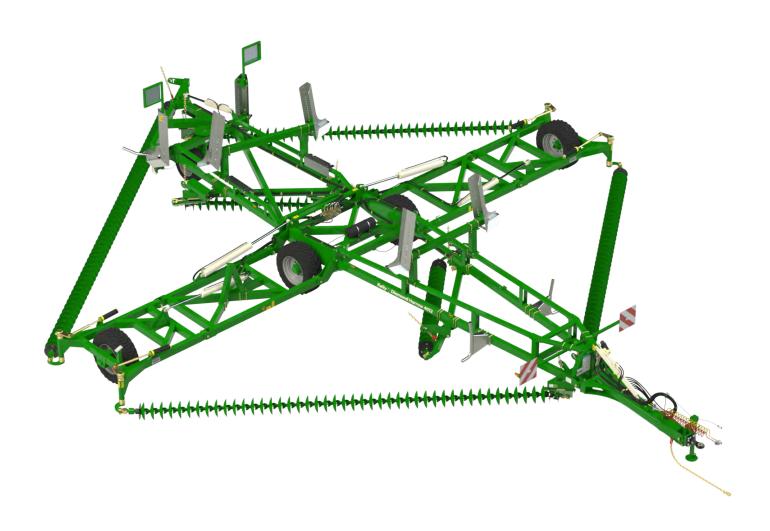


Assembly Manual

KELLY TILLAGE SYSTEM 4012

KTAM-I-01072023



SERIAL NUMBER:











Thank you for choosing a KELLY 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 directly.

The KELLY team values your feedback. Should you have any difficulties that you wish to raise, suggestions for improvement or modifications that you feel would enhance our products we look forward to hearing from you.

Contact Us

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Legend



This symbol indicates which bag the relevant fasteners are in.



This symbol indicates which bag the relevant hydraulics are in.



This symbol inicates the hydraulics are in a box.



This symbol indicates which way the machine is travelling.

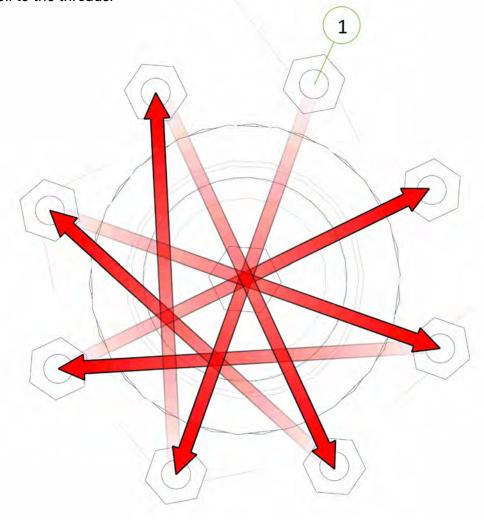
Bolt Torque Settings

Bolt Type	W	heel r	nut		U Bol	t	Class 8.8 Bolt					Class 10.9 Bolt			
Bolt Size	M12	M18	M20	M12	M16	M20	M6	M8	M10	M12	M16	M20	M24	M20	M24
Spanner	19	27	30	19	24	30	10	13	17	19	24	30	36	30	36
Nm (max)	94	305	430	42	105	214	9.3	23	45	77	190	385	660	550	950

Verification and recording of the prescribed torque settings in the table above is the responsibility of the assembler and it shall be documented in accordance with their approved Quality Assurance system.

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

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



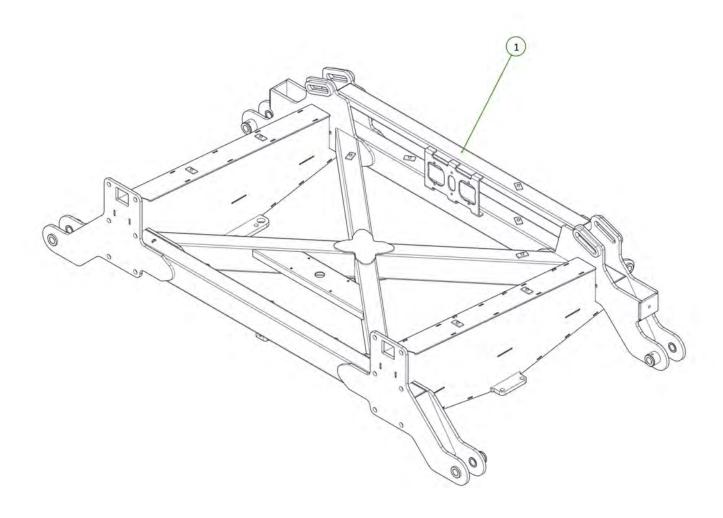


Section 1 - Assembly



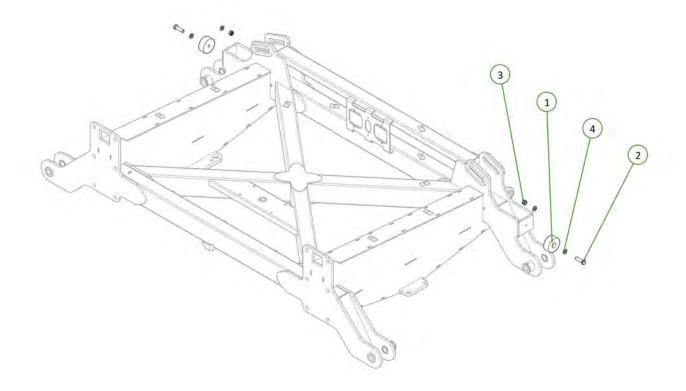
Item No.	Description	Qty	Number
1	Centre Frame	1	1540-01-1E

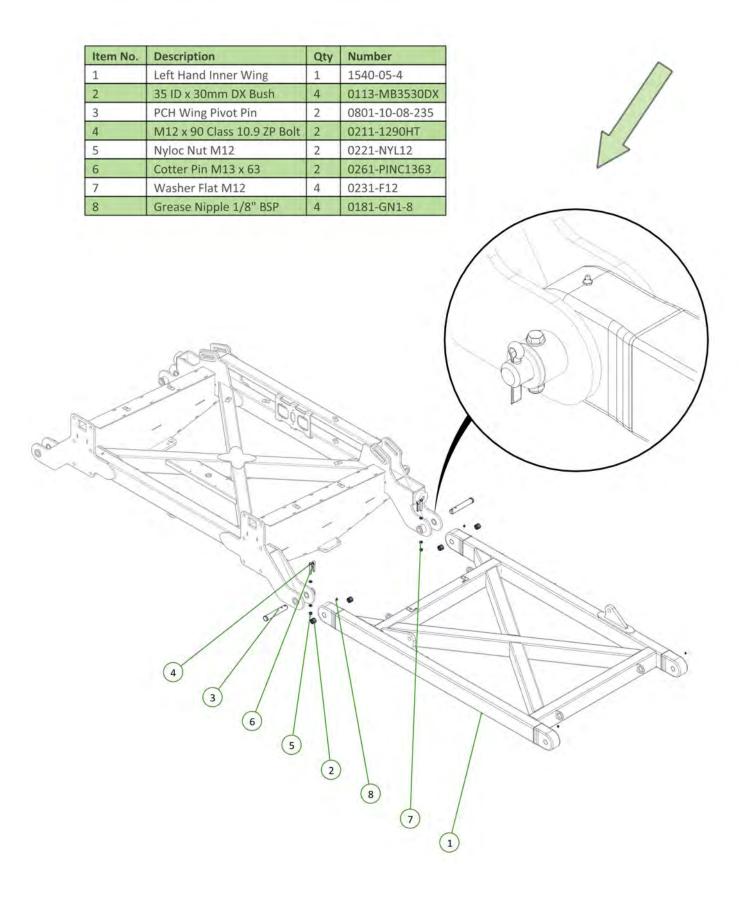




Item No.	Description	Qty	Number
1	Wing Folding Buffer	2	1201-12
2	M16 x 55 grade 8.8 zp Bolt	2	0211-1655
3	Nyloc Nut M16	2	0221-NYL16
4	Washer Flat M16	4	0231-F16

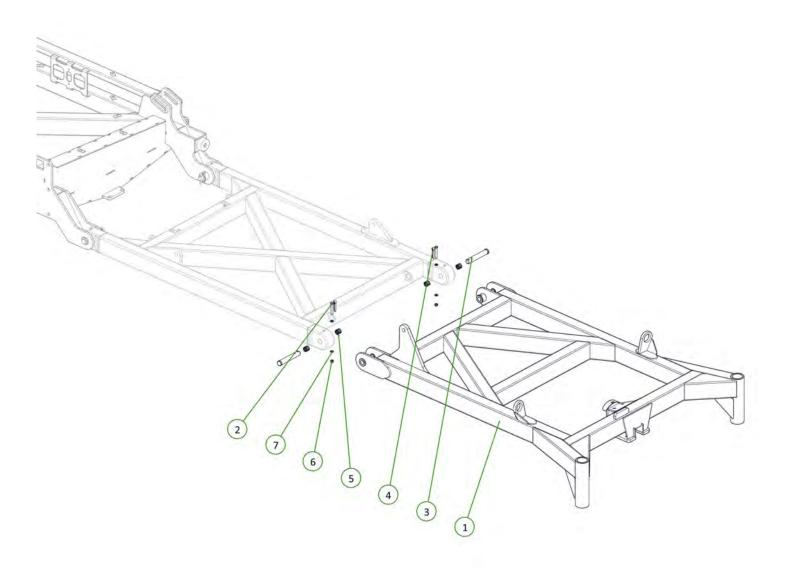






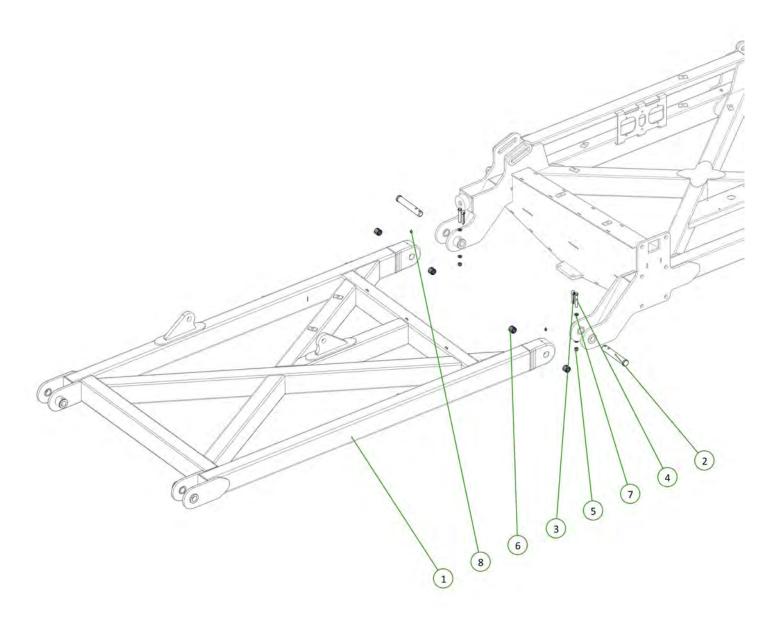
Item No.	Description	Qty	Number
1	Left Hand Outer Wing	1	1540-07-2E
2	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
3	PCH Wing Pivot Pin	2	0801-10-08-235
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	35 ID x 30mm DX Bush	4	0113-MB3530DX
6	Nyloc Nut M12	2	0221-NYL12
7	Washer Flat M12	4	0231-F12





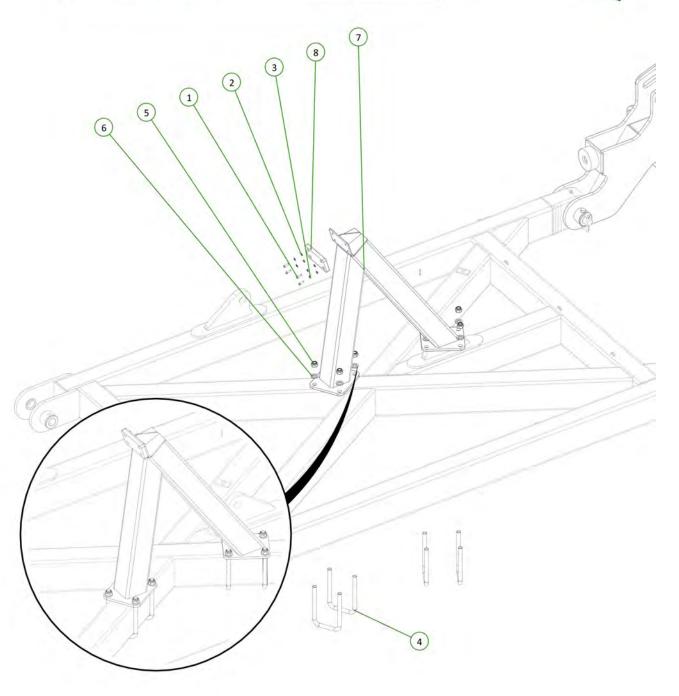
Item No.	Description	Qty	Number
1	Right Hand Inner Wing	1	1540-04-4
2	PCH Wing Pivot Pin	2	0801-10-08-235
3	Cotter Pin M13 x 63	2	0261-PINC1363
4	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
5	Nyloc Nut M12	2	0221-NYL12
6	35 ID x 30mm DX Bush	4	0113-MB3530DX
7	Washer Flat M12	4	0231-F12
8	Grease Nipple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



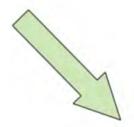


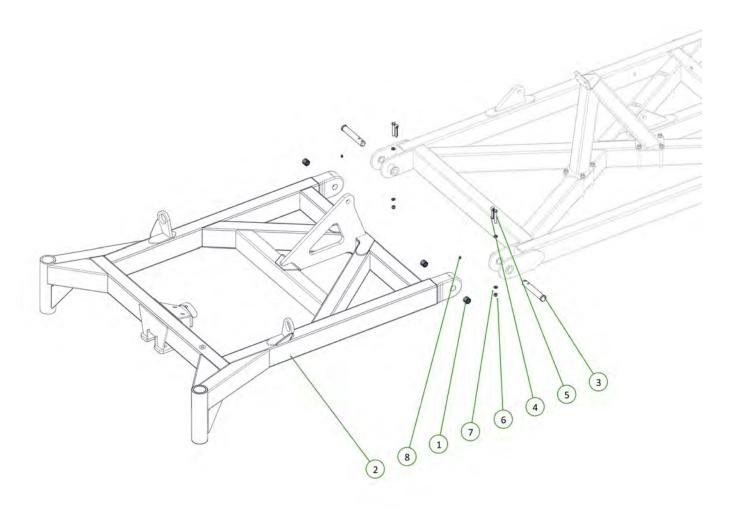
Item No.	Description	Qty	Number
1	M6 x 20 Button Head Bolt ZP	4	0211-0620BH
2	Washer Flat M6	4	0231-F6
3	Washer Spring M6	4	0231-S6
4	U-Bolt M16 x 185 Deep x 104 Wide	4	0271-16185104
5	Nyloc Nut M16	8	0221-NYL16
6	Washer Flat M16	8	0231-F16
7.	EU Inner Wing Post	1	1510-275
8	Wing Buffer Pad	1	1501-27





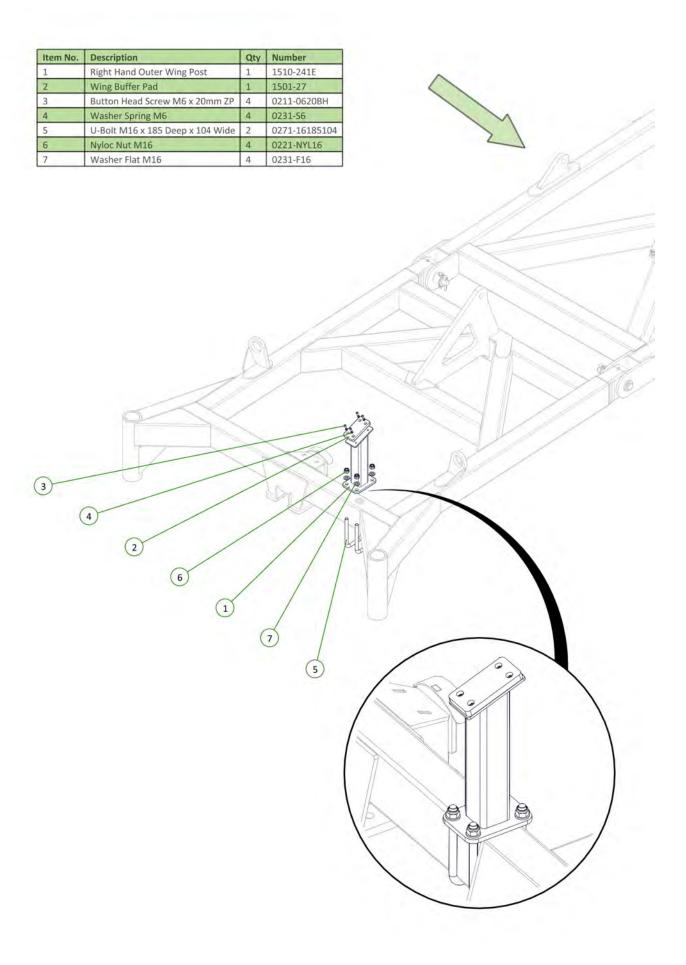
Item No.	Description	Qty	Number
1	35 ID x 30mm DX Bush	4	0113-MB3530DX
2	Right Hand Outer Wing	1	1540-06-3
3	PCH Wing Pivot Pin	2	0801-10-08-235
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
6	Nyloc Nut M12	2	0221-NYL12
7	Washer Flat M12	4	0231-F12
8	Grease Nipple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





All wing pivot bolts tightened and cotter pins installed

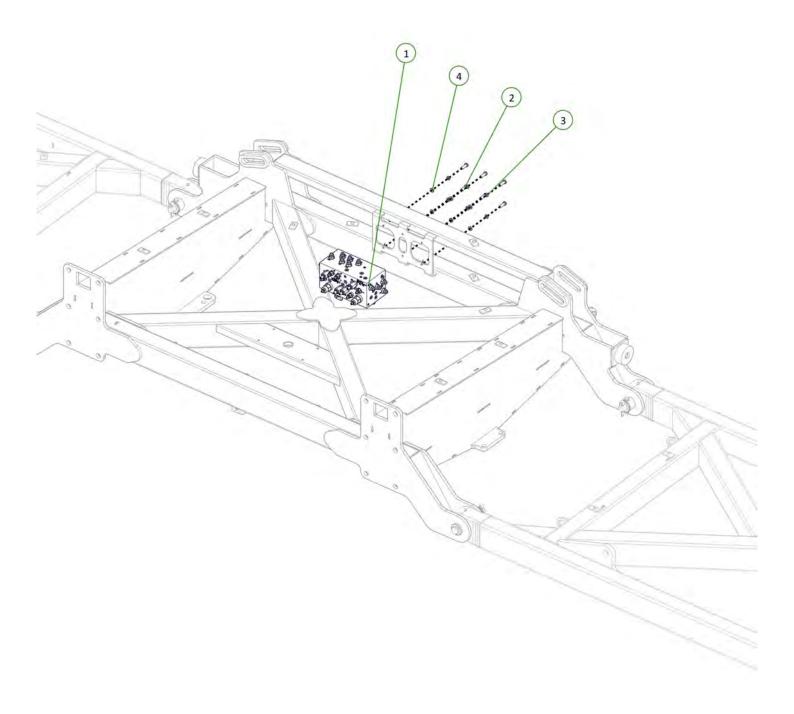
Signed	Date / /
Unit Serial Number	



13

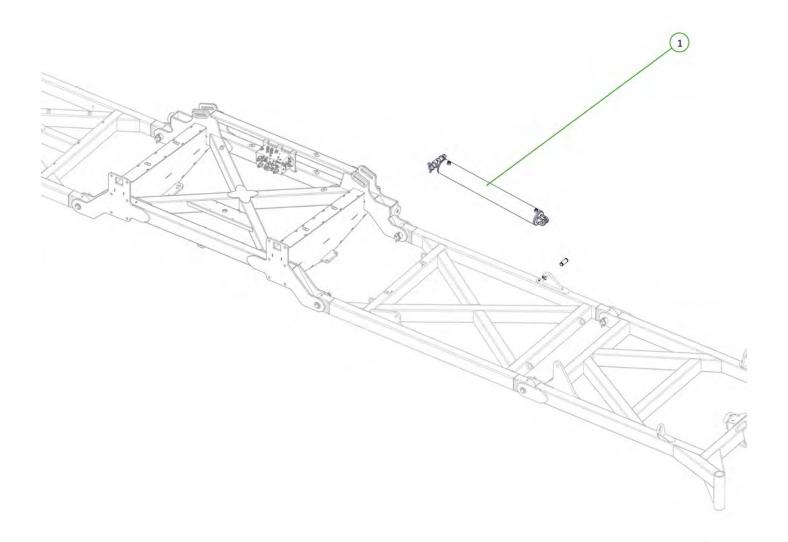
Item No.	Description	Qty	Number
1	Dual Circuit 3 Stage Sequence Manifold V12.5	1	0802-692196
2	M10 x 30 grade 8.8 ZP Bolt	6	0211-1035
3	Washer Spring M10	6	0231-S10
4	Washer Flat M10	6	0231-F10

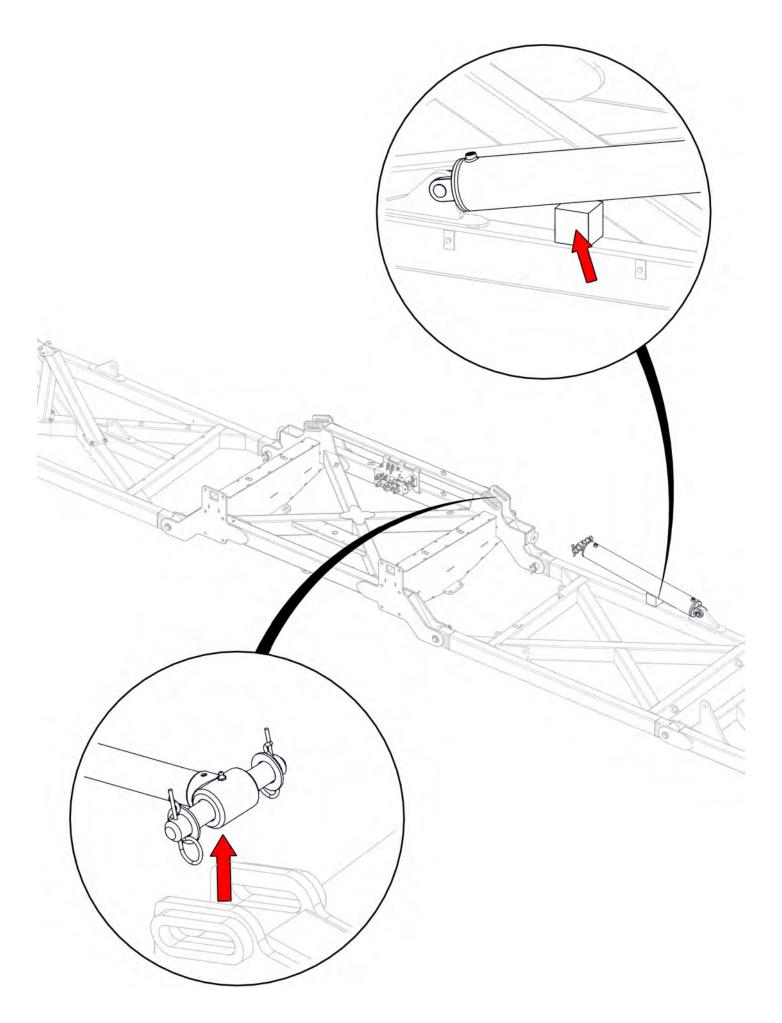




Item No.	Description	Qty	Number
1	5" Bore 36" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder	1	0311-536ST

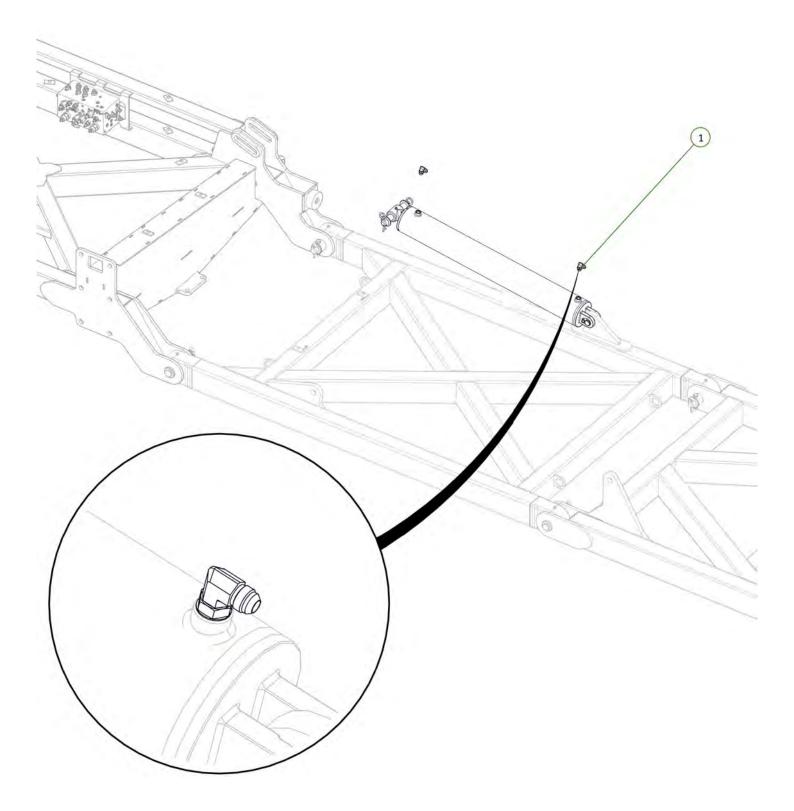


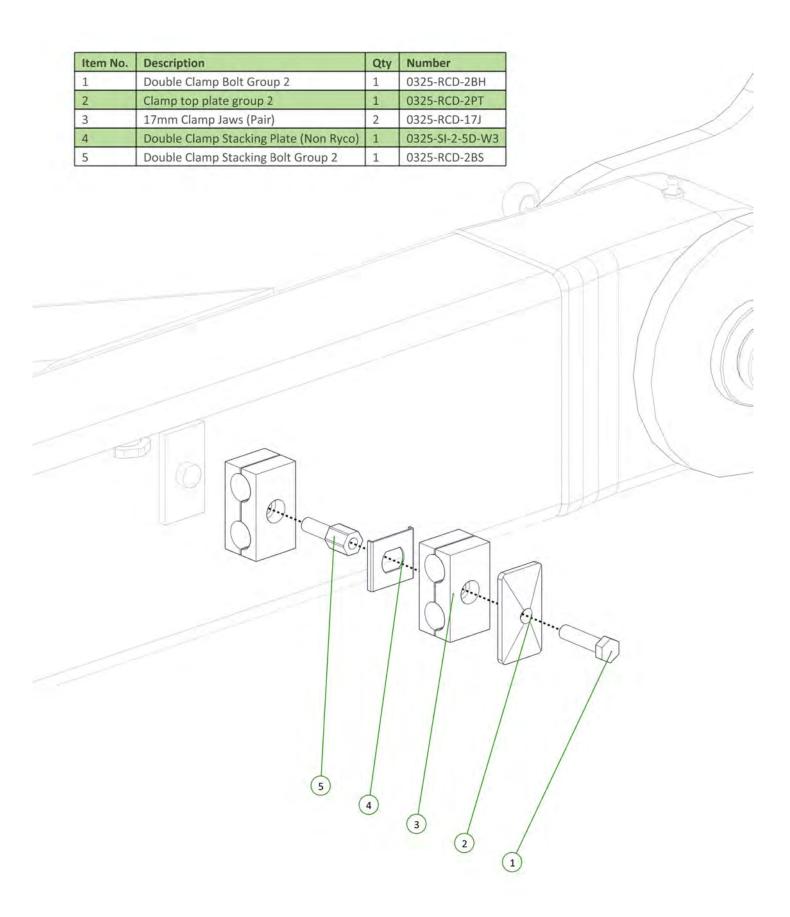


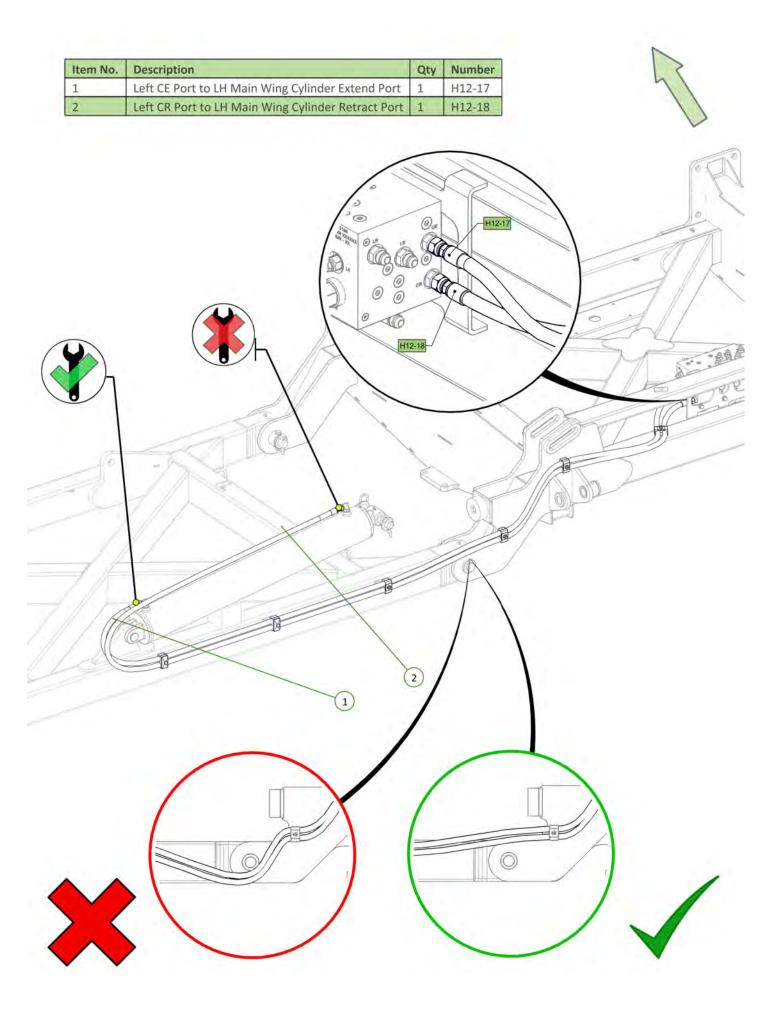


Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-591-1212

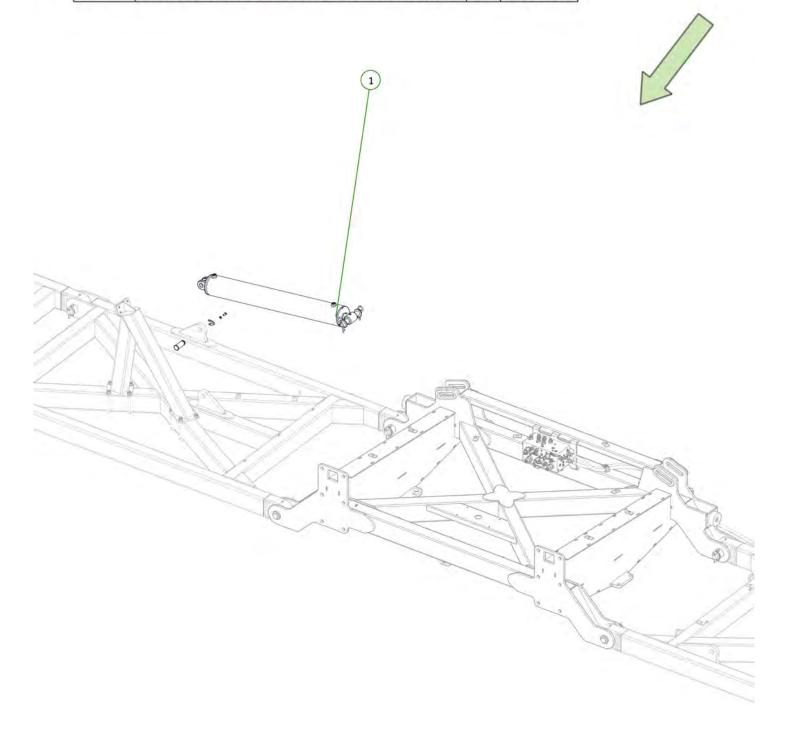


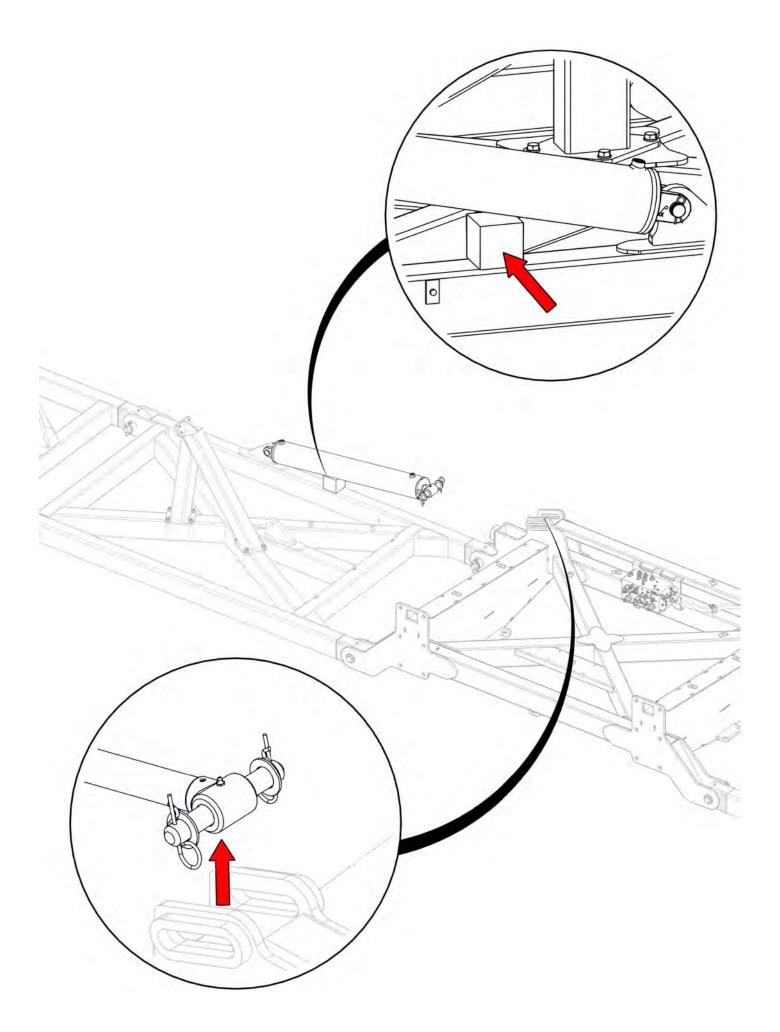






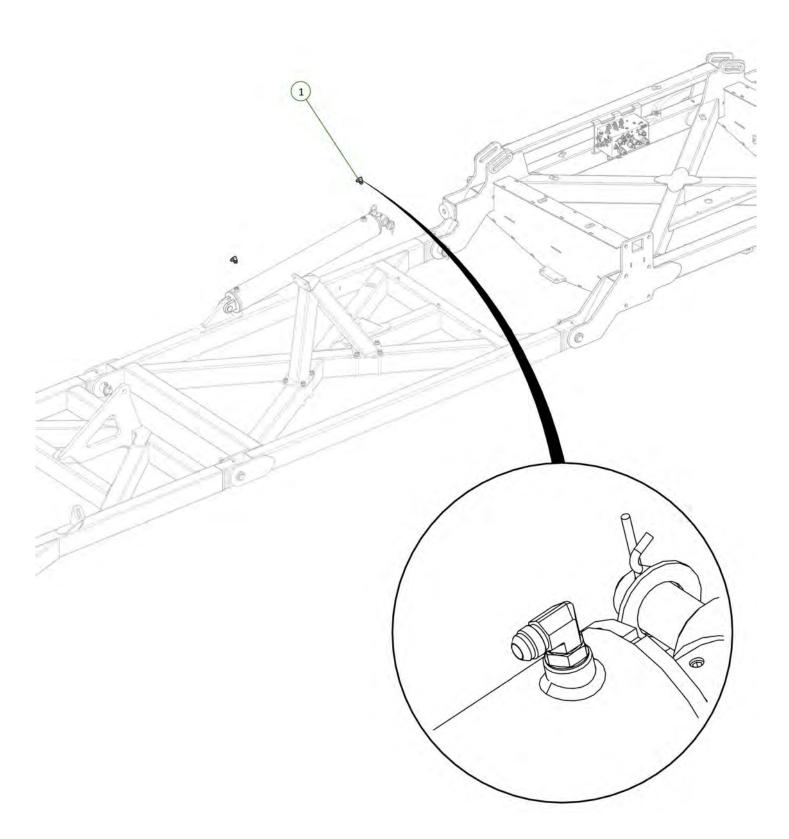
Item No.	Description	Qty	Number
1	5" Bore 36" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder	1	0311-536ST





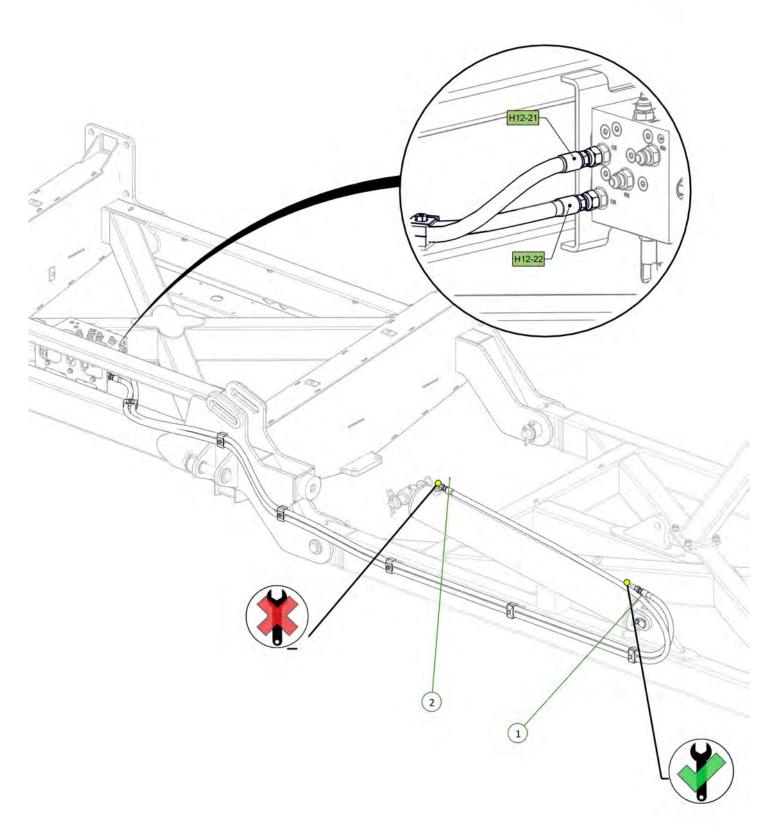
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212





