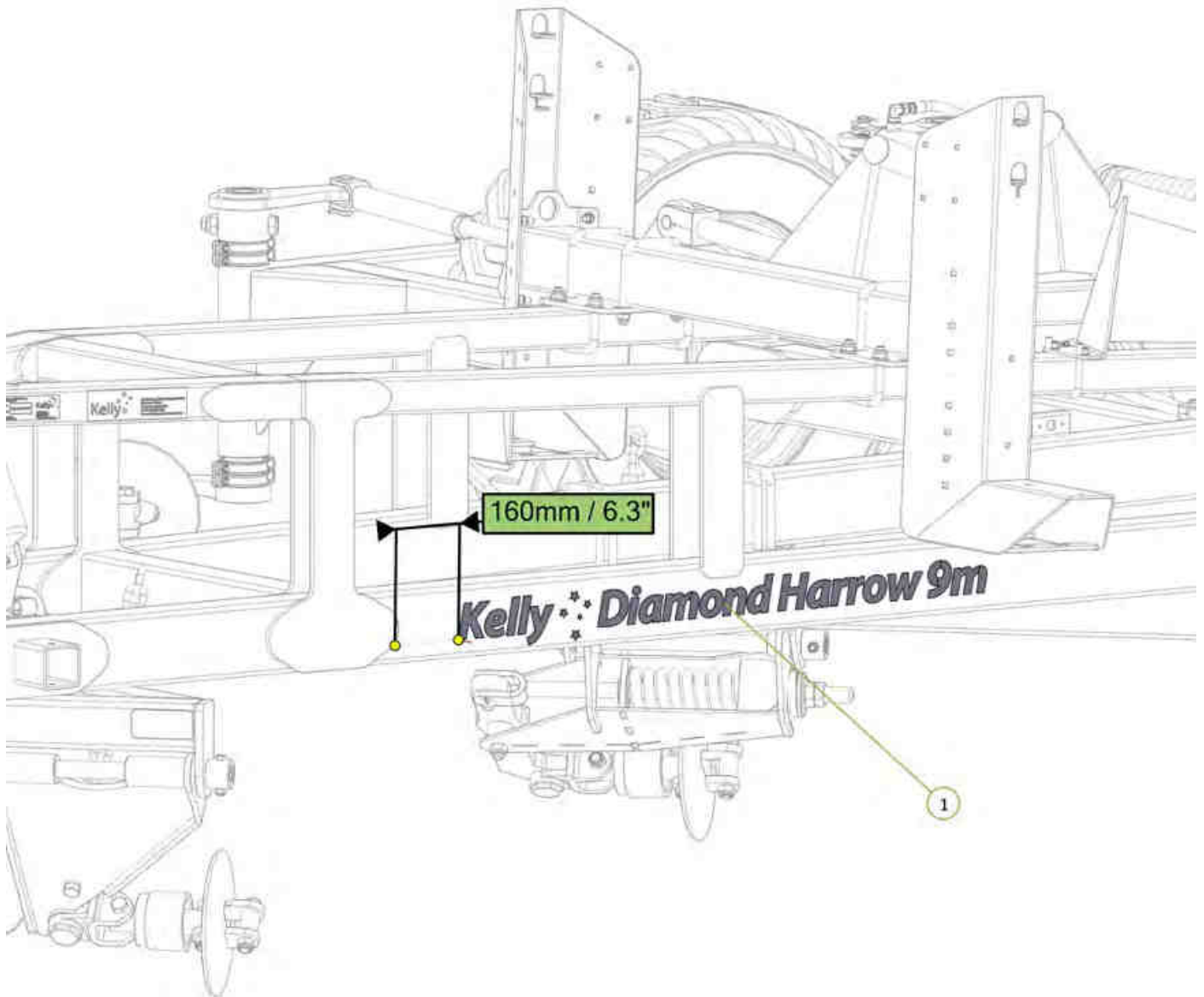
Item No.	Description	Qty	Number
1	Data Plate	1	0801-SDP



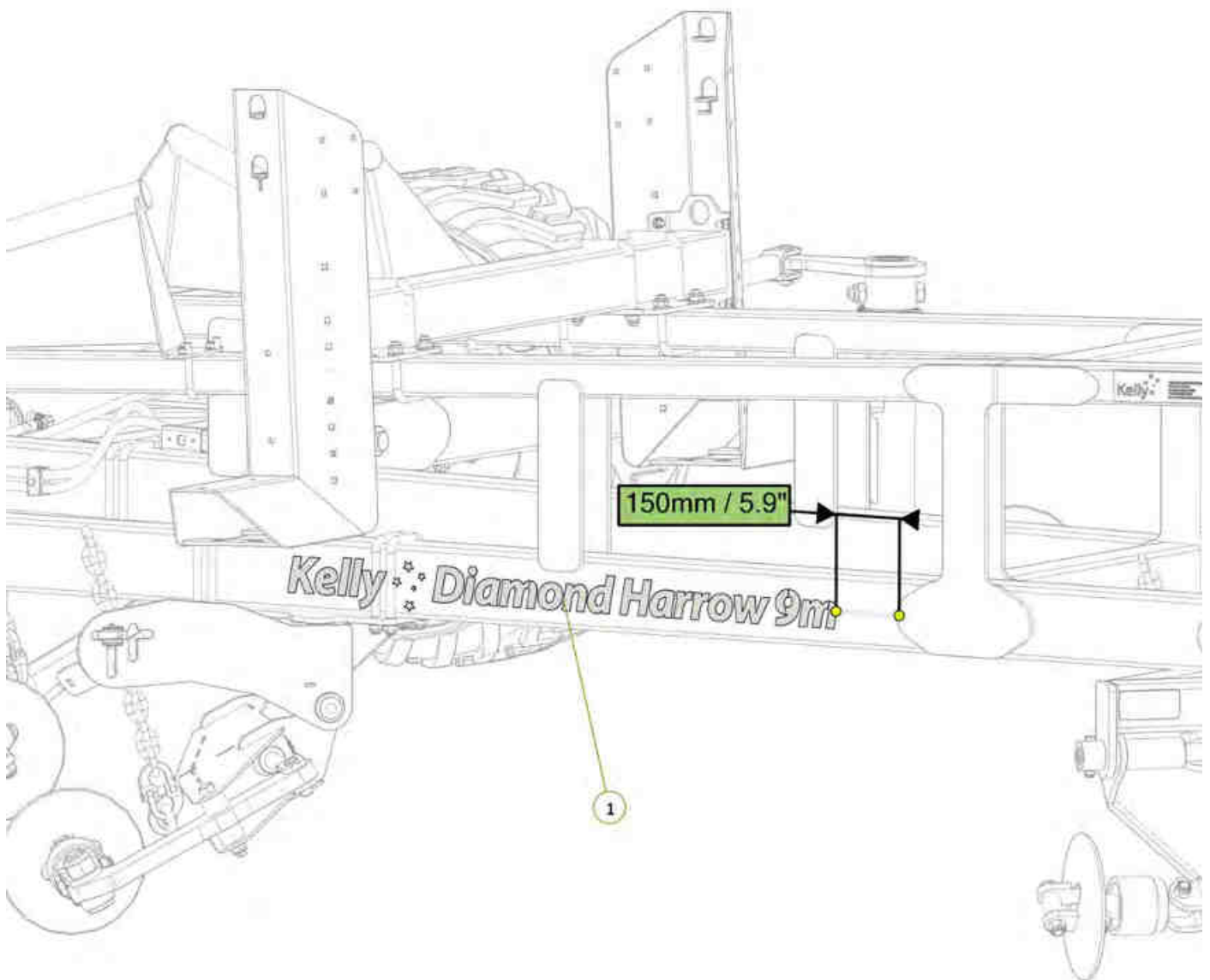
Item No.	Description	Qty	Number
1	Kelly Engineering Decal	2	0801-S12

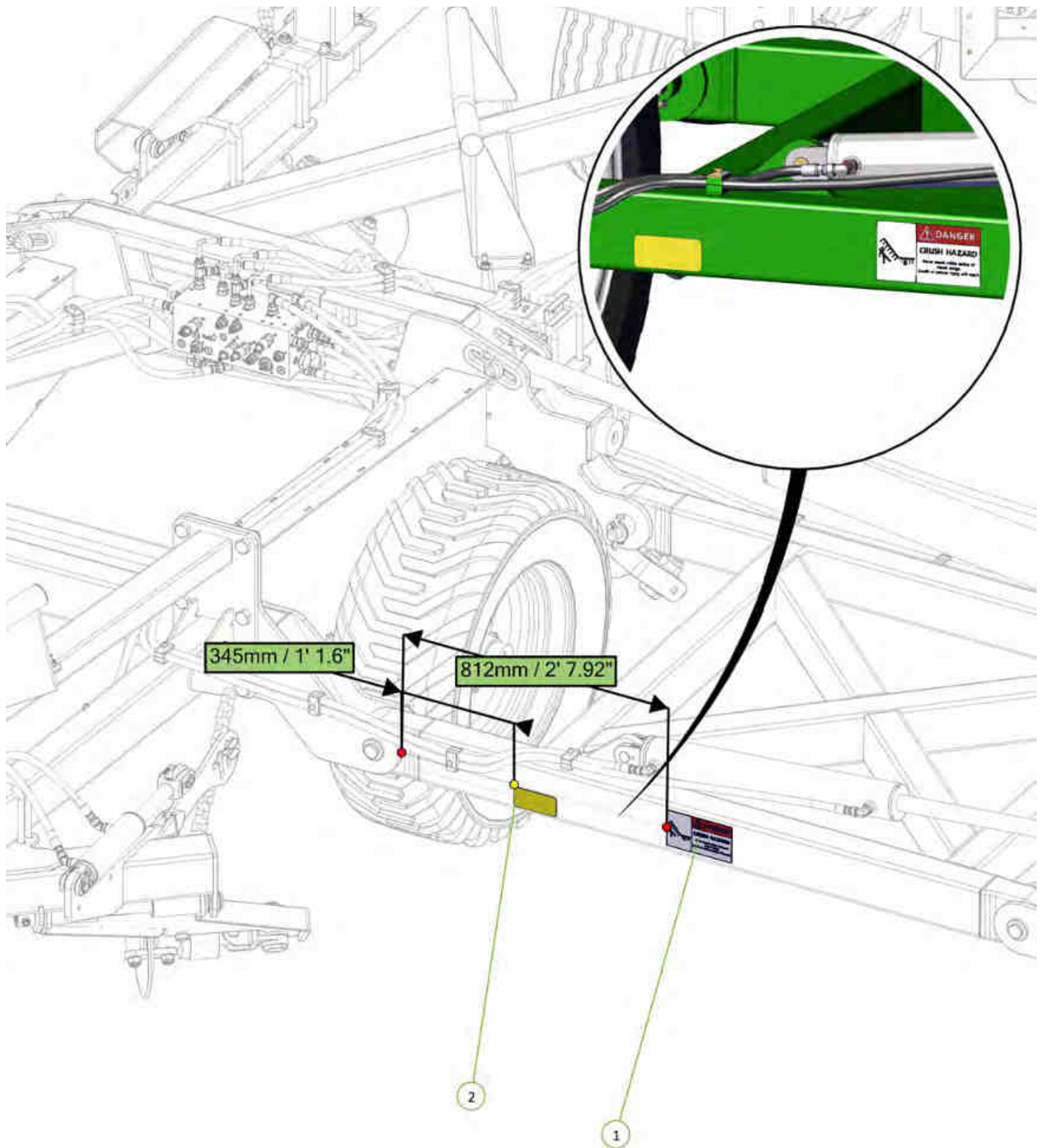


Item No.	Description	Qty	Number
1	Diamond Harrow 9m Decal	1	0801-SKDH9

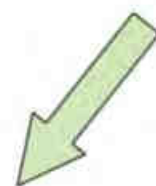


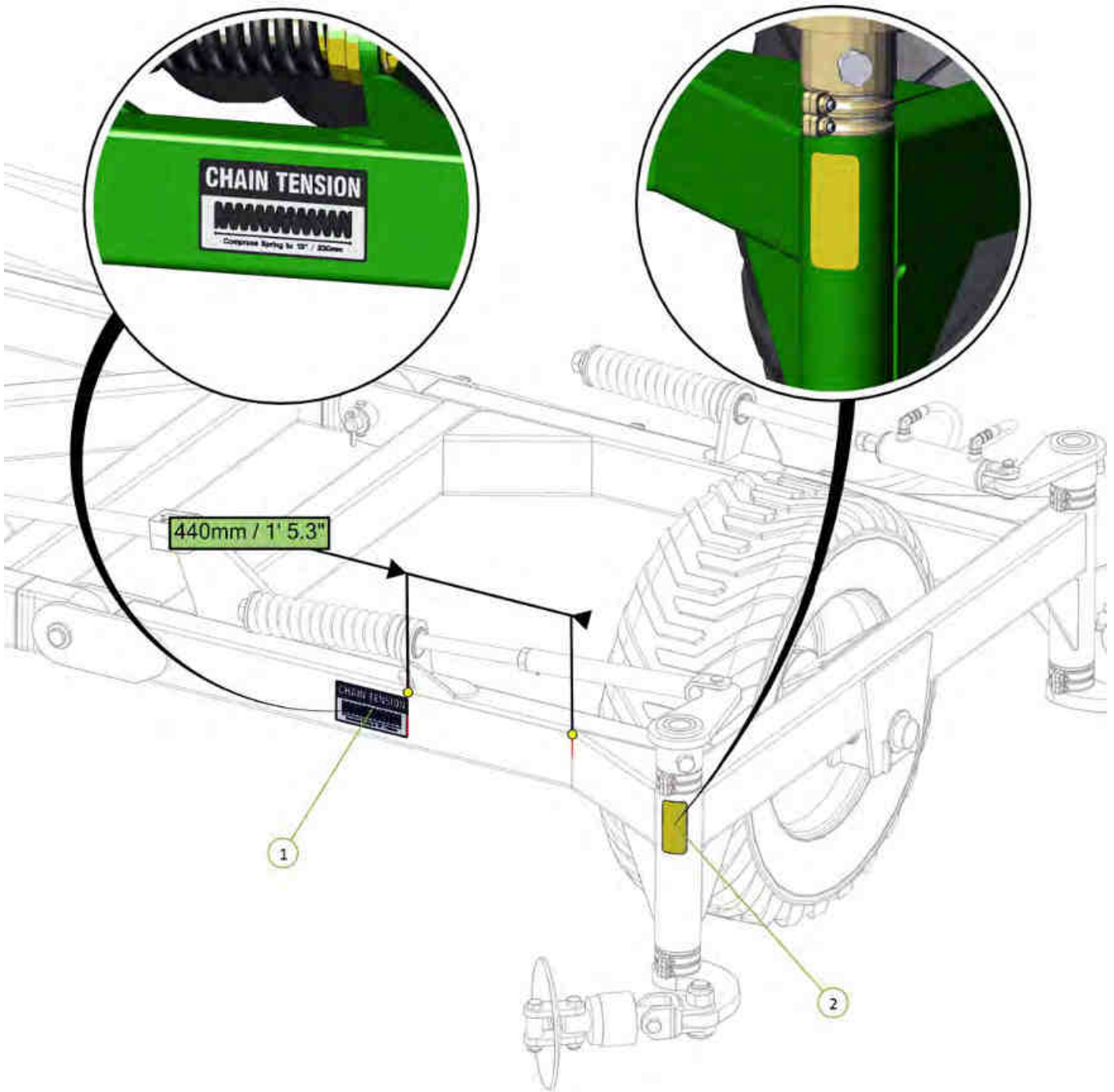
Item No.	Description	Qty	Number
1	Diamond Harrow 9m Decal	1	0801-SKD9