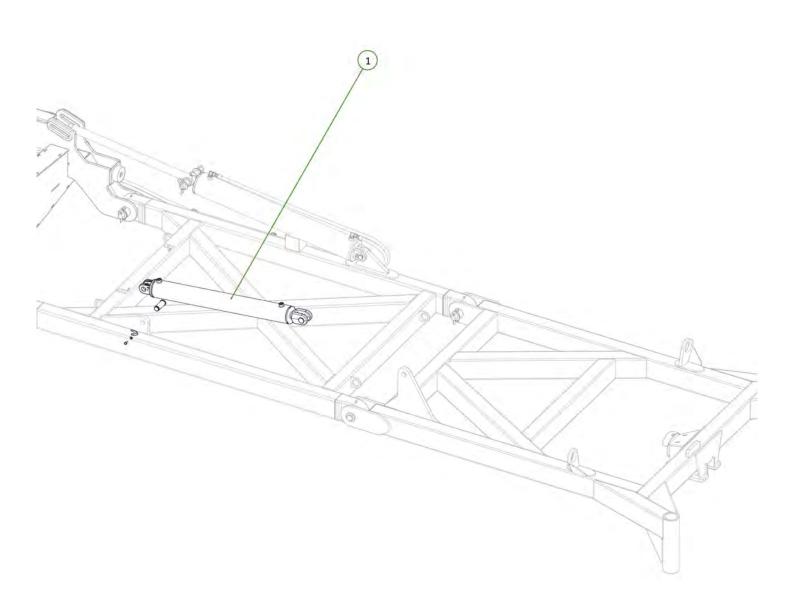
Item No.	Description	Qty	Number
1	Right CE Port to RH Main Wing Cylinder Extend Port	1	H12-21
2	Right CR Port to RH Main Wing Cylinder Retract Port	1	H12-22

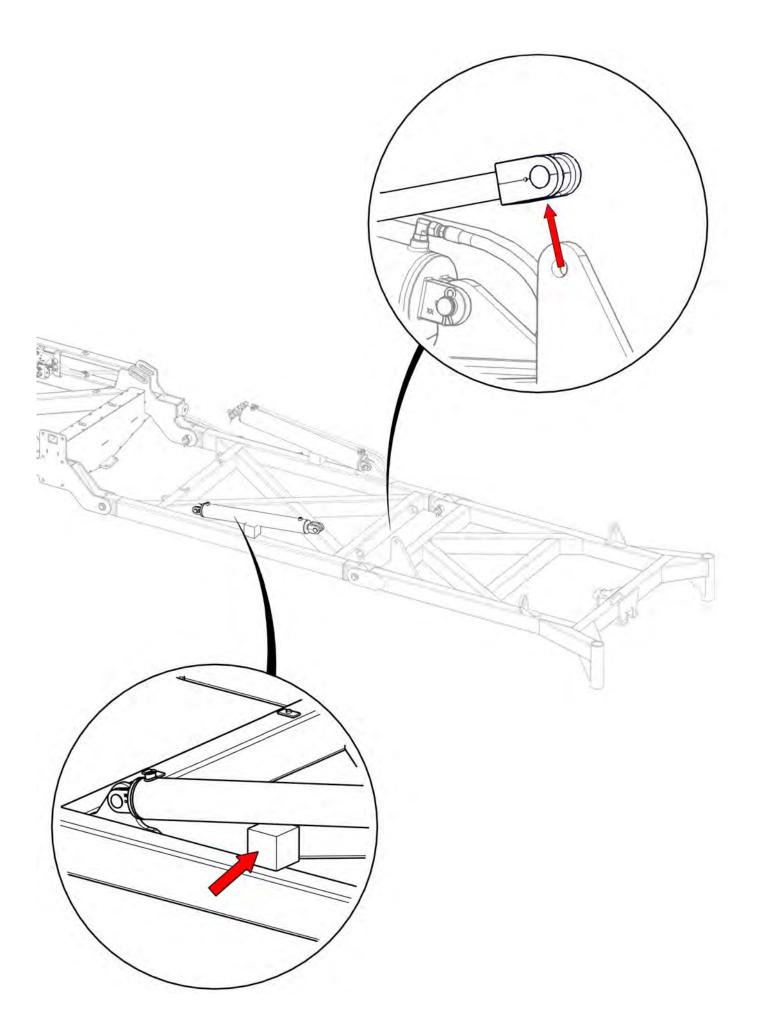




Item No.	Description	Qty	Number
1	4" Bore 30" Stroke 3" S/Tube 1.75" Rod Hydraulic Cylinder with Stop Tube & Clevis	1	0311-430ST-C2

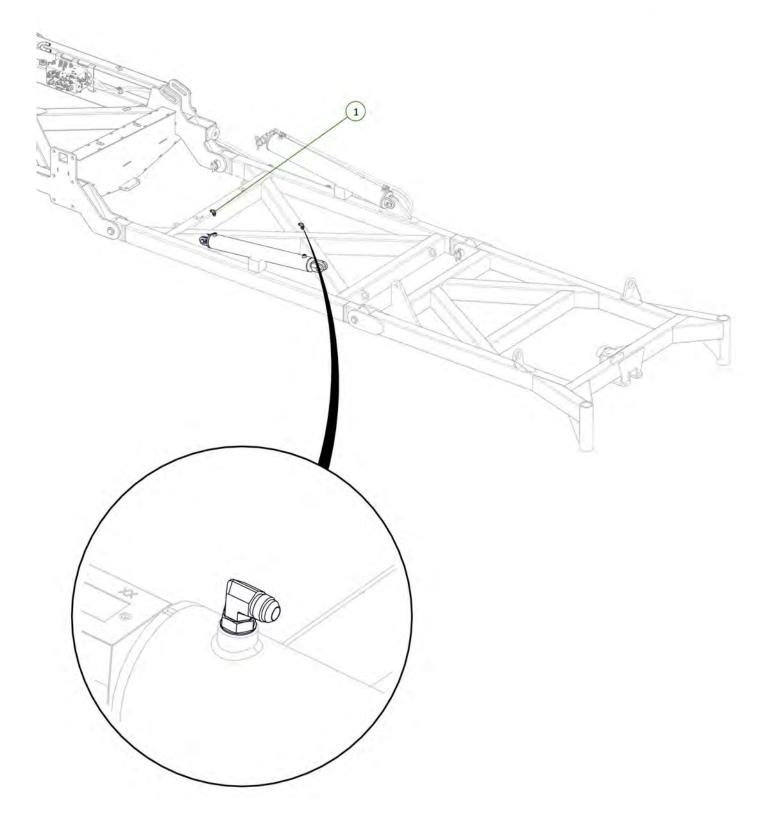


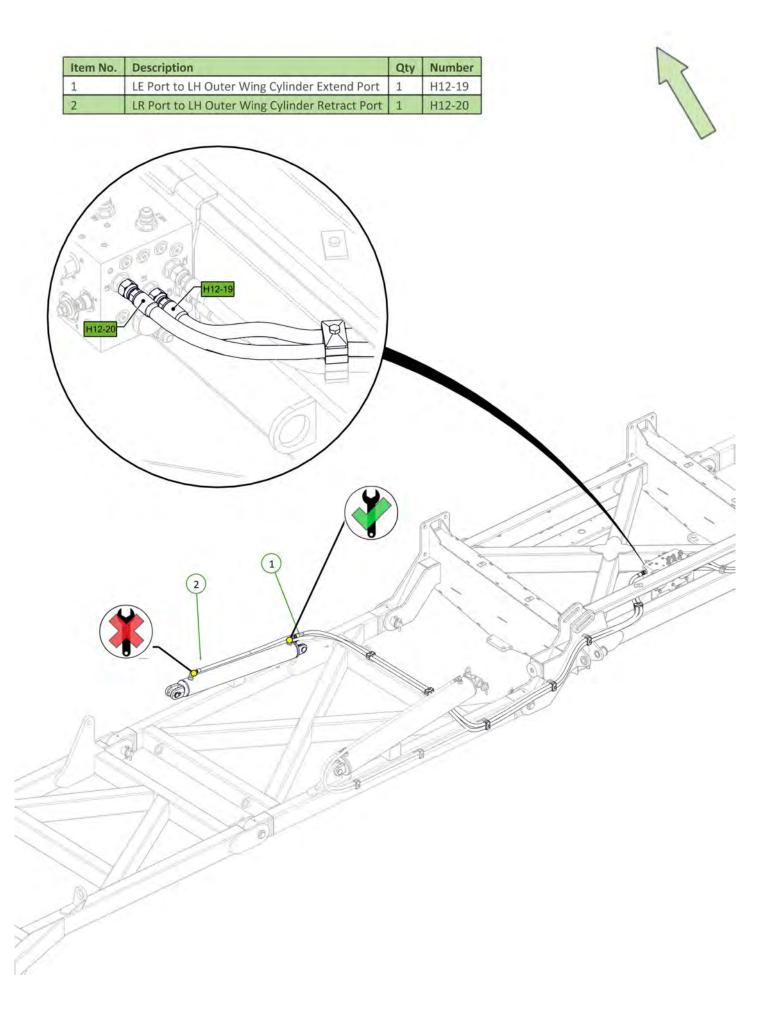




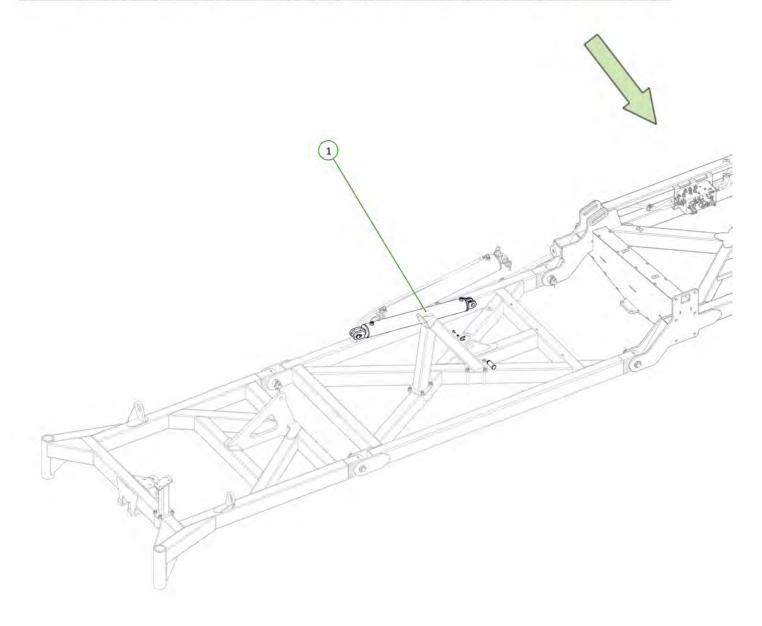
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-591-1212

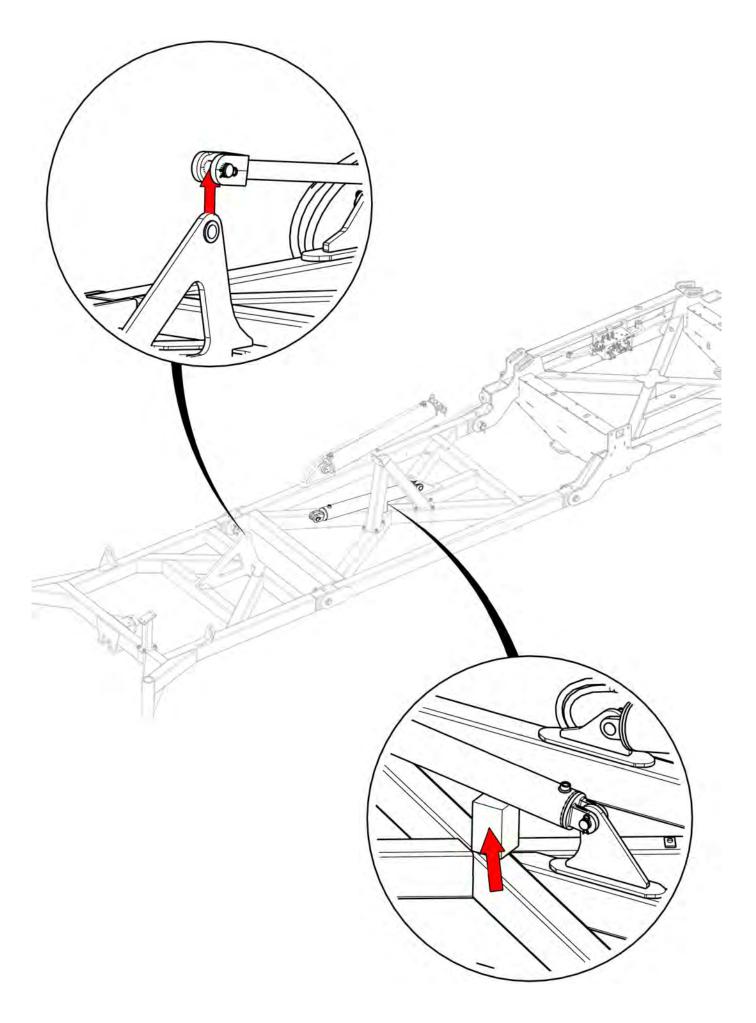






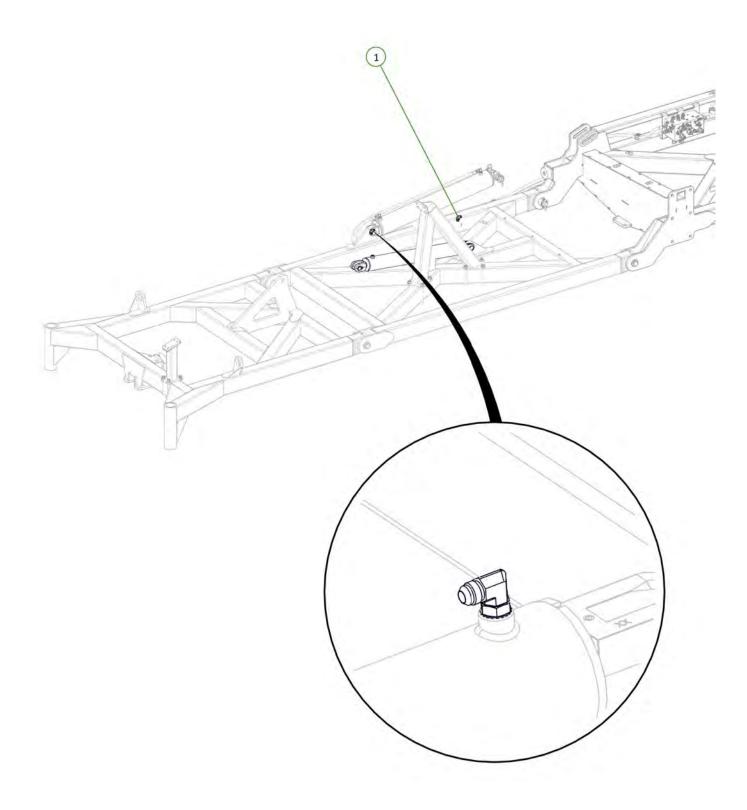
Item No.	Description	Qty	Number
1	4" Bore 30" Stroke 3" S/Tube 1.75" Rod Hydraulic Cylinder with Stop Tube & Clevis	1	0311-430ST-C2



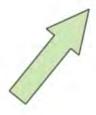


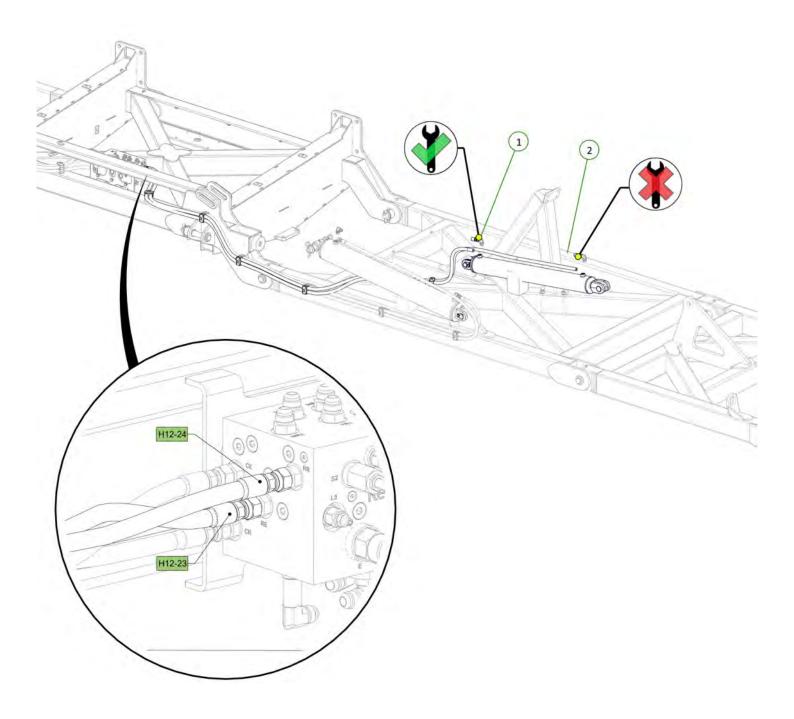
Item No.	Description	Qty	Number	
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212	

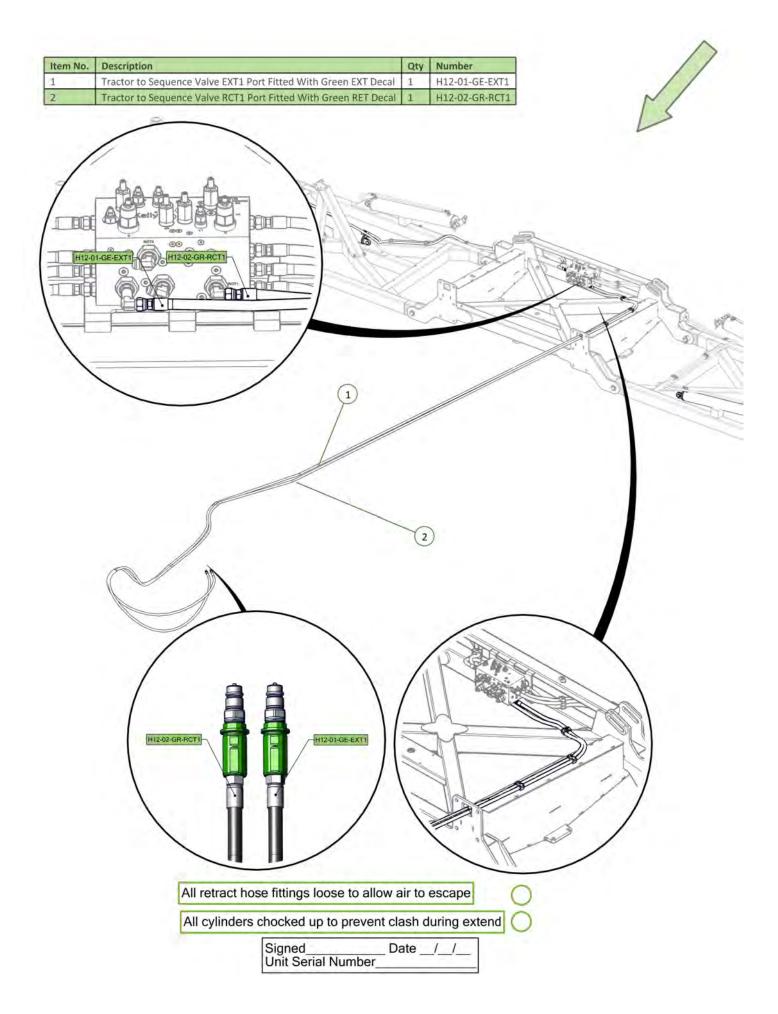


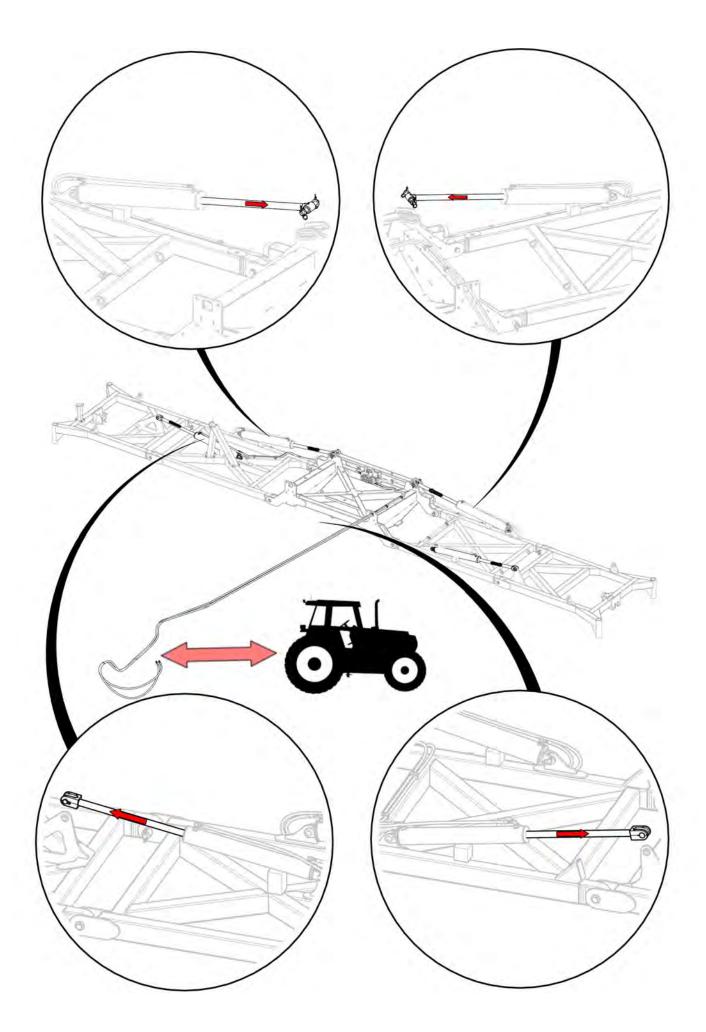


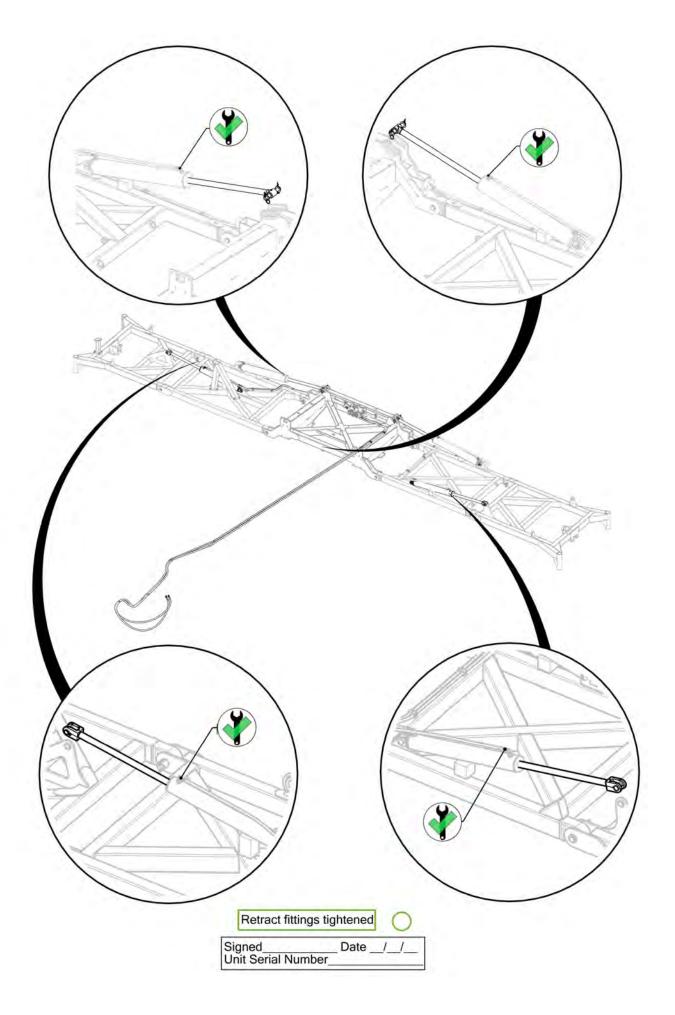
Item No.	Description	Qty	Number
1	RE Port to RH Outer Wing Cylinder Extend Port	1	H12-23
2	RR Port to RH Outer Wing Cylinder Retract Port	1	H12-24

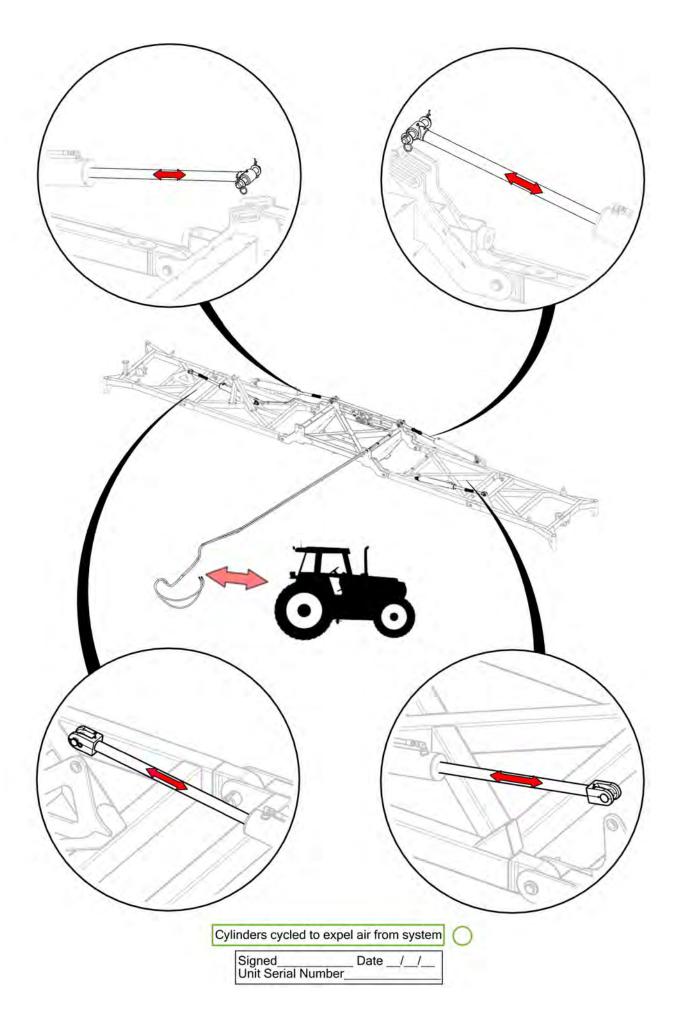


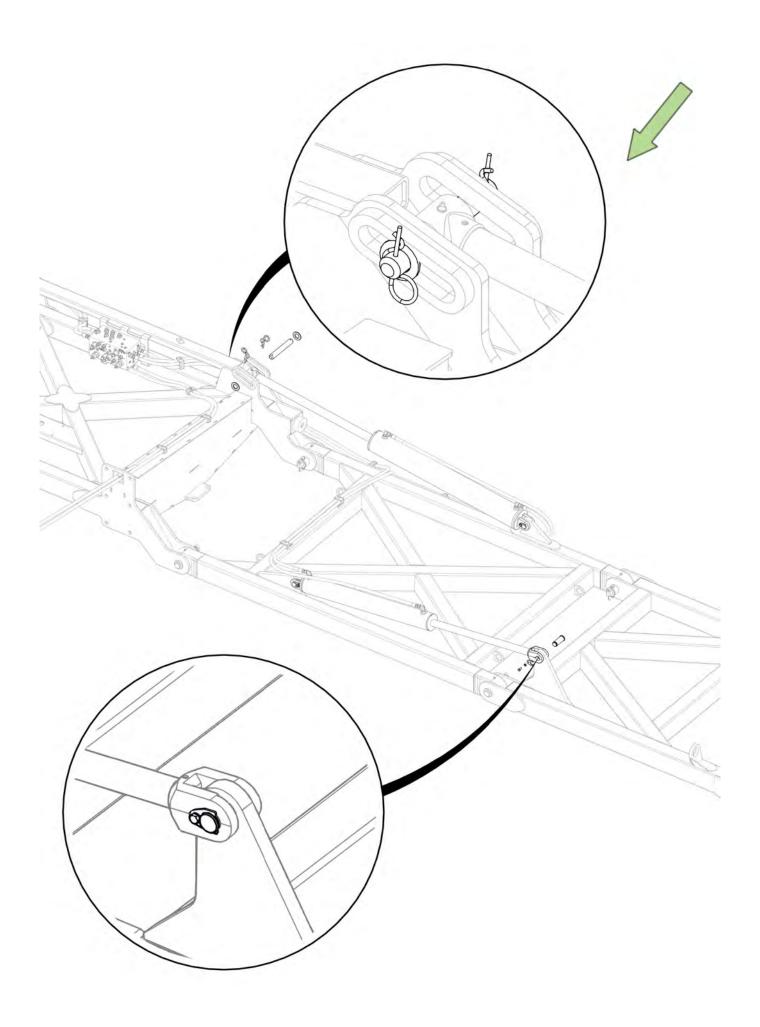


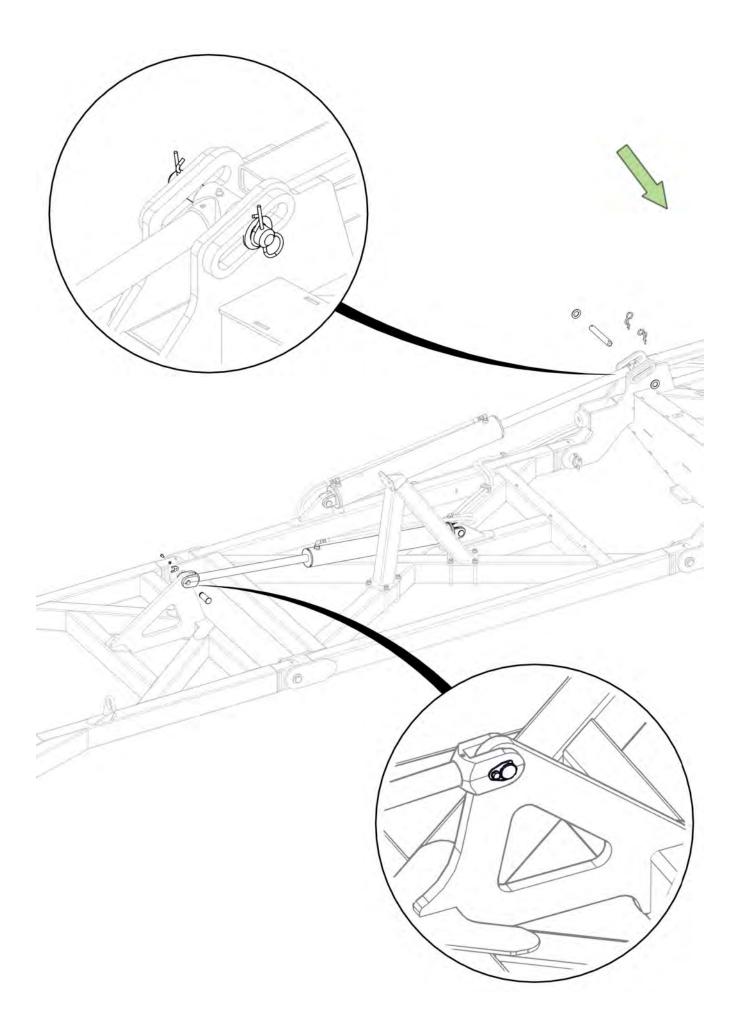






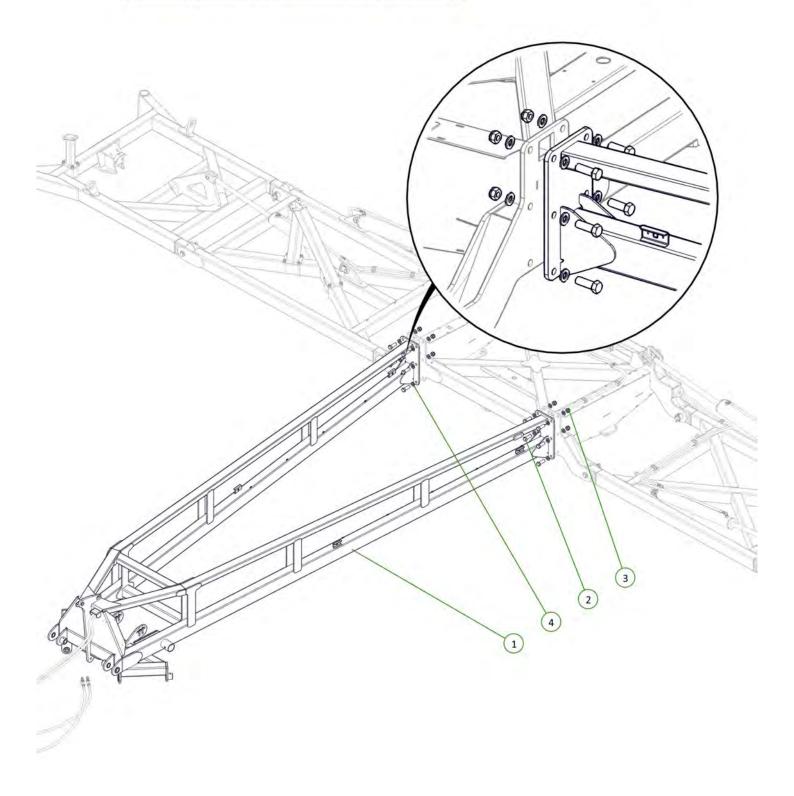






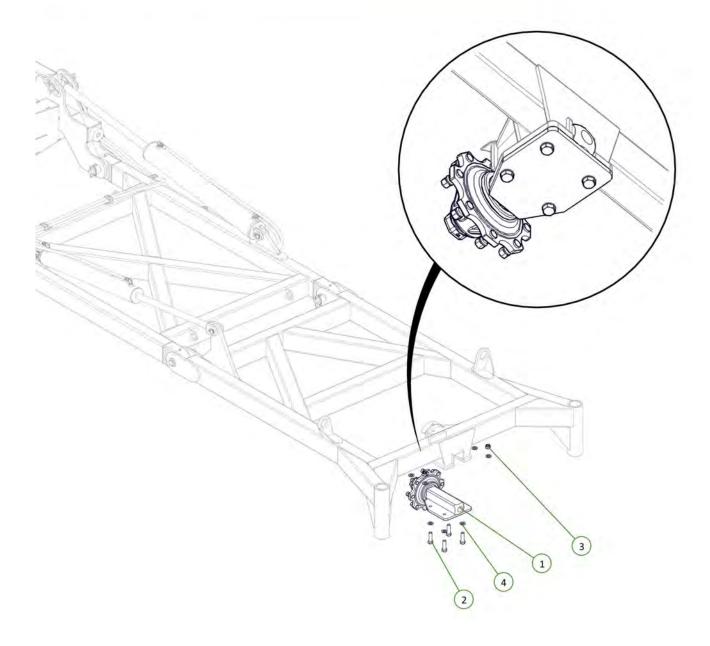
Item No.	Description	Qty	Number
1	Front A Frame	1	1540-02
2	M24 x 65 grade 8.8 zp Bolt	12	0211-2465
3	Nyloc Nut M24	12	0221-NYL24
4	Washer Flat M24	24	0231-F24





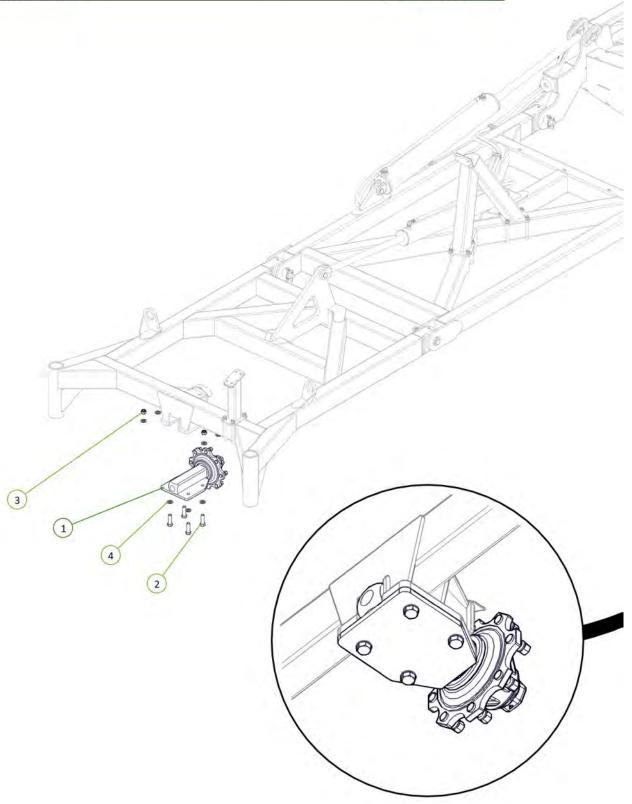
Item No.	Description	Qty	Number
1	Monroc 808X 80mm Square Stub Axle 315mm 8 on 275 PCD (Mounting Plate)	1	0733-808X-315
2	M20 x 70 grade 8.8 ZP Bolt	4	0211-2070
3	Nyloc Nut M20	4	0221-NYL20
4	Washer Flat M20	8	0231-F20