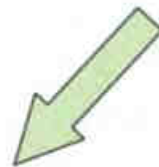


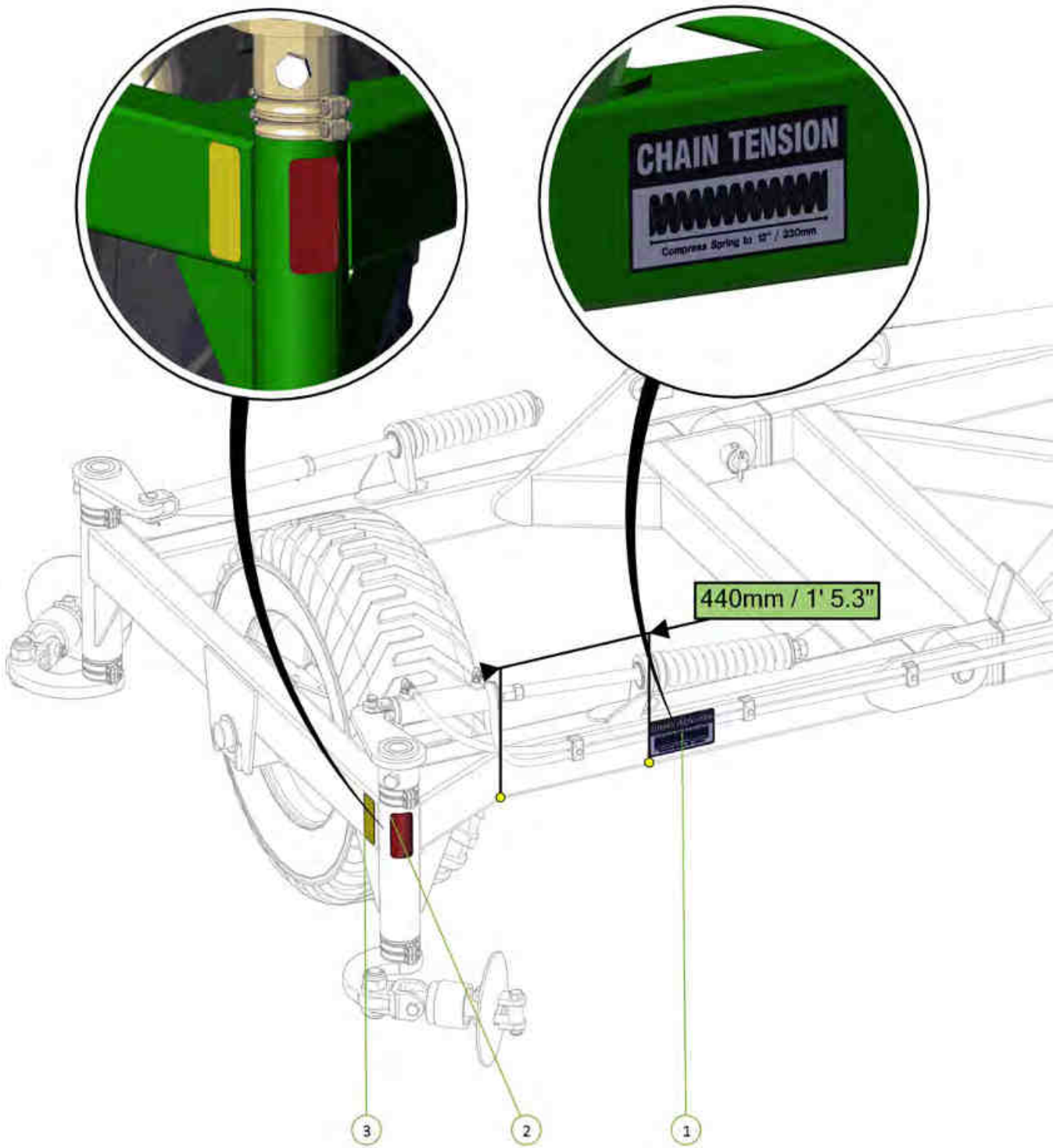
Item No.	Description	Qty	Number
1	Danger Crush Hazard Decal	1	0801-S3
2	Yellow Reflective Decal	1	0801-SYRF





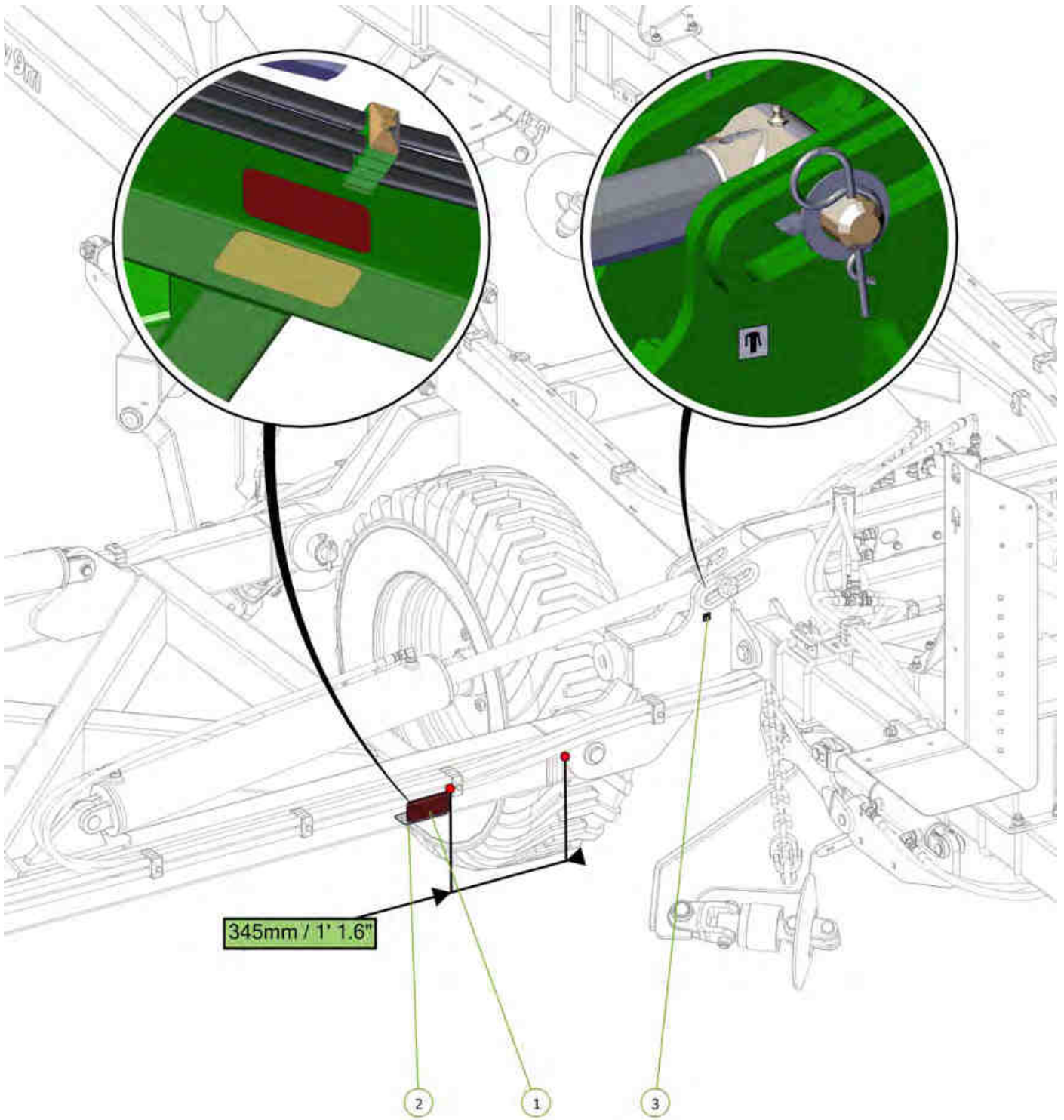
Item No.	Description	Qty	Number
1	Chain Tension 330mm Decal	1	0801-S15
2	Yellow Reflective Decal	1	0801-SYRF





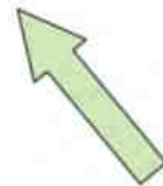
Item No.	Description	Qty	Number
1	Chain Tension 330mm Decal	1	0801-S15
2	Red Reflective Decal	1	0801-SRRF
3	Yellow Reflective Decal	1	0801-SYRF

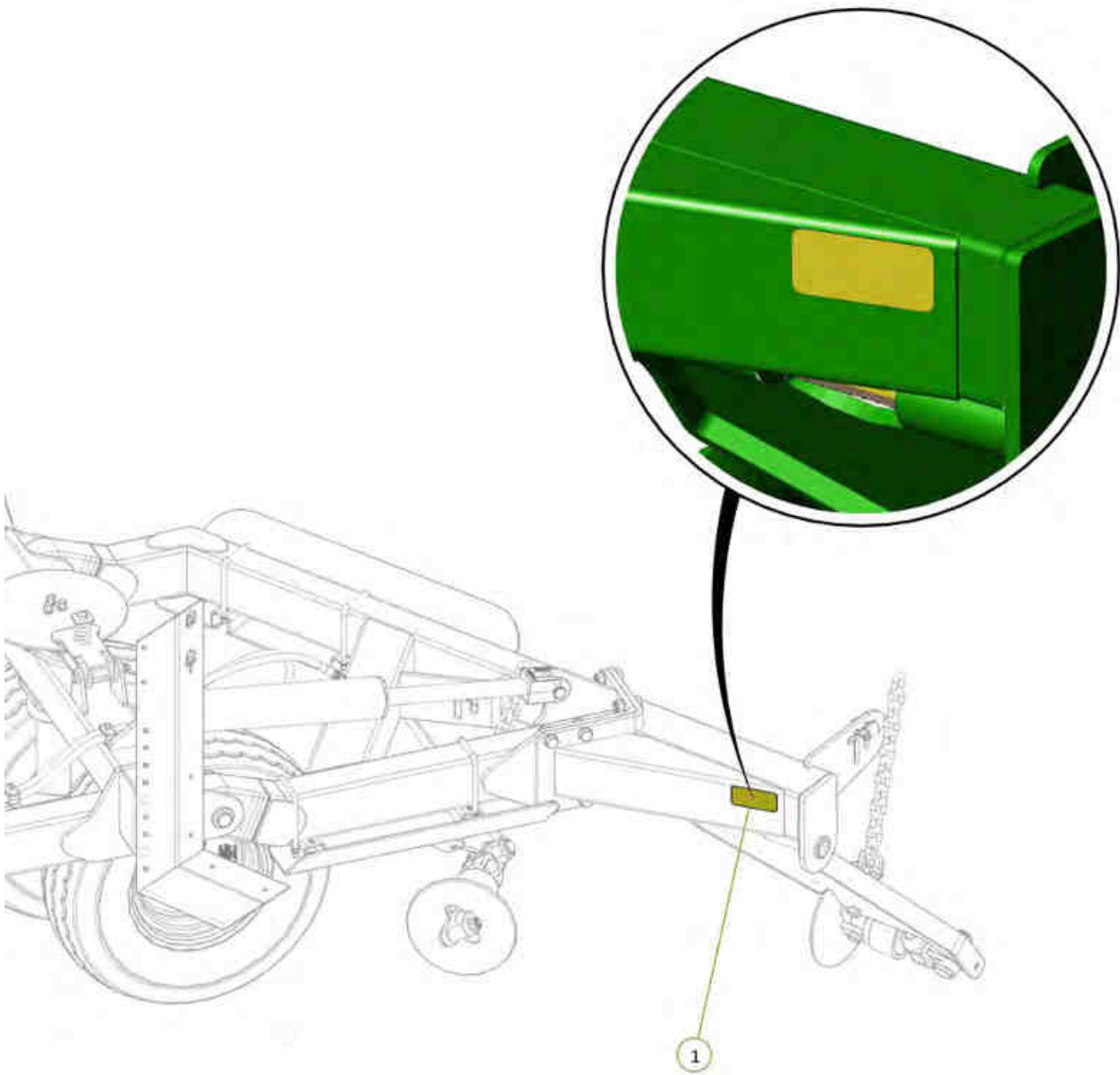




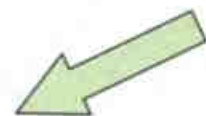
345mm / 1' 1.6"

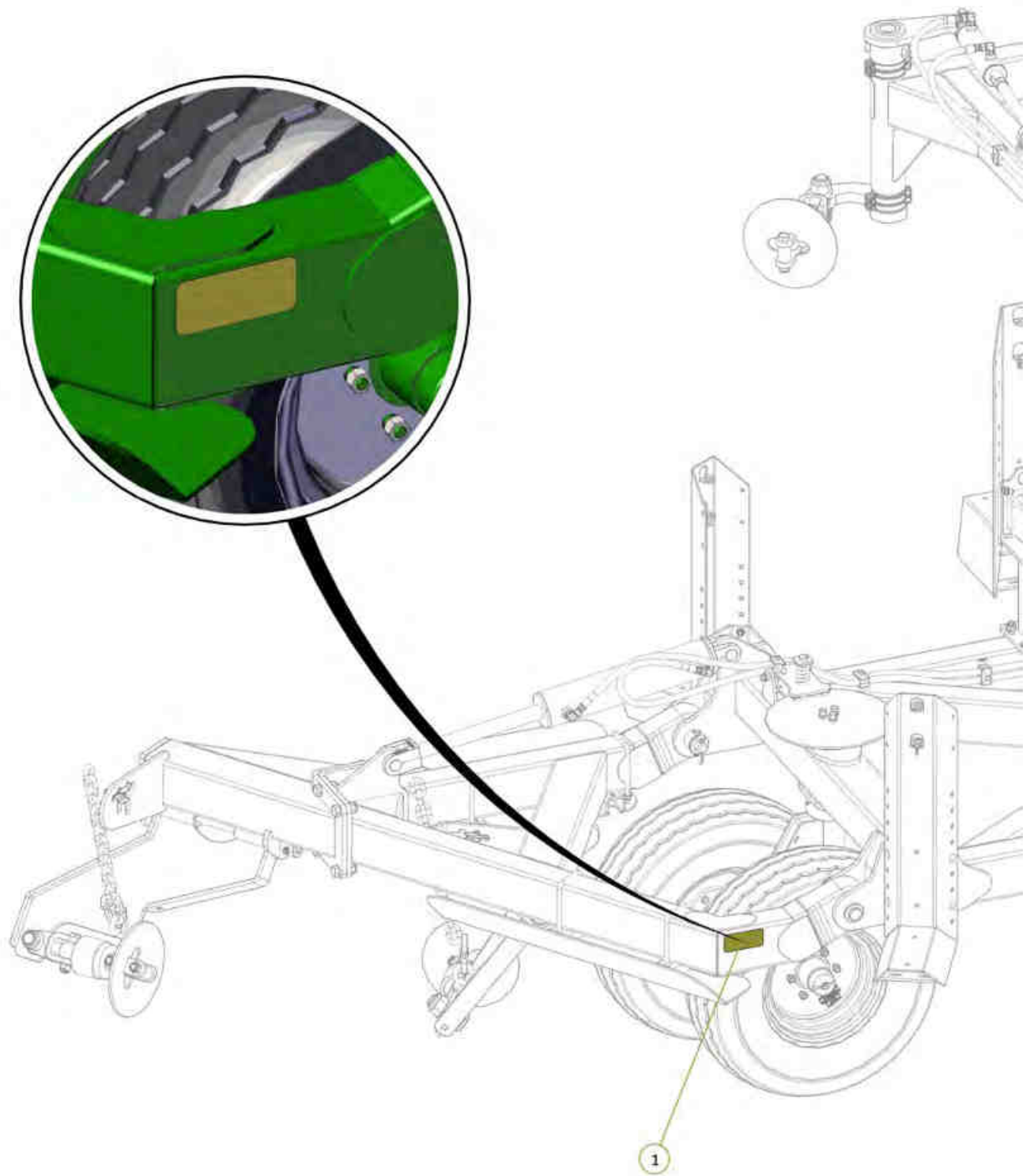
Item No.	Description	Qty	Number
1	Red Reflective Decal	1	0801-SRRF
2	Yellow Reflective Decal	1	0801-SYRF
3	Grease Decal	1	0801-S10



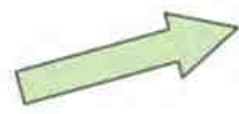


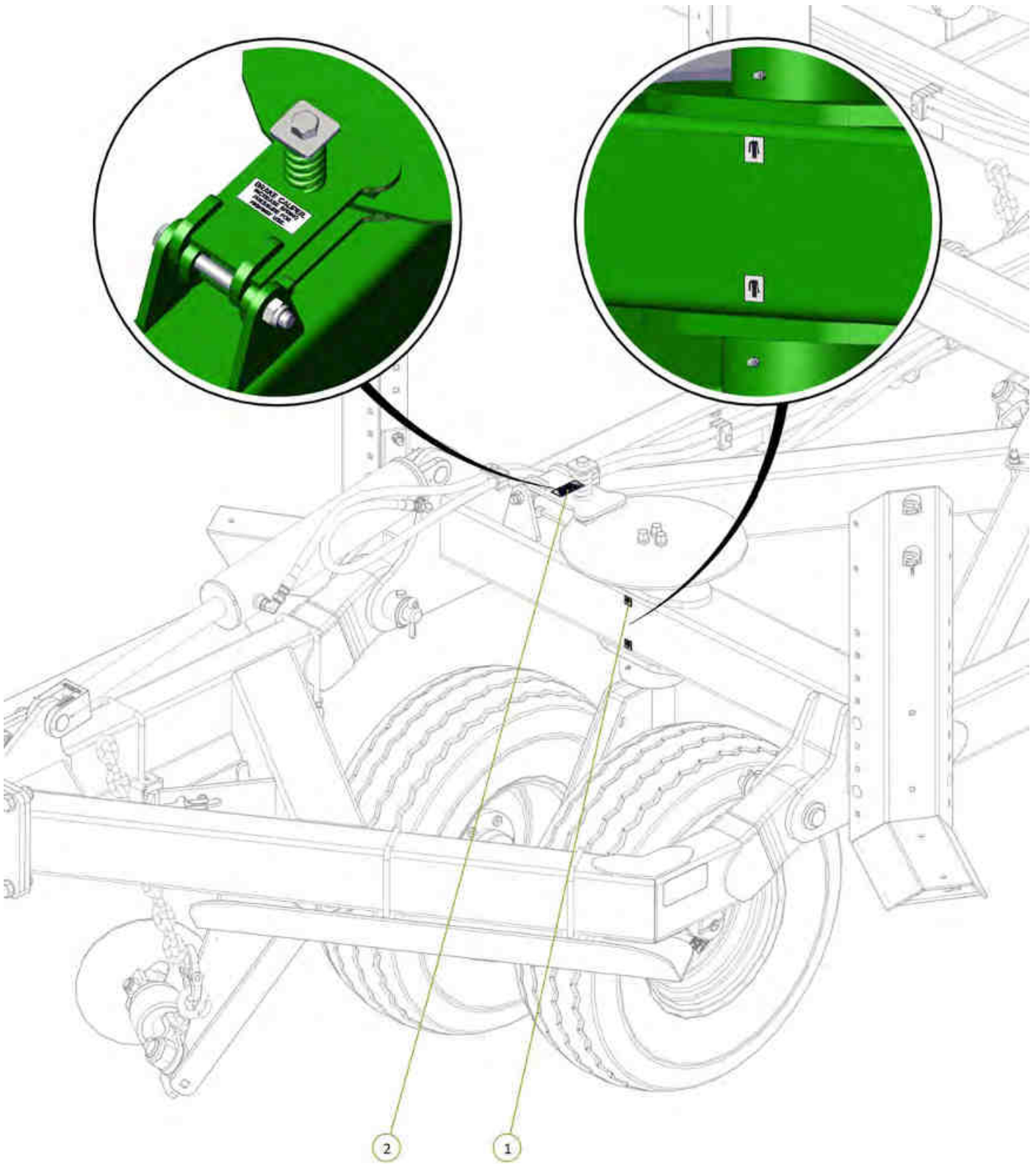
Item No.	Description	Qty	Number
1	Yellow Reflective Decal	1	0801-SYRF



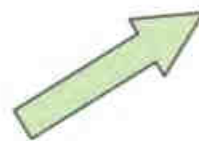


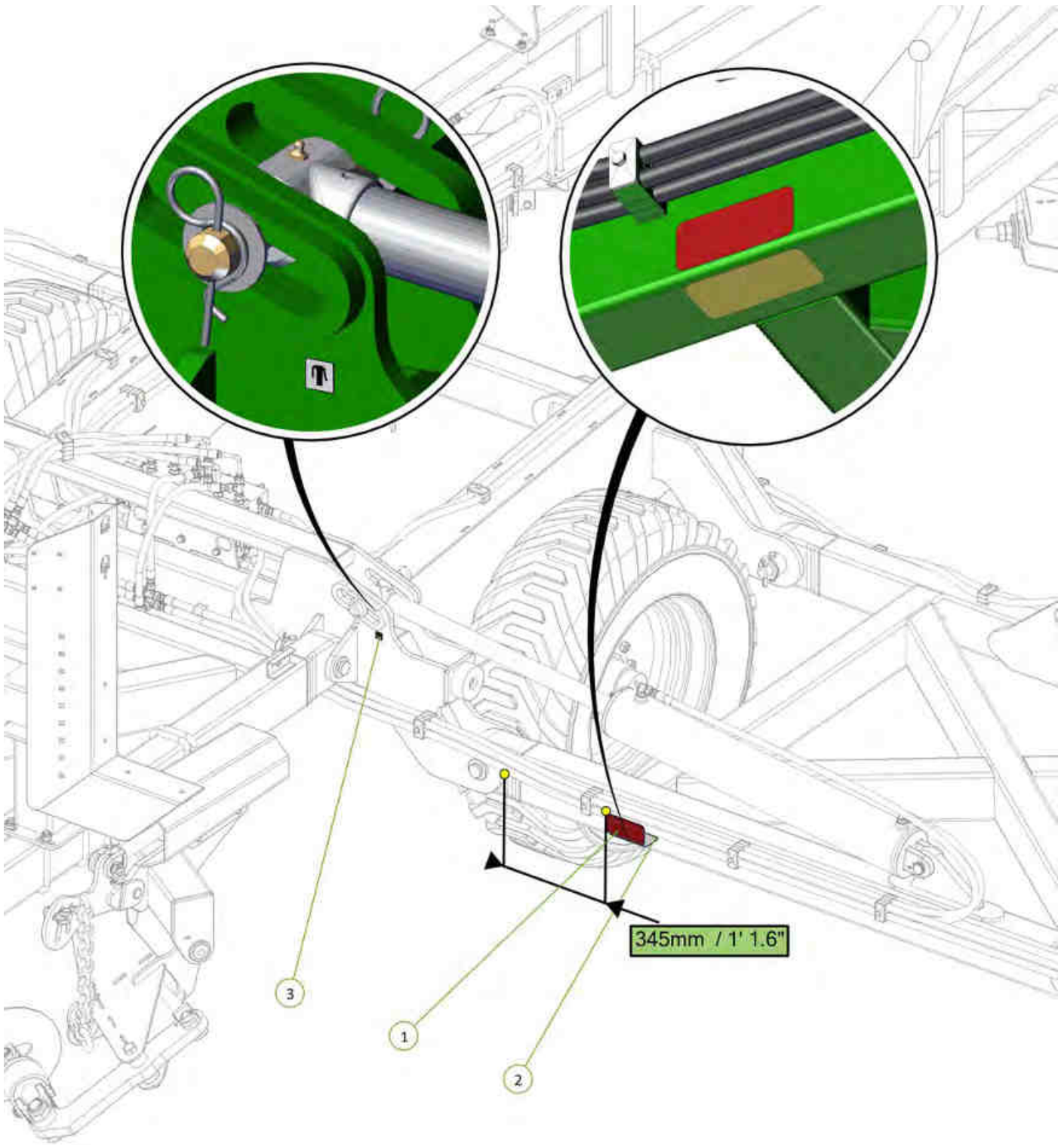
Item No.	Description	Qty	Number
1	Yellow Reflective Decal	1	0801-SYRF



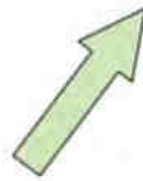


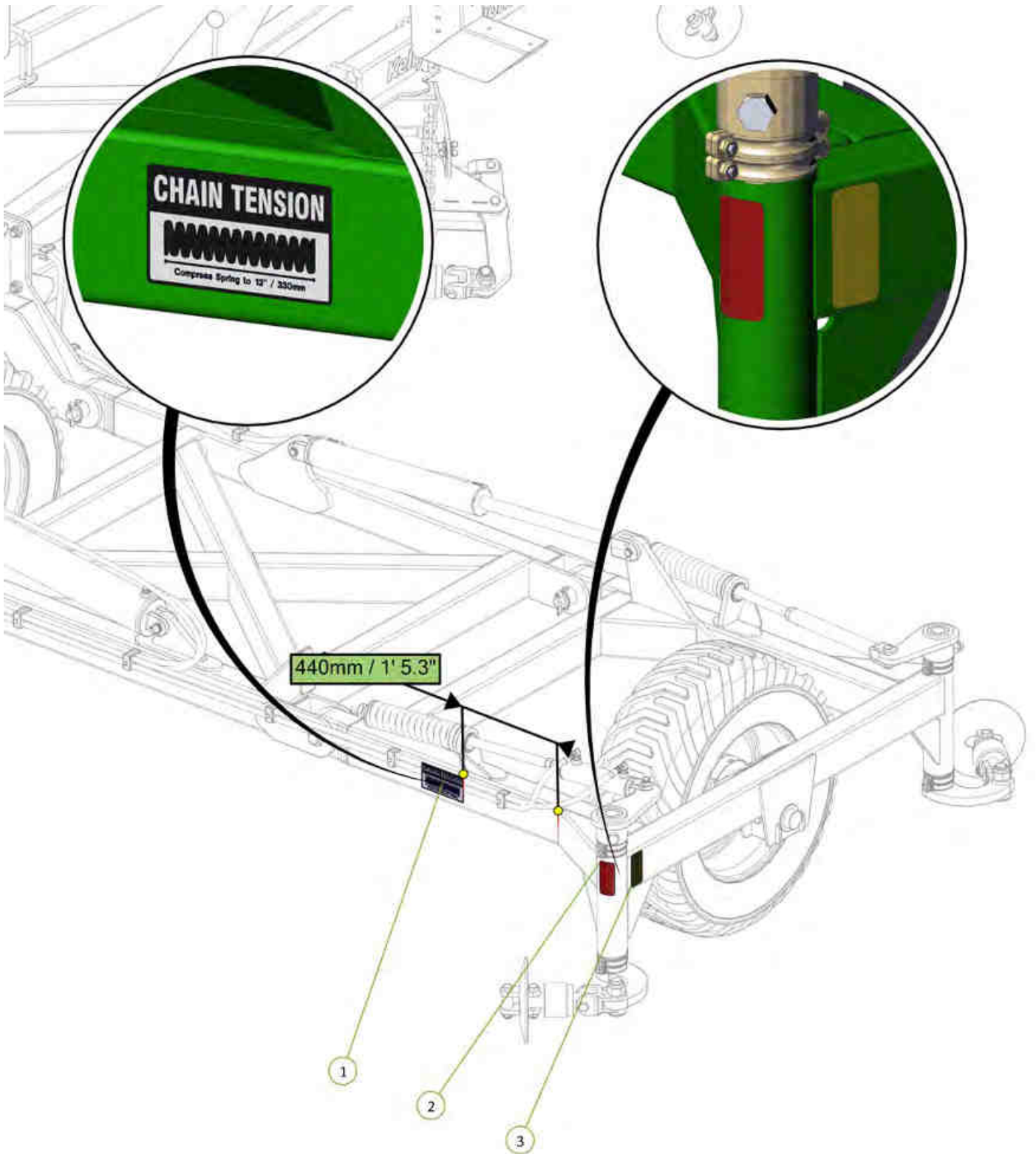
Item No.	Description	Qty	Number
1	Grease Decal	2	0801-S10
2	Brake Caliper Decal	1	0801-S11