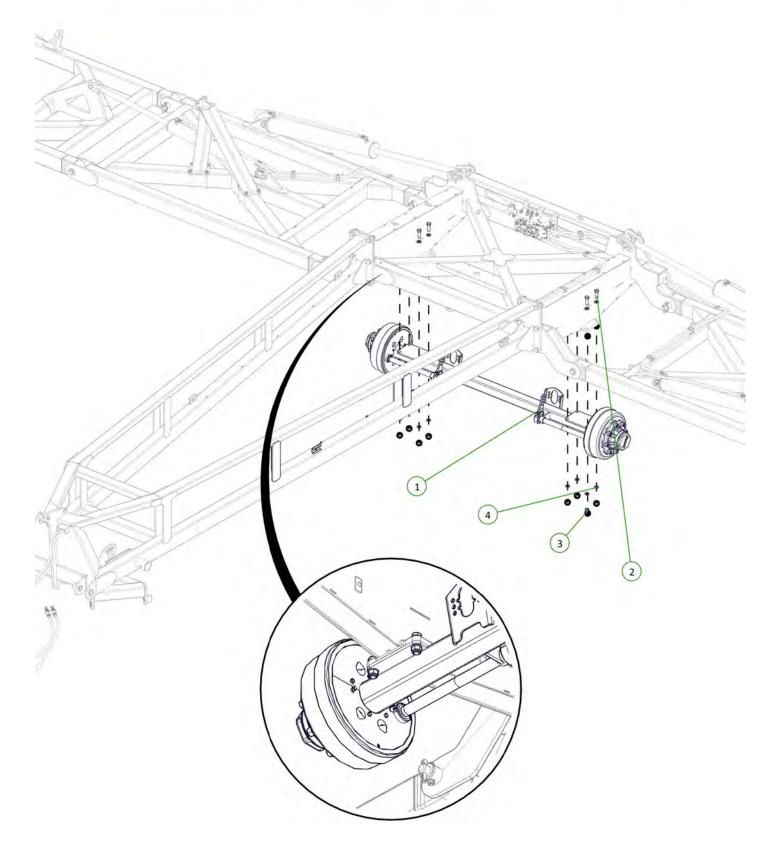
Item No.	Description	Qty	Number
1	Monroc 808X 80mm Square Stub Axle 315mm 8 on 275 PCD (Mounting Plate)	1	0733-808X-315
2	M20 x 70 grade 8.8 ZP Bolt	4	0211-2070
3	Nyloc Nut M20	4	0221-NYL20
4	Washer Flat M20	8	0231-F20





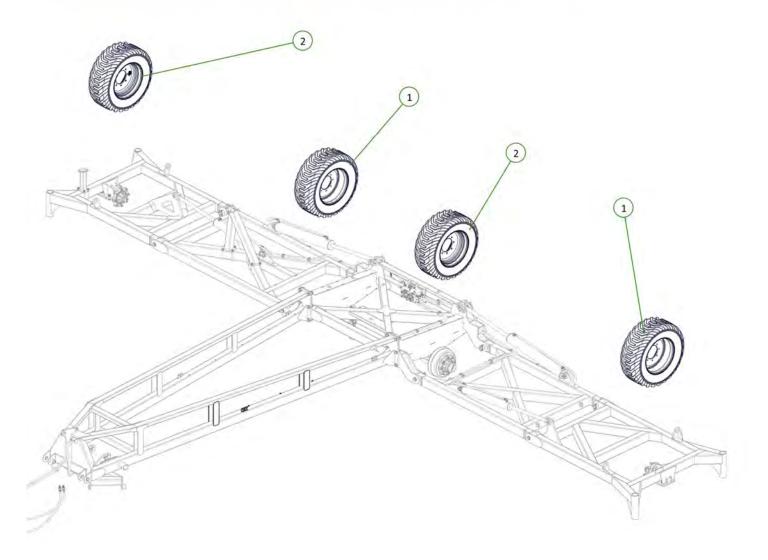
Item No.	Description	Qty	Number
1	Monroc Beam Axle 9 & 12m with mount plates	1	0733-908XFR406X120-V2570J
2	M20 x 65 grade 8.8 ZP Bolt	8	0211-2065
3	Nyloc Nut M20	8	0221-NYL20
4	Washer Flat M20	16	0231-F20





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

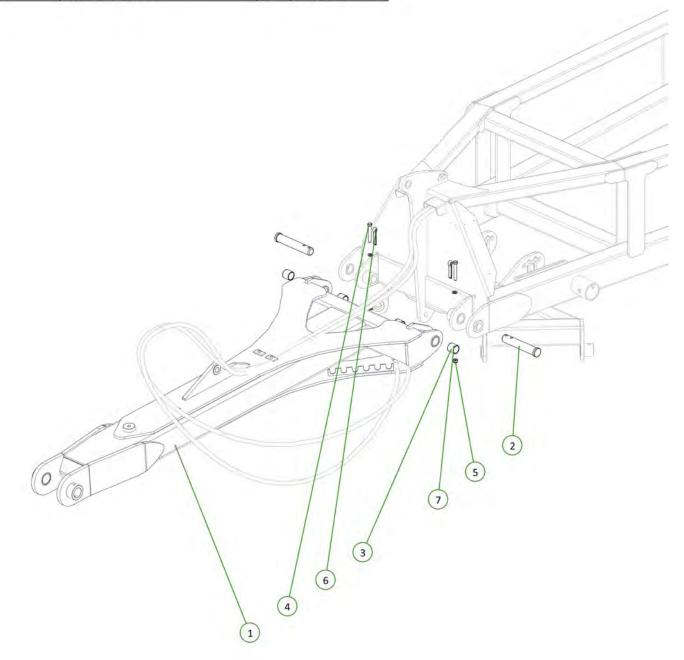




All wheel nuts tightened to 100ft-lb / 140Nm

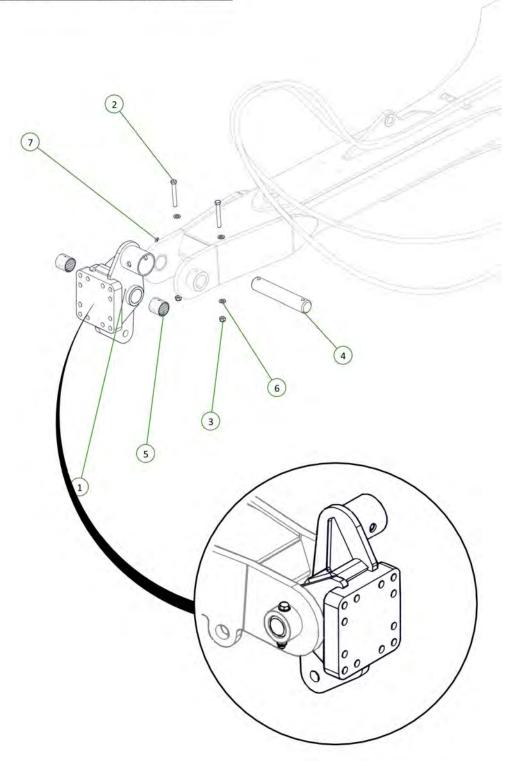
Item No.	Description	Qty	Number
1	Drawbar - 50mm Hitch Pin Europe	1	0810-65E
2	Walking Axle Linkage Pivot Pin	2	1601-P38-220
3	Drawbar Pivot Bush	4	0801-B423838
4	M12 x 90 Class 10.9 ZP Bolt	2	0211-1290HT
5	Nyloc Nut M12	2	0221-NYL12
6	Cotter Pin M13 x 63	2	0261-PINC1363
7	Washer Flat M12	4	0231-F12



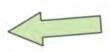


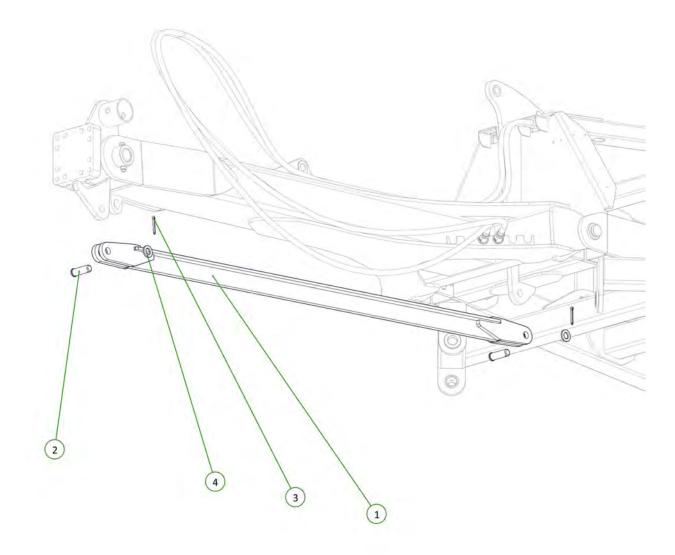
Item No.	Description	Qty	Number
1	Flange Mount Tow Hitch	1	1510-09-3
2	M12 x 100 Class 8.8 ZP Bolt	2	0211-12100
3	Nyloc Nut M12	2	0221-NYL12
4	50mm Tow Hitch Pin	1	0801-008
5	50 ID x 50mm DX Bush	2	0113-MB5050DX
6	Washer Flat M12	4	0231-F12
7	Grease Nipple M6	1	0181-GNM6



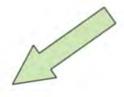


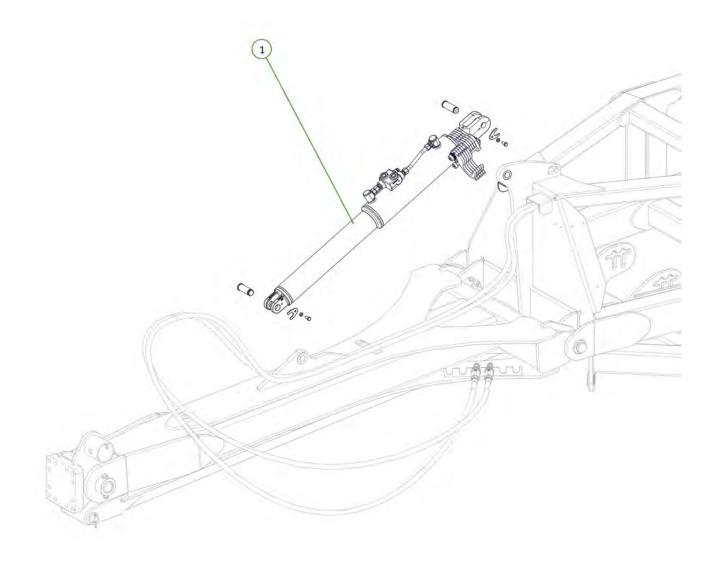
Item No.	Description	Qty	Number
1	Parallel Arm	1	0810-58E
2	Clevis Pin 25mm x 75mm	2	0801-KE0307-1
3	Cotter Pin M6 x 50mm	2	0261-PINC650
4	Washer Flat M24	2	0231-F24





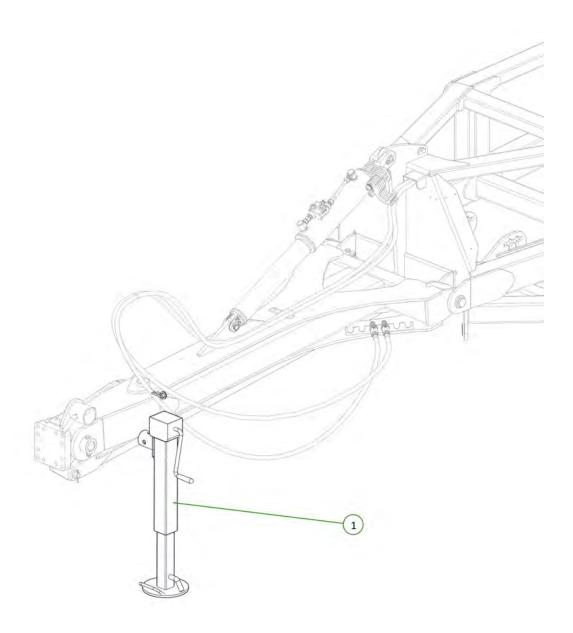
Item No.	Description	Qty	Number
1	4" Bore 12" Stroke 2" Rod Extended Hydraulic Cylinder	1	0311-412EXT-2





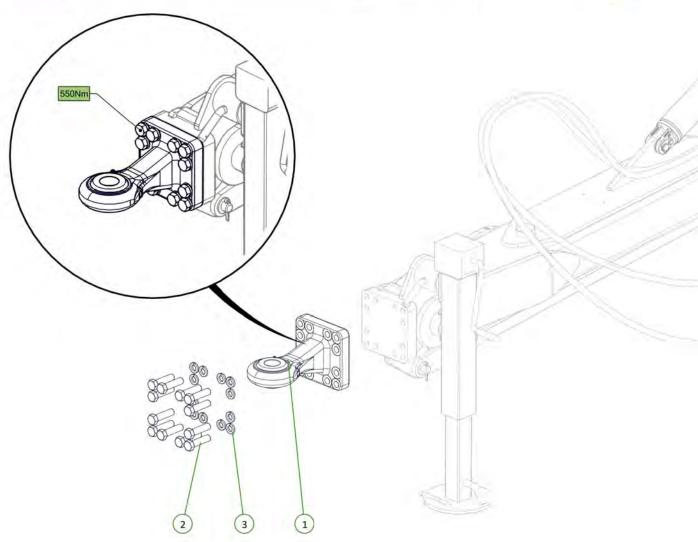
Item No.	Description	Qty	Number
1	Jack Assembly EU	1	0810-31AE





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





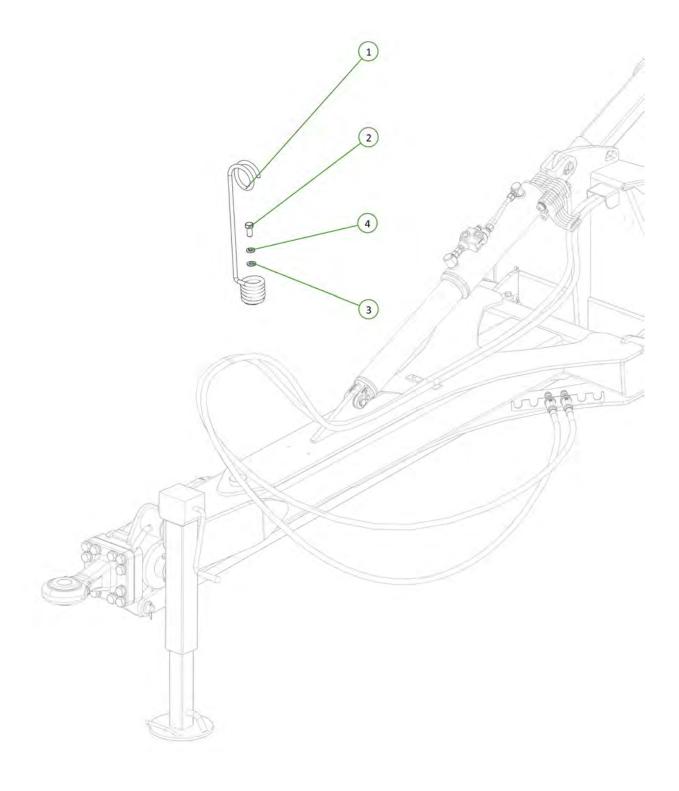


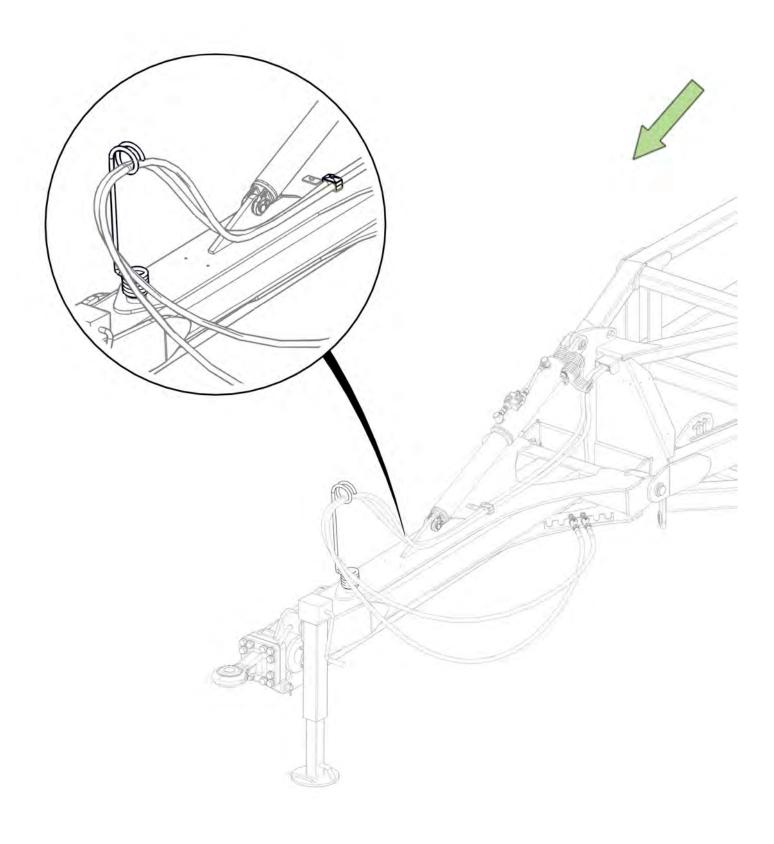
0801-00.665.15.0-A02 Ball Joint Towing Eye, with flange CAT 2 Scharmüller	Flange Hole Pattern (mm): 160x160 Connection: Ball Joint Towing Eye Cat. 2 DØ33mm Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 250 Max. Permissible D-Value (kN): 120 Max. Permissible Vertical Load (kg): 3000	Contract of the second of the
0801-00.665.16.0-A02 Ball Joint Towing Eye, with flange CAT 3 Scharmüller	Flange Hole Pattern (mm): 160x160 Connection: Ball Joint Towing Eye Cat. 3 DØ42mm Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 250 Max. Permissible D-Value (kN): 120 Max. Permissible Vertical Load (kg): 3000	
0801-00.665.17.1-A02 Ball Joint Towing Eye, with flange CAT 4 Scharmüller	Flange Hole Pattern (mm): 160x160 Connection: Ball Joint Towing Eye Cat 4 DØ51mm Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 246 Max. Permissible D-Value (kN): 120,2 Max. Permissible Vertical Load (kg): 3000	
0801-00.665.901.0-A02 K80 Ball Coupling System, with flange Scharmüller	Flange Hole Pattern (mm): 160x160 Connection: K80® Towing Eye Ball Coupling System Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 250 Max. Permissible D-Value (kN): 120 Max. Permissible Vertical Load (kg): 4000	
1510-54A 2 Point Hitch CAT 3	Flange Hole Pattern (mm): 160x160 Connection: Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 285	6
1510-55A 2 Point Hitch CAT 4	Flange Hole Pattern (mm): 160x160 Connection: Thread: M20 Hole Pattern Holes: 12 Working Length (mm): 276	0



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

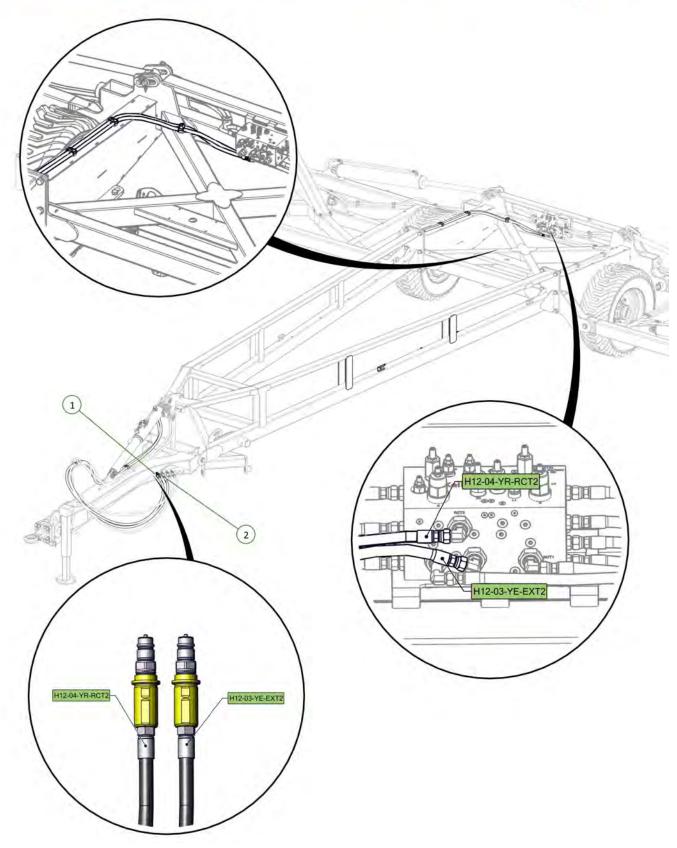


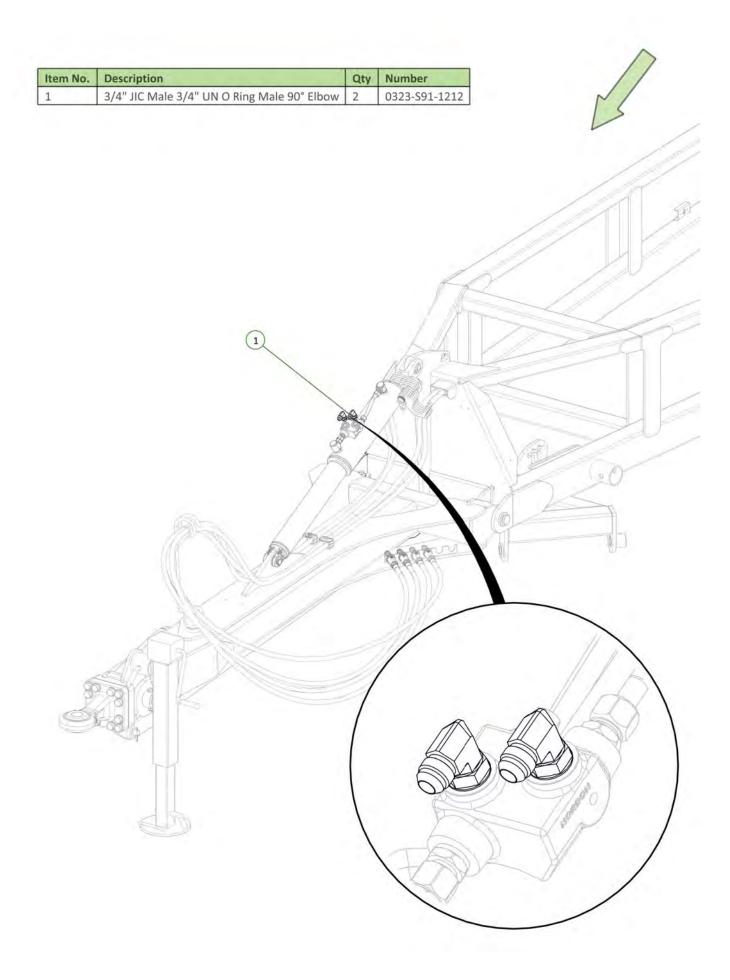


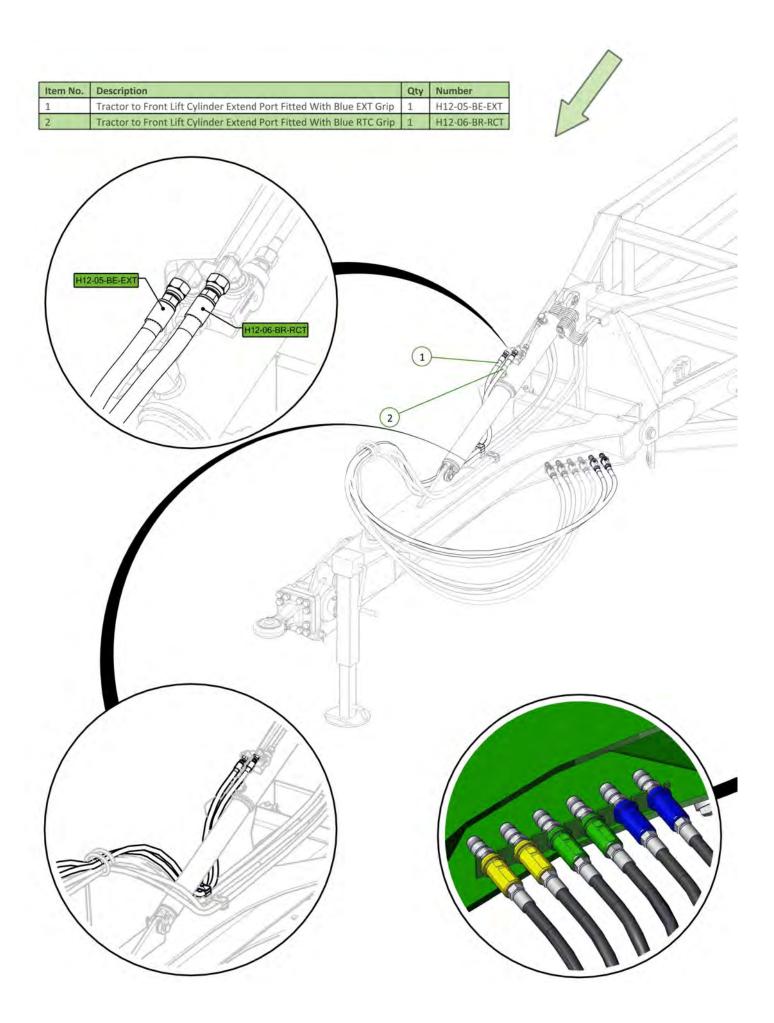


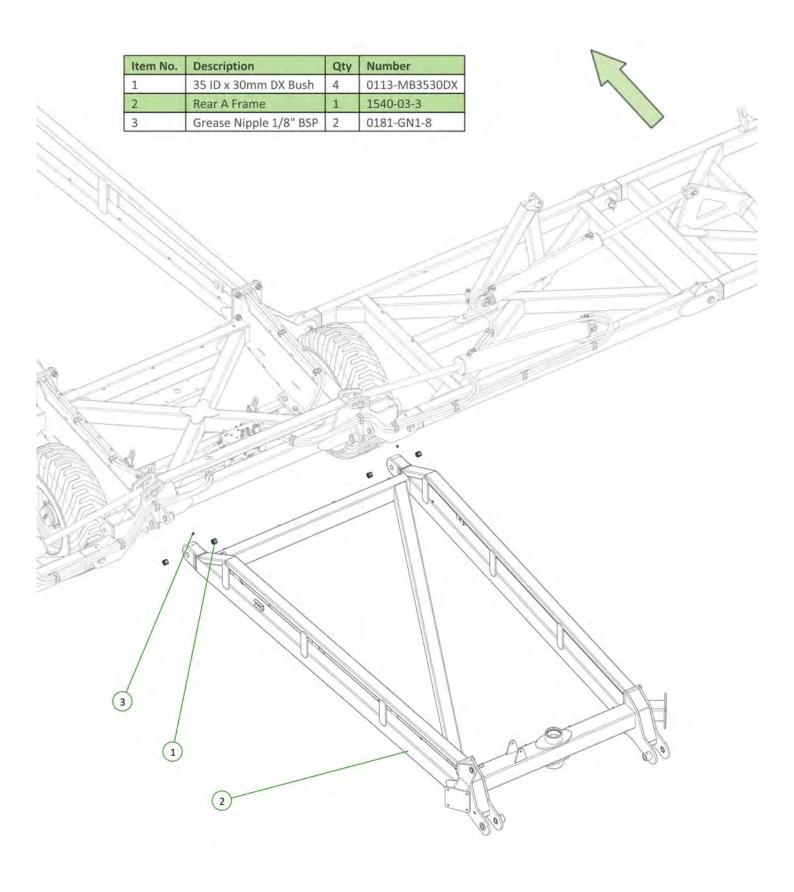
Item No.	Description	Qty	Number
1	Tractor to Sequence Valve EXT2 Port Fitted With Yellow EXT Decal	1	H12-03-YE-EXT2
2	Tractor to Sequence Valve RTC2 Port Fitted With Yellow RTC Decal	1	H12-04-YR-RCT2

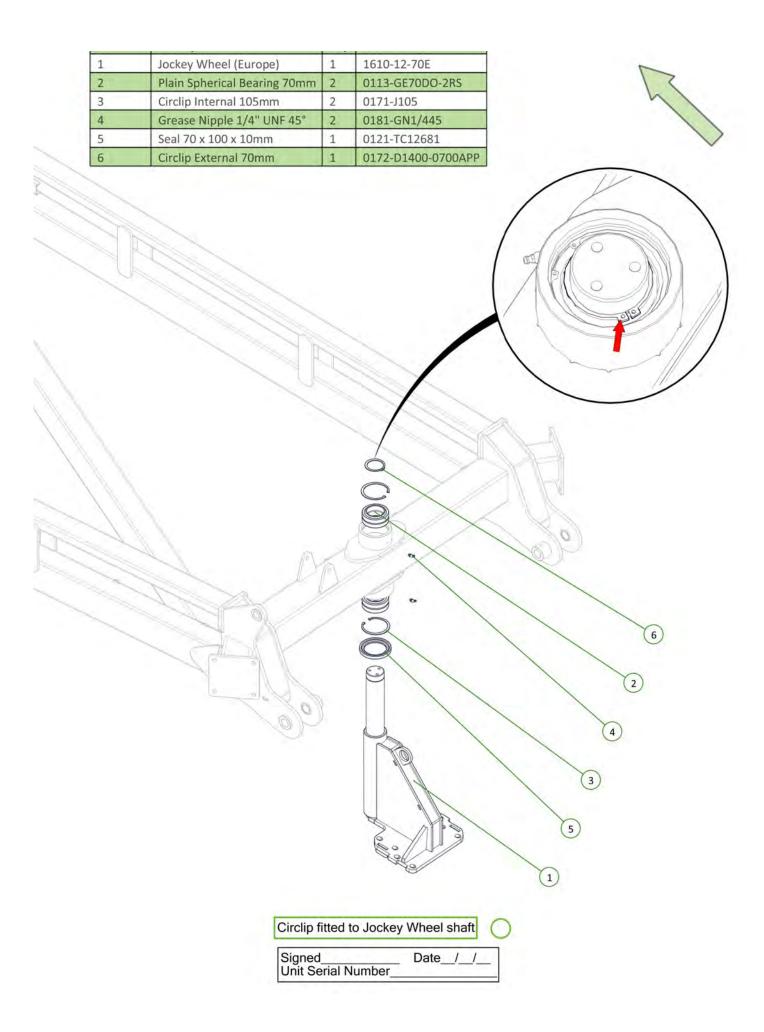




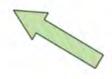


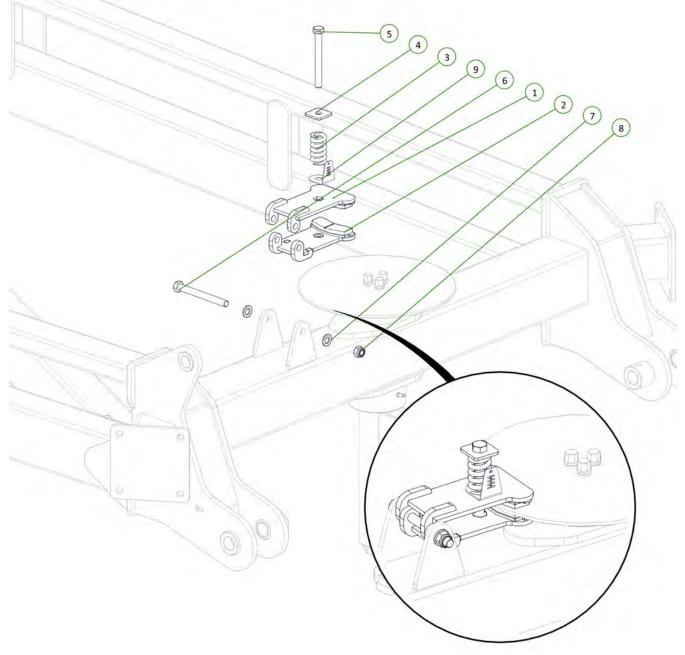








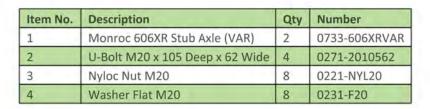


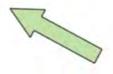


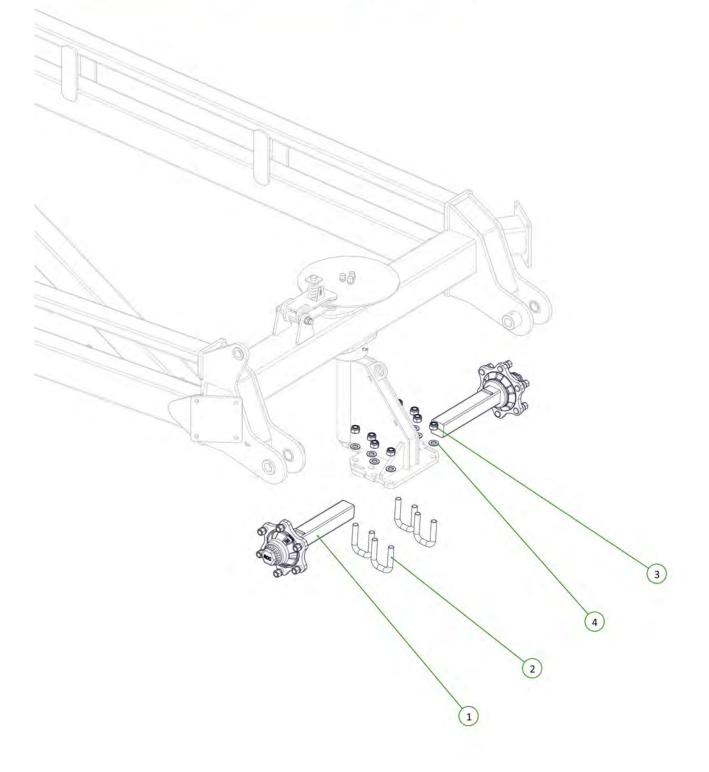
Check tension of brake calliper spring (50-63mm road transport)

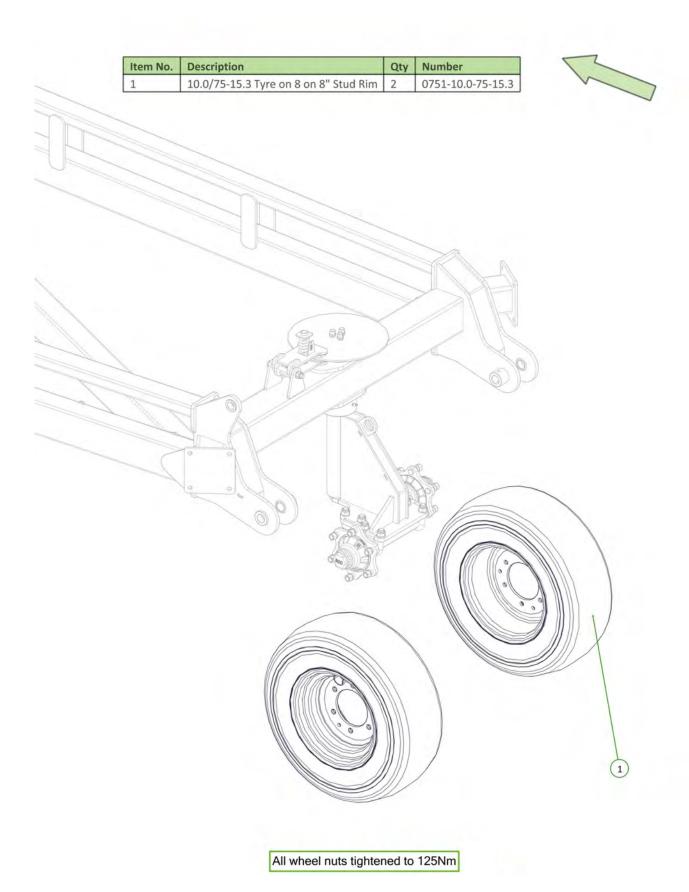


Signed	Date / /
Unit Serial Number	

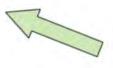


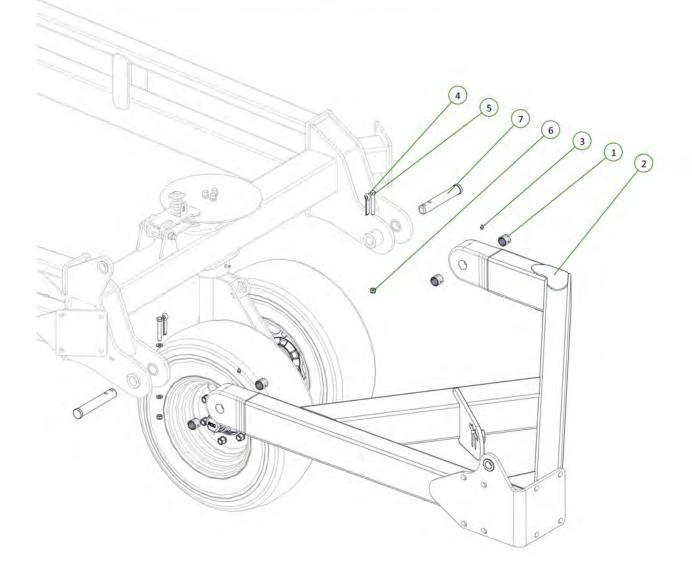






Item No.	Description	Qty	Number
1	35 ID x 30mm DX Bush	4	0113-MB3530DX
2	Rear Tail	1	1510-405-2
3	Grease Nipple 1/8" BSP	2	0181-GN1-8
4	Cotter Pin M13 x 63	2	0261-PINC1363
5	M12 x 80 Class 8.8 ZP Bolt	2	0211-1280
6	Nyloc Nut M12	2	0221-NYL12
7	PCH Wing Pivot Pin	2	0801-10-08-235

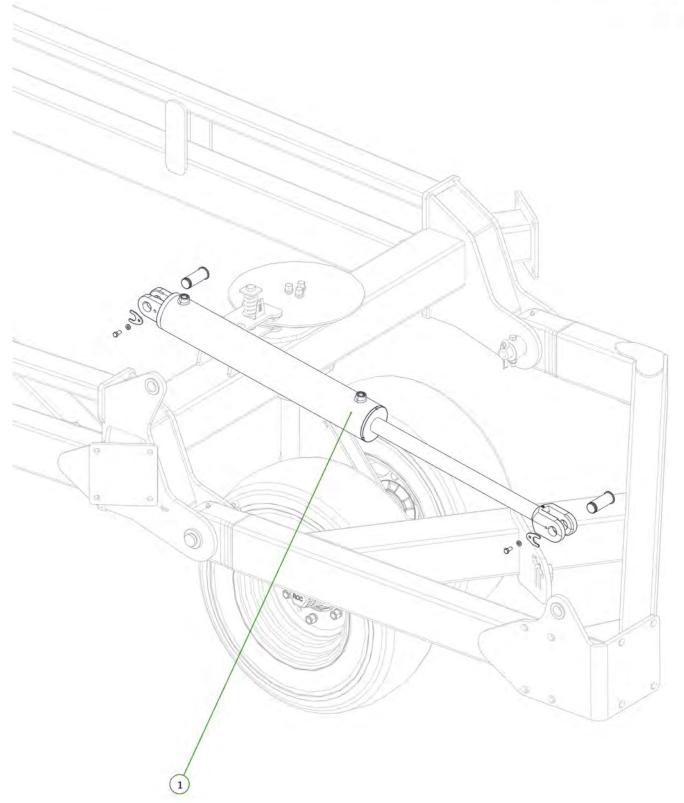




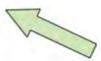
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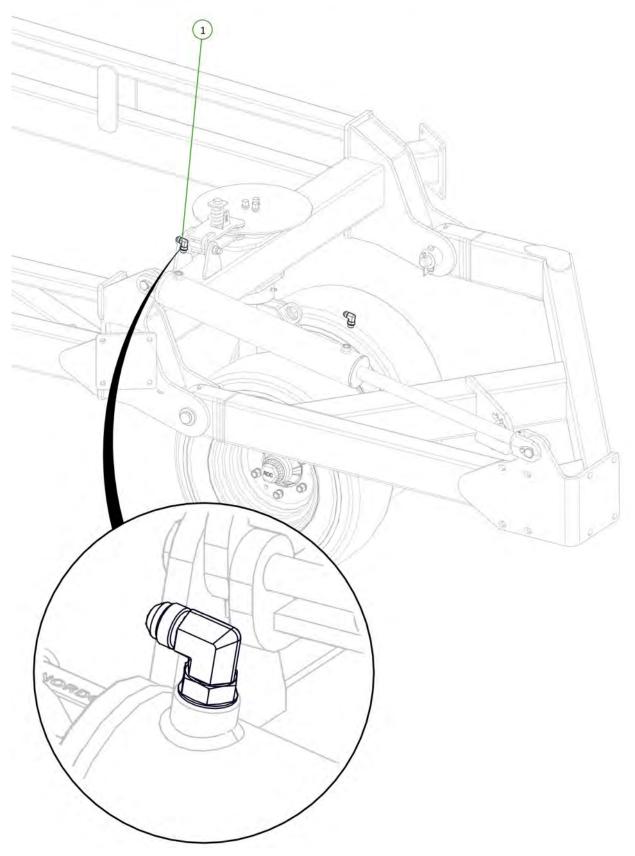
Item No.	Description	Qty	Number
1	4" Bore 24" Stroke 1.75" Rod Hydraulic Cylinder	1	0311-424

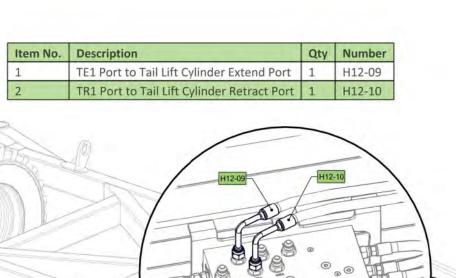




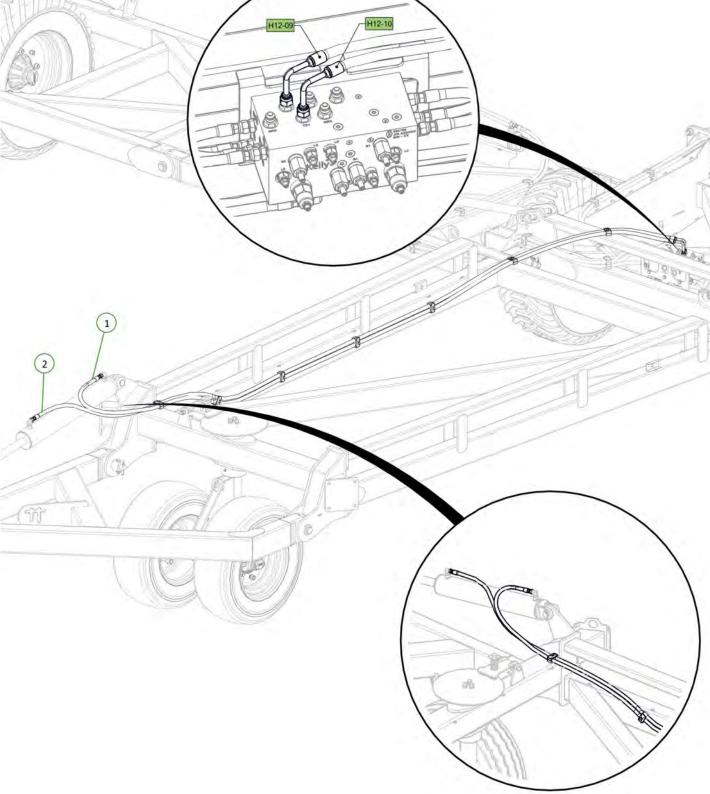
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212





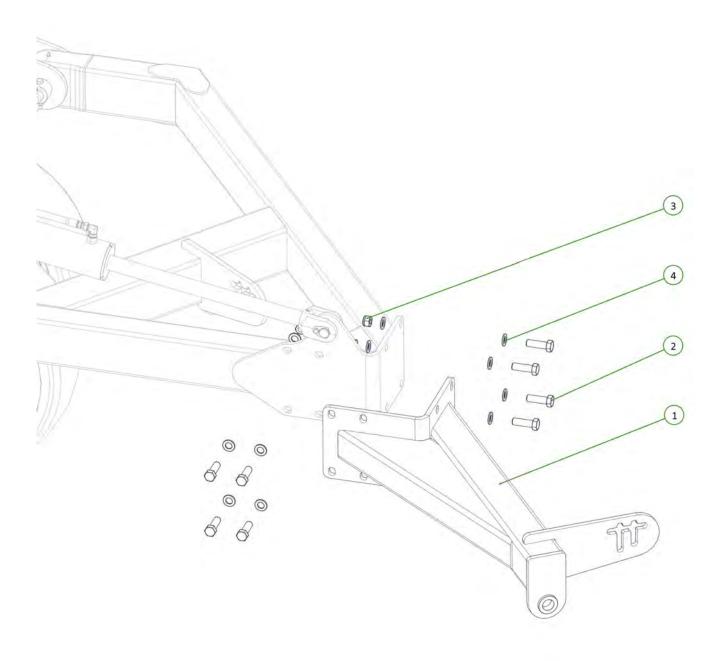




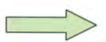


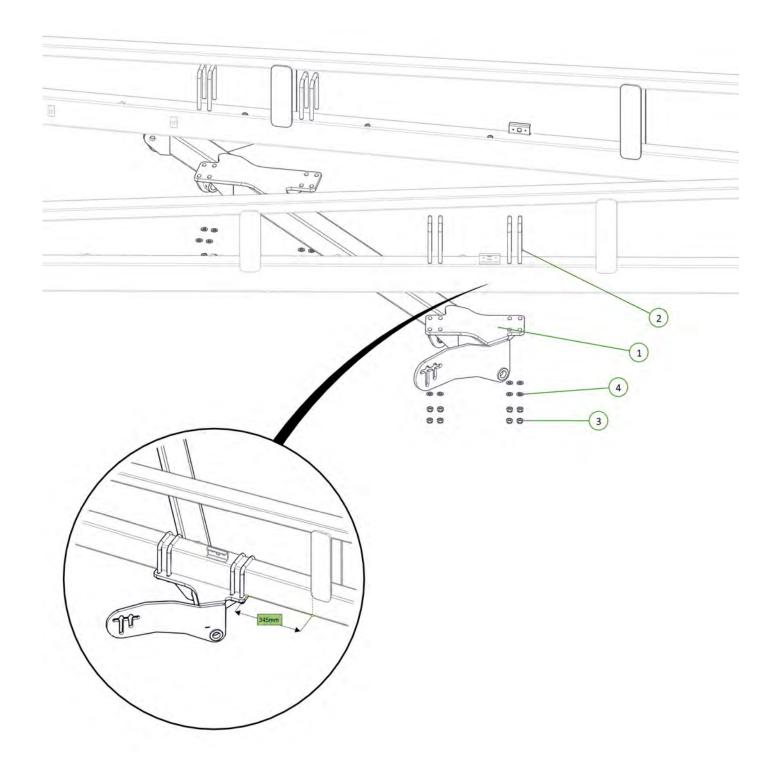
Item No.	Description	Qty	Number
1	Tail Extension	1	1510-40STE
2	M20 x 65 grade 8.8 ZP Bolt	8	0211-2065
3	Nyloc Nut M20	8	0221-NYL20
4	Washer Flat M20	16	0231-F20

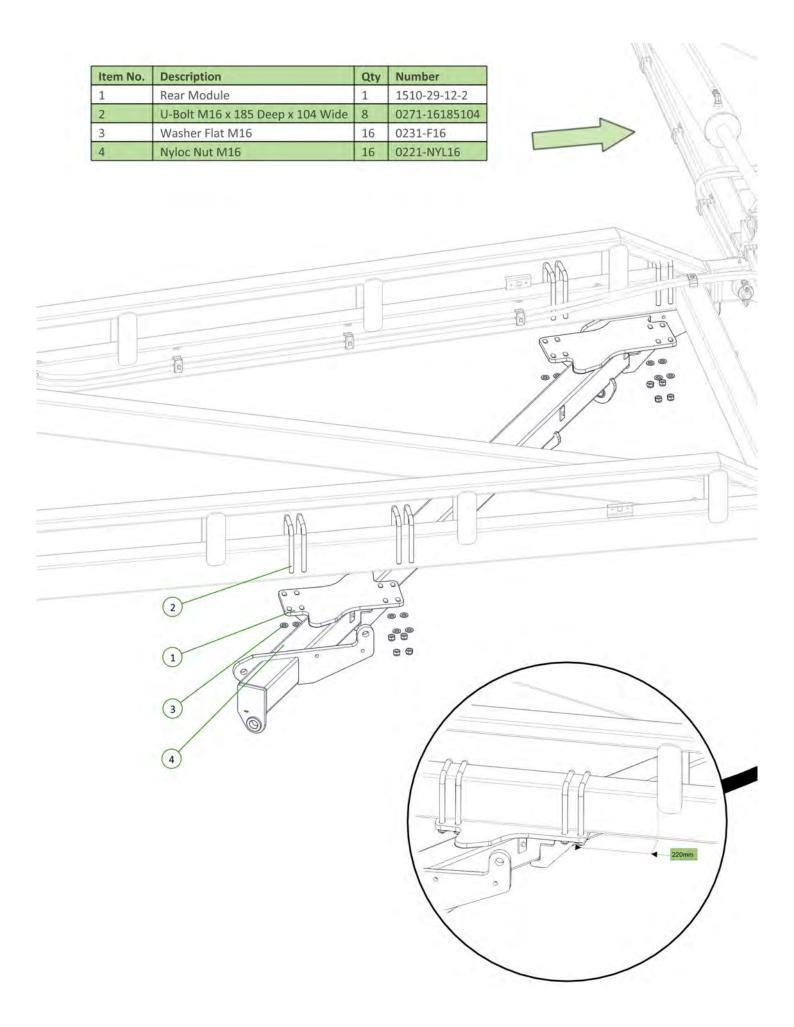


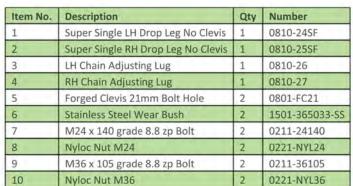


Item No.	Description	Qty	Number
1	Front Module	1	1510-28-12E
2	U-Bolt M16 x 185 Deep x 104 Wide	8	0271-16185104
3	Nyloc Nut M16	16	0221-NYL16
4	Washer Flat M16	16	0231-F16

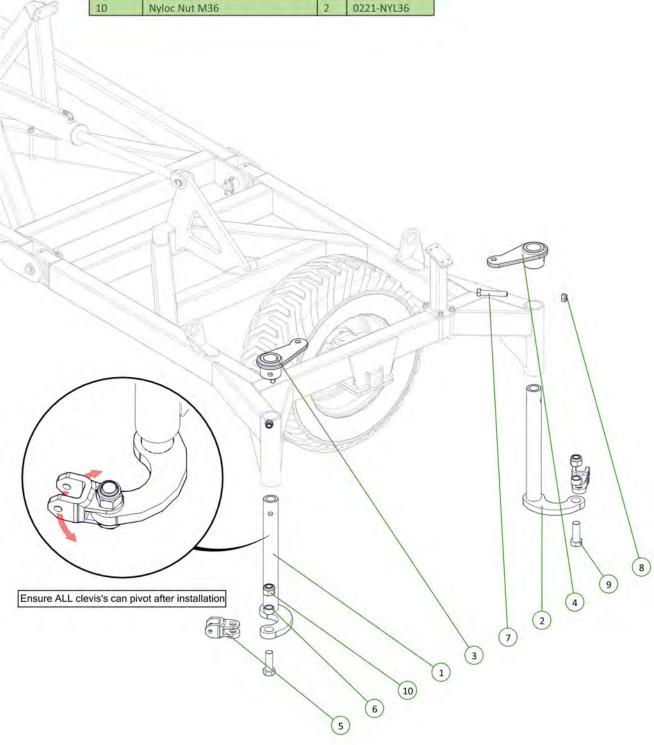






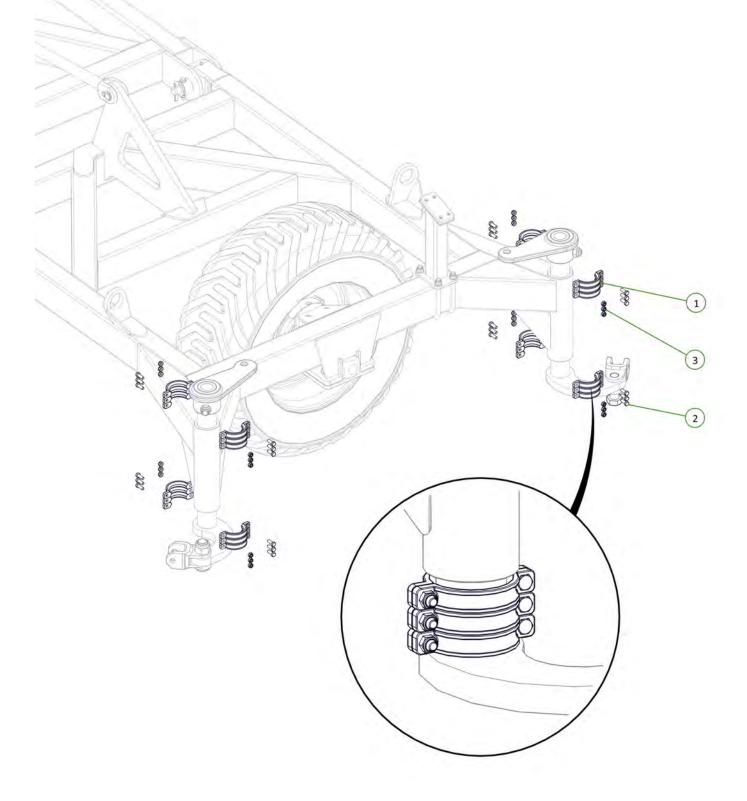






Item No.	Description	Qty	Number
1	Cast 25mm Spacing	24	0801-CS25
2	M10 x 30 Class 8.8 ZP Bolt	24	0211-1030
3	Nyloc Nut M10	24	0221-NYL10

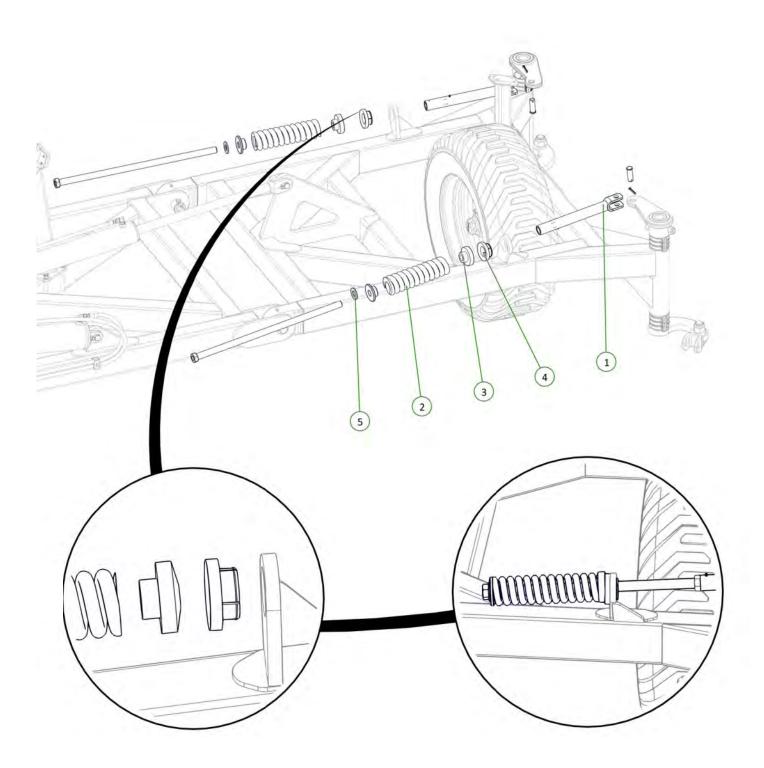


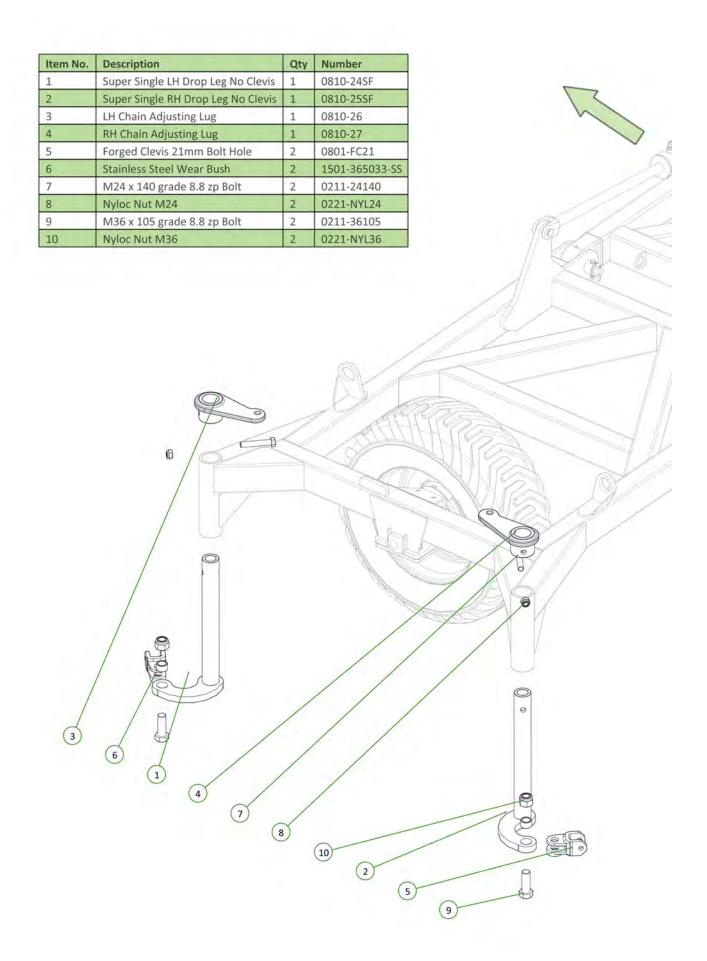


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Item No.	Description	Qty	Number
1	Chain Tension Adjustor	2	0802-PCHTA
2	20mm Compression Spring	2	0801-XK9261S
3	Tensioner Cup - Male	2	0801-KE0805-3
4	Tensioner Cup - Female	2	0801-KE0805-4
5	Washer High Tensile 1 1/4"	2	0232-HT11-4

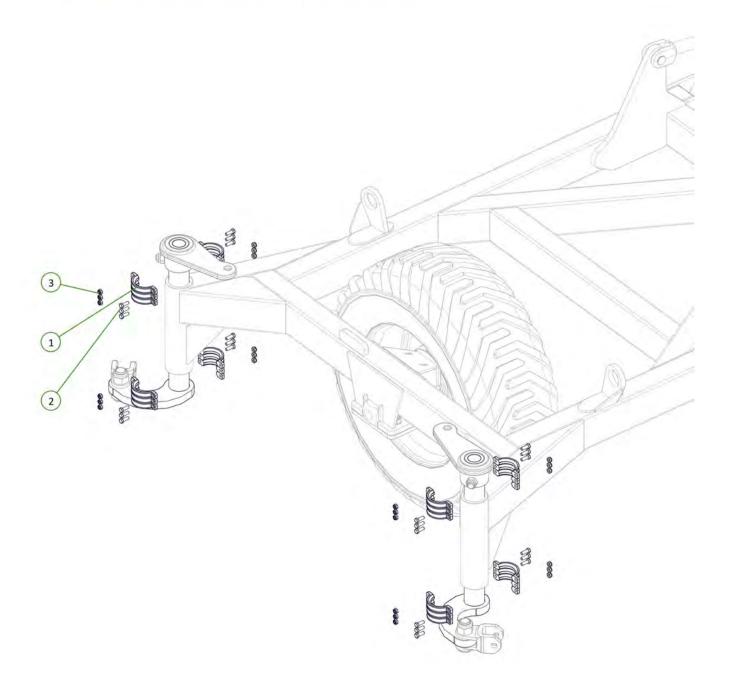






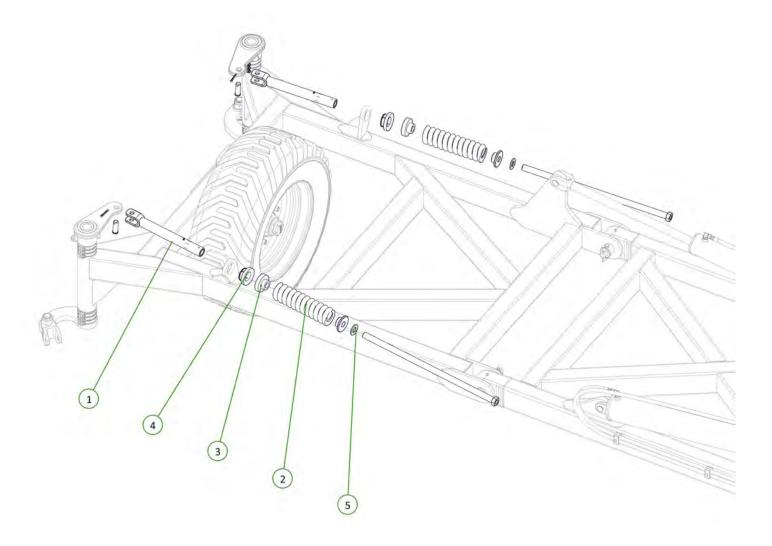
Item No.	Description	Qty	Number
1	Cast 25mm Spacing	24	0801-CS25
2	M10 x 30 Class 8.8 ZP Bolt	24	0211-1030
3	Nyloc Nut M10	24	0221-NYL10

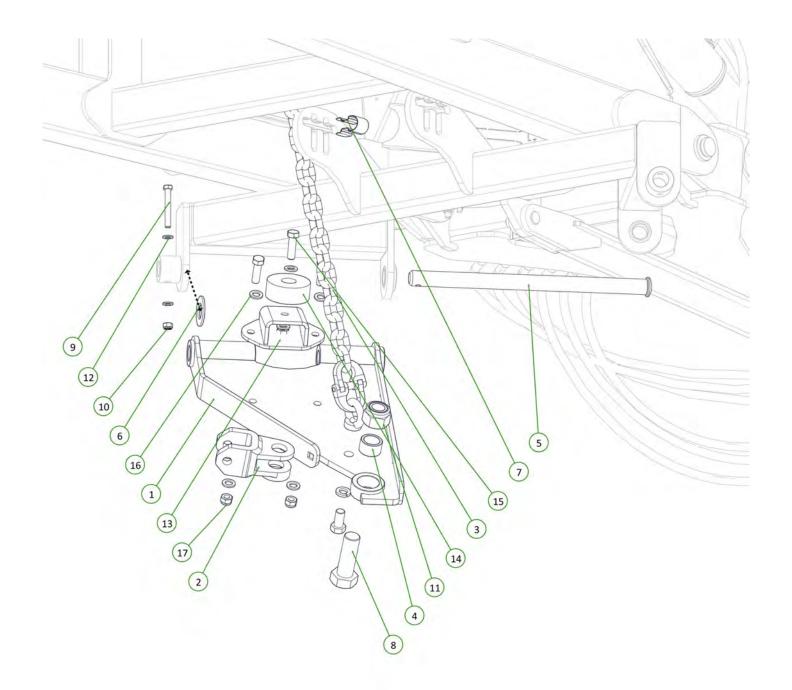




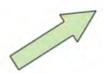
Item No.	Description	Qty	Number
1	Chain Tension Adjustor	2	0802-PCHTA
2	20mm Compression Spring	2	0801-XK9261S
3	Tensioner Cup - Male	2	0801-KE0805-3
4	Tensioner Cup - Female	2	0801-KE0805-4
5	Washer High Tensile 1 1/4"	2	0232-HT11-4

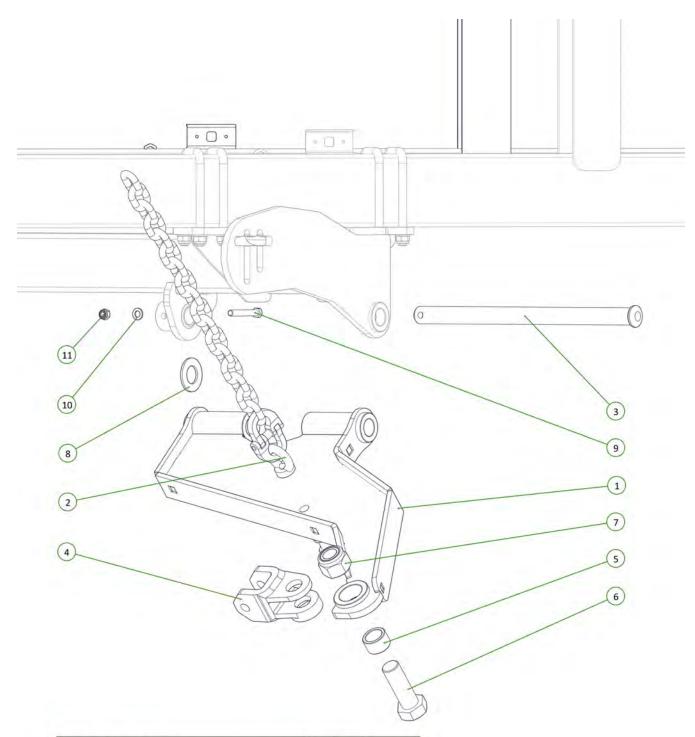




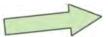


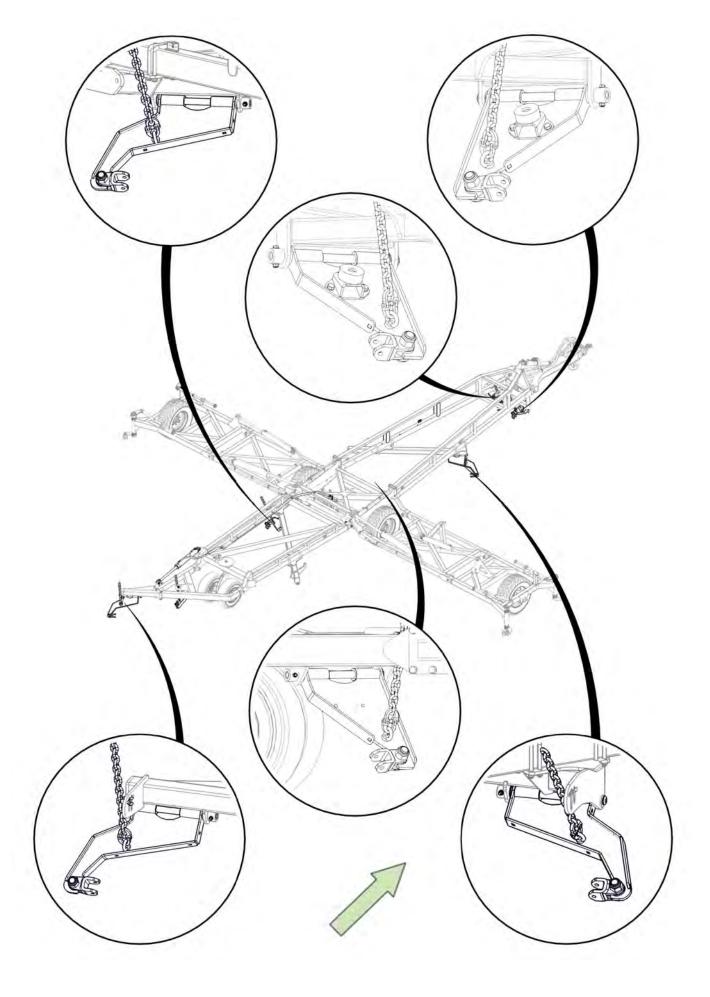
Item No.	Description	Qty	Number
1	Standard Chain Mount Plate	1	0810-20
2	Forged Clevis 21mm Bolt Hole	1	0801-FC21
3	Height Adjusting Chain Assembly 17 Link	1	0801-20MCA-17
4	Stainless Steel Wear Bush	1	1501-365033-SS
5	Chain Mount Pivot Pin	1	0801-10-51
6	Washer High Tensile 1 3/8"	1	0232-HT13-8
7	Height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

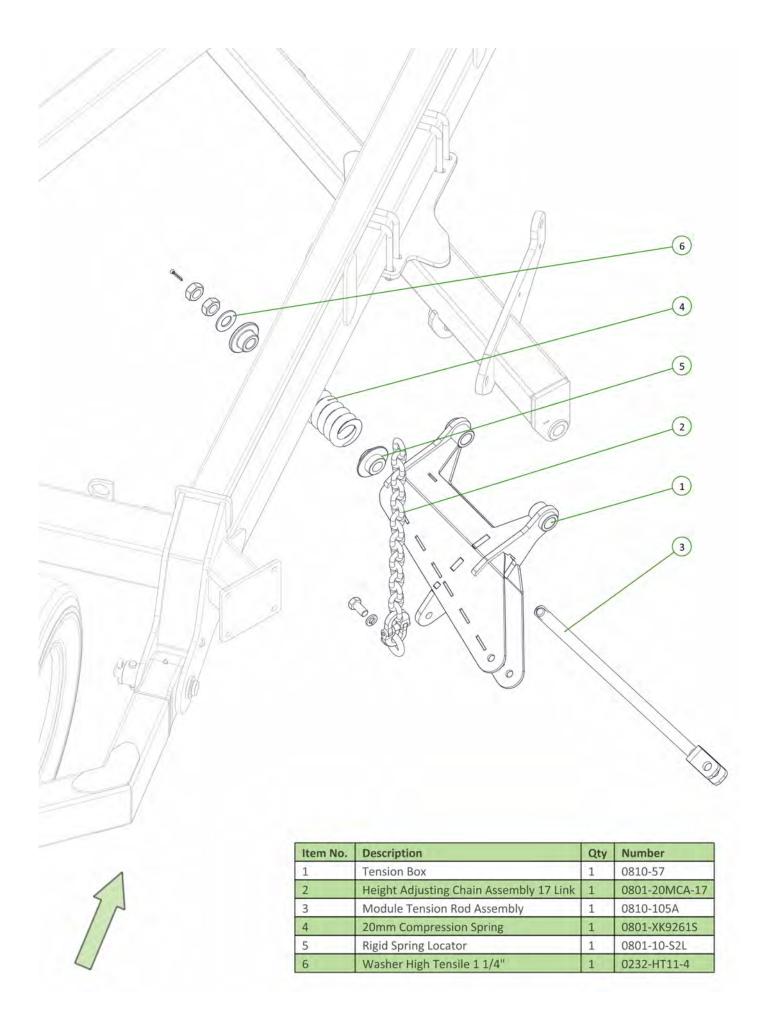


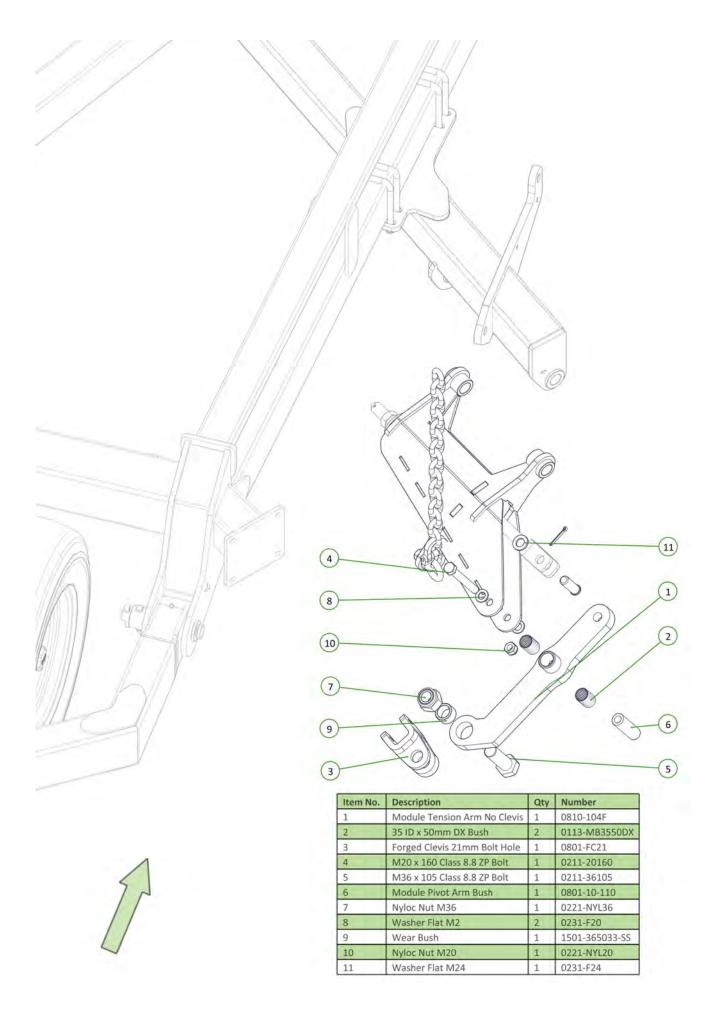


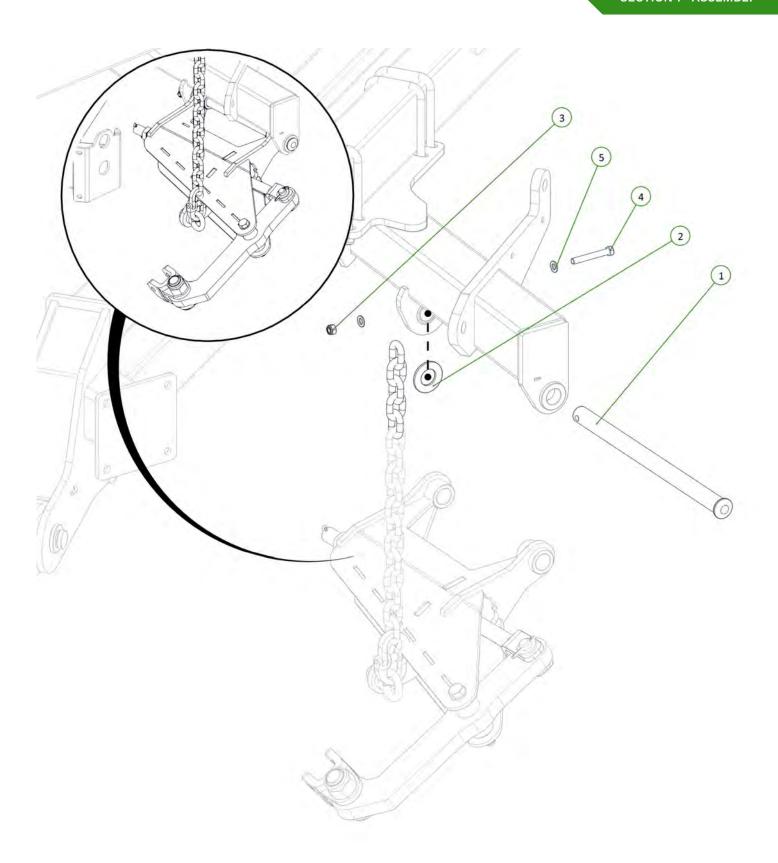
Item No.	Description	Qty	Number
1	Extended Chain Mount Plate	1	0810-69
2	Height Adjusting Chain Assembly 17 Link	1	0801-20MCA-17
3	Chain Mount Pivot Pin	1	0801-10-51
4	Forged Clevis 21mm Bolt Hole	1	0801-FC21
5	Wear Bush	1	1501-365033-SS
6	M36 x 105 Class 8.8 ZP Bolt	1	0211-36105
7	Nyloc Nut M36	1	0221-NYL36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