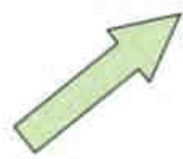


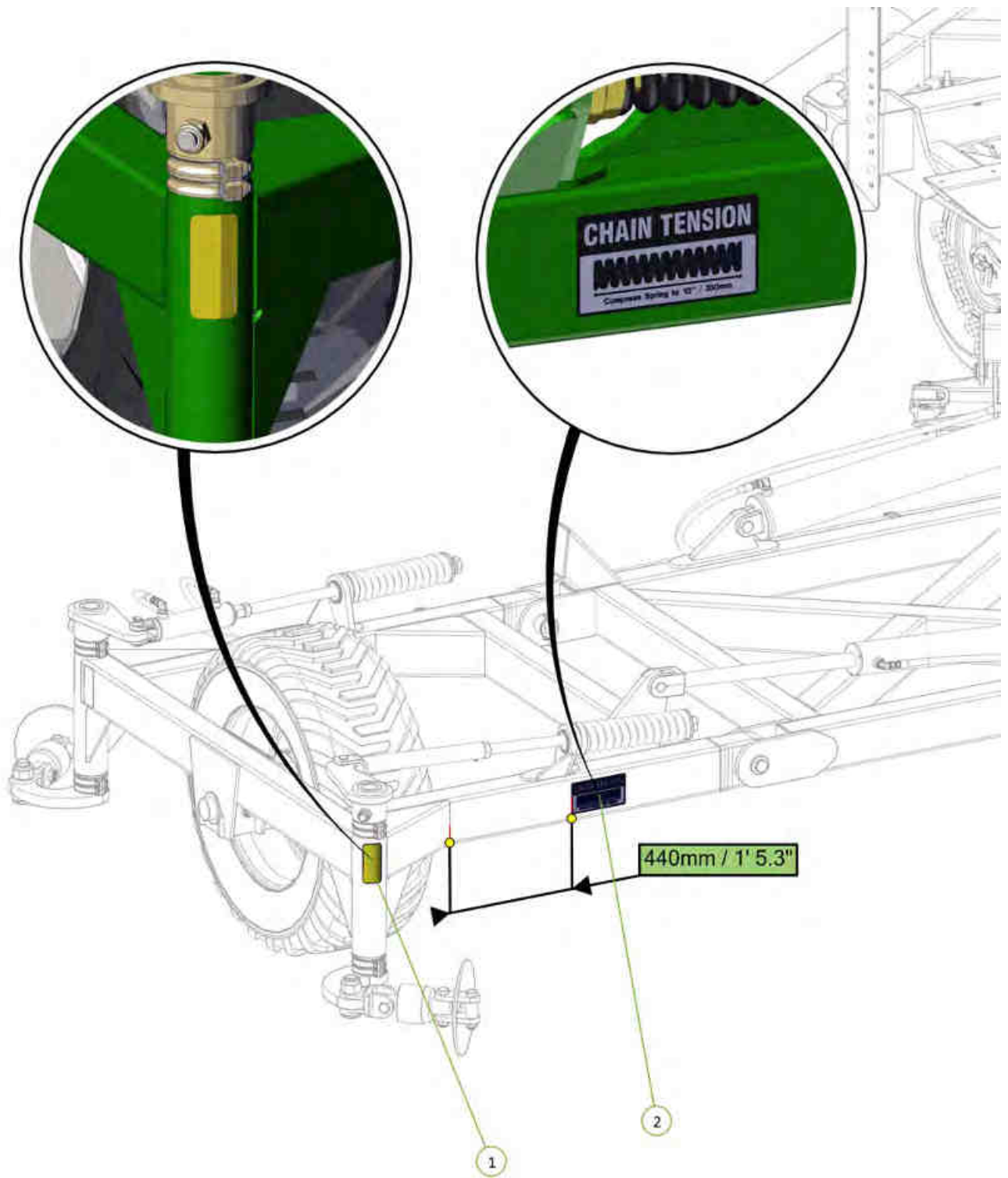
Item No.	Description	Qty	Number
1	Red Reflective Decal	1	0801-SRRF
2	Yellow Reflective Decal	1	0801-SYRF
3	Grease Decal	1	0801-S10



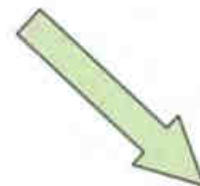


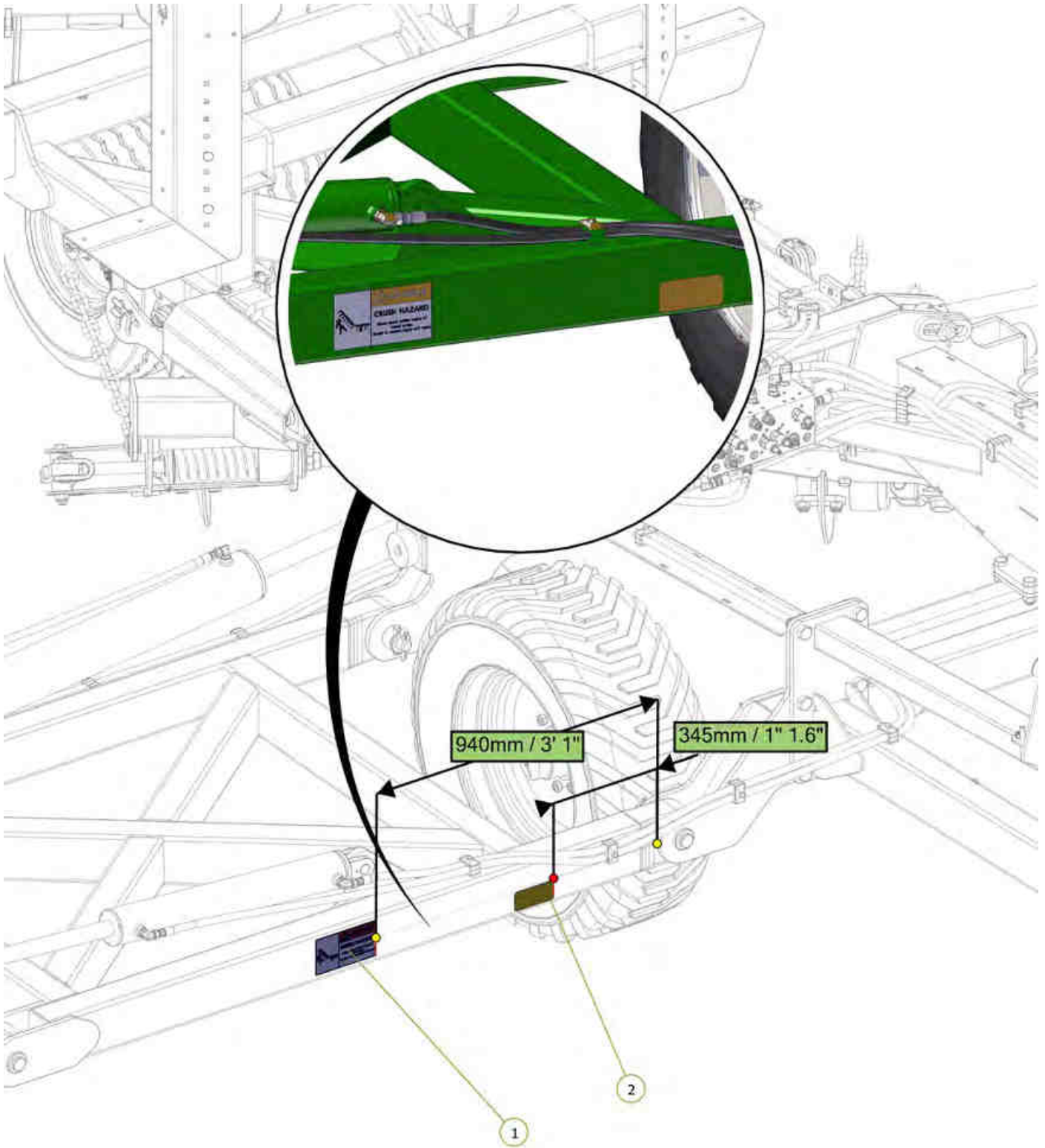
Item No.	Description	Qty	Number
1	Chain Tension 330mm Decal	1	0801-S15
2	Red Reflective Decal	1	0801-SRRF
3	Yellow Reflective Decal	1	0801-SYRF



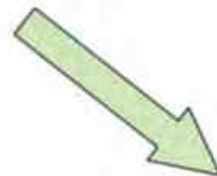


Item No.	Description	Qty	Number
1	Yellow Reflective Decal	1	0801-SYRF
2	Chain Tension 330mm Decal	1	0801-S15

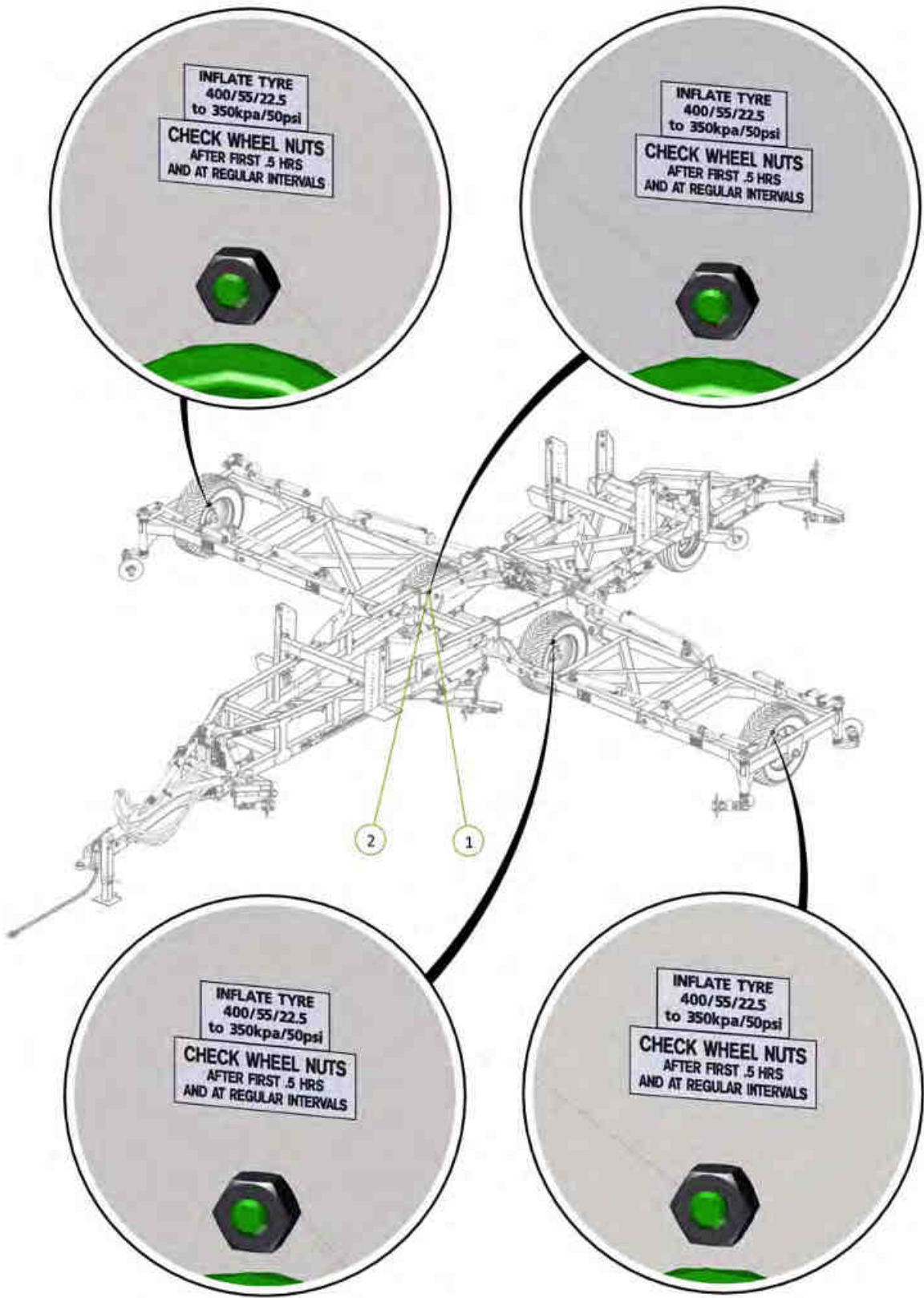
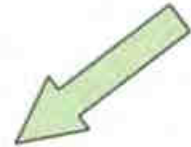