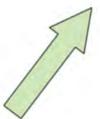




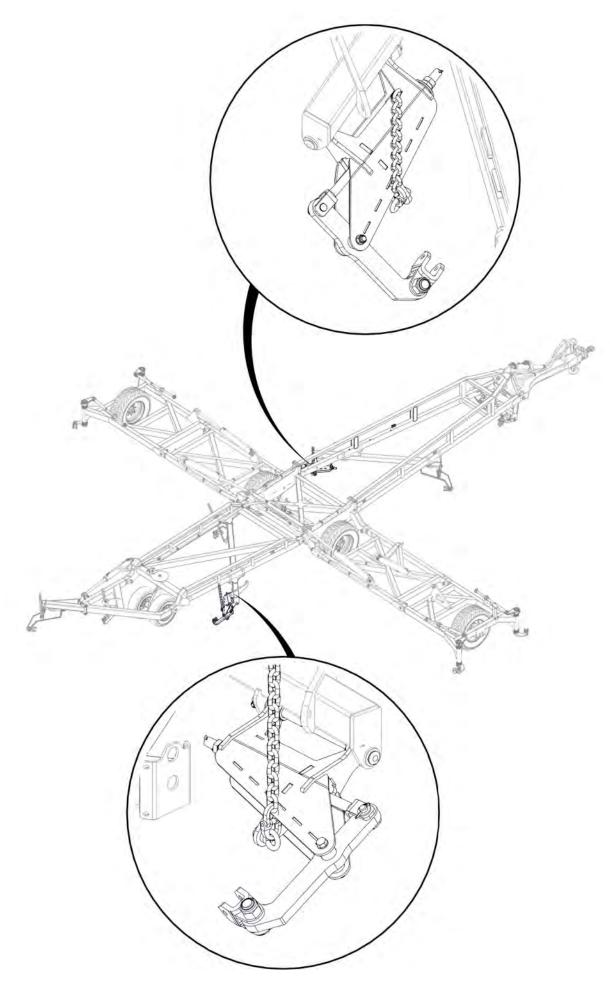




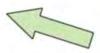


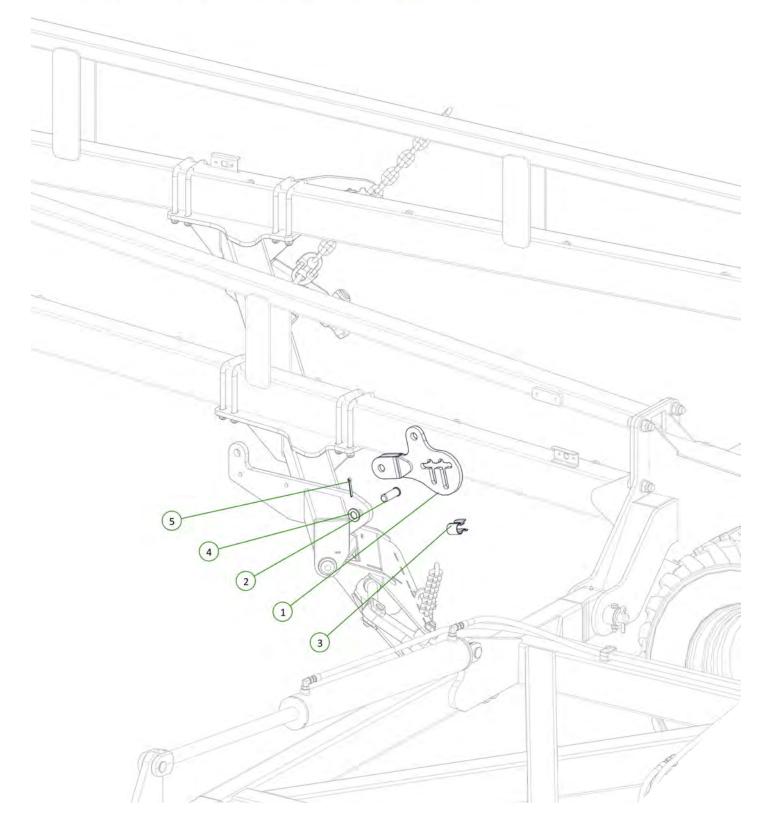


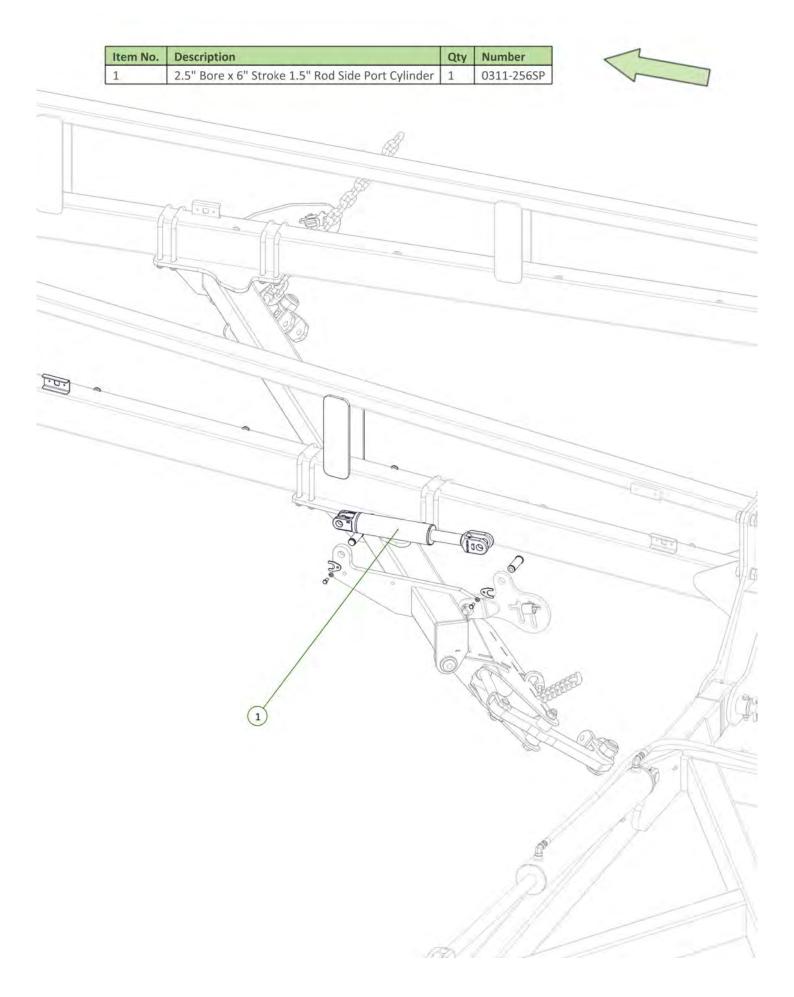
Item No.	Description	Qty	Number
1	Chain Mount Pivot Pin	1	0801-10-51
2	Washer High Tensile 1 3/8"	1	0232-HT13-8
3	Nyloc Nut M12	1	0221-NYL12
4	M12 x 90 Class 10.9 ZP Bolt	1	0211-1290HT
5	Washer Flat M12	2	0231-F12



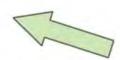
Item No.	Description	Qty	Number
1	Compact Module Lift Arm	1	0810-51E
2	Clevis Pin 25mm x 75mm	1	0801-KE0307-1
3	Height Adjustor Retaining Clip	1	0801-KE014
4	Washer Flat M24	1	0231-F24
5	Cotter Pin M5 x 50	1	0261-PINC550

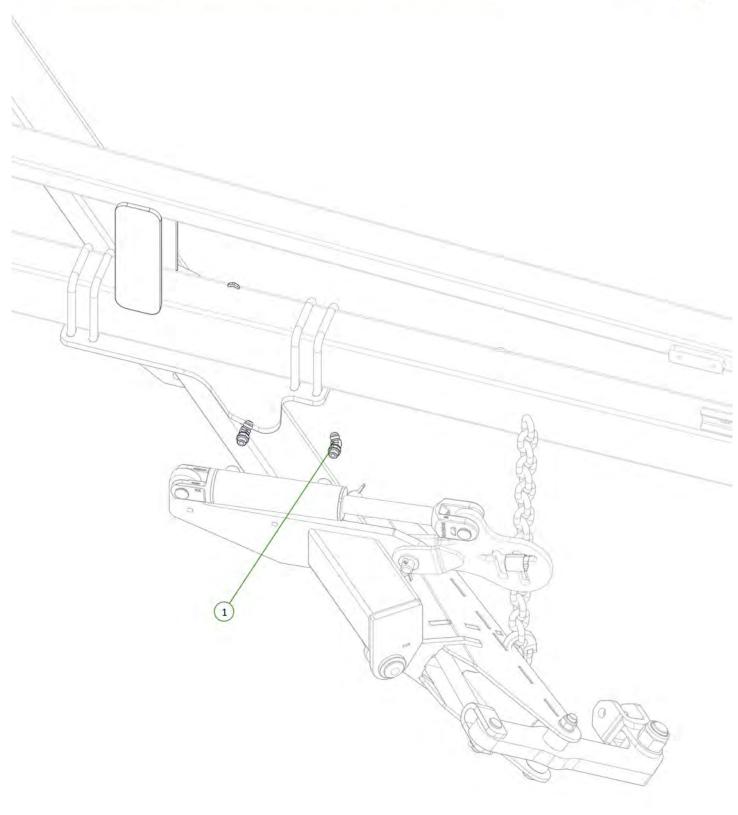


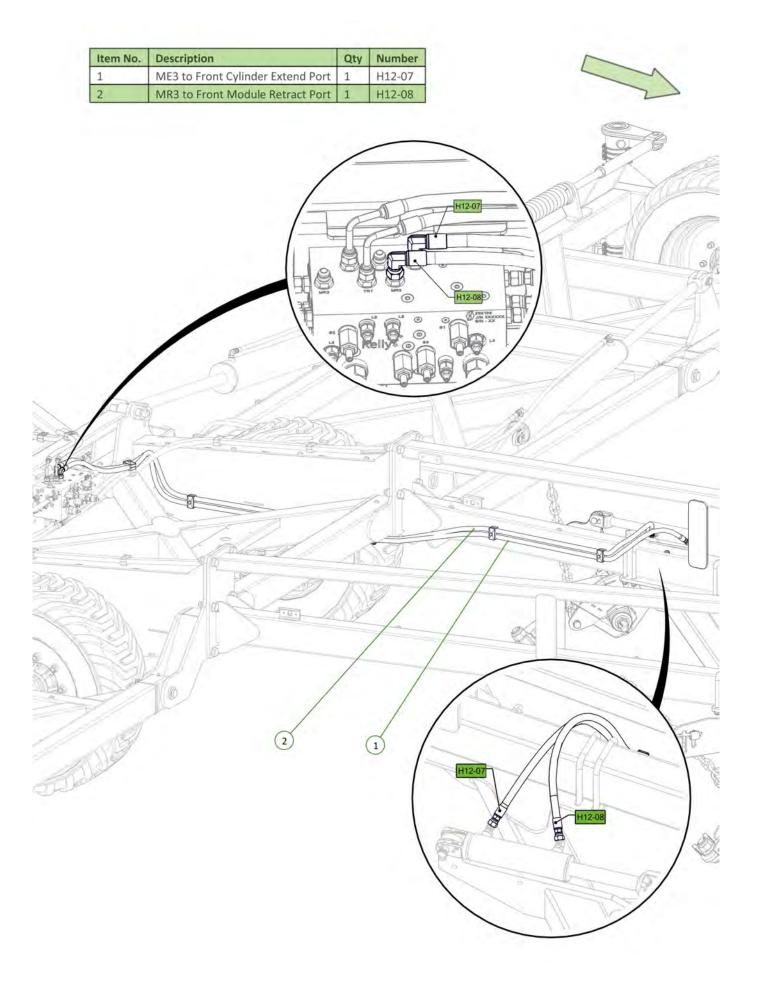


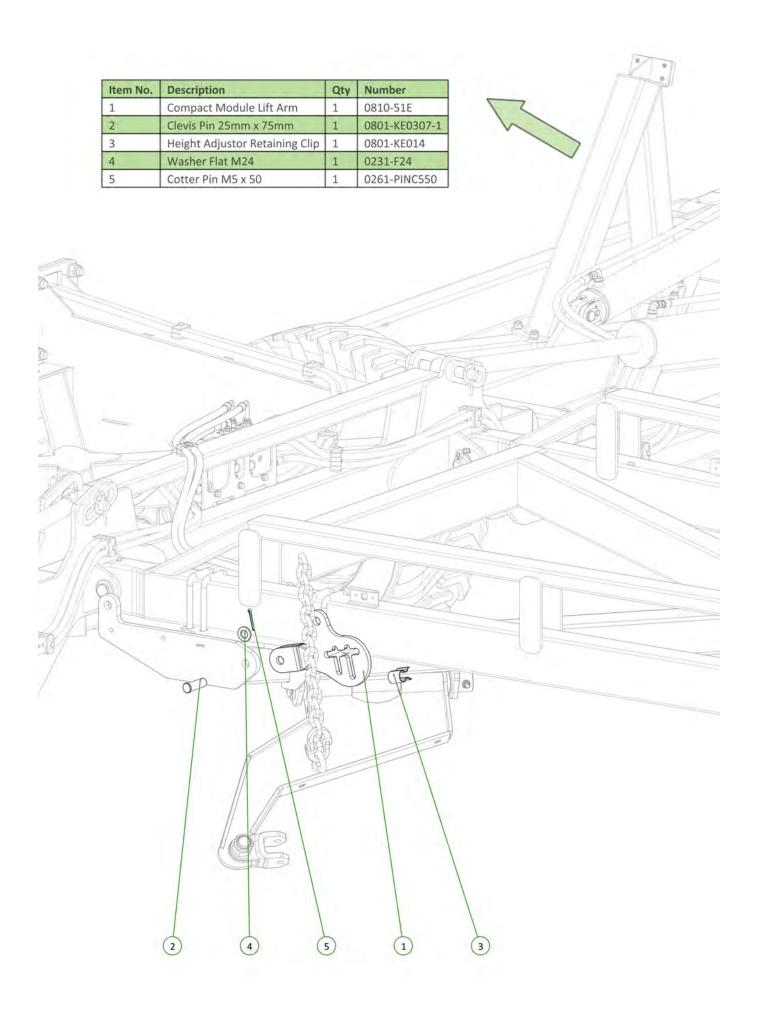


Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 45° Elbow	2	0323-S88-1212

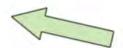


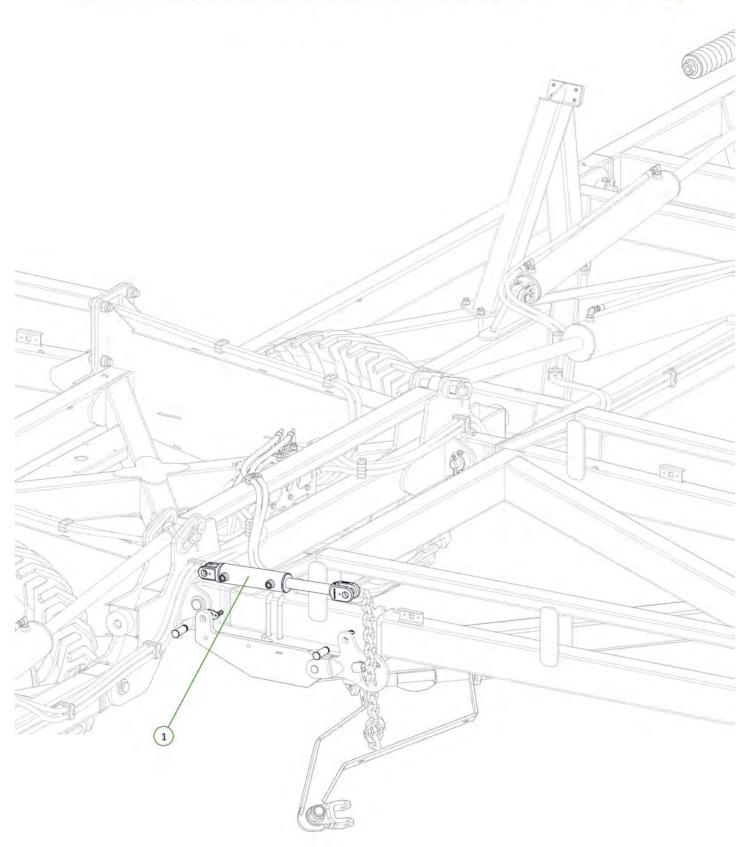


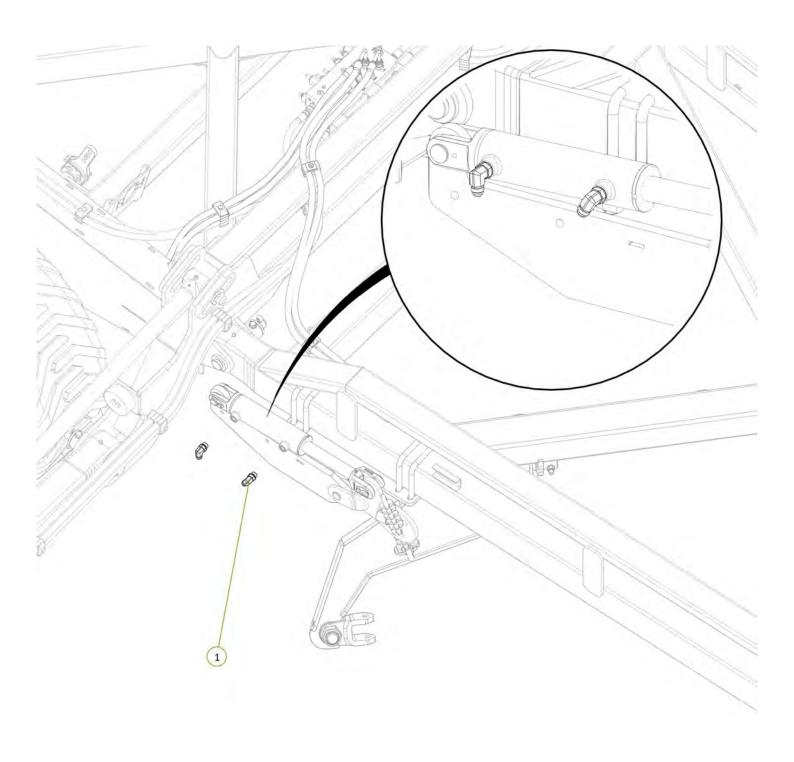




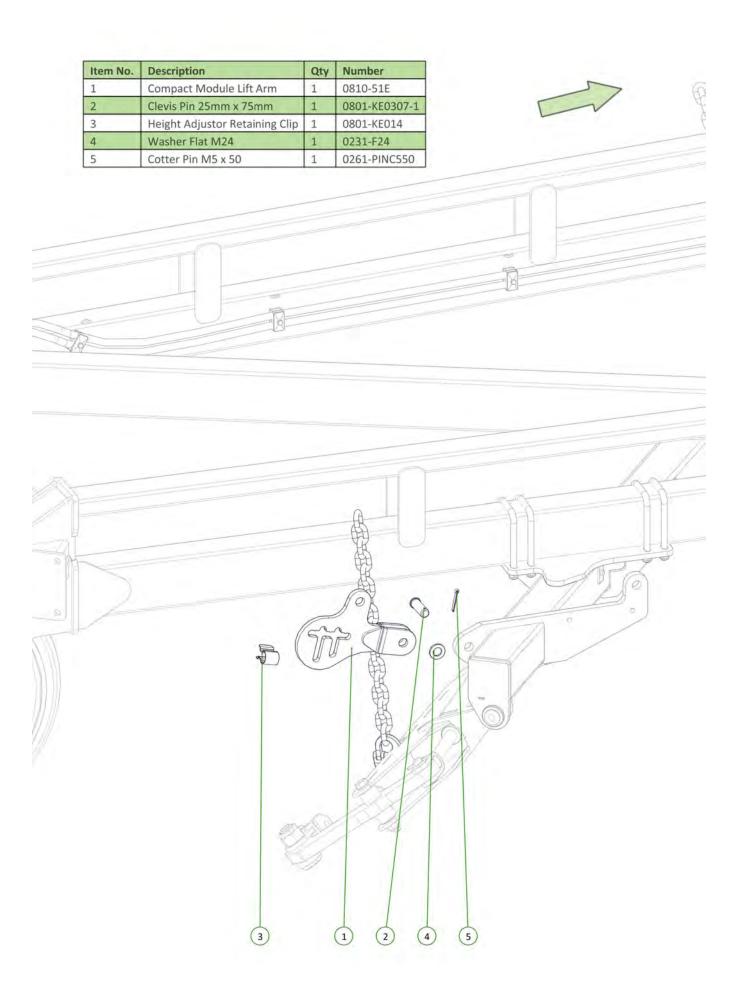
Item No.	Description	Qty	Number
1	2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder	1	0311-256SP



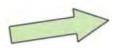


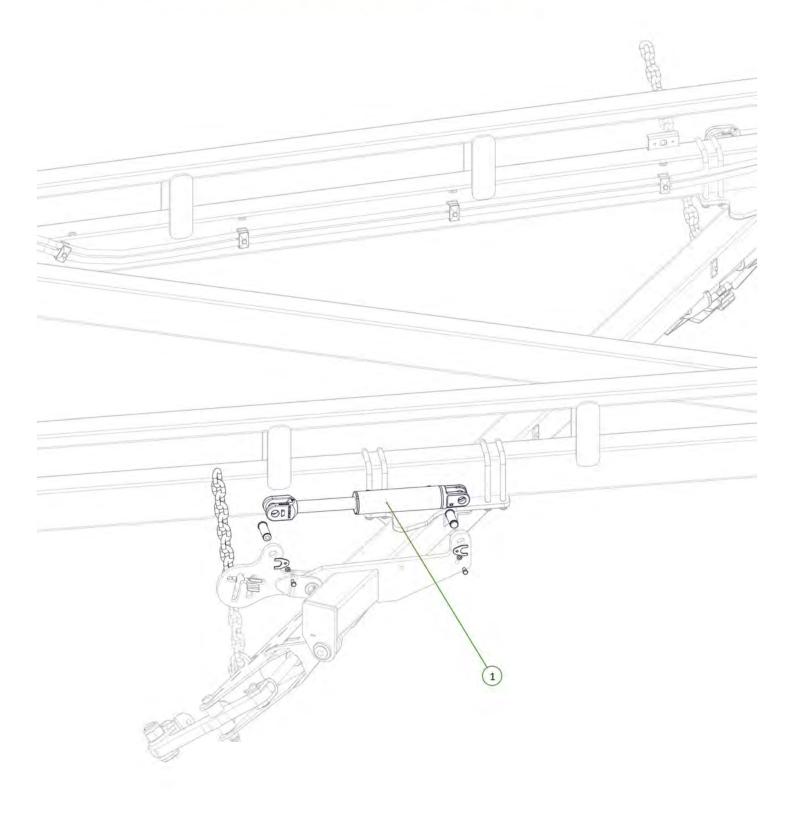


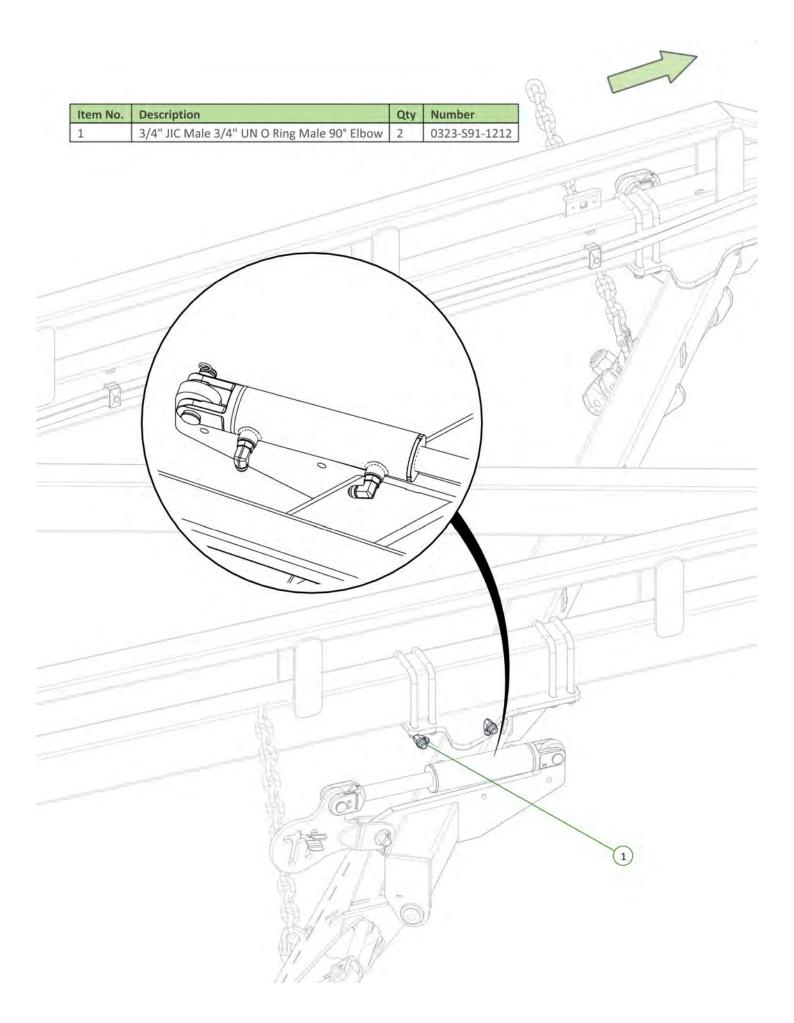
Item No.	Description	Qty	Number
1	3/4" JIC Male 3/4" UN O Ring Male 90° Elbow	2	0323-S91-1212

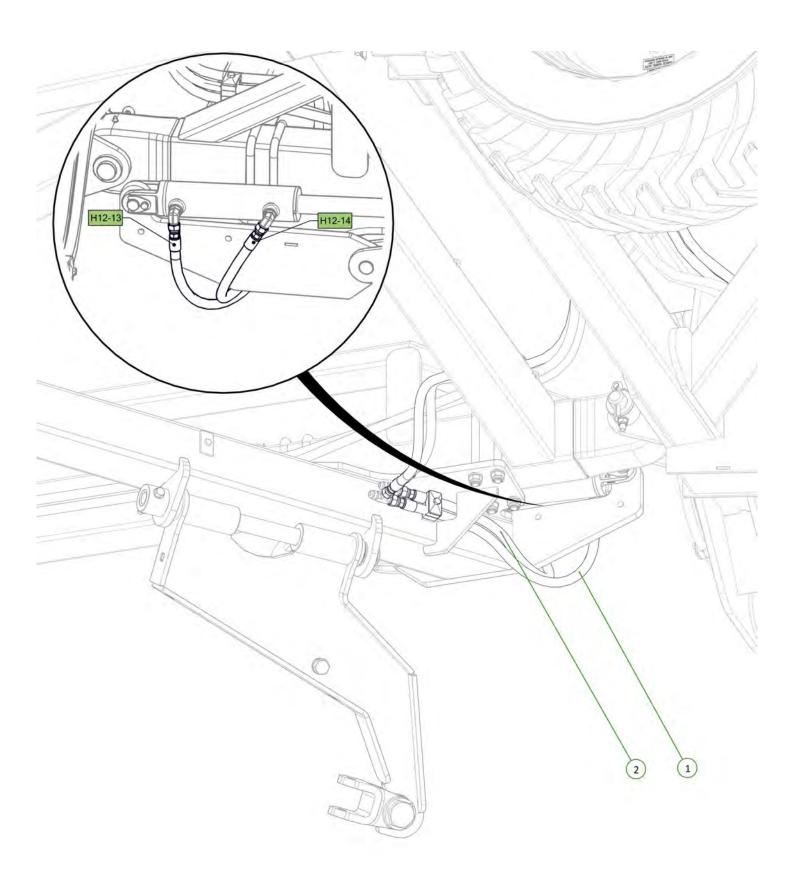


Item No.	Description	Qty	Number
1	2.5" Bore x 6" Stroke 1.5" Rod Side Port Cylinder	1	0311-256SP

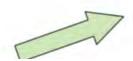


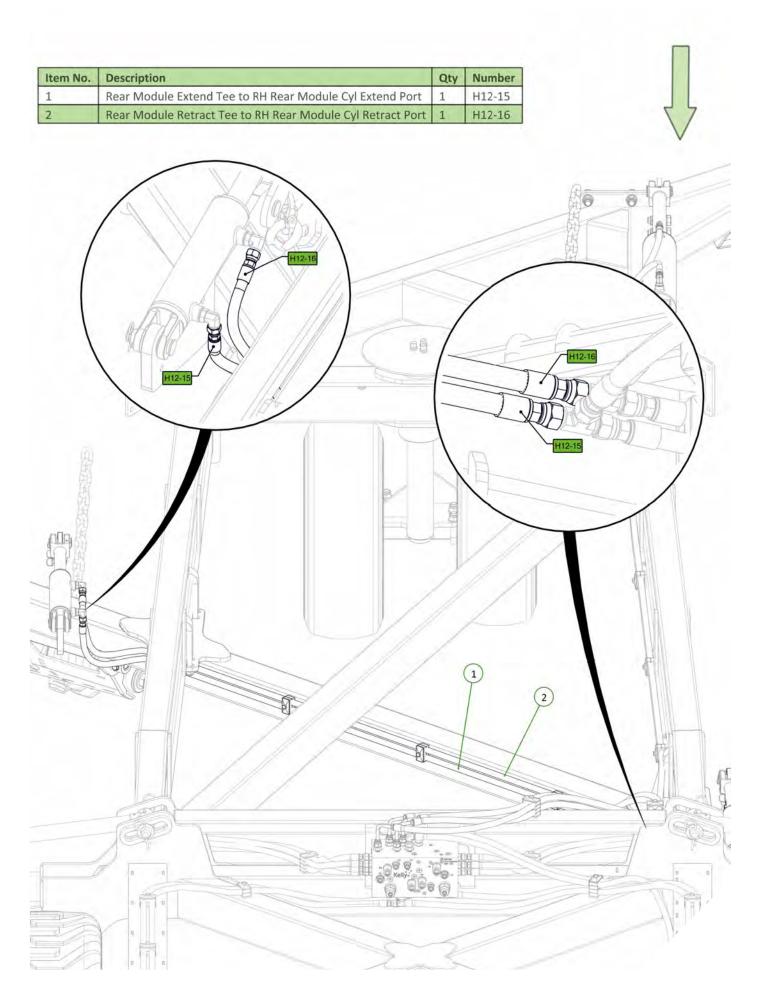






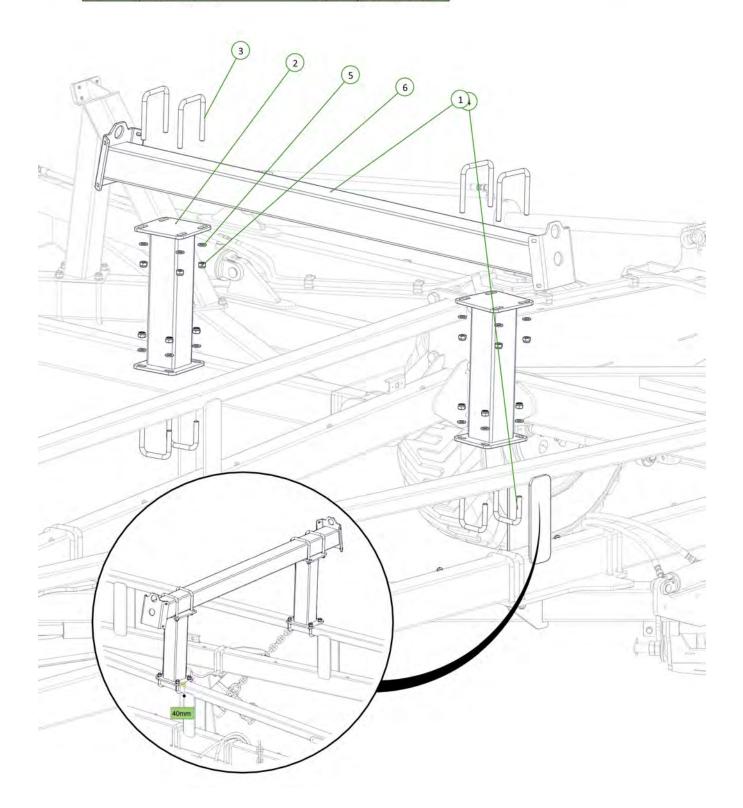
Item No.	Description	Qty	Number
1	Rear Module Extend Tee to LH Rear Module Cyl Extend Port	1	H12-13
2	Rear Module Retract Tee to LH Rear Module Cyl Retract Port	1	H12-14





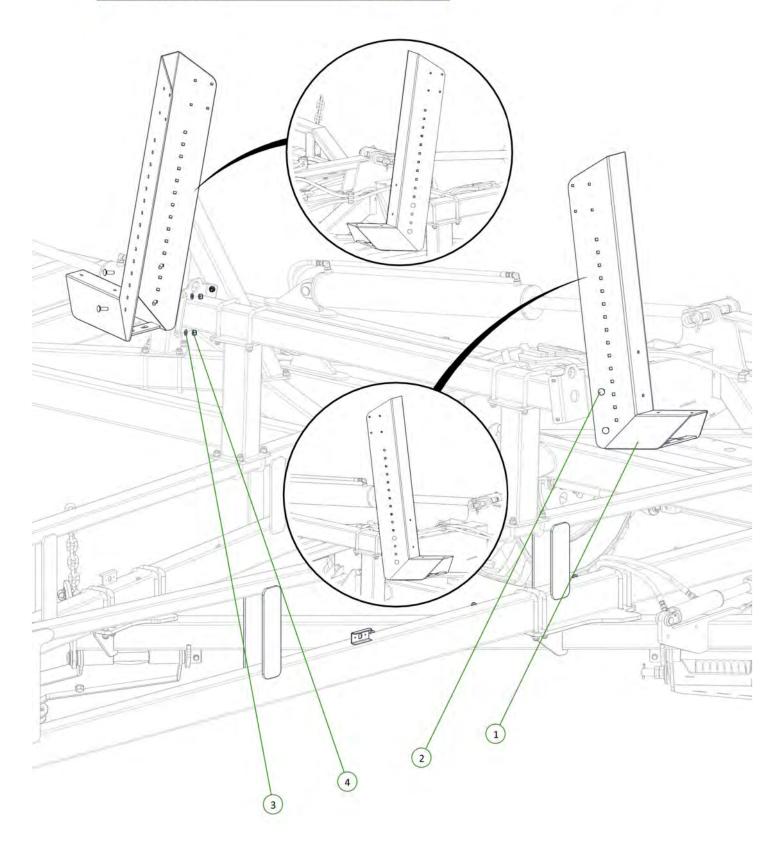
Item No.	Description	Qty	Number
1	Angled Chain Carrier Beam	1	0810-53E
2	500mm Pedestal	2	0810-52E
3	U-Bolt M16 x 160 Deep x 127 Wide	4	0271-16160127
4	U-Bolt M16 x 95 Deep x 102 Wide	4	0271-1695102
5	Washer Flat M16	16	0231-F16
6	Nyloc Nut M16	16	0221-NYL16

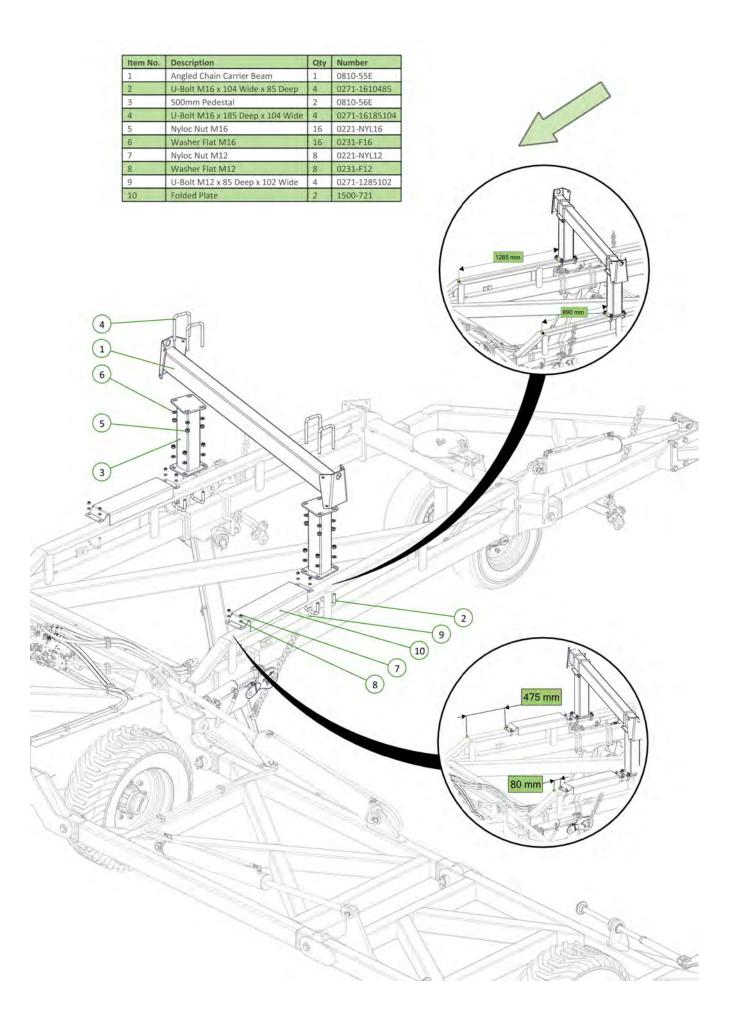




Item No.	Description	Qty	Number
1	Extended Chain Carrier Bolt on End	2	0810-17LEE
2	M12 x 40 Coach Head Bolt	8	0215-CH1240
3	Washer Flat M12	6	0231-F12
4	Nyloc Nut M12	6	0221-NYL12