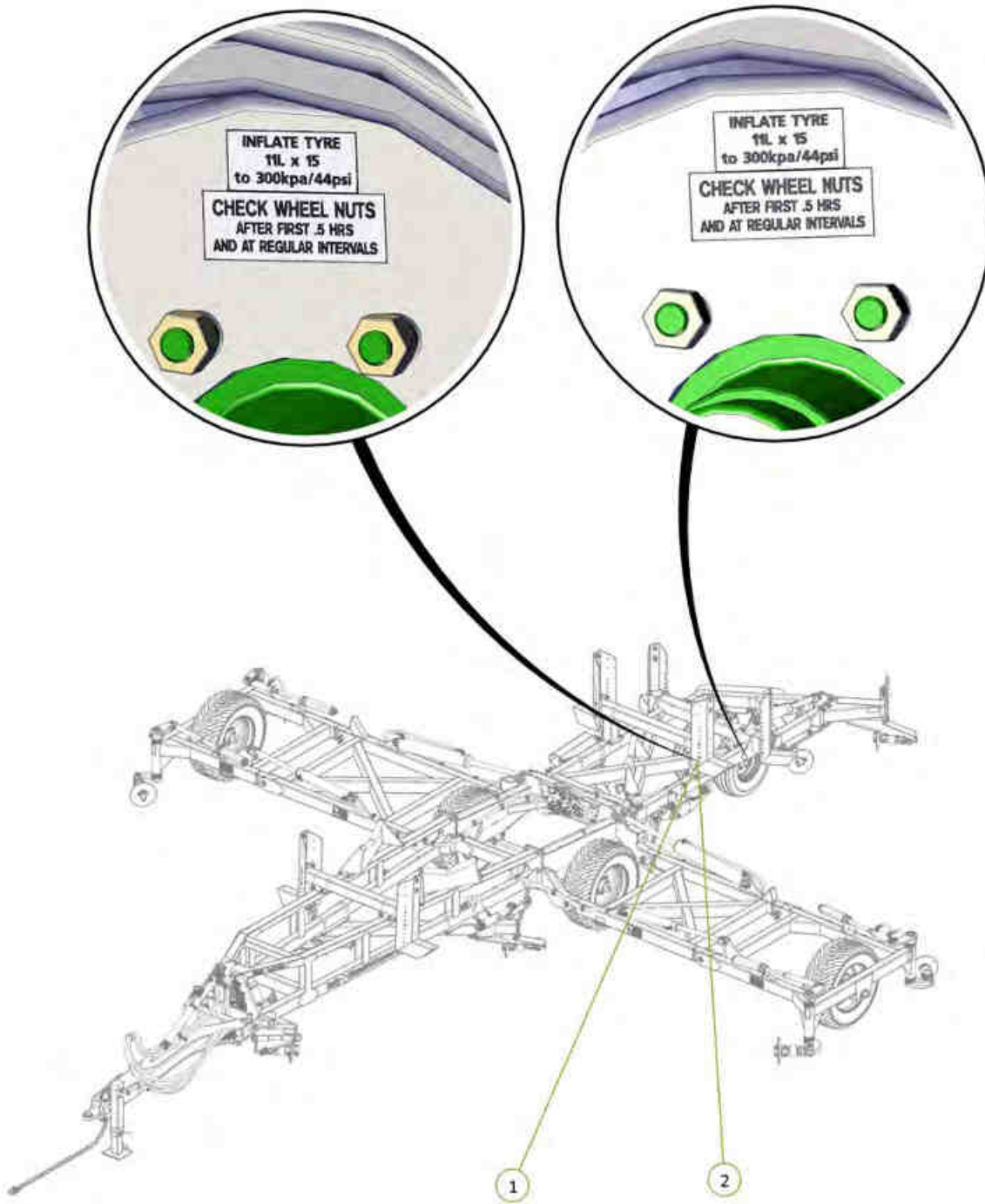
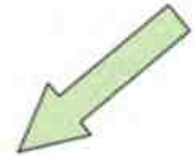
Item No.	Description	Qty	Number
1	Danger Crush Hazard Decal	1	0801-S3
2	Yellow Reflective Decal	1	0801-SYRF

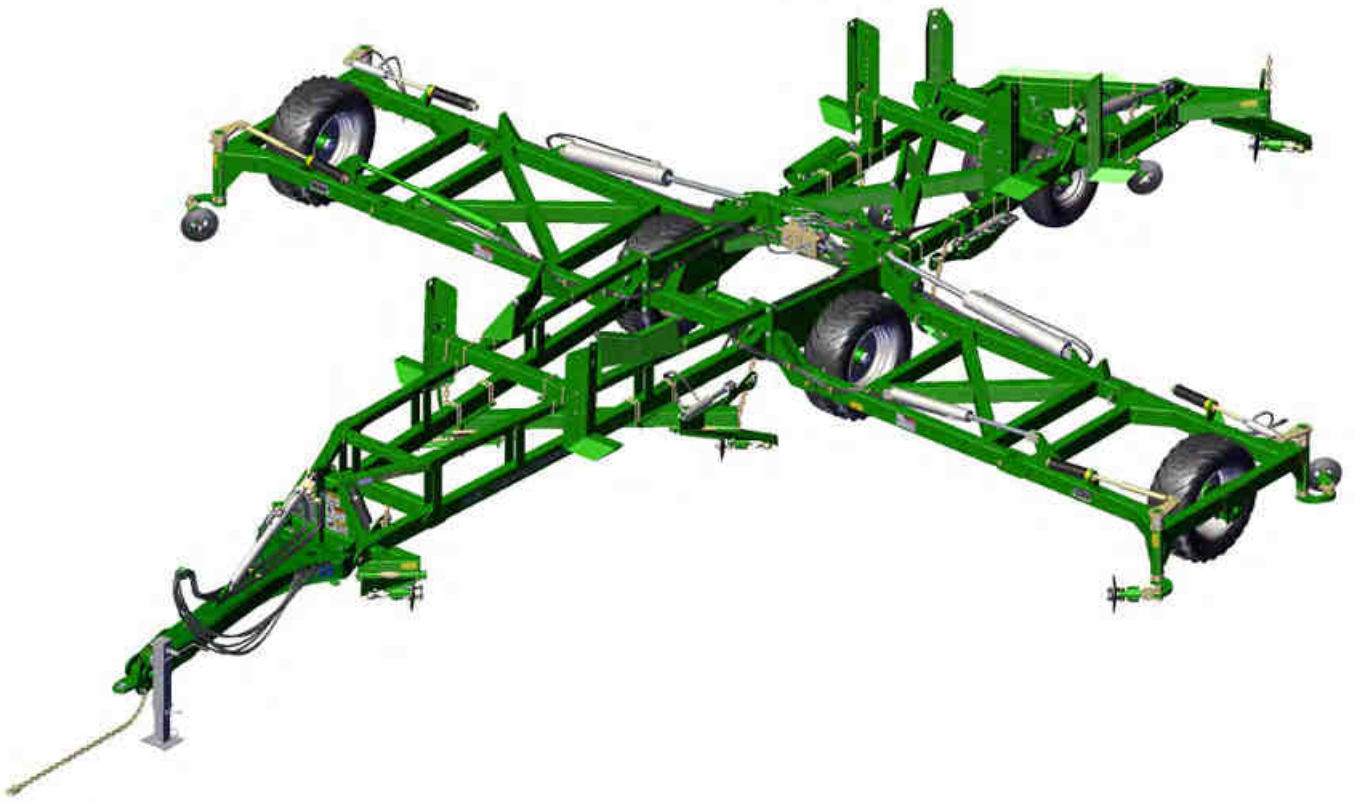


Item No.	Description	Qty	Number
1	Wheel Nut Decal	4	0801-S9
2	Decal, 400/55/22.5 Tyre Inflation	4	0801-S8-400-55-22.5



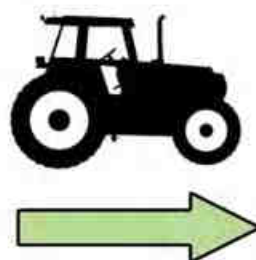
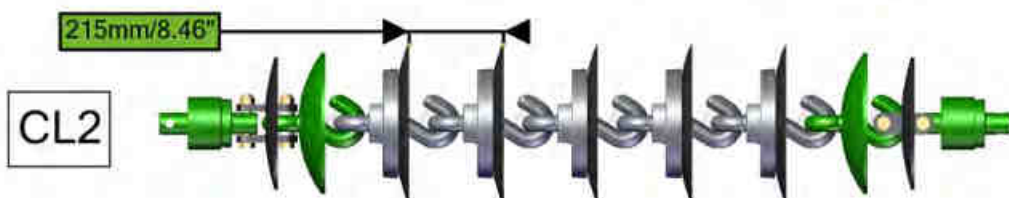
Item No.	Description	Qty	Number
1	Decal, 11L-15 Tyre Inflation	2	0801-S8-11L-15
2	Wheel Nut Decal	2	0801-S9



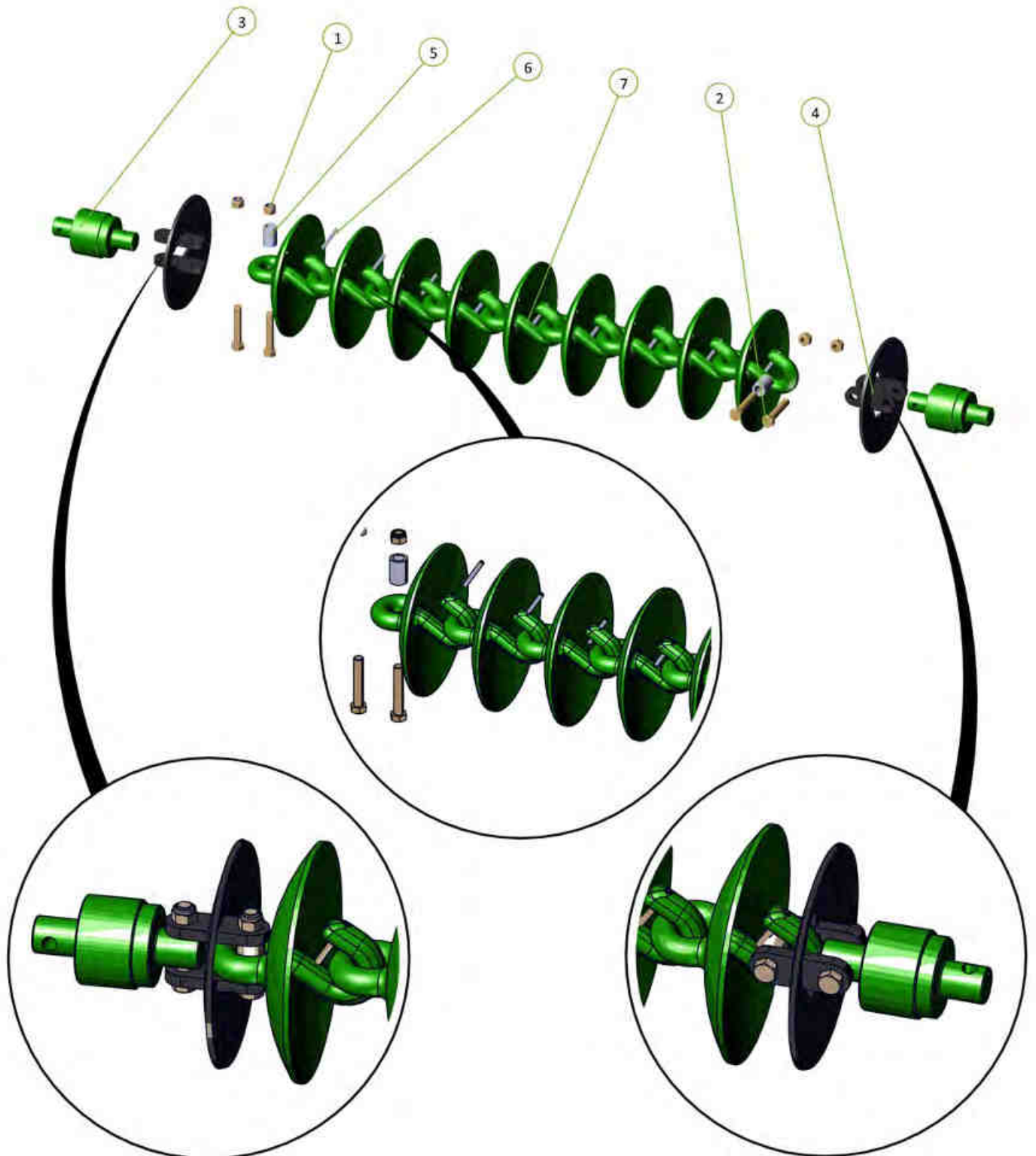
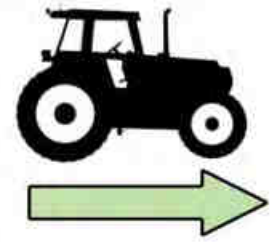


Section 4

Chain Assembly

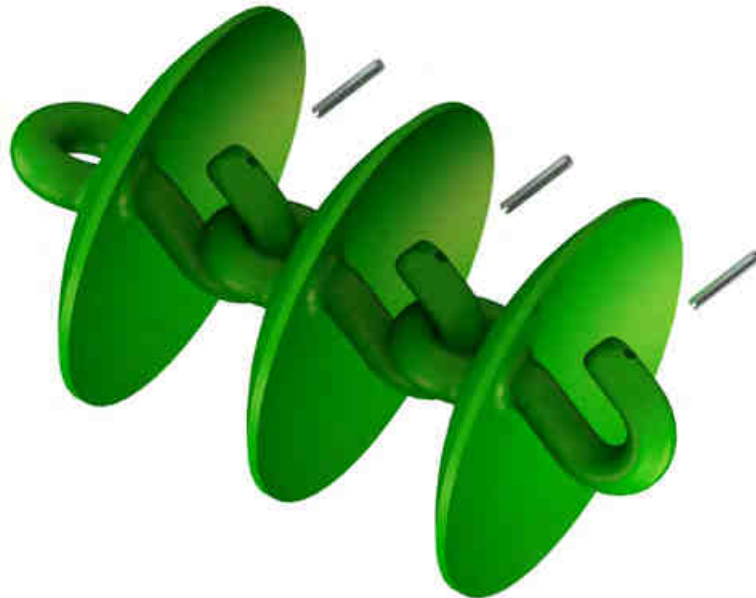


Item No.	Description	Number	Qty
1	Nyloc Nut M20/24	0221-NYL20/24	4
2	M20 x 110 / M24 x 120 grade 10.9 ZP Short Thread Bolt	0211-20110ST/0211-24120ST	4
3	20/24mm Bolt Swivel Unit	0802-PCHB55 / 0802-PCHB553	2
4	Disc Chain Tie Plate Link 20mm / 24mm	0802-DCTP-20 / 0802-DCTP-24	2
5	Tie Plate Bush	0801-PCDCS55	2
6	Roll Pin Zinc Plated 3/8" x 3"	0262-3-8X3	1
7	CL1-B Chain Disc Link	0803-CL1	1

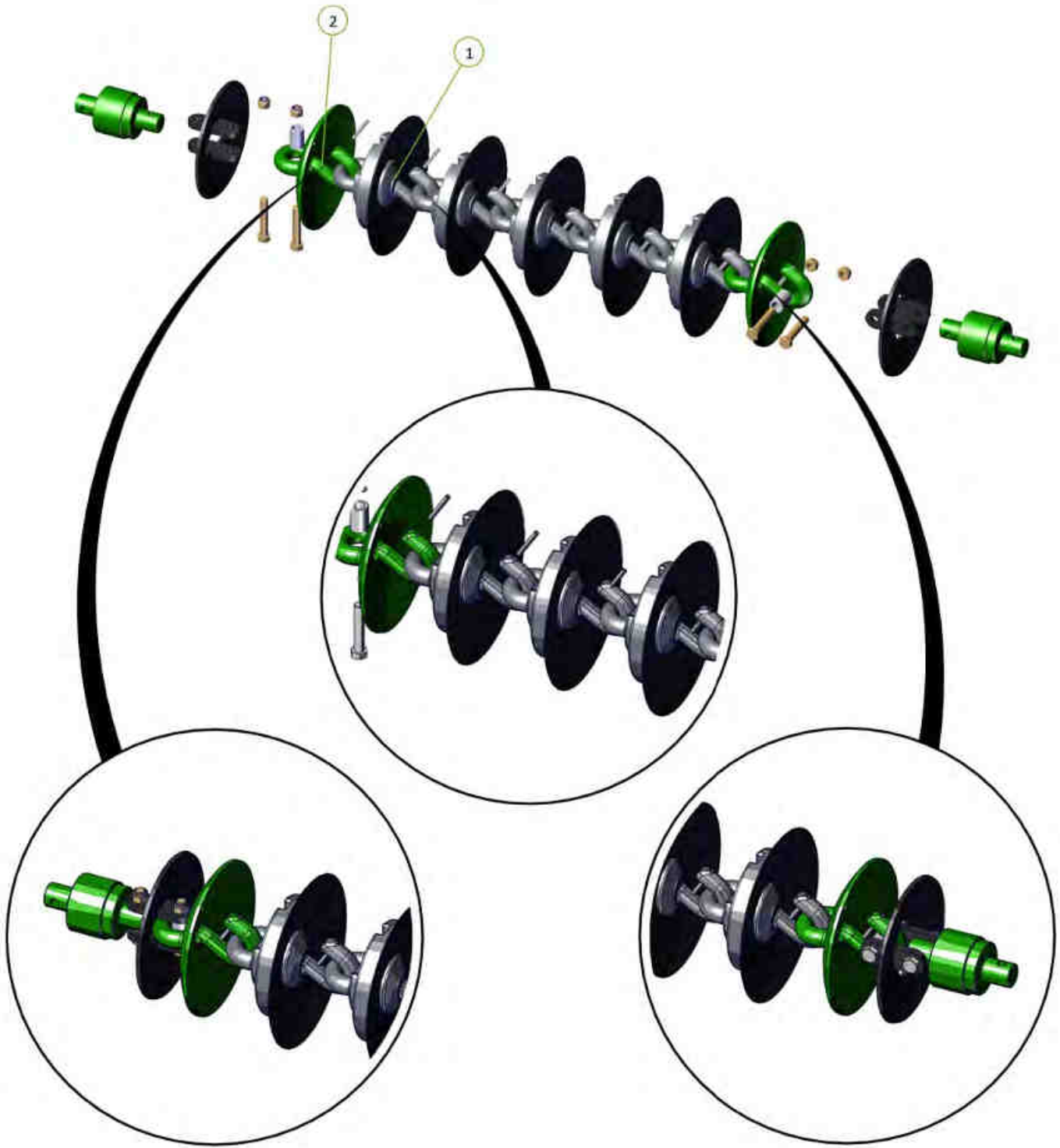
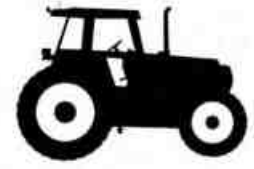


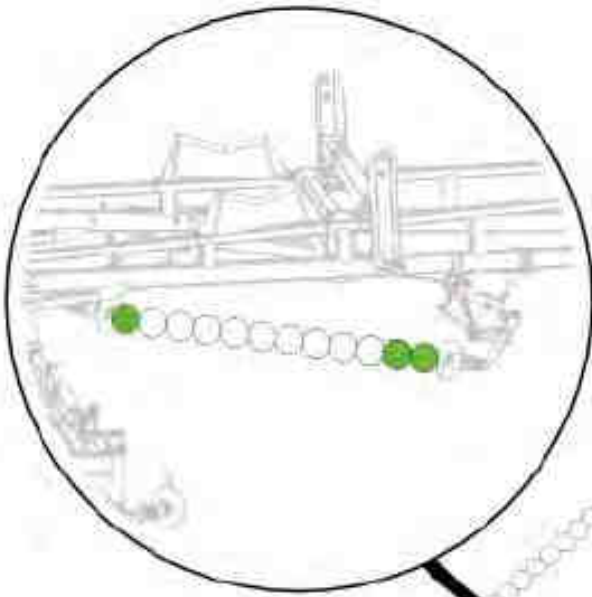
Fitting Cast Link Pins

Please install cast link retaining Pins (3/8" x 3" Roll Pin, part number 0262-3-8X3) on all cast disc links. Failure to do this could lead to the discs becoming dislodged during transport causing severe damage or injury.

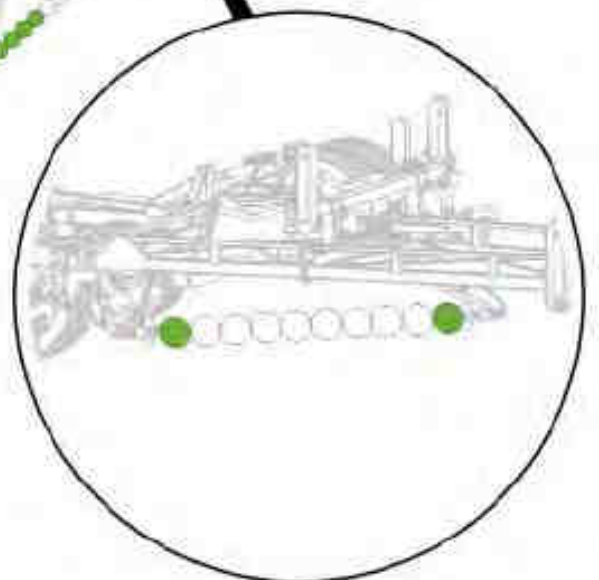
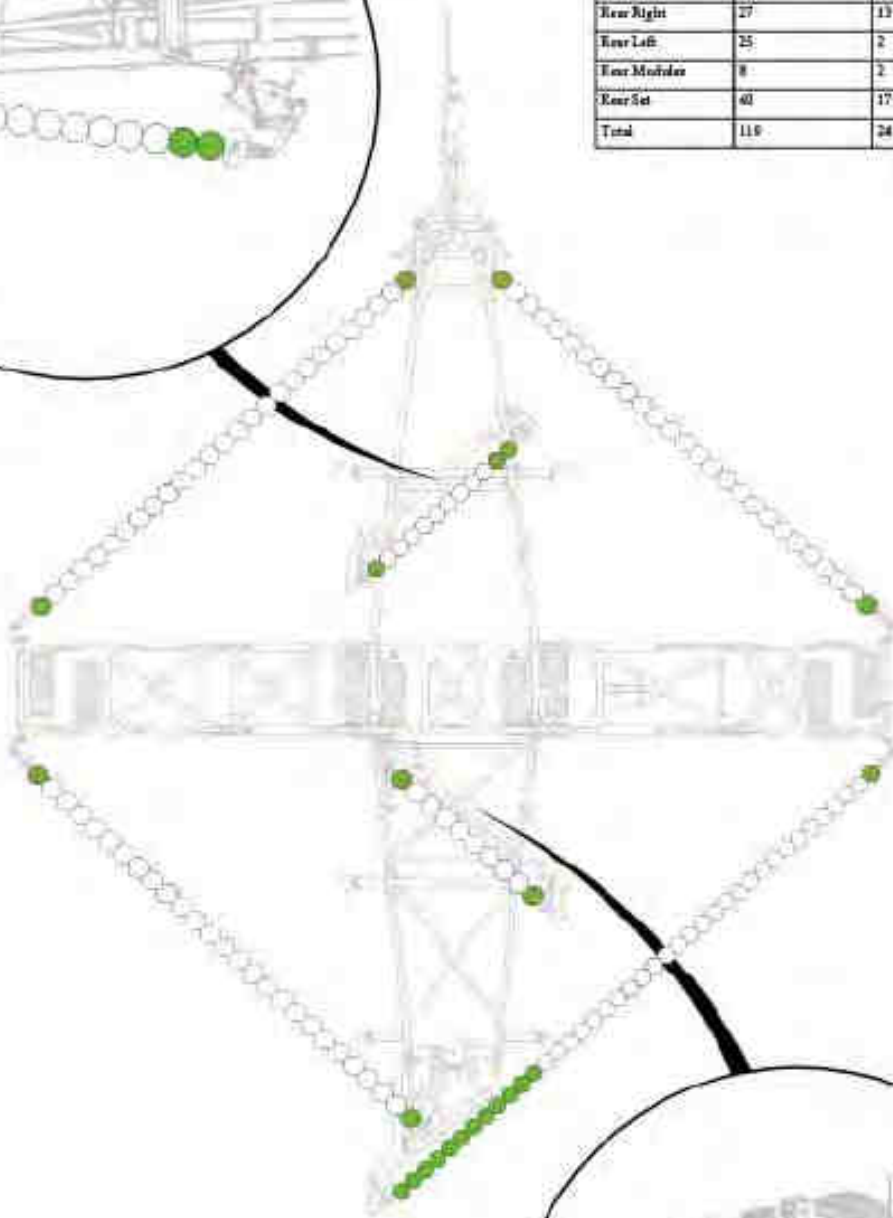


Item No.	Description	Number	Qty
1	0803-CL2-Link Assembly	0803-CL2	1
2	CL1-B Chain Disc Link	0803-CL1	1

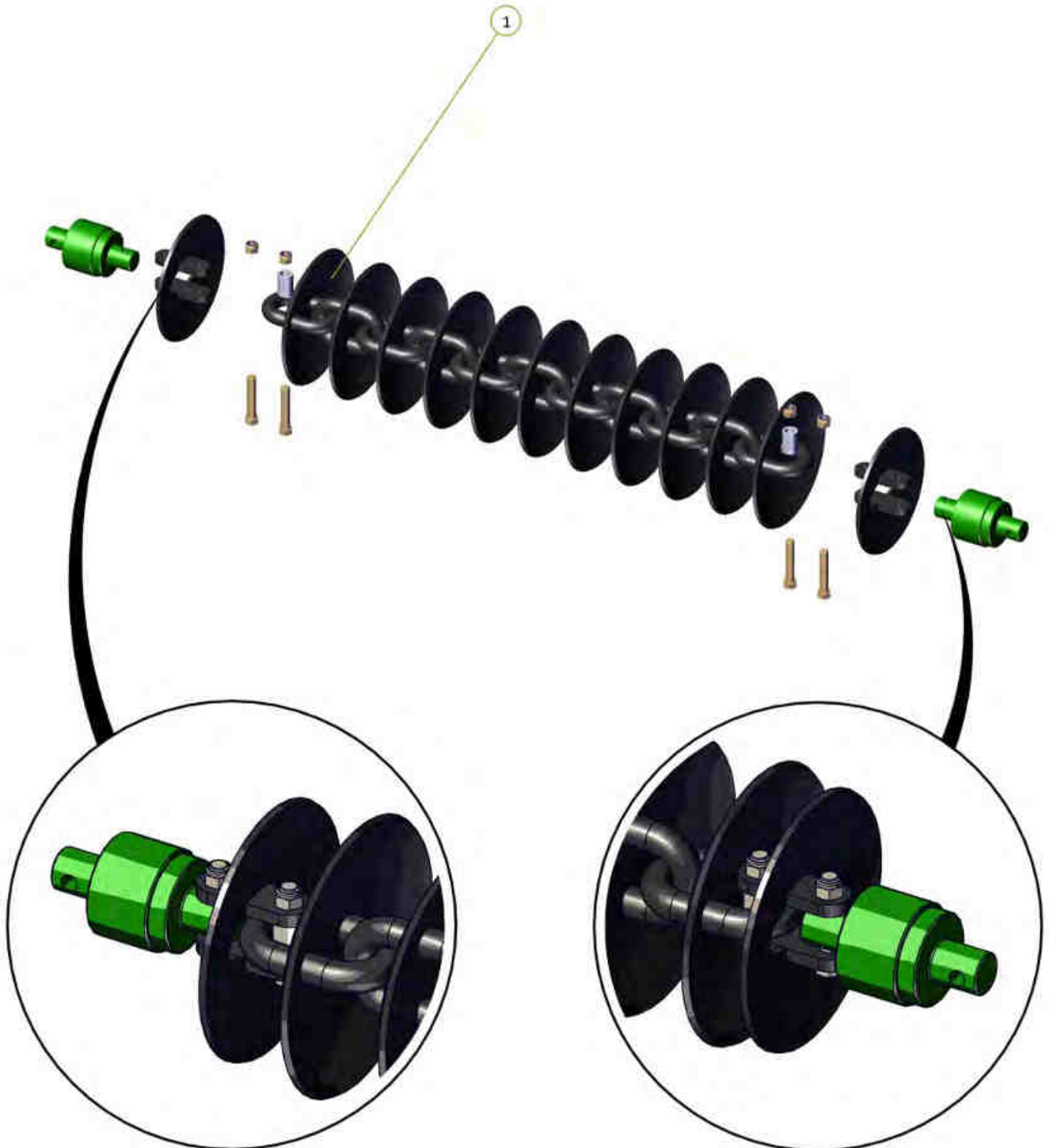
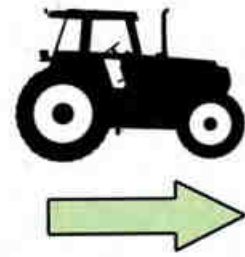