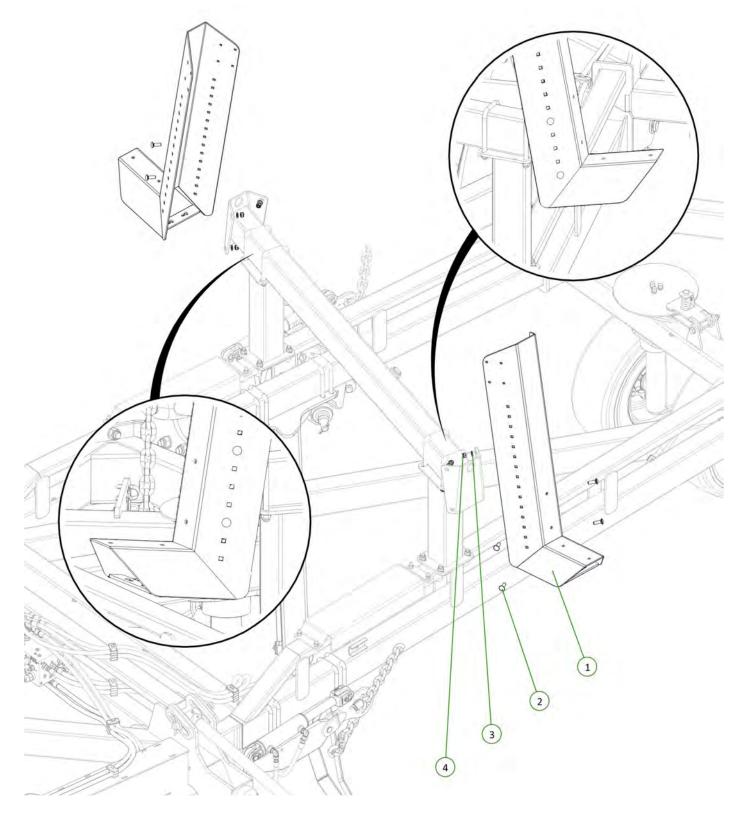


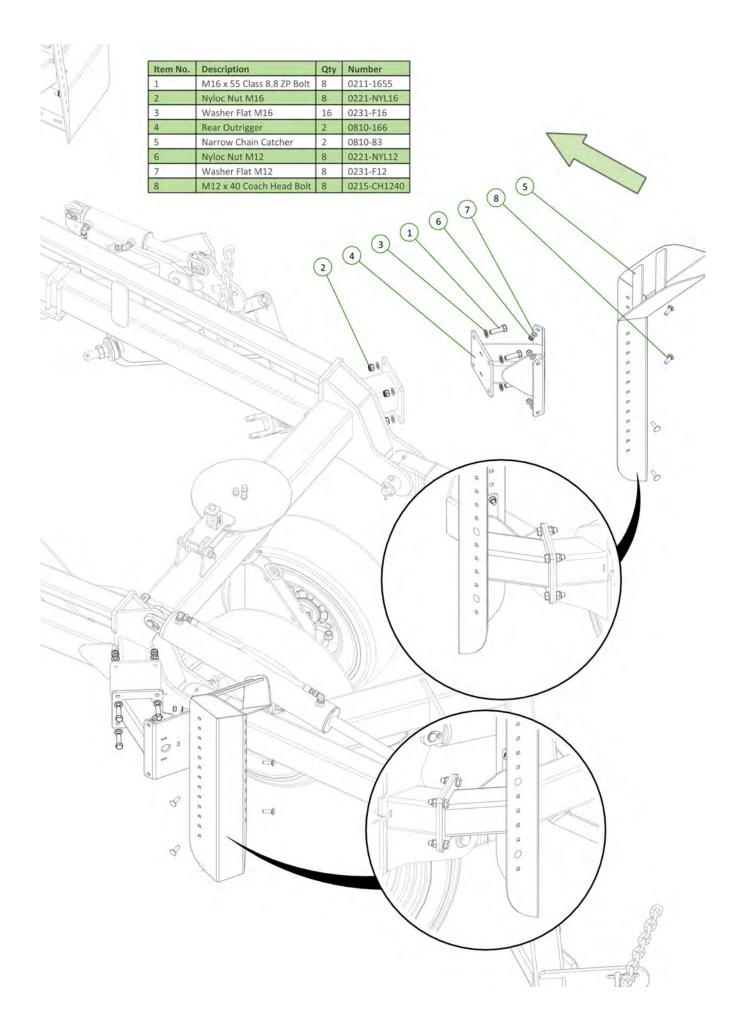


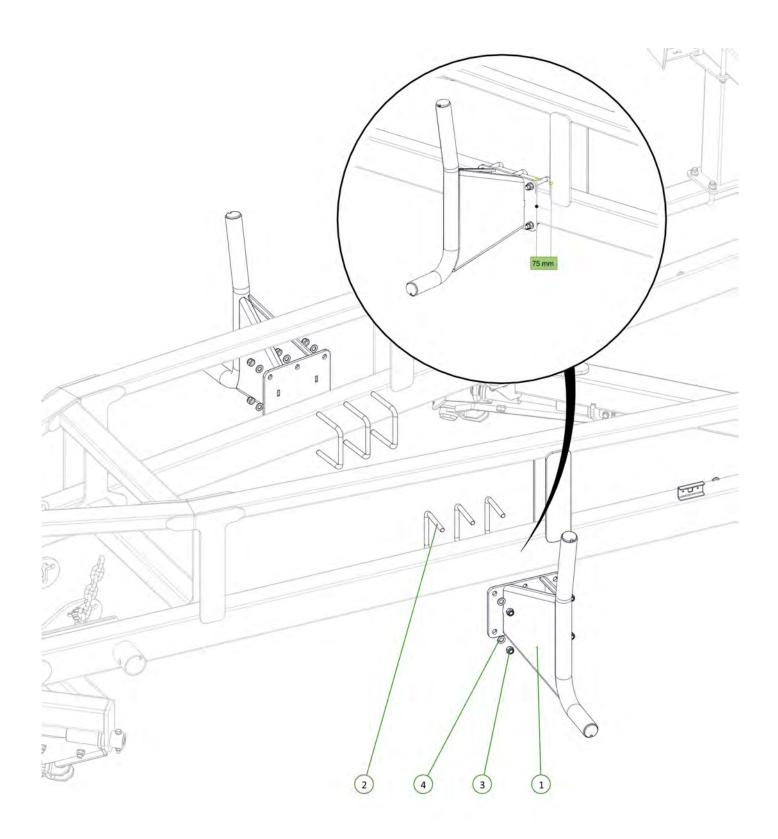


Item No.	Description	Qty	Number
1	Extended Chain Carrier Bolt on End	2	0810-17LEE
2	M12 x 40 Coach Head Bolt	8	0215-CH12
3	Washer Flat M12	7	0231-F12
4	Nyloc Nut M12	7	0221-NYL12

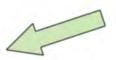


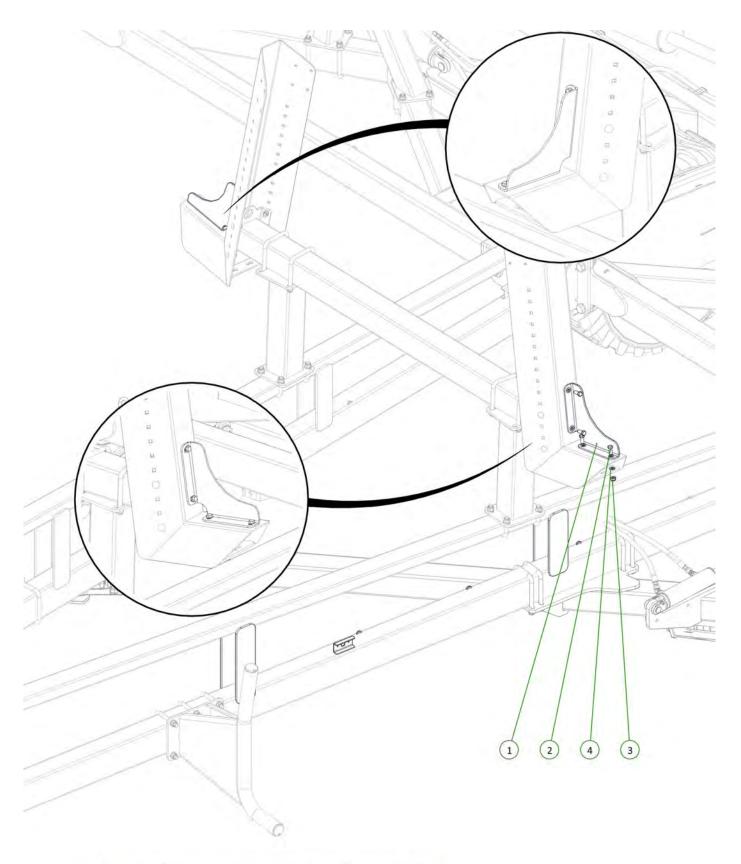






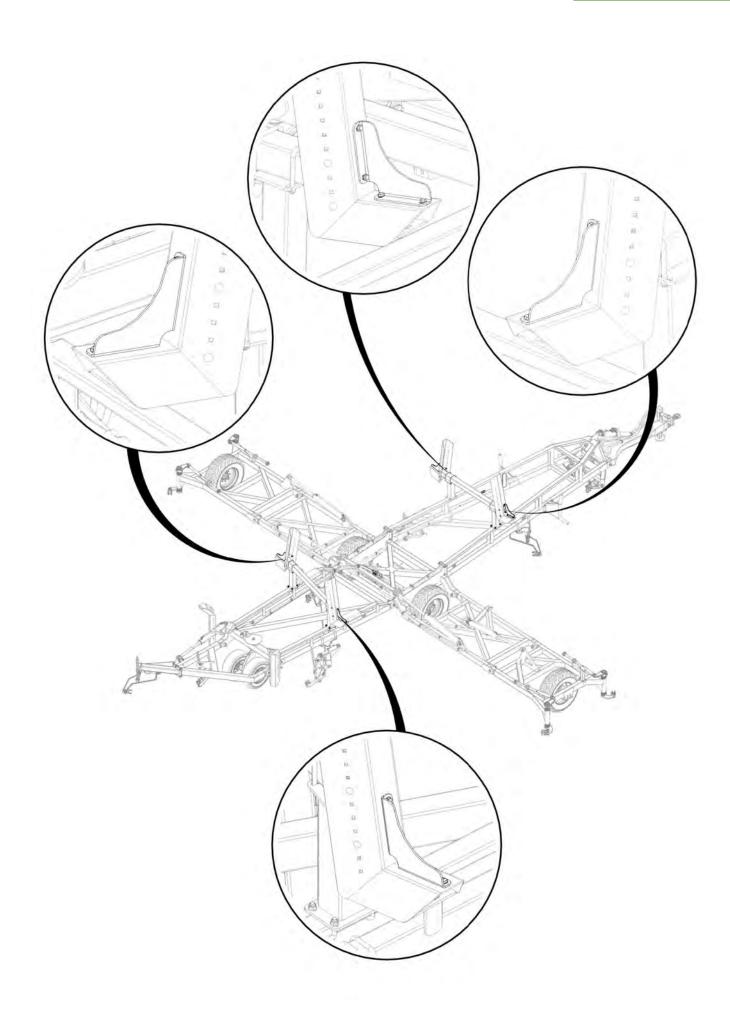
Item No.	Description	Qty	Number
1	Outrigger	2	0810-42E
2	U-Bolt M16 x 140 Deep x 154 Wide	6	0271-16140154
3	Nyloc Nut M16	12	0221-NYL16
4	Washer Flat M16	12	0231-F16

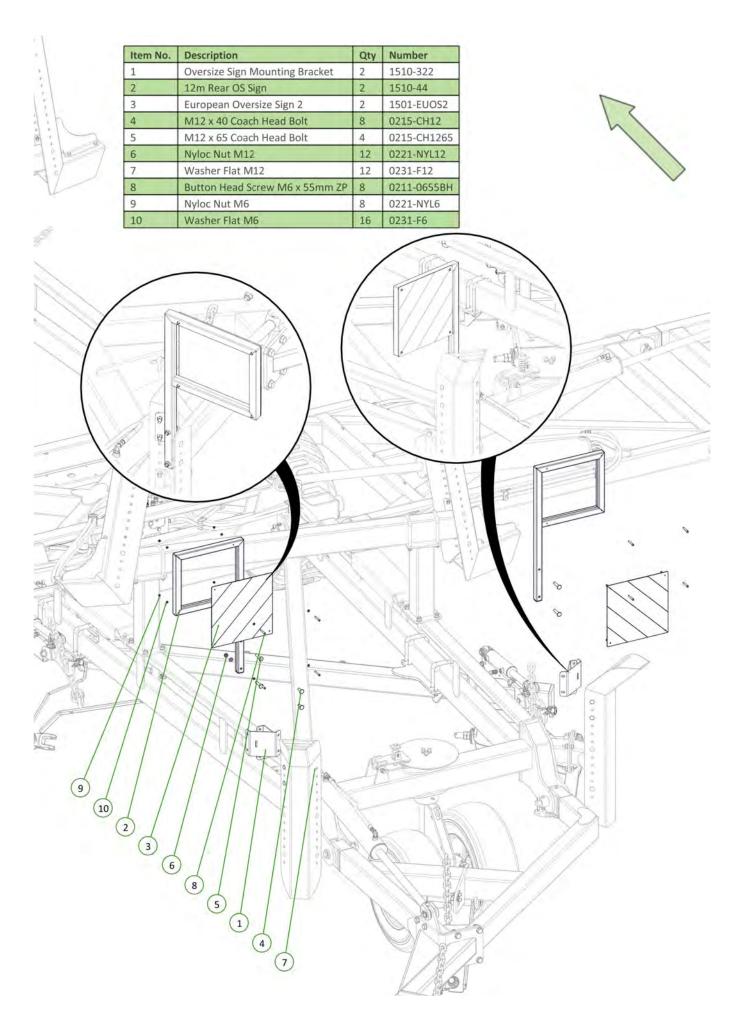




Item No.	Description	Qty	Number
1	Chain Retainer Plate	2	0800-360
2	M12 x 30 Class 8.8 ZP Bolt	8	0211-1230
3	Nyloc Nut M12	8	0221-NYL12
4	Washer Flat M12	16	0231-F12

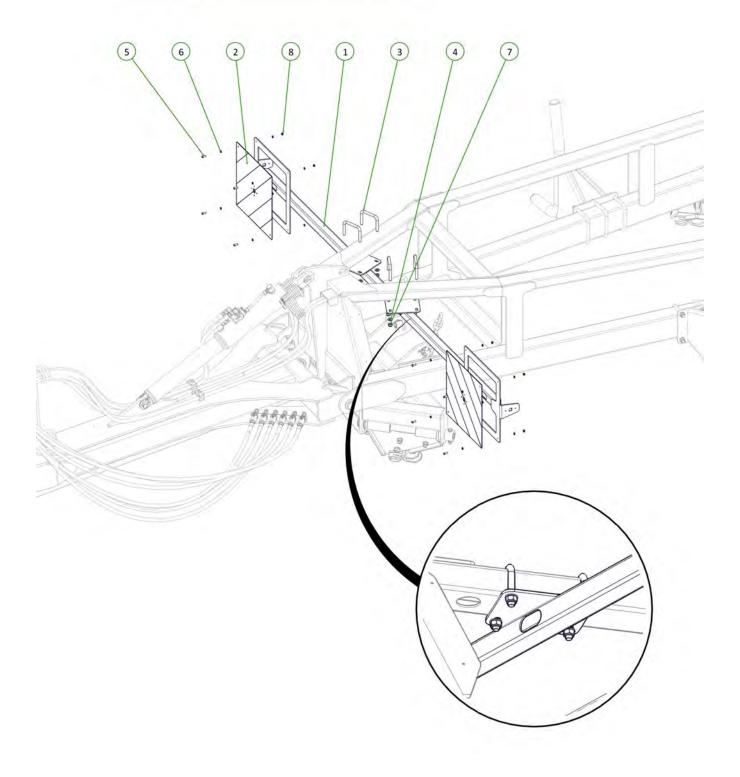


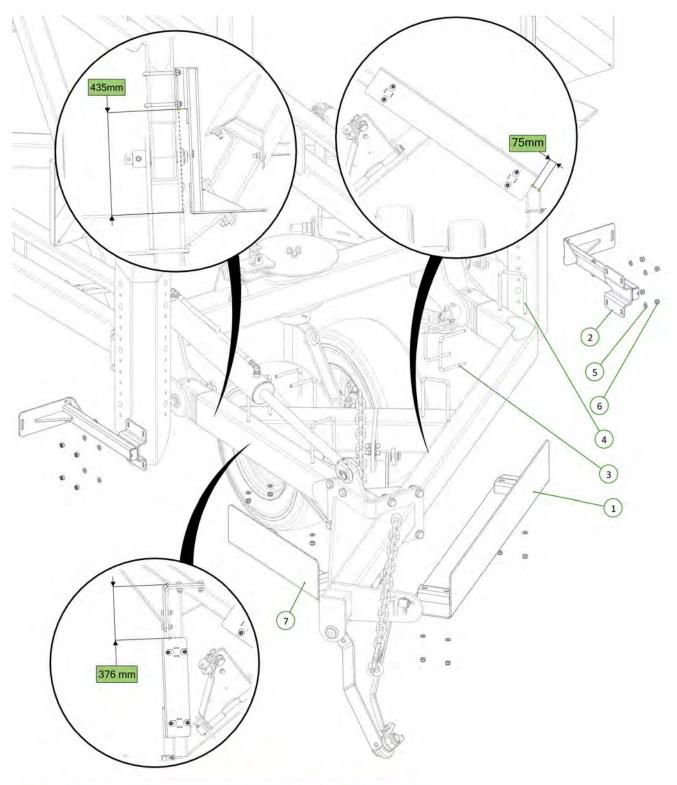




Item No.	Description	Qty	Number
1	EU Front Oversize Sign	1	1510-42
2	European Oversize Sign 3	2	1501-EUOS3
3	U-Bolt M12 x 85 Deep x 102 Wide	4	0271-1285102
4	Washer Flat M12	8	0231-F12
5	M6 x 20 Button Head Bolt ZP	8	0211-0620BH
6	Washer Flat M6	16	0231-F6
7	Nyloc Nut M12	8	0221-NYL12
8	Nyloc Nut M6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

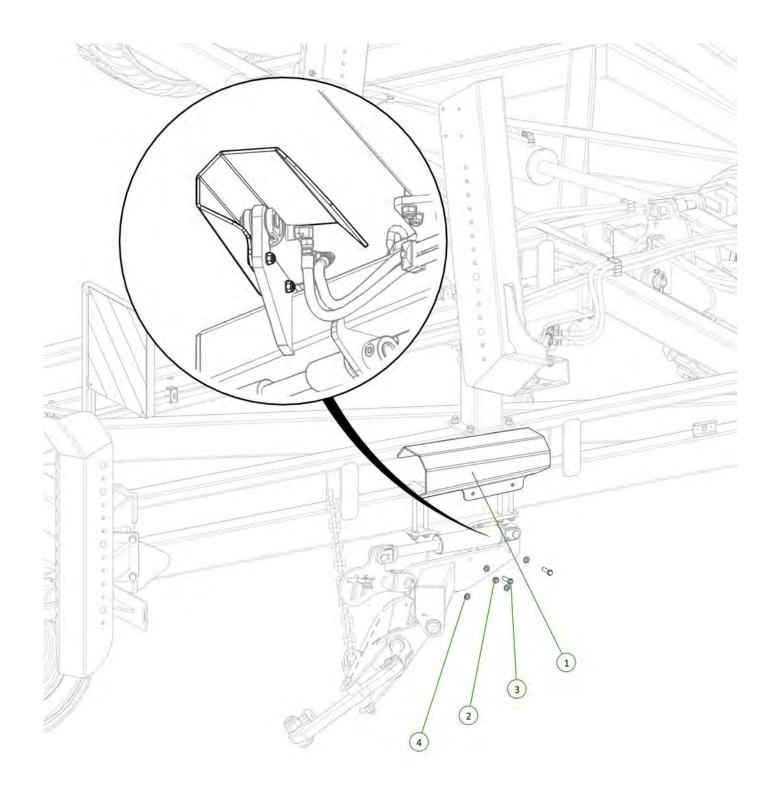




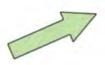


Item No.	Description	Qty	Number
1	Rear Tail Guard	1	1610-188
2	Tail Light Bracket	2	1510-647
3	U-Bolt M12 x 125 Deep x 152 Wide	4	0271-12125152
4	U-Bolt M12 x 188 Deep x 106 Wide	4	0271-12185104
5	Washer Flat M12	16	0231-F12
6	Nyloc Nut M12	16	0221-NYL12
7	Guard	1	1510-56

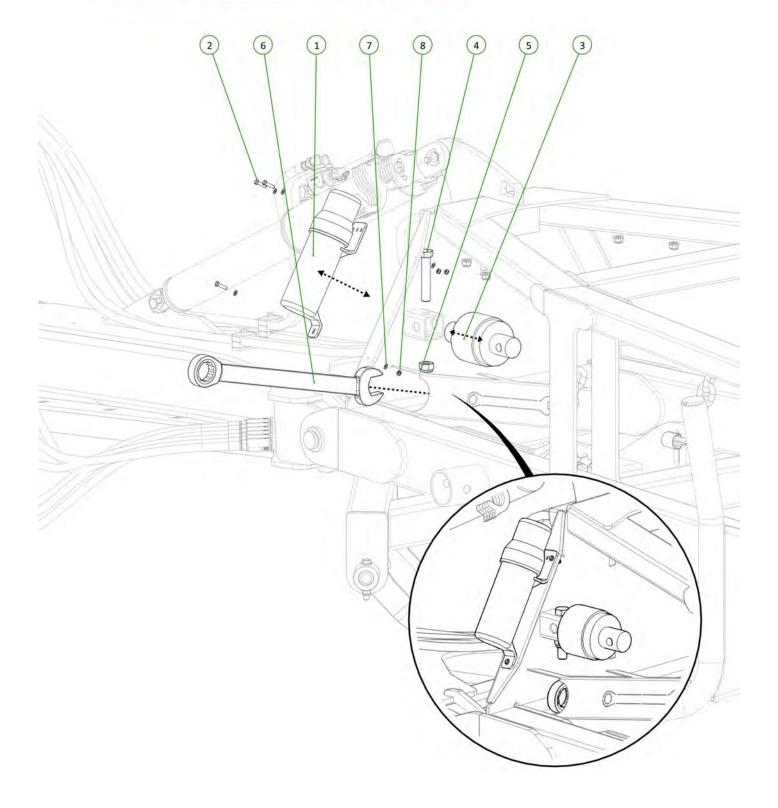


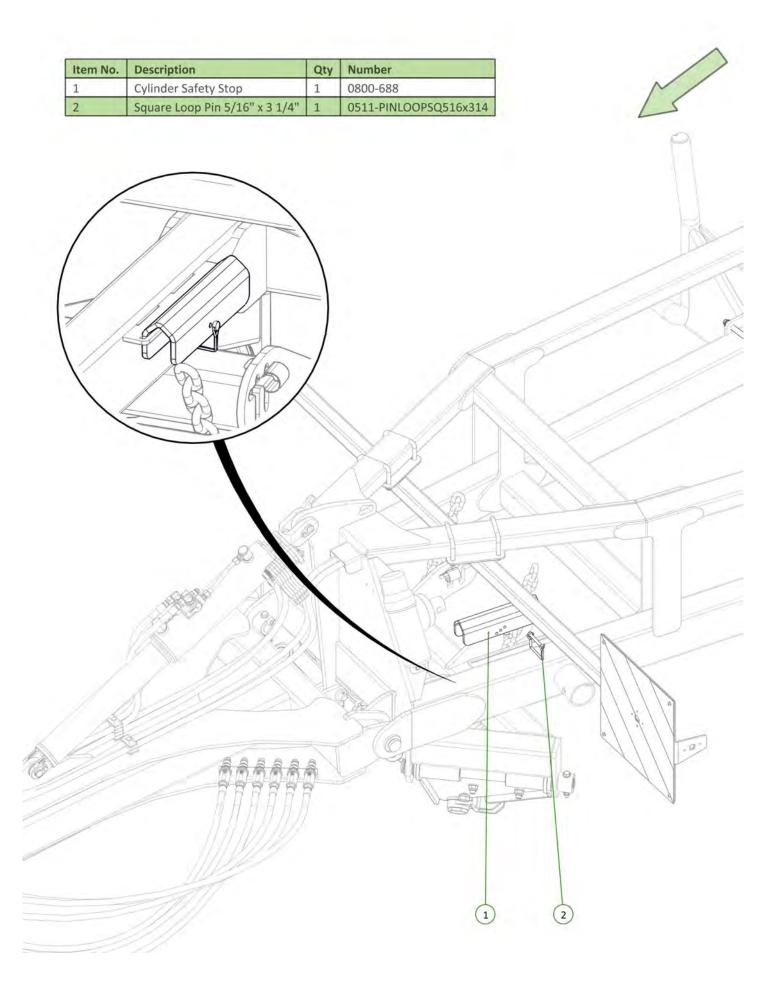


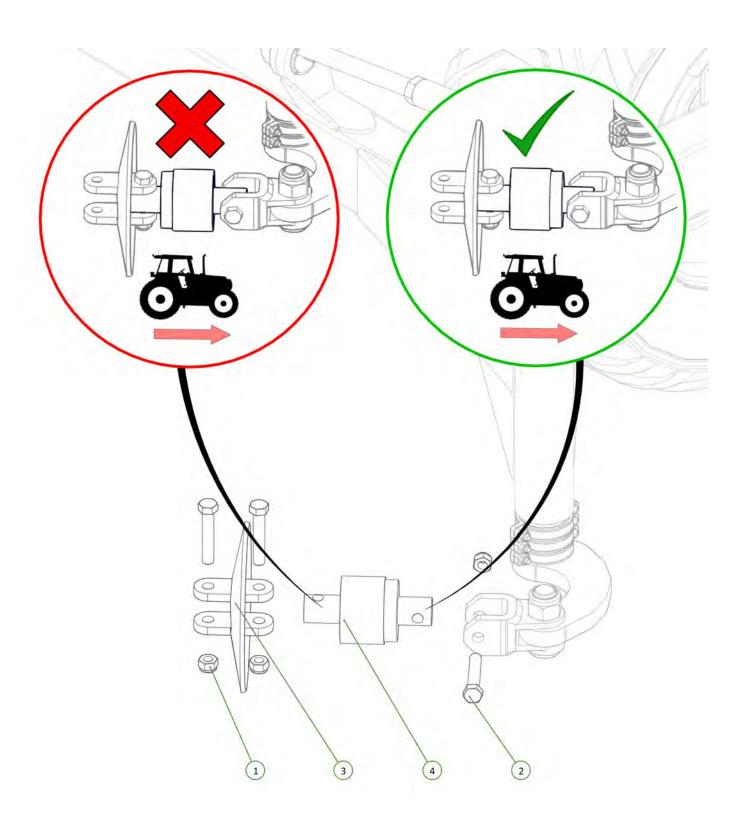
Item No.	Description	Qty	Number
1	Module Cylinder Guard	1	0800-167.3
2	Nyloc Nut M12	2	0221-NYL12
3	M12 x 45 grade 8.8 ZP Bolt	2	0211-1245
4	Washer Flat M12	4	0231-F12



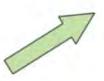
Item No.	Description	Qty	Number
1	Operator Manual Cannister	1	0801-OMC-1
2	M6 x 1 x 25mm Grade 4.6 ZP Bolt	3	0211-625
3	20mm Bolt Swivel Unit	1	0802-PCHB55
4	M20 x 110 grade 10.9 ZP Short Thread Bolt	1	0211-20110 ST
5	Nyloc Nut M20	1	0221-NYL20
6	Ratcheting Gear Wrench 1 3/4"	1	0802-GW1 3-4
7	Washer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

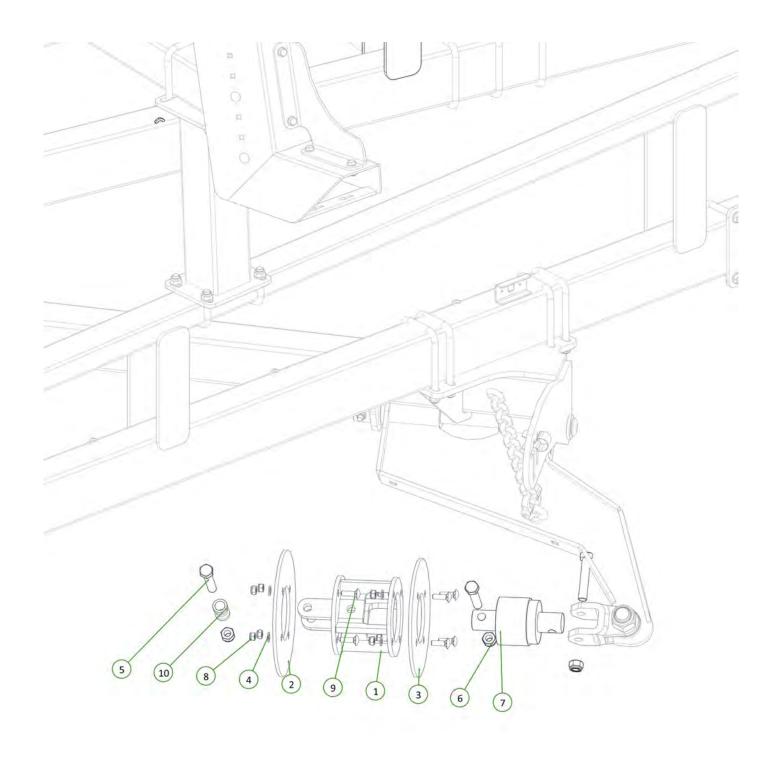






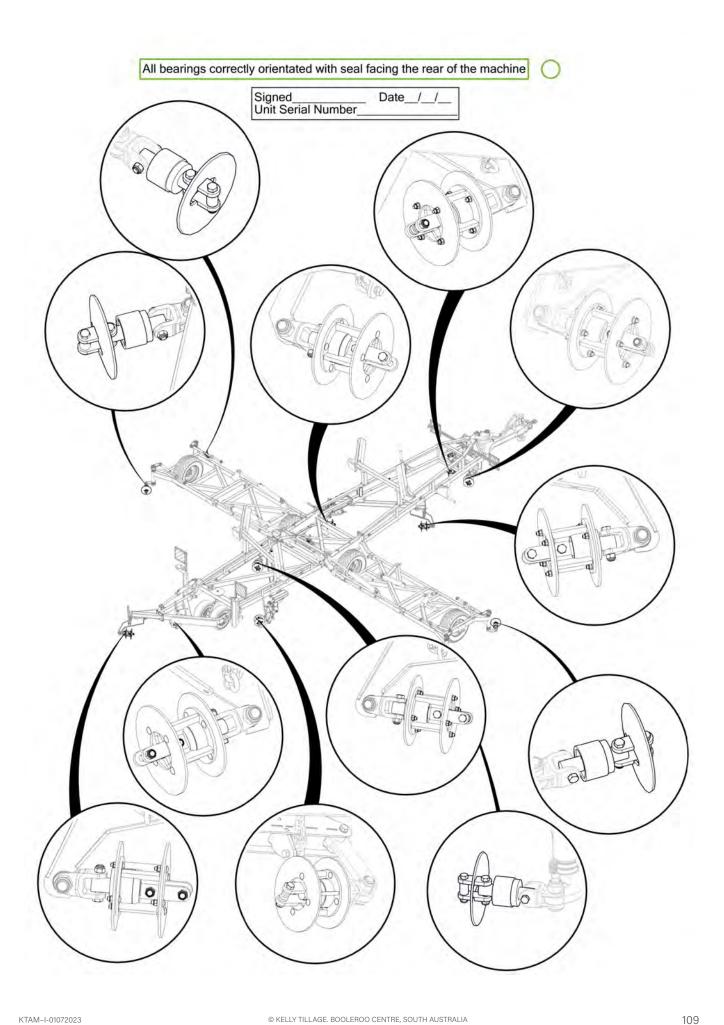
Item No.	Description	Qty	Number
1	Nyloc Nut M20	3	0221-NYL20
2	M20 x 110 grade 10.9 ZP Short Thread Bolt	3	0211-20110 ST
3	Disc Chain Tie Plate Link 20mm	1	0802-DCTP-20
4	20mm Bolt Swivel Unit	1	0802-PCHB55

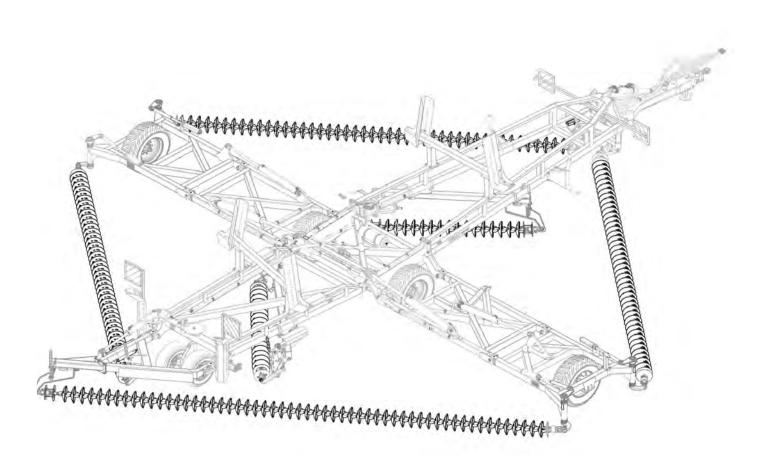




Item No.	Description	Qty	Number
1	Tapered Chain End Hub	1	0810-45-5
2	TCE Blade Large	1	0800-767
3	TCE Blade Small	1	0800-766
4	Washer Flat M12	8	0231-F12
5	M20 x 110 Class 10.9 ZP Short Thread Bolt	3	0211-20110ST
6	Nyloc Nut M20	3	0221-NYL20
7	20mm Bolt Swivel Unit	1	0802-PCHB55
8	Nyloc Nut M12	8	0221-NYL12
9	M12 x 40 Coach Head Bolt	8	0215-CH1240
10	Disc Chain Spacer	1	0801-253755

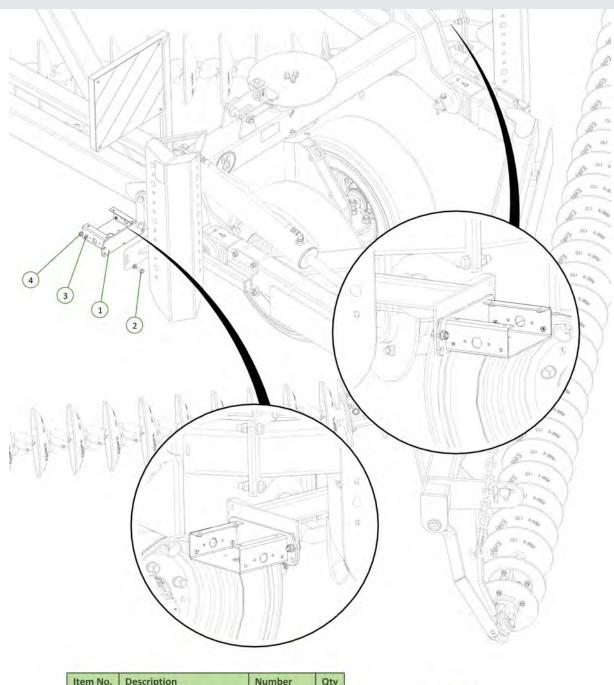






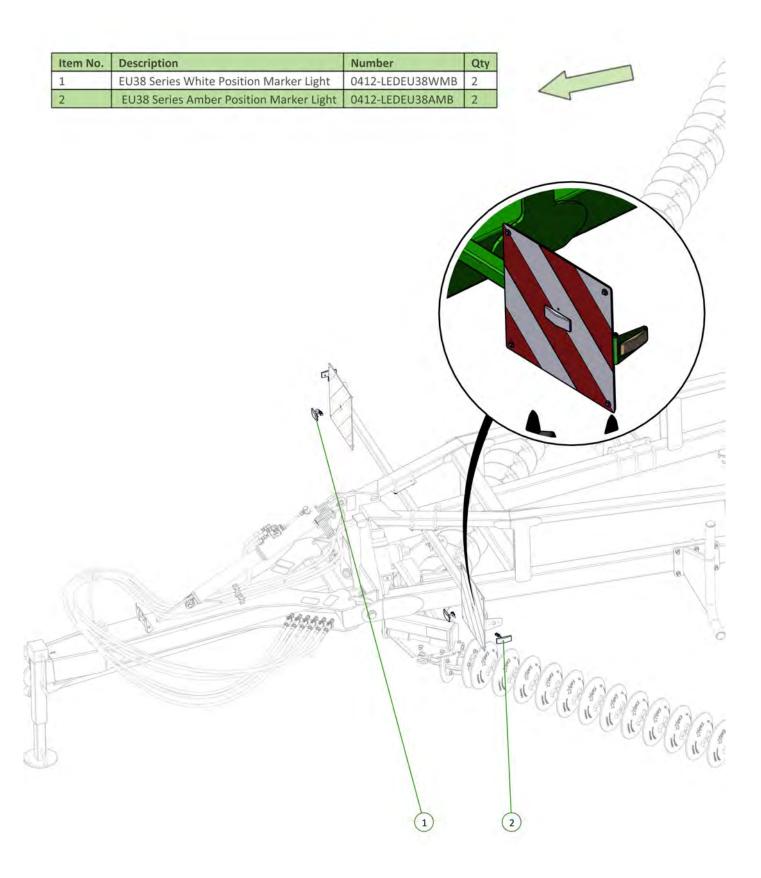


Section 2 - Light Kits

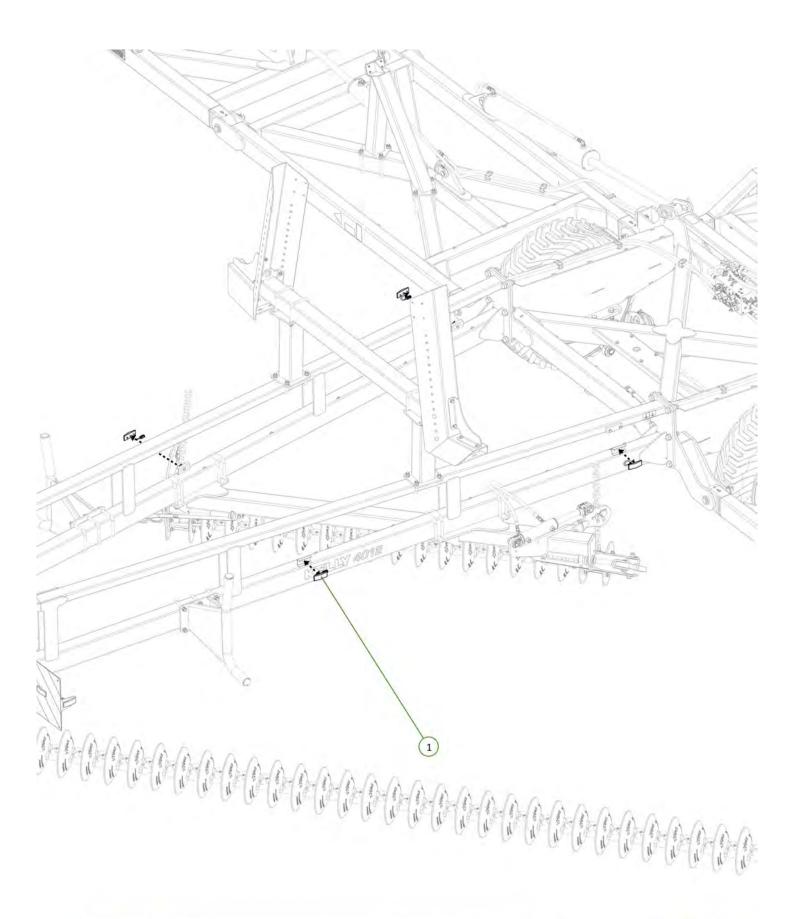


Item No.	Description	Number	Qty
1	EU Rear Light Bracket	1510-238	2
2	M10 x 30 Class 8.8 ZP Bolt	0211-1030	4
3	Washer Flat M	0231-F10	8
4	Nyloc Nut M10	0221-NYL10	4





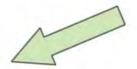
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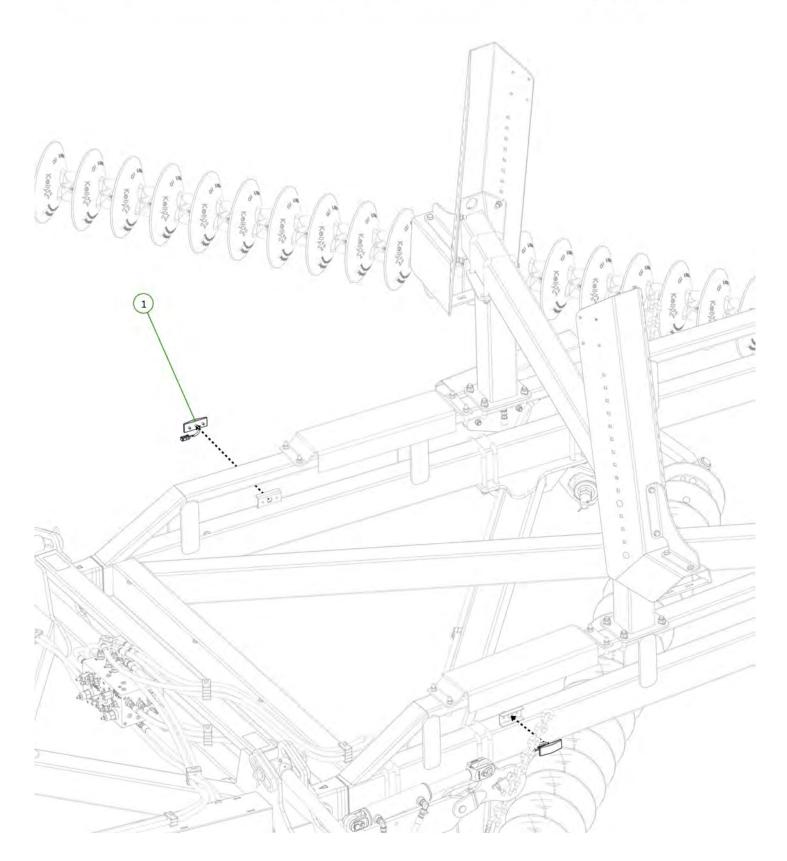