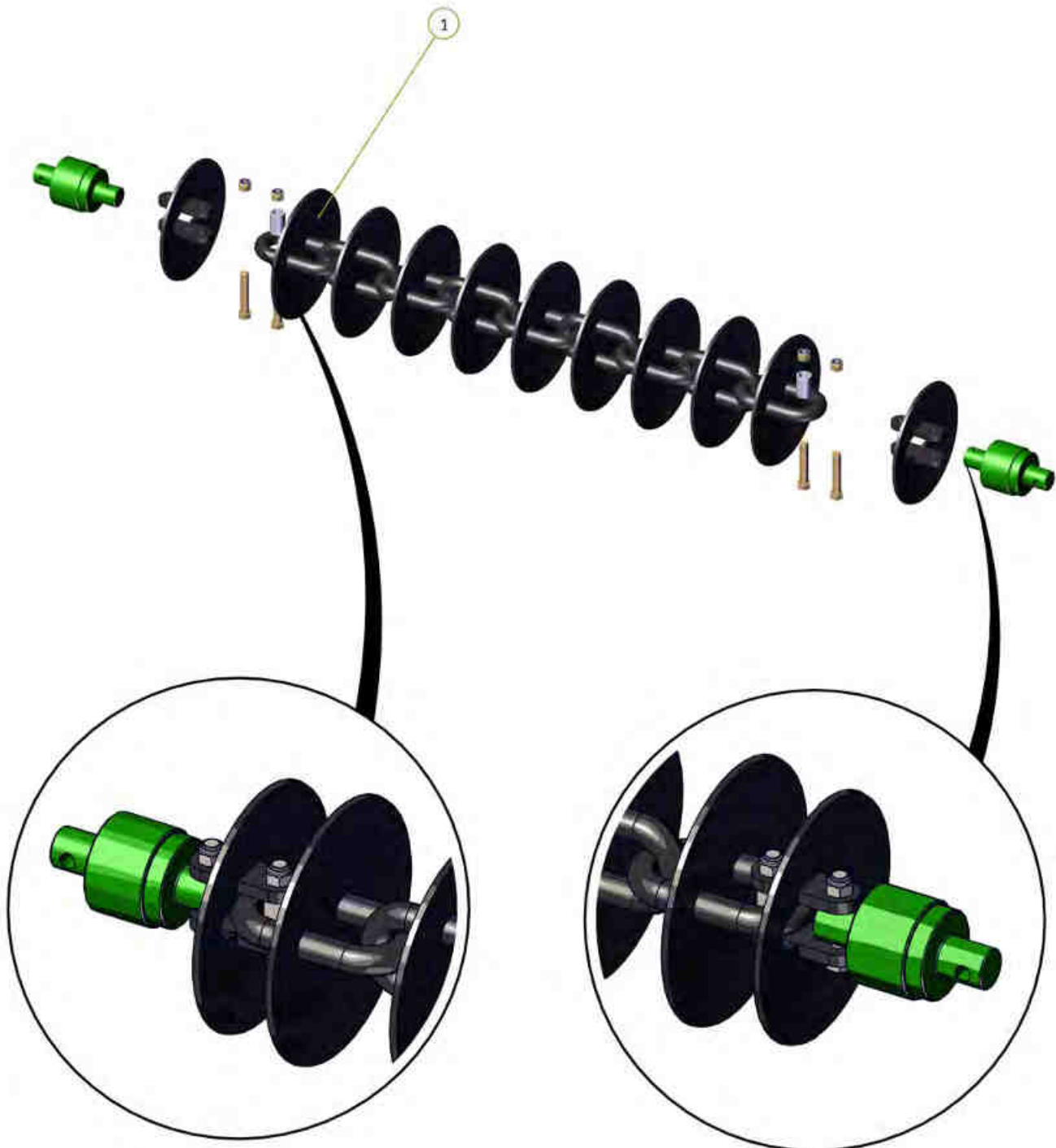
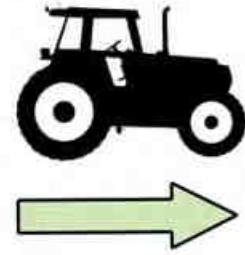
Set	CL1	CL2
Front Left	25	2
Front Right	25	2
Front Modules	8	3
Front Set	58	7
Rear Right	27	13
Rear Left	25	2
Rear Modules	8	2
Rear Set	40	17
Total	116	24



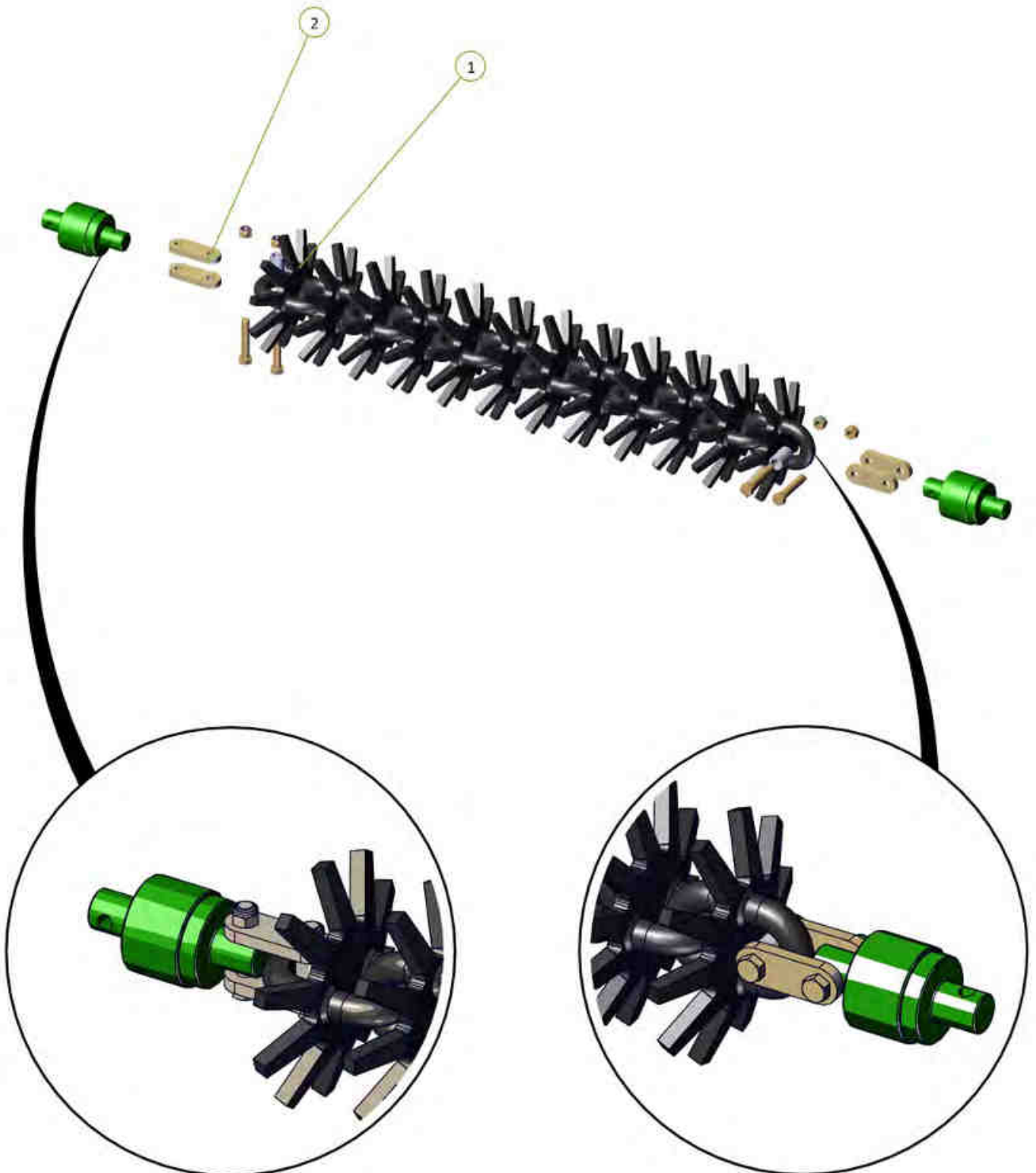
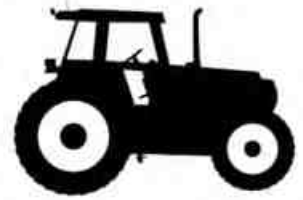
Item No.	Description	Number	Qty
1	R300 Chain Link	0803-R300	1



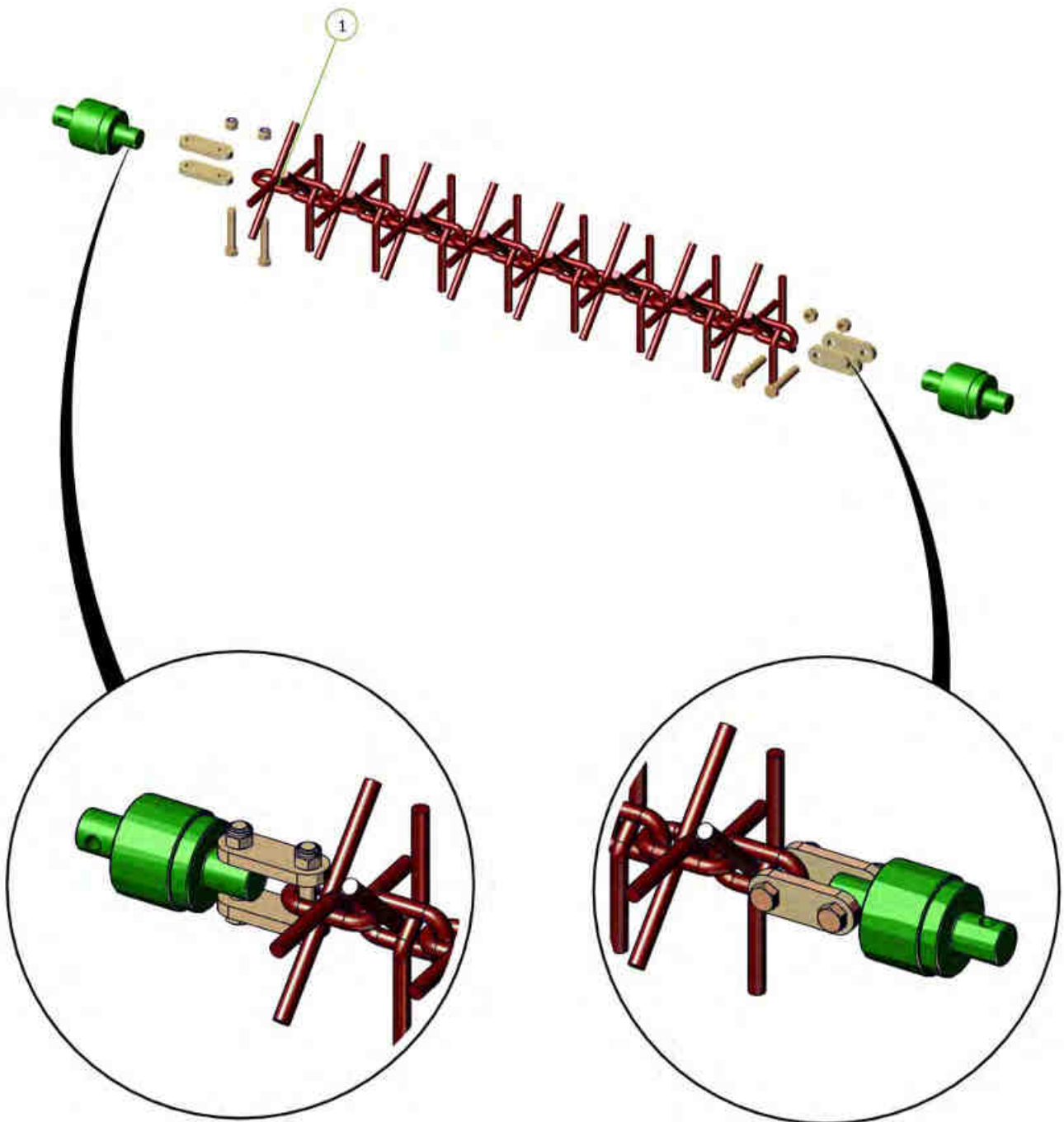
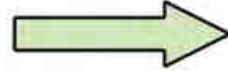
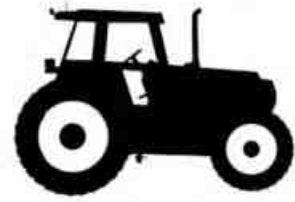
Item No.	Description	Number	Qty
1	W36/25 Chain Link	0803-W36	1