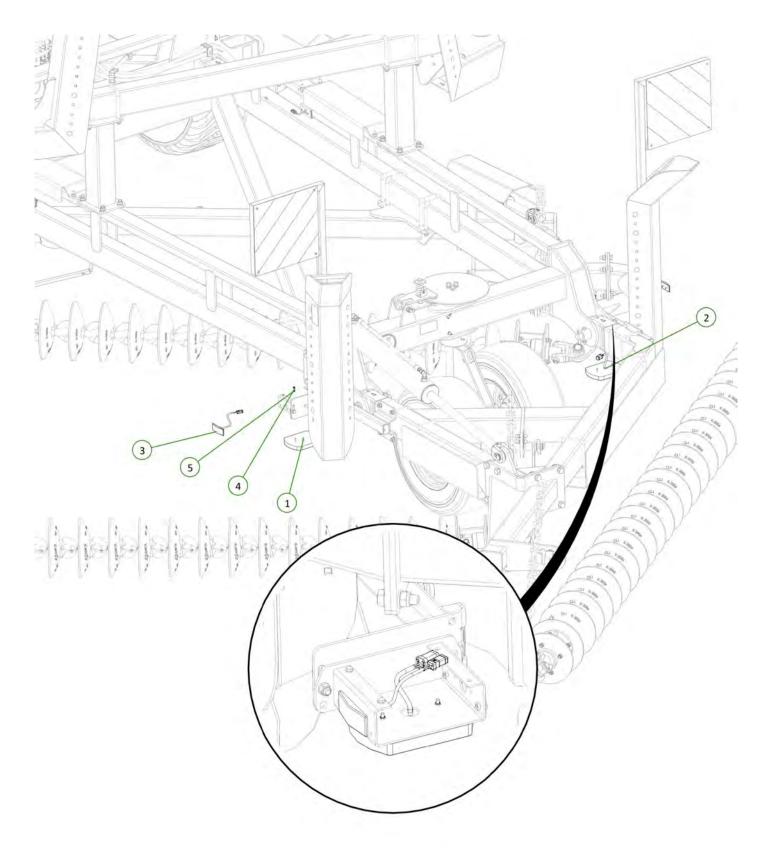
Item No.	Description	Number	Qty
1	EU38 Series Amber Position Marker Light	0412-LEDEU38AMB	4



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

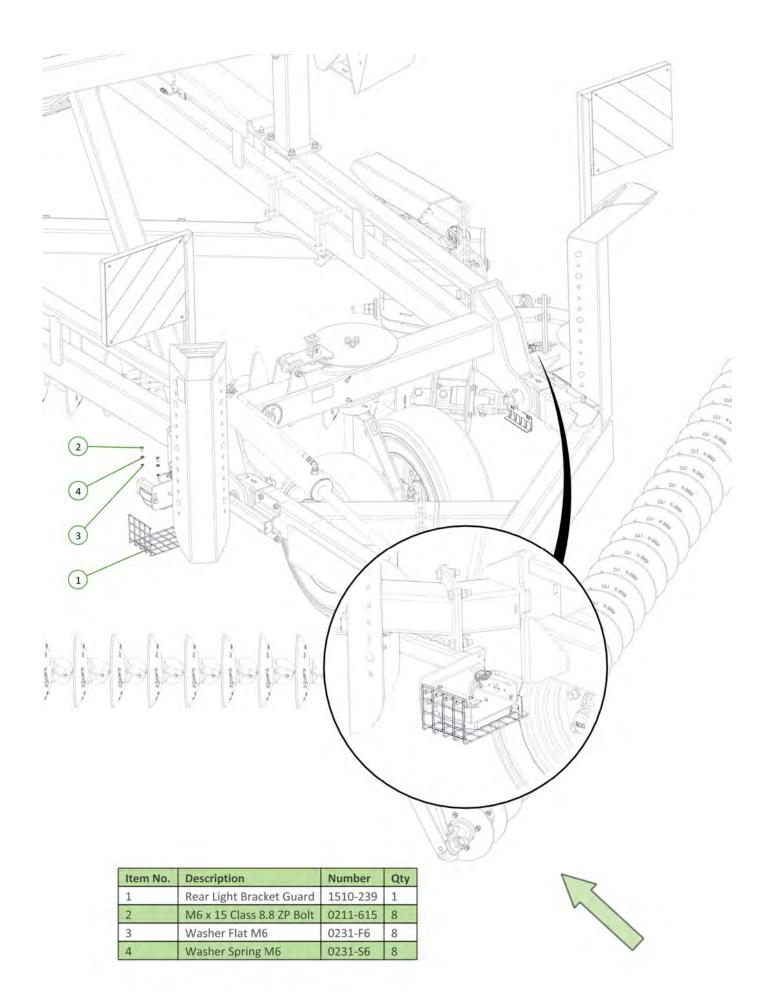


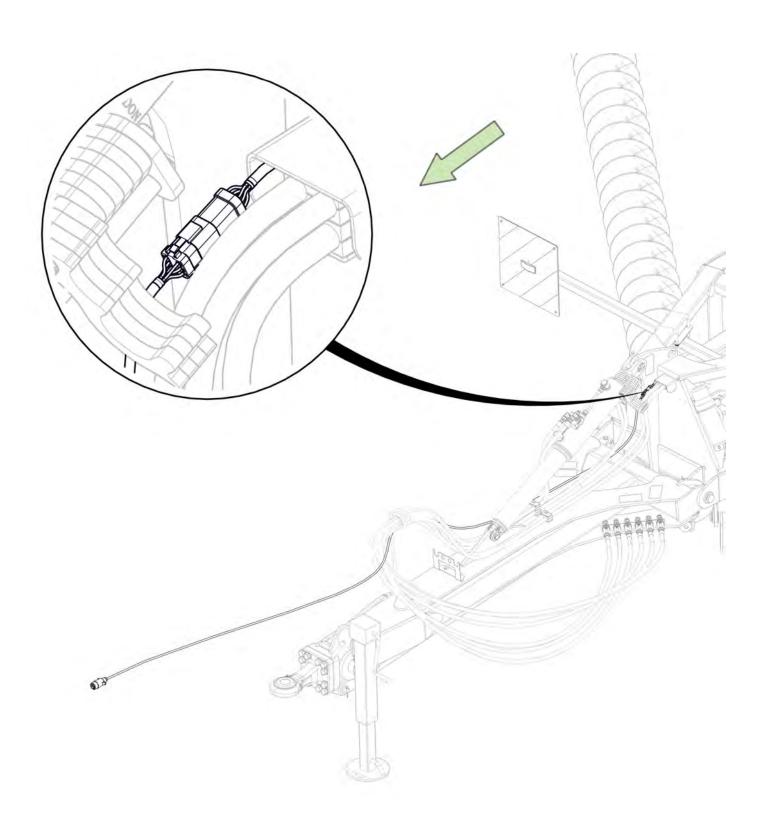


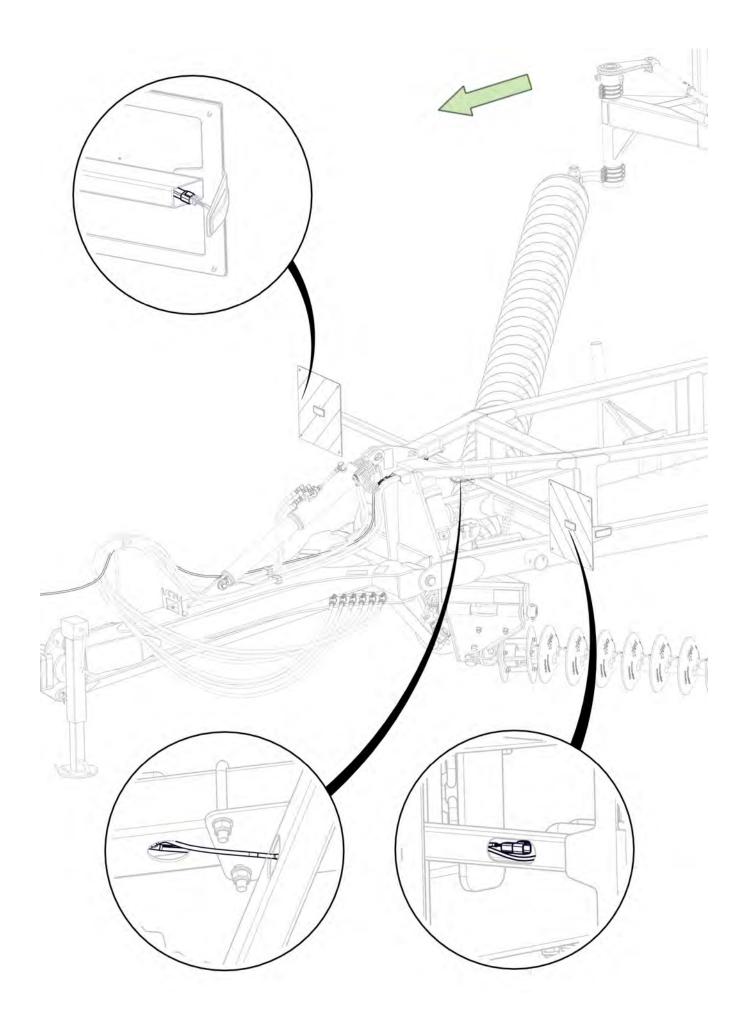


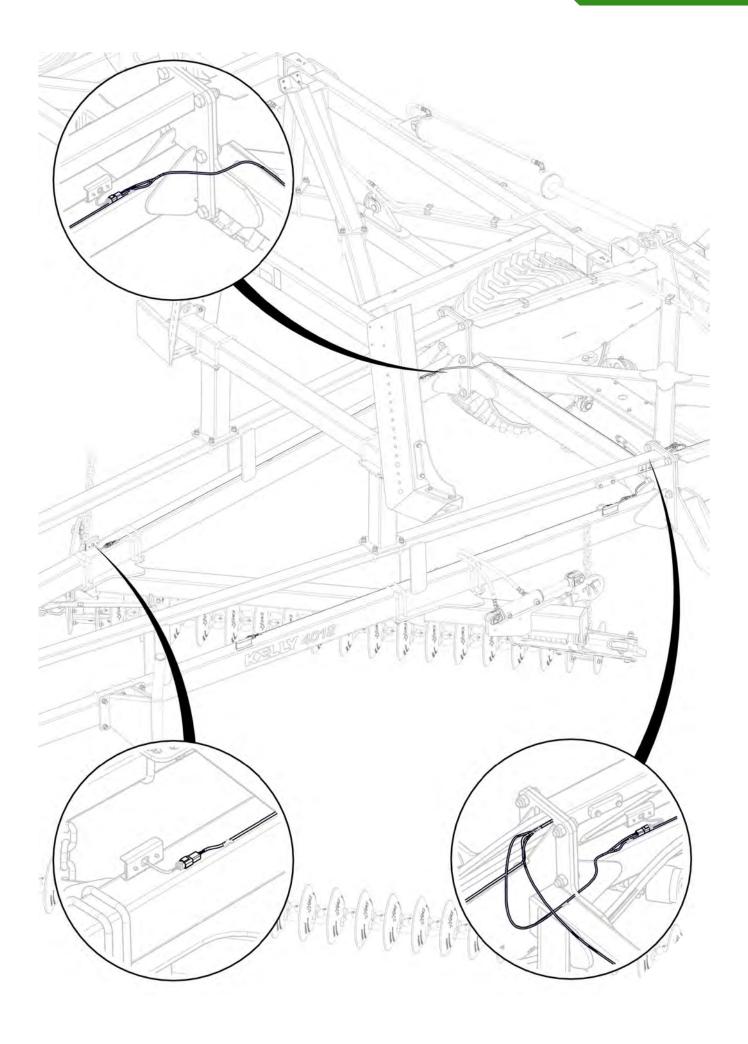
Item No.	Description	Number	Qty
1	LED Combination Tail Light Left	0412-EU200L	1
2	LED Combination Tail Light Right	0412-EU200R	1
3	EU38 Series Amber Position Marker Light	0412-LEDEU38AMB	2
4	Nyloc Nut M5	0221-NYL5	4
5	Washer Flat M5	0231-F5	4

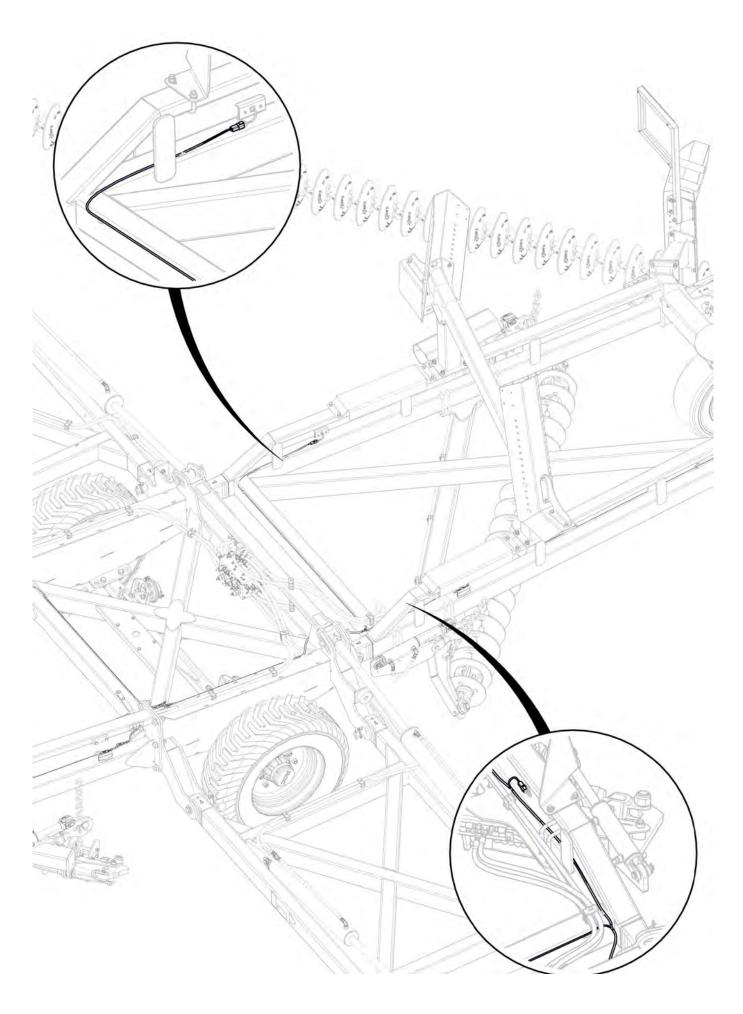


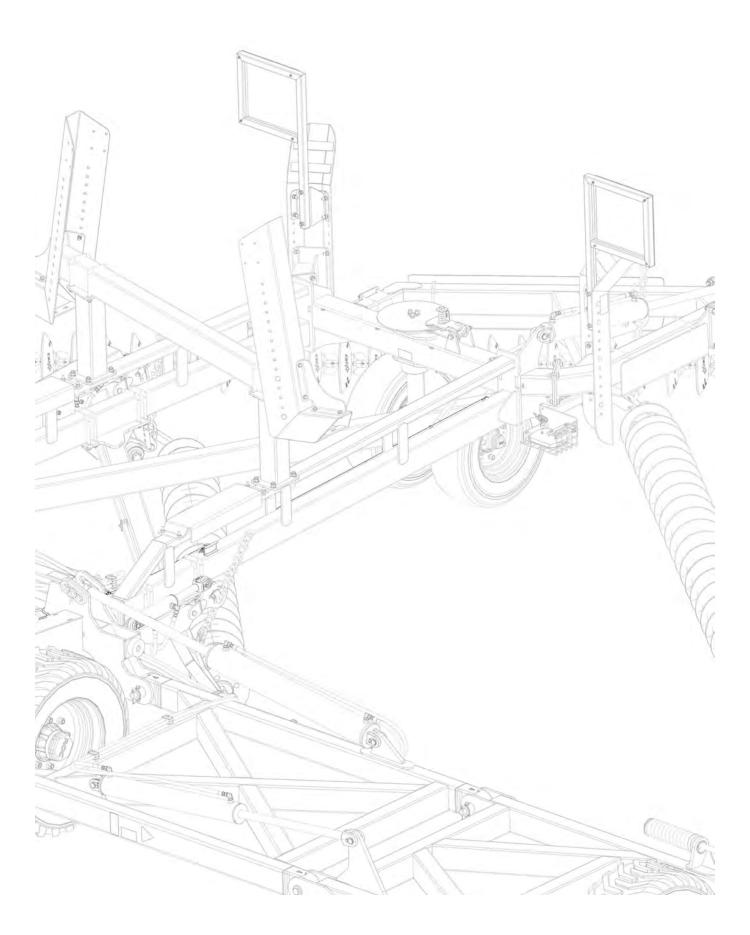








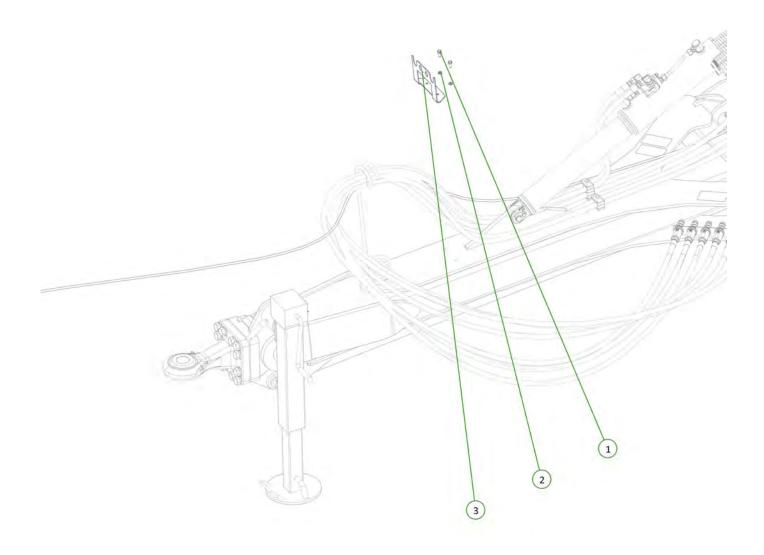




Item No.	Description	Number	Qty
1	M8 x 20 Class 8.8 ZP Bolt	0211-820	2
2	Washer Spring M8	0231-58	2
3	Air Coupling Storage Bracket	1500-402	1



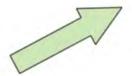


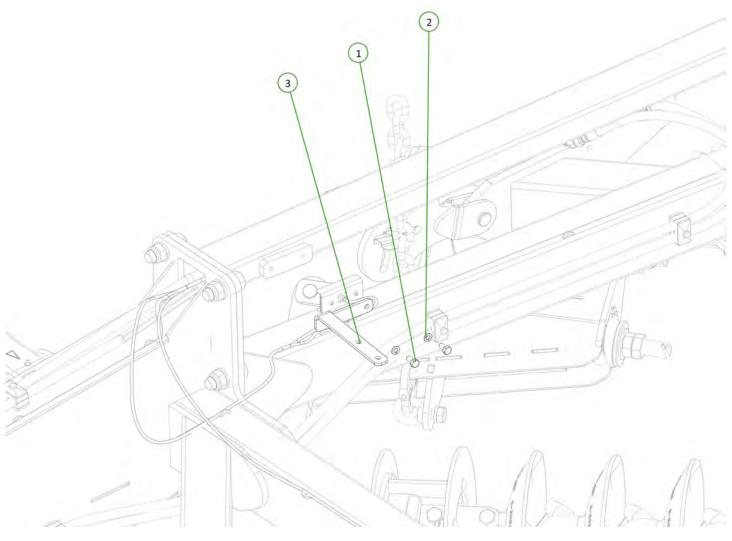




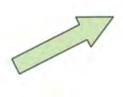
Section 3 - Braking Components

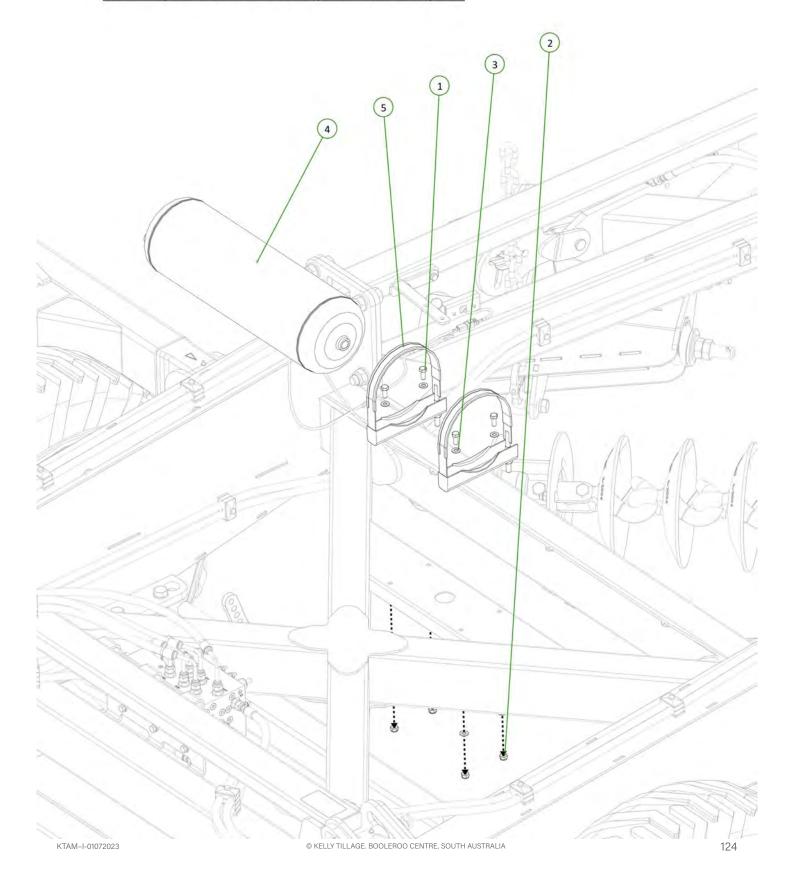
Item No.	Description	Number	Qty
1	M10 x 20 Class 8.8 ZP Bolt	0211-1020	2
2	Washer Spring M10	0231-S10	2
3	9m Air Valve Bracket	1500-401	1





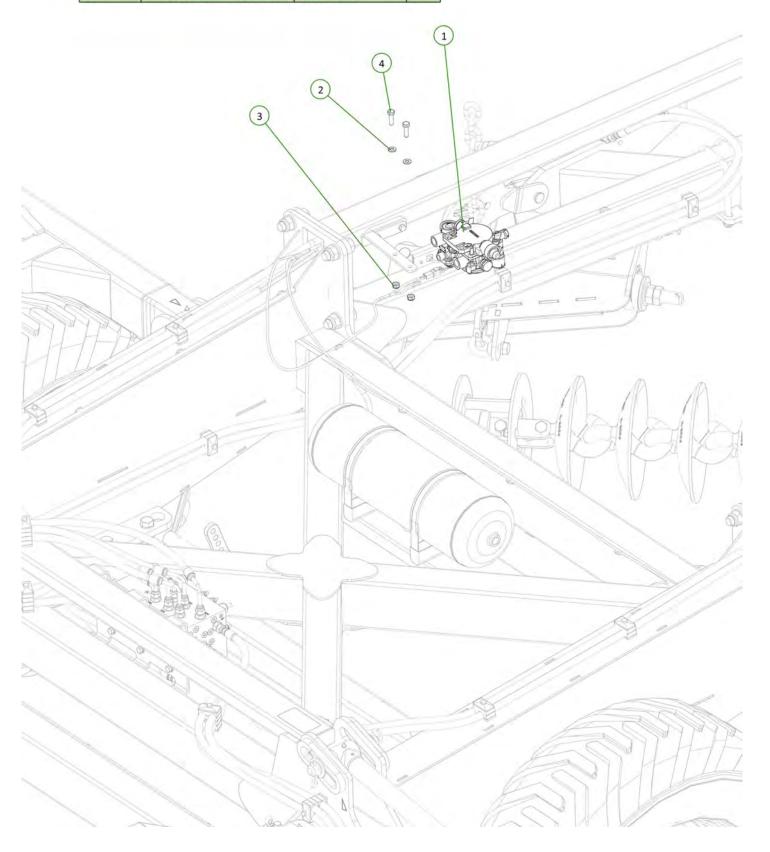
Item No.	Description	Number	Qty
1	M10 x 25 Class 8.8 ZP Bolt	0211-1025	4
2	Nyloc Nut M10	0221-NYL10	4
3	Washer Flat M10	0231-F10	4
4	Air Reservoir 20L	0761-9504200030	1
5	20L Air Reservoir Bracket	0761-9504053512	2

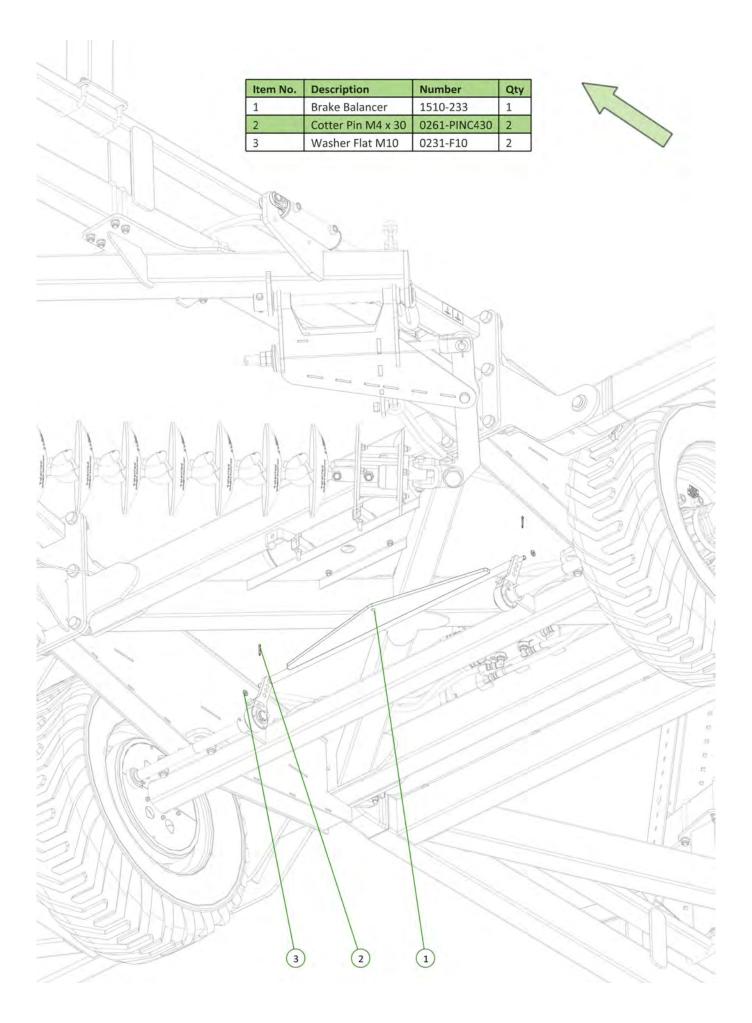


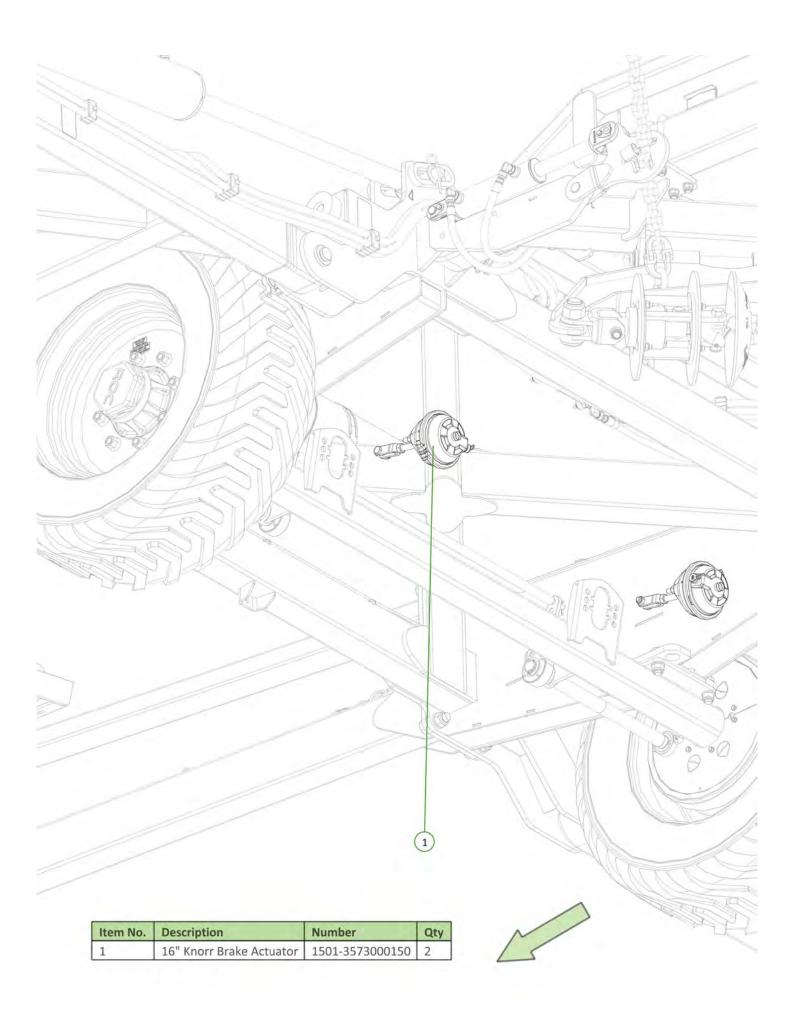


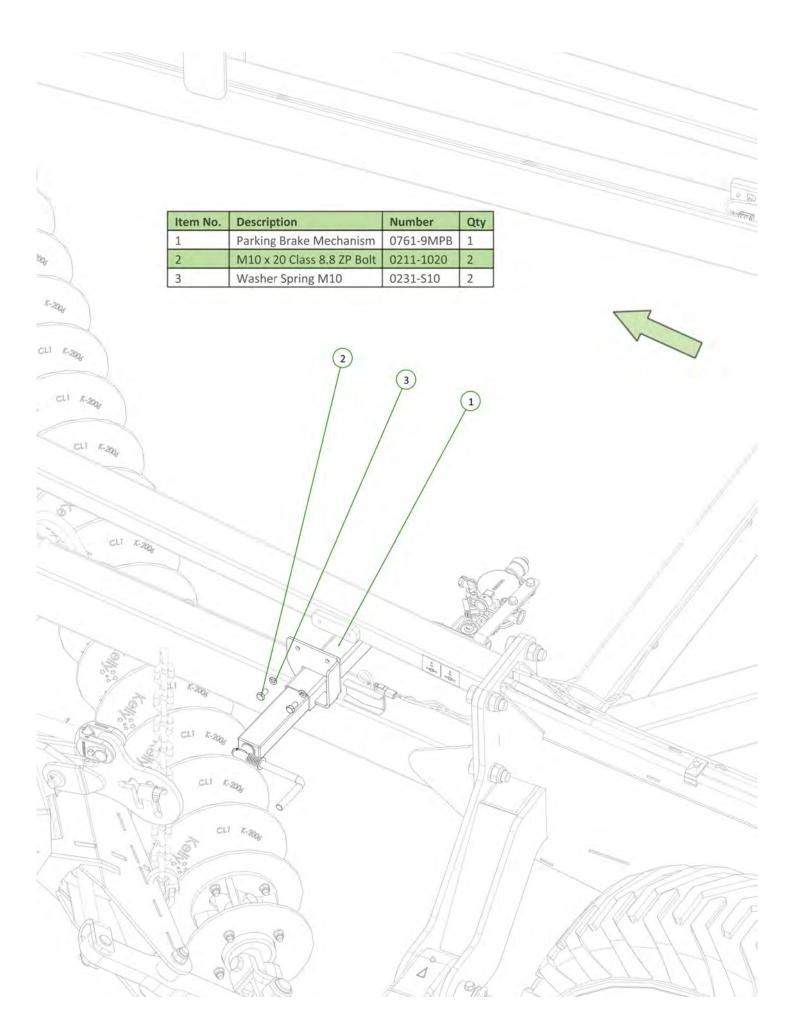
Item No.	Description	Number	Qty
1	Relay Emergency Valve	0761-9710026200	1
2	Washer Flat M10	0231-F10	2
3	Nyloc Nut M10	0221-NYL10	2
4	M10 x 35 Class 8.8 ZP Bolt	0211-1035	2

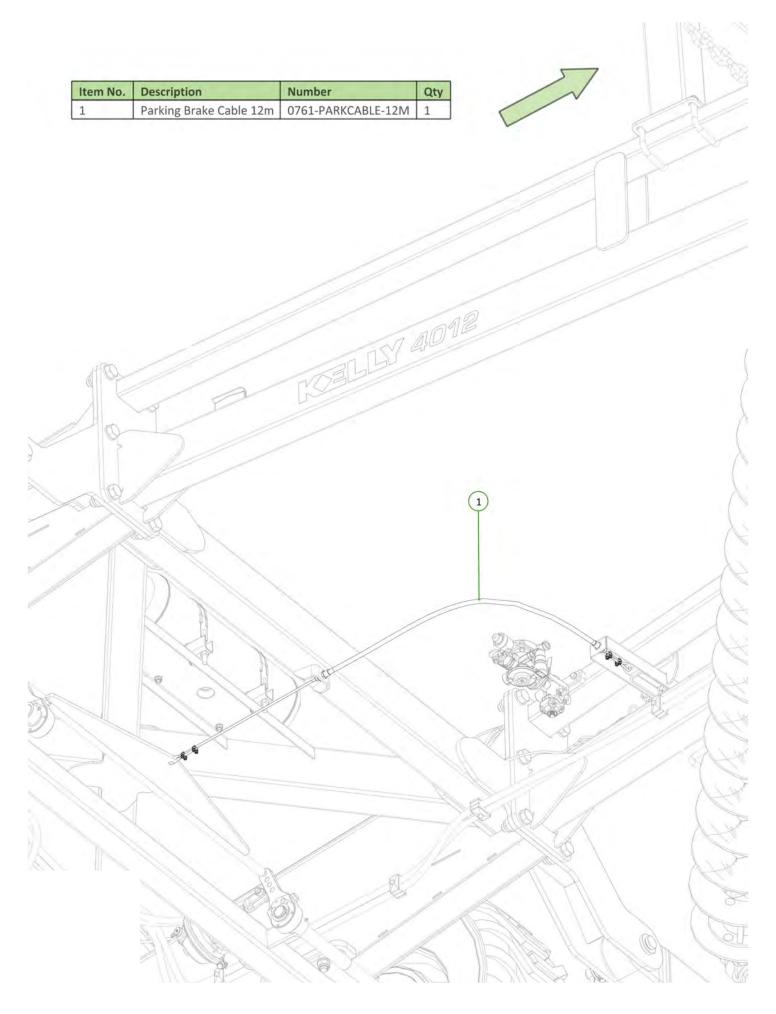




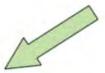


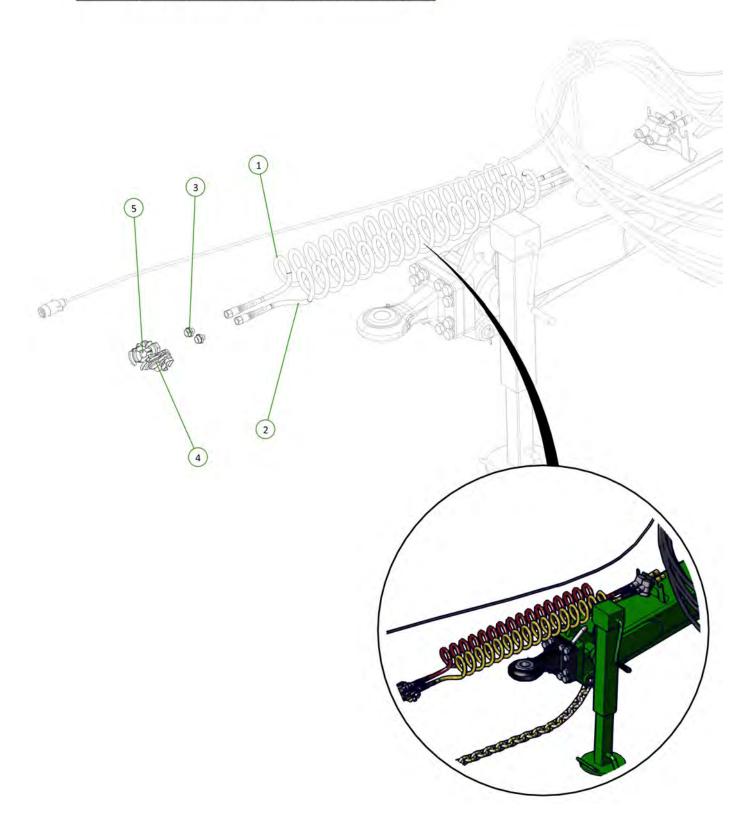




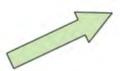


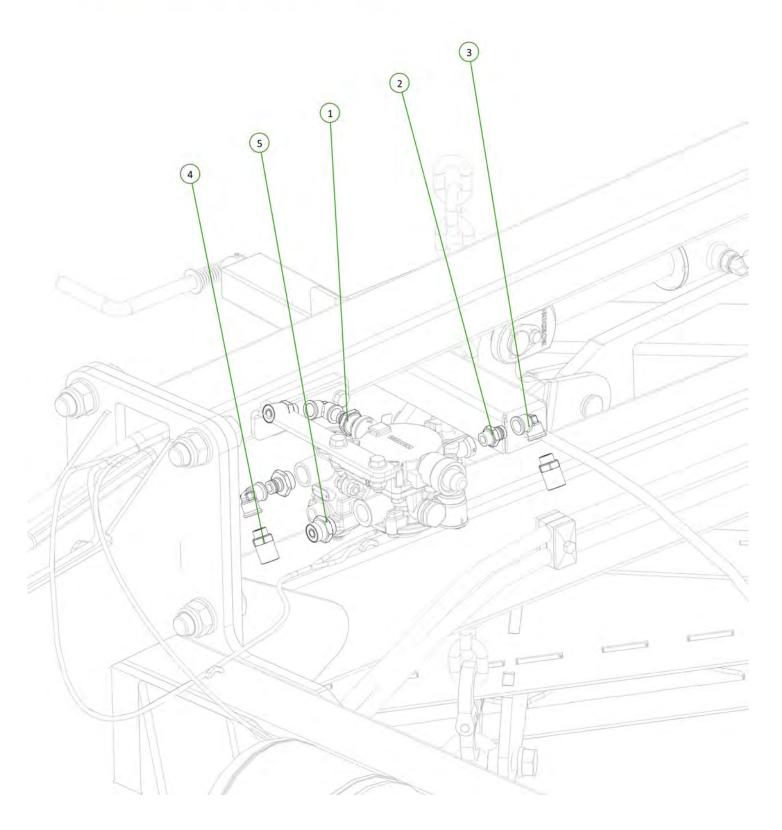
Item No.	Description	Number	Qty
1	Red Flexi Air Hose	0761-4527110580	1
2	Yellow Flexi Air Hose	0761-4527110590	1
3	M22/16 Straight Connector	0761-8931003404	2
4	Yellow Air Hose Coupling	0761-9528970060	1
5	Red Air Hose Coupling	0761-9528970070	1