Item No.	Description	Number	Qty
1	10 Spike Disc Chain 49/27/5	0803-SD49	1
2	Tie Plate For 20mm Bolt/ Tie Plate For 24mm Bolt	0800-83.2 / 0800-83.3	4



Item No.	Description	Number	Qty
1	Prickle Chain Link	0803-PCH	1

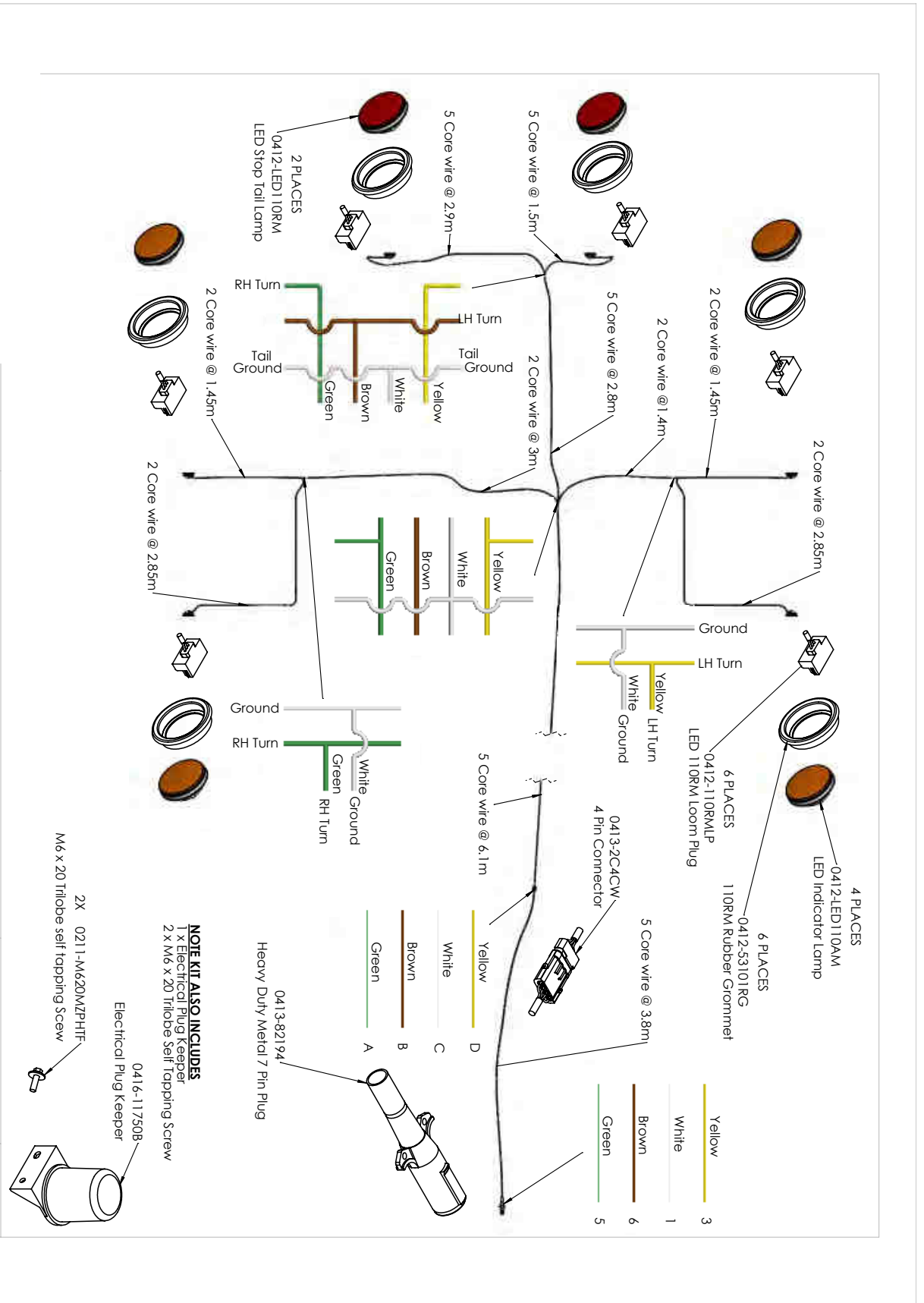




Section 5

Diagrams & Specifications

Wiring Diagram



Operating speeds

Operating speeds for normal conditions	
Chain type	Speed
Prickle Chain	6-10 mph / 10-16 kph
Disc Chain	6-8 mph / 10-12 kph
Transport / towing on roads	15 mph / 25 kph

Tyre pressure

Tyre size	Ply	PSI (Maximum)	KPA (Maximum)
400/55/22.5	16	60	413
11L - 15	10	44	300

Chain Harrow specifications

Model	3009NT
Working width	8.99m
Transport width	3.50m
Transport height	4.10m
Transport length	12.01m

Disc Chain lengths

Model		Length	CL2	CL1	W36	R300	SD49	Prickle chain
			CL2 disc chain also requires CL1 disc chain					
3009NT	Front right	5.73m	CL2 - 25 CL1 - 2	35	34	46	46	64
	Front left	5.74m	CL2 - 25 CL1 - 2	35	34	46	46	64
	Rear right	7.86m	CL2 - 27 CL1 - 13	48	46	33	33	87
	Rear left	5.80m	CL2 - 25 CL1 - 2	35	34	46	46	64
	Front module	2.35m	CL2 - 9 CL1 - 3	14	14	19	19	26
	Rear module	2.03m	CL2 - 8 CL1 - 2	12	12	16	16	22

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 prickle chain link from the end of the prickle chain

Section 6

Operation

Basic Operation

Unfolding:

1. Remove transport safety stop.
2. Walk around and inspect the machine.
 - a. Check that chains are not hooked on framework
 - b. Check swivel bolts are in place and not broken
 - c. Check that height adjusting chains have not fallen out of their slotted plates during transport.
 - d. Ensure front lift cylinder depth stops are fully engaged on cylinder shaft.
3. Lower front A frame to working height.
4. Unfold wings holding the hydraulic lever until both the main center cylinder pins have centered in their slots. (If chain pulls tight during unfold, stop and inspect if chain is hooked)
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 and check that all chain links are straight and that working height of all swivels is 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 pull to transport height. This will lift the front chains off the ground and reduce the load on the tractor. Lower the front A pull once moving satisfactorily.

Folding:

1. Lower the front A frame to working height. (This is 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.

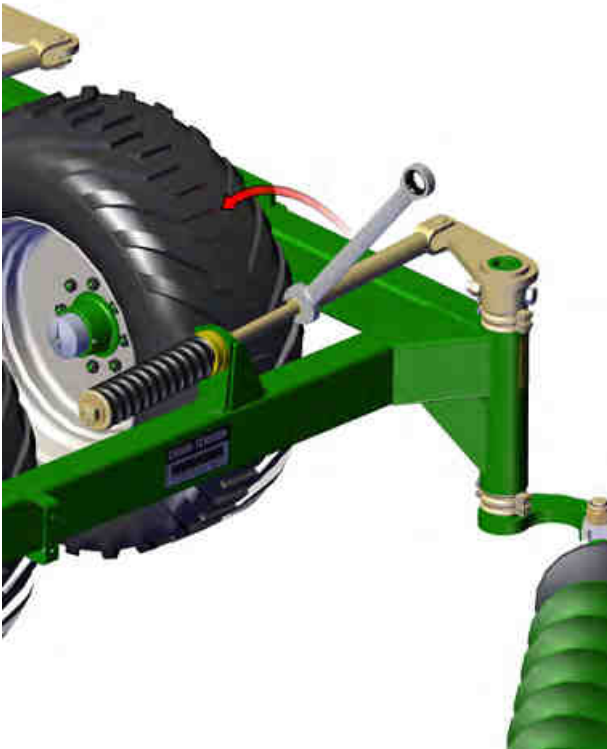
Setting for correct chain tension

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 / 12.4". 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 4" (100mm) of thread remains visible on the adjuster bolt then a link must be removed from the chain.

1.



2.



3.



4.

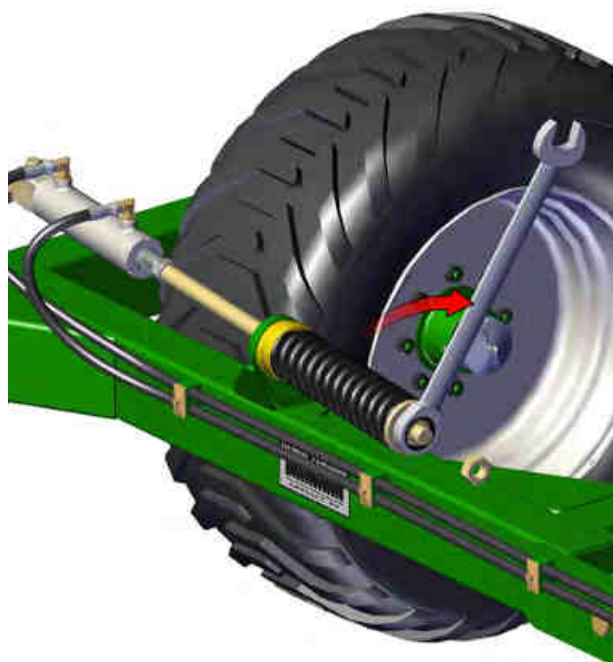


Chain Tension - Rear Chains

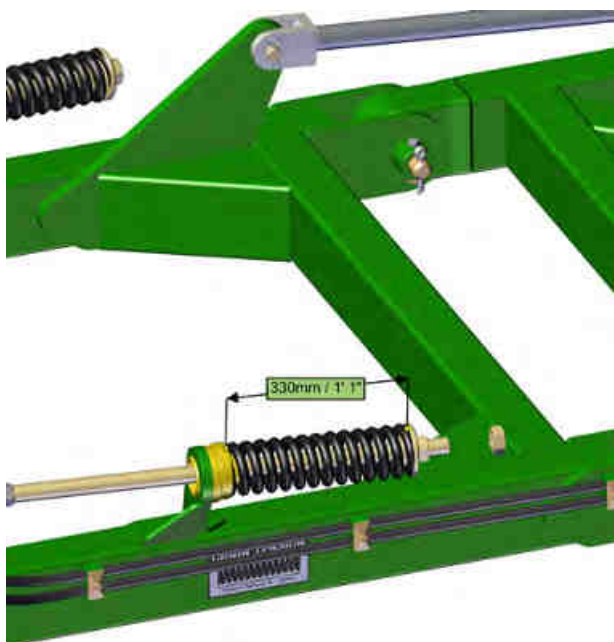
1.



2.



3.



4.



Modules

Loosen the lock nut on the draw bolt.

Tighten the adjusting nut clockwise until the outer face of the spring retaining washer is flush with the body of the module tensioning unit.

Retighten the lock nut.

If more than 8" (200mm) of thread is exposed then a link should be removed to maintain correct adjustment.



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 center. This will mean that 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.

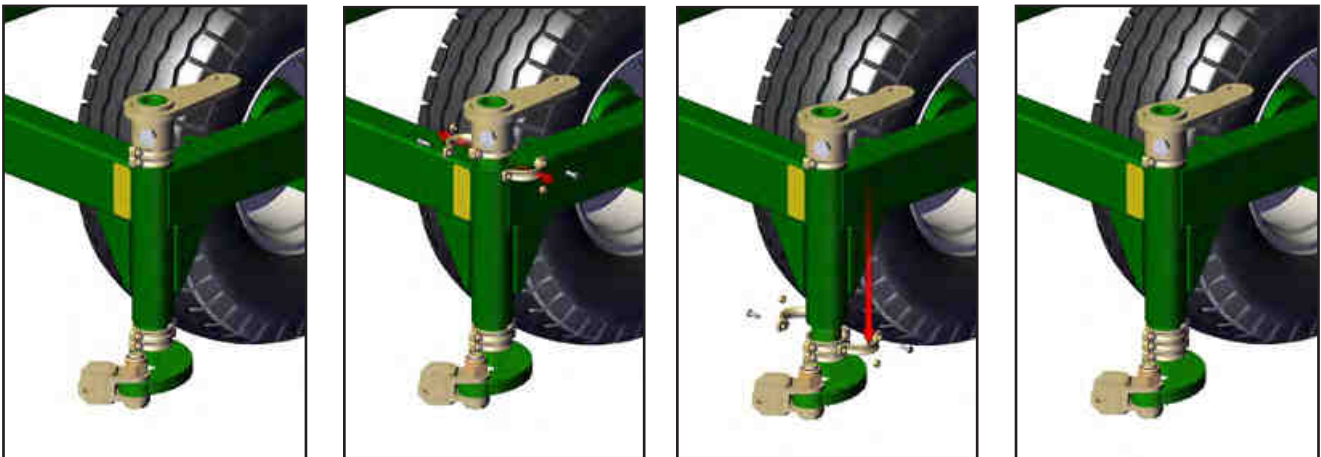
Settings for correct working height

To adjust the swivel height at the wings, relocate one of the polyurethane spacers either above or below the fixed mounting tube.

Adjustment

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 4" (100mm) of adjustment.



Section 7

Pre-Delivery Checklist

Pre-Delivery Checklist

Check Item:	Checked by Initial
Tyres are fitted correctly	
Check wheel nuts are tightened to the correct torque and marked	
Check tyres are inflated to correct pressure	
Tow hitch is fitted correctly with bolts tightened to correct torque and marked	
All bolts and nuts are tightened to the correct torque values and marked	
All retaining pins are inserted and engaged	
All hoses are correctly routed through holders	
Air brake hoses are sound with no leaks	
Air brake relay valve is correctly set for the load	
Hydraulic rams and hoses are sound	
Swivel units are correctly orientated	
Chains are resting correctly on their transport supports (chain carriers)	
Check the chain tension as per assembly manual	
All points are greased on the machine	
Roll pins are installed in the discs (CL1 and CL2)	
All safety decals are on the machine in the correct locations are per the Assembly/ Operators manual	
All safety signs are present and lights working	
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	

Please return this completed document to warranty@kellytillage.com

Name: _____

Date: _____

Signature: _____