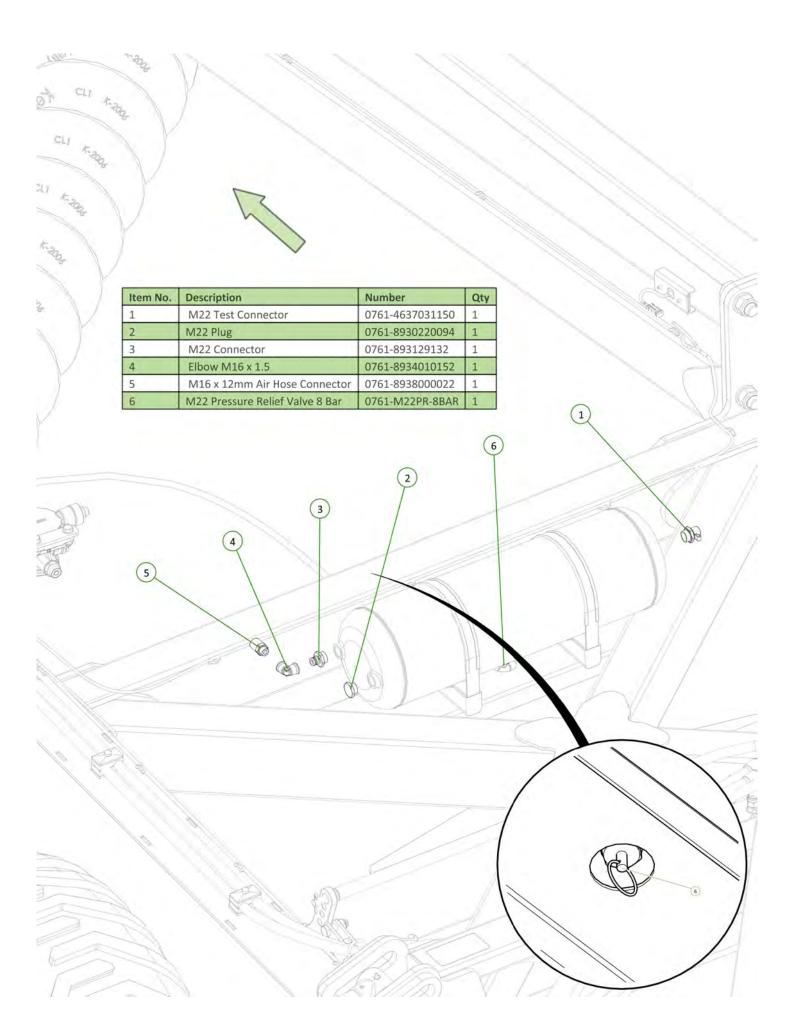


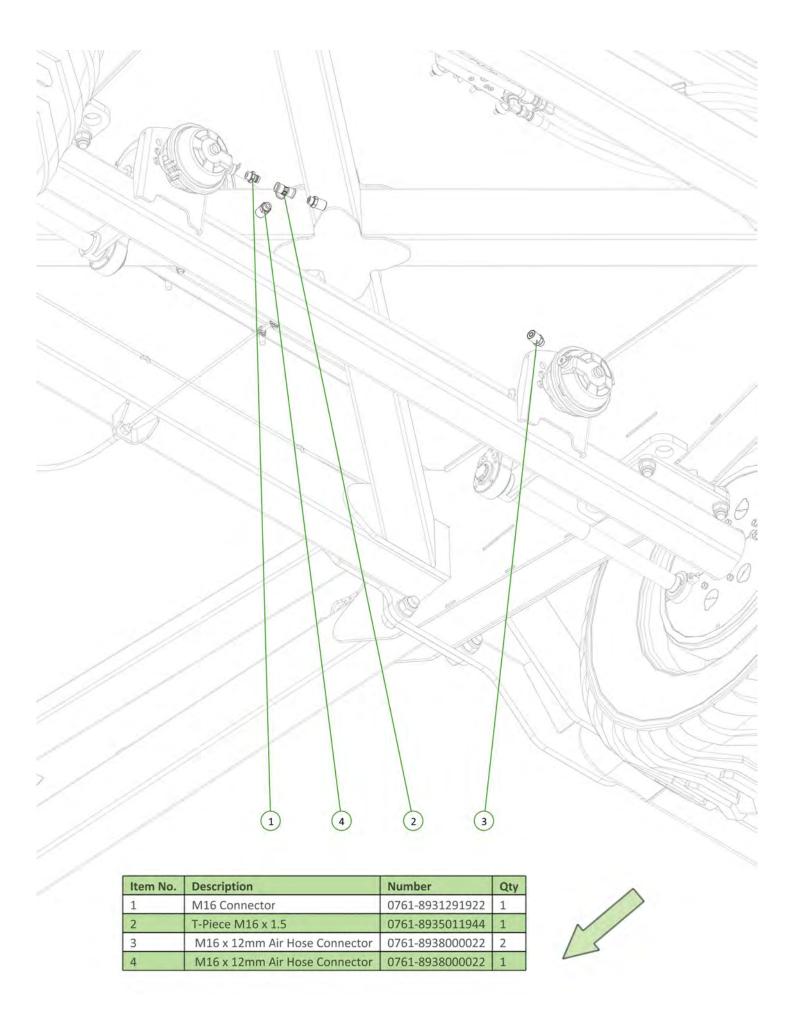


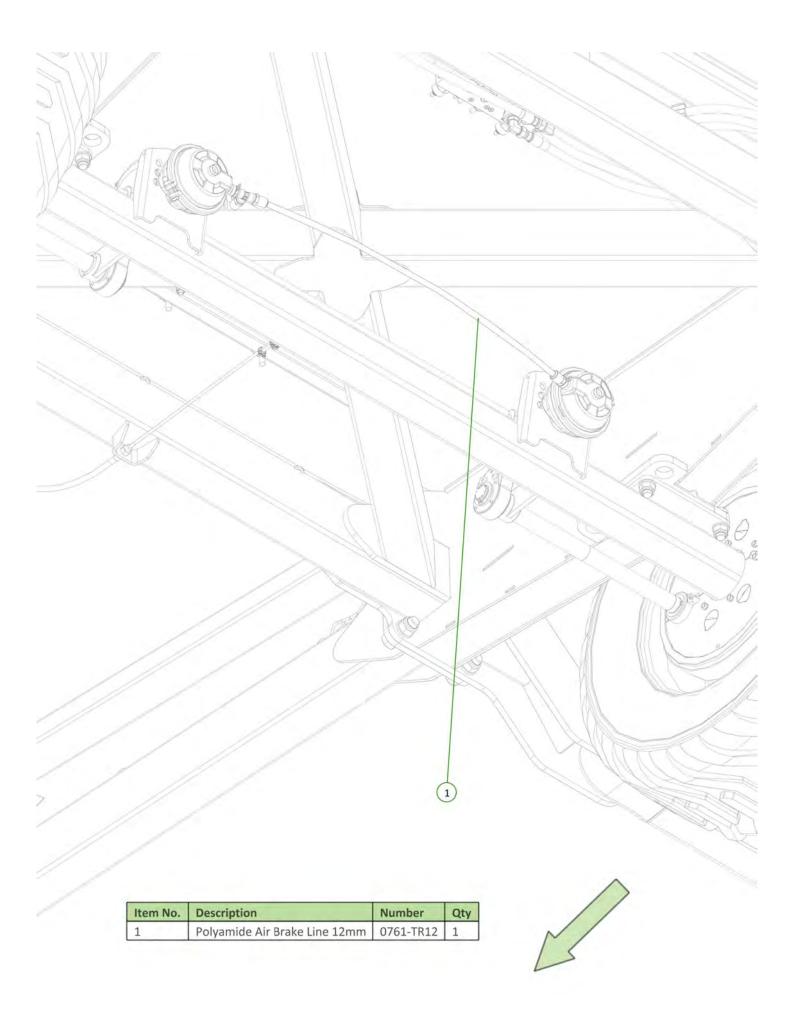
Item No.	Description	Number	Qty
1	M22 Connector	0761-893129132	2
2	M16 Connector	0761-8931291922	1
3	Elbow M16 x 1.5	0761-8934010152	3
4	M16 x 12mm Air Hose Connector	0761-8938000022	3
5	M22 x 12mm Air Hose Connector	0761-8938000082	1

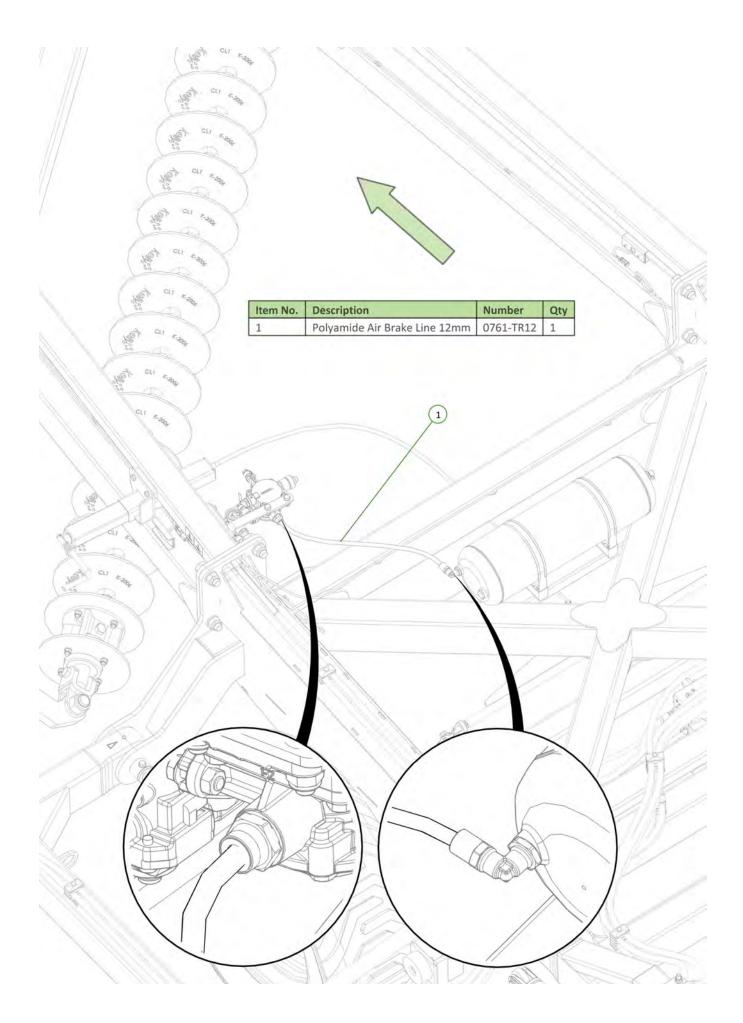


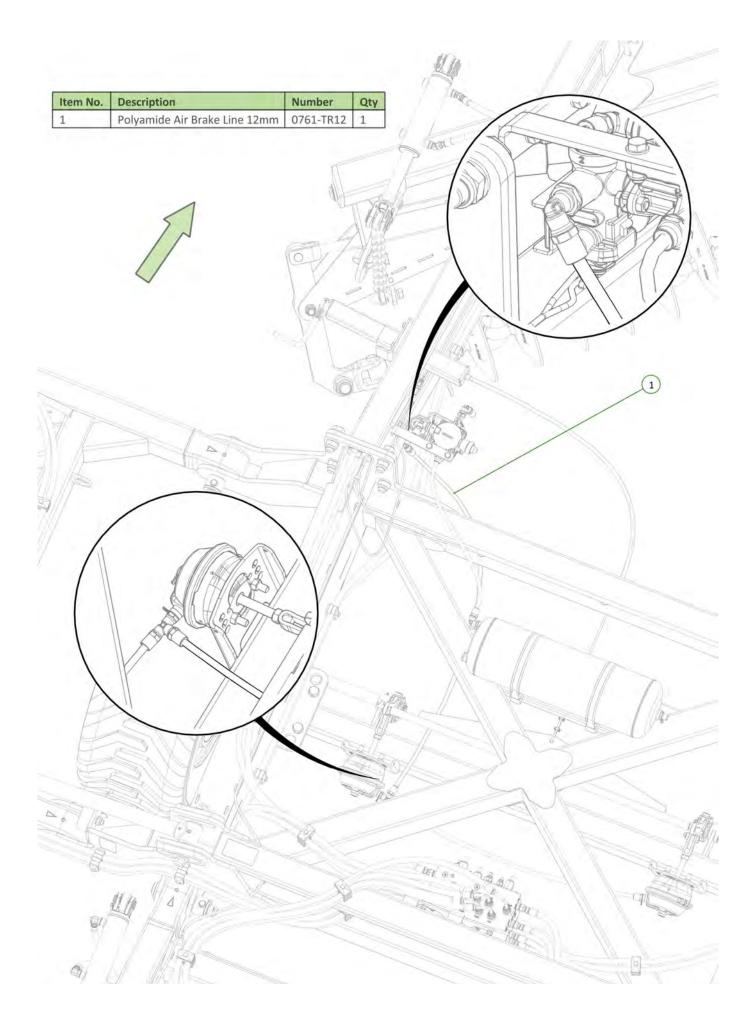


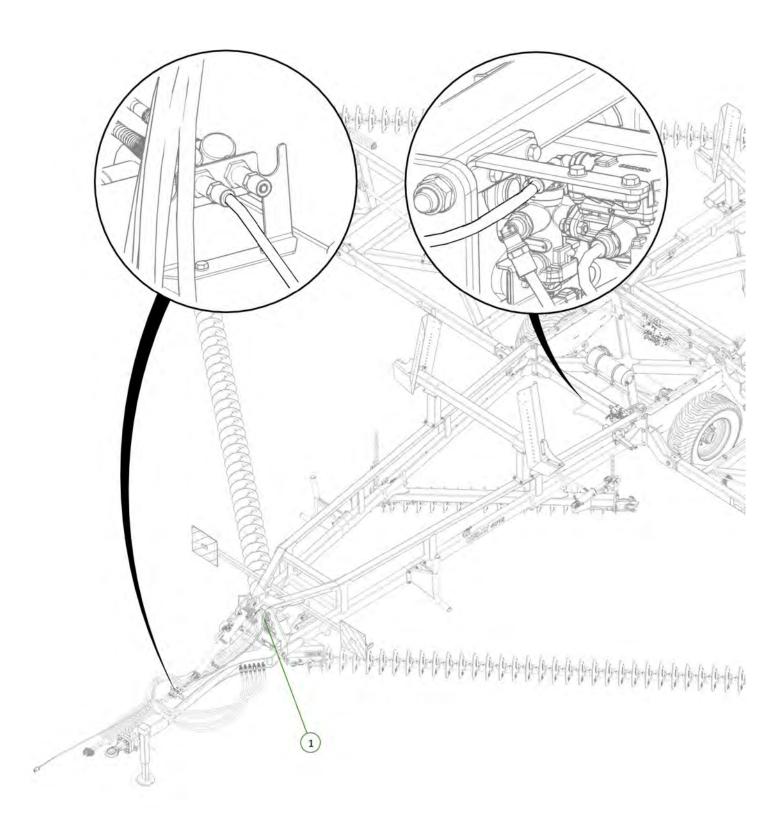




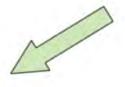


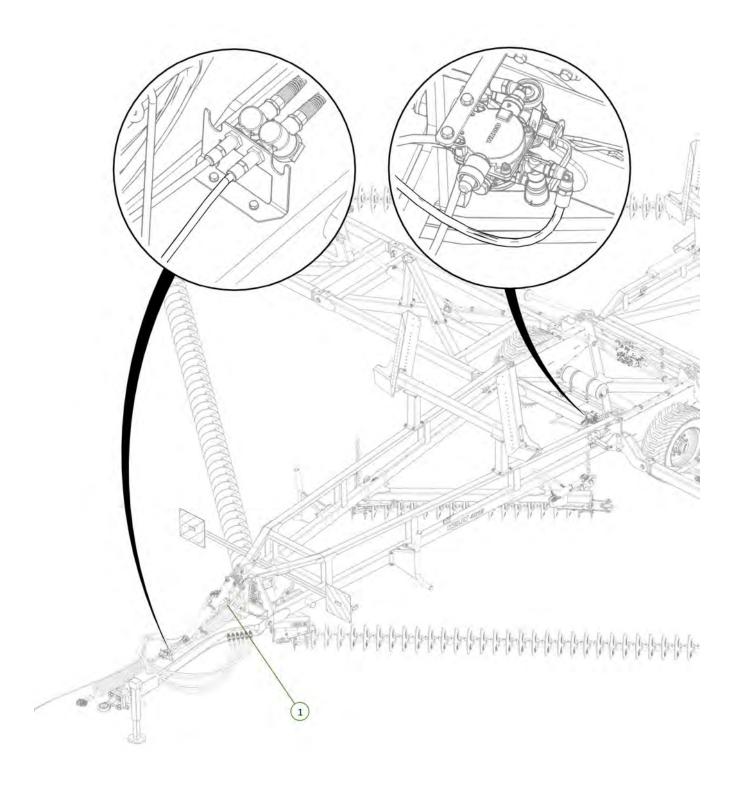




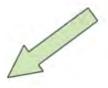


Item No.	Description	Number	Qty
1	Polyamide Air Brake Line 12mm	0761-TR12	1





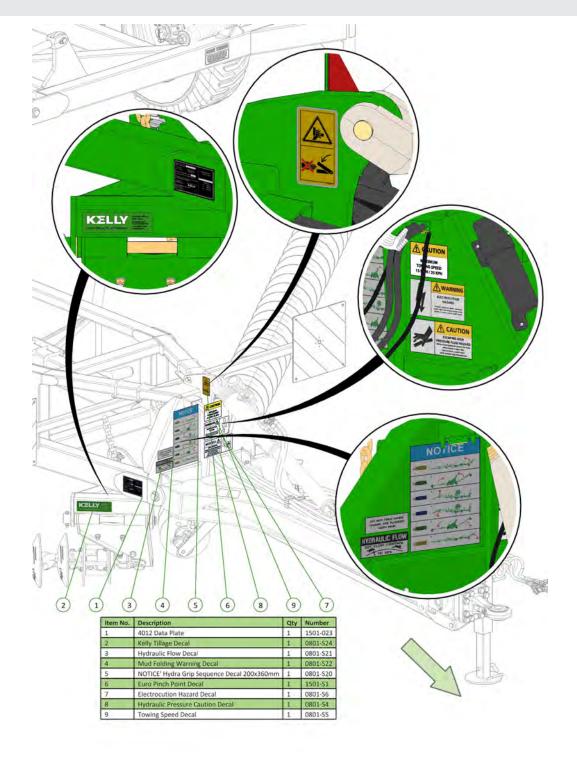
Item No.	Description	Number	Qty
1	Polyamide Air Brake Line 12mm	0761-TR12	1

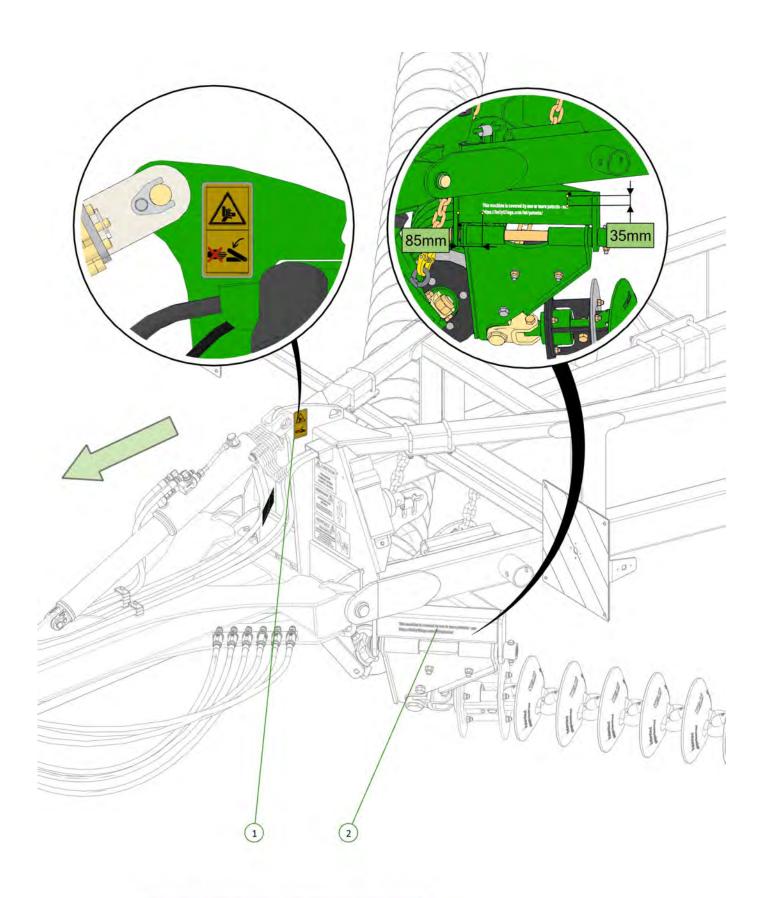




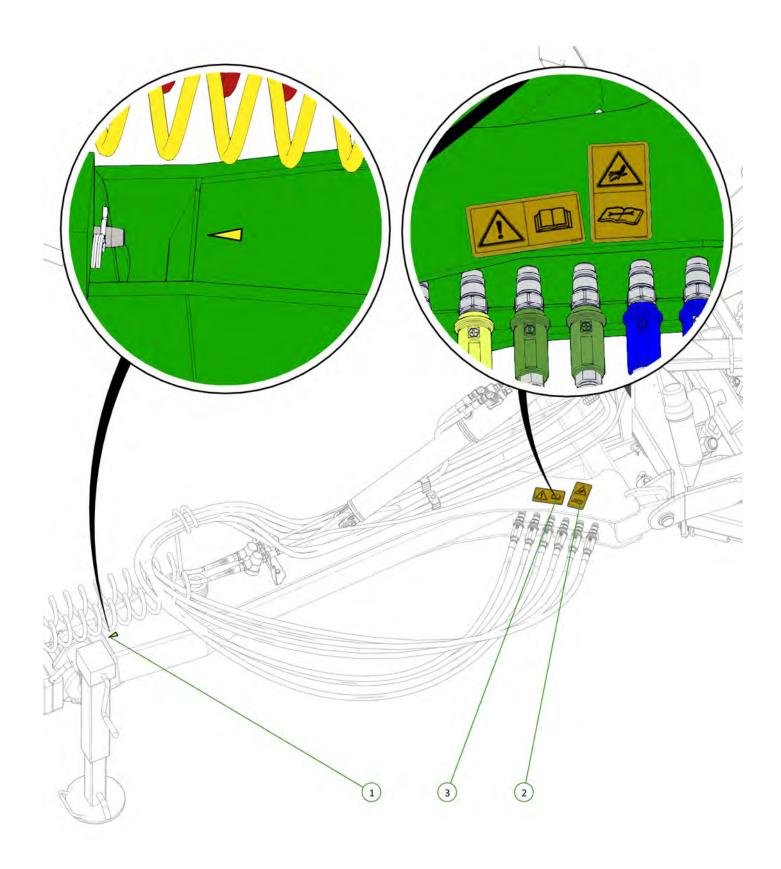


Section 4 - Decal Application

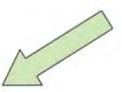




Item No.	Description	Qty	Number
1	Euro Pinch Point Decal	1	1501-S1
2	Universal Patent Decal	1	0801-S26

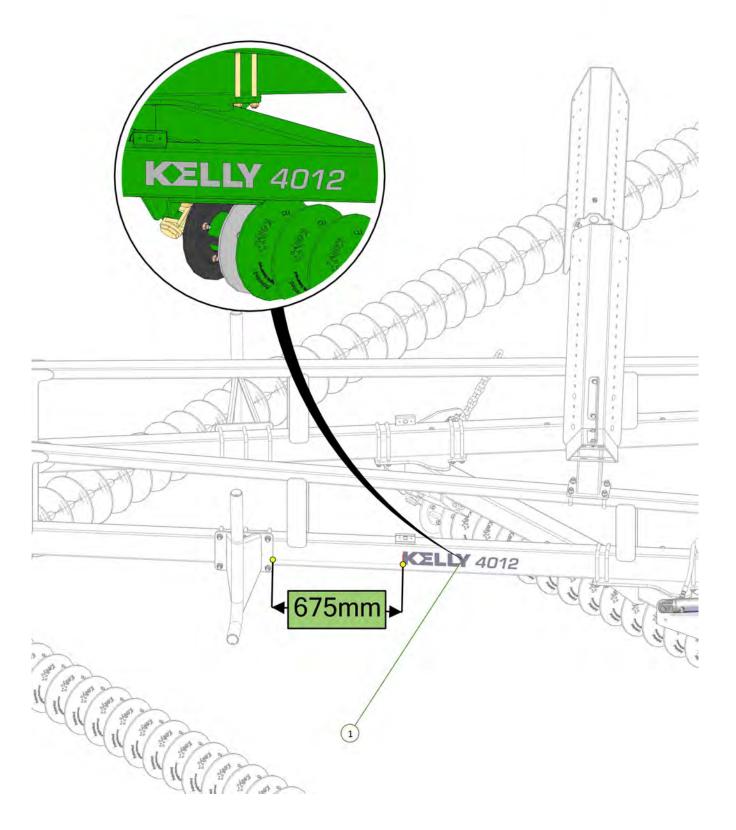


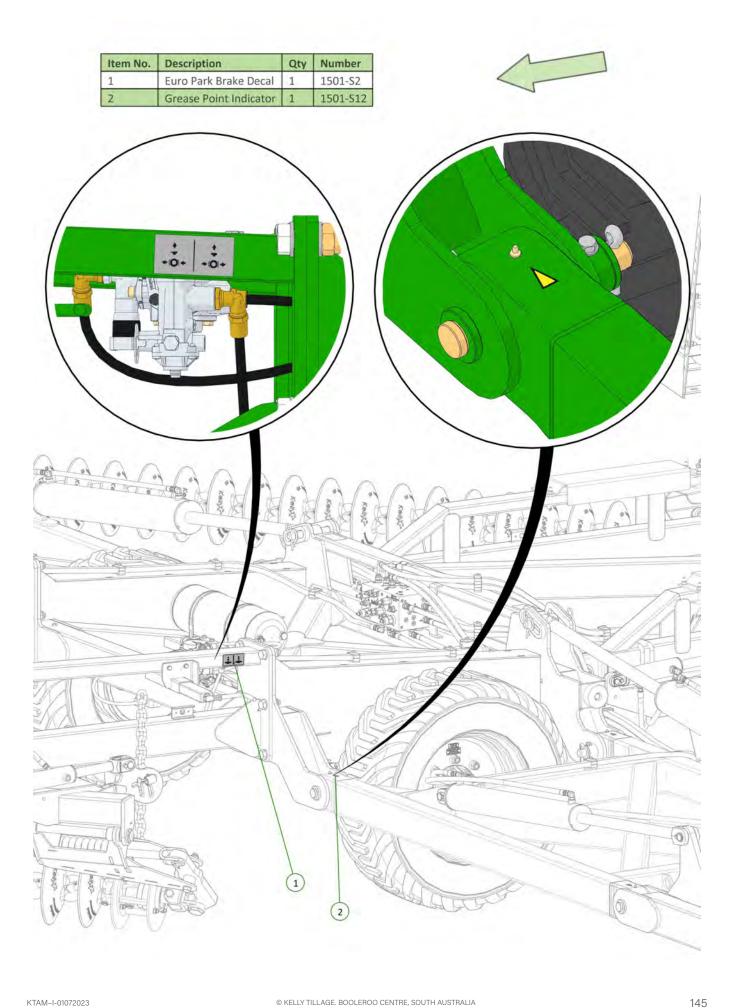
Item No.	Description	Qty	Number
1	Grease Point Indicator	1	1501-S12
2	Hydraulic Pressure Hazard Decal	1	1501-S9
3	Read Manual Decal	1	1501-S3

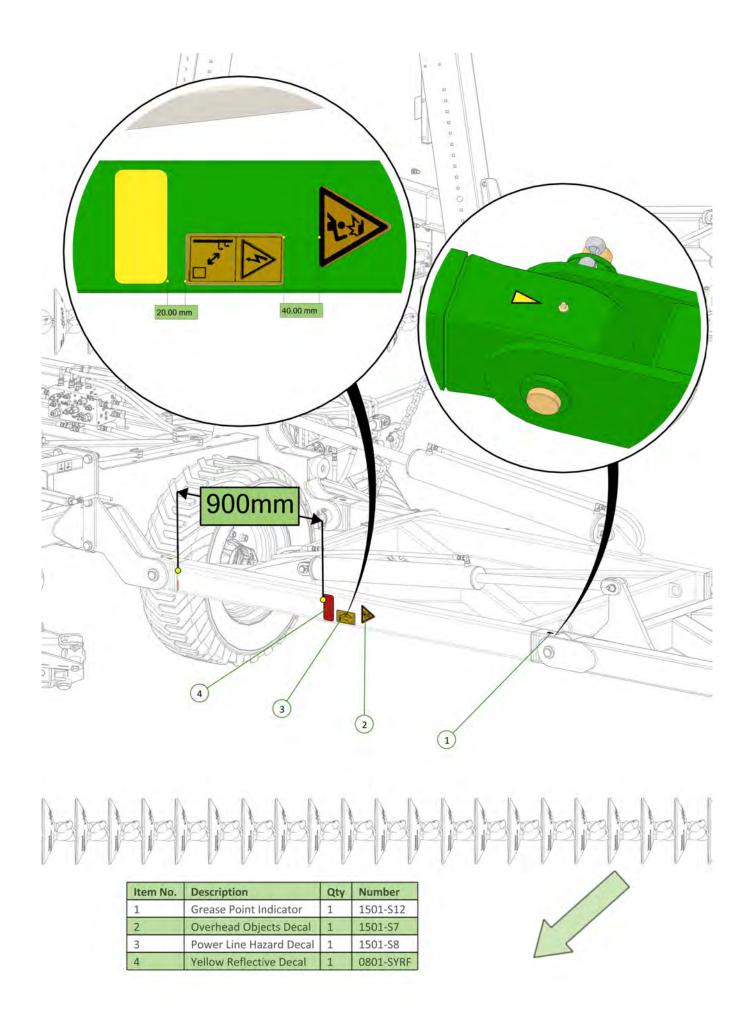


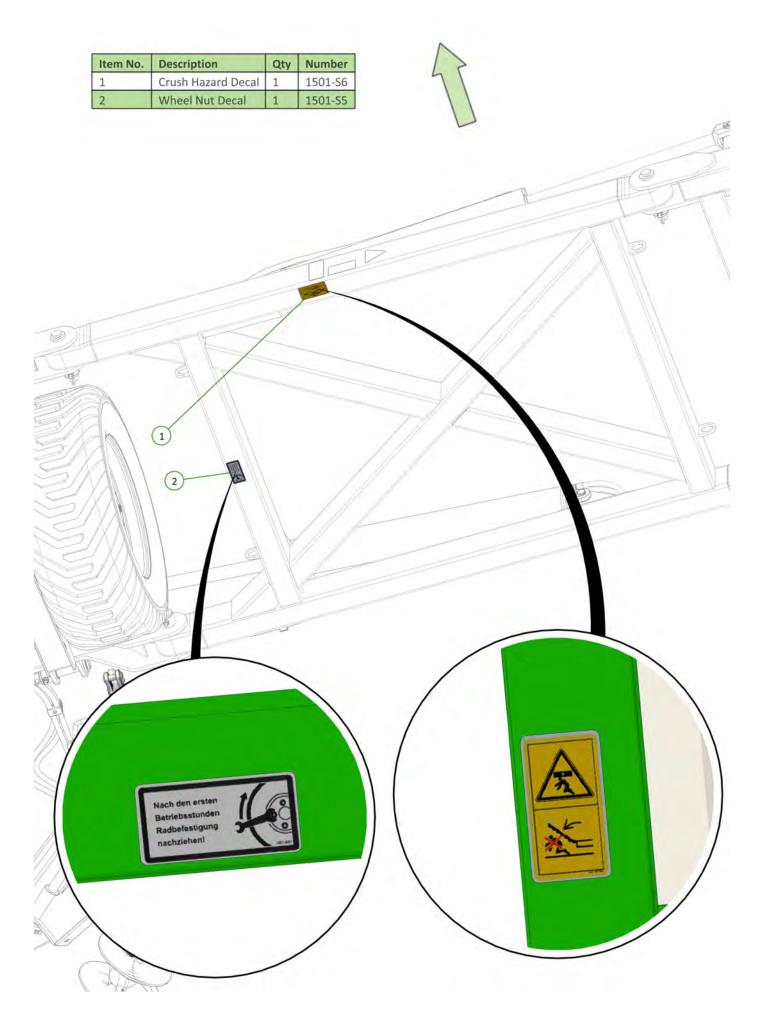
Item No.	Description	Qty	Number
1	Kelly Tillage 4012 Decal	1	0801-SKT4012

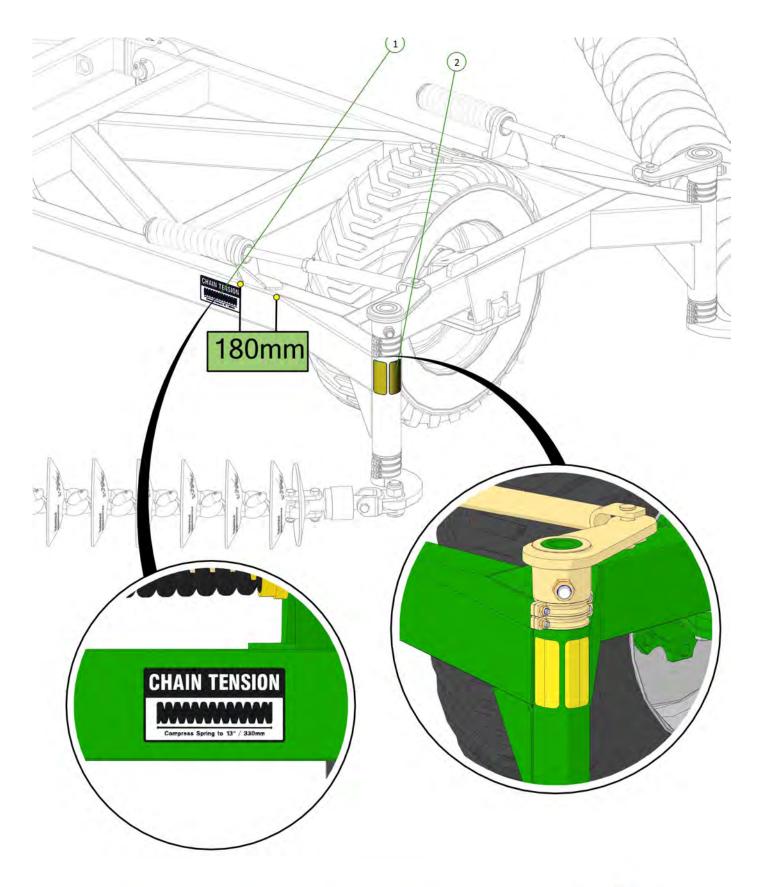




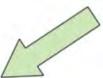


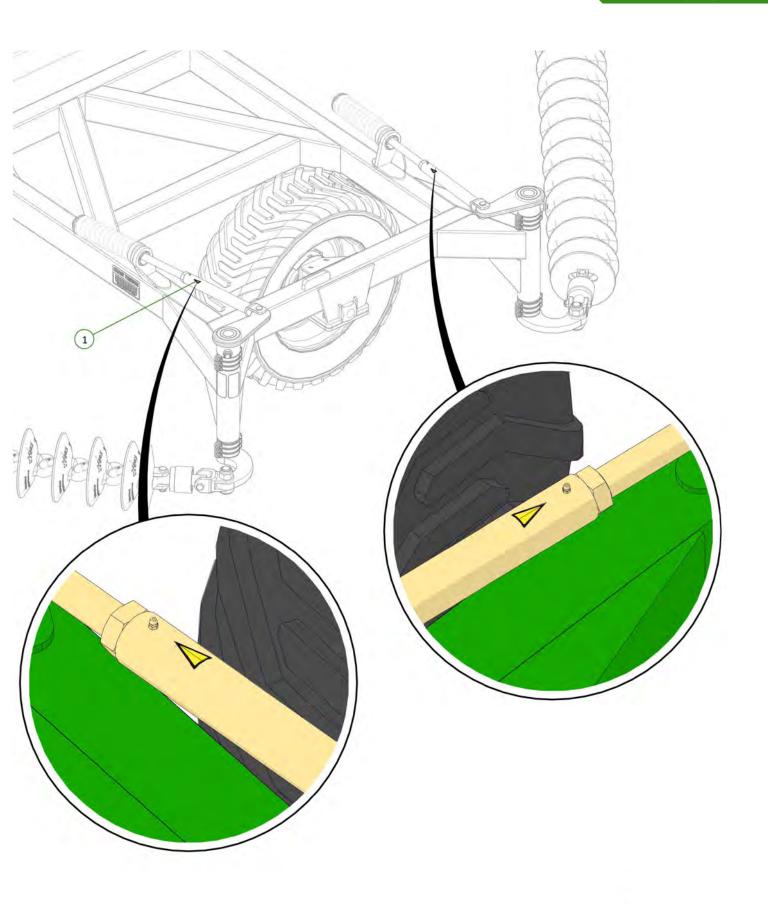




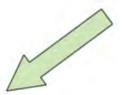


Item No.	Description	Qty	Number
1	Chain Tension 330mm Decal	1	0801-S15
2	Yellow Reflective Decal	2	0801-SYRF

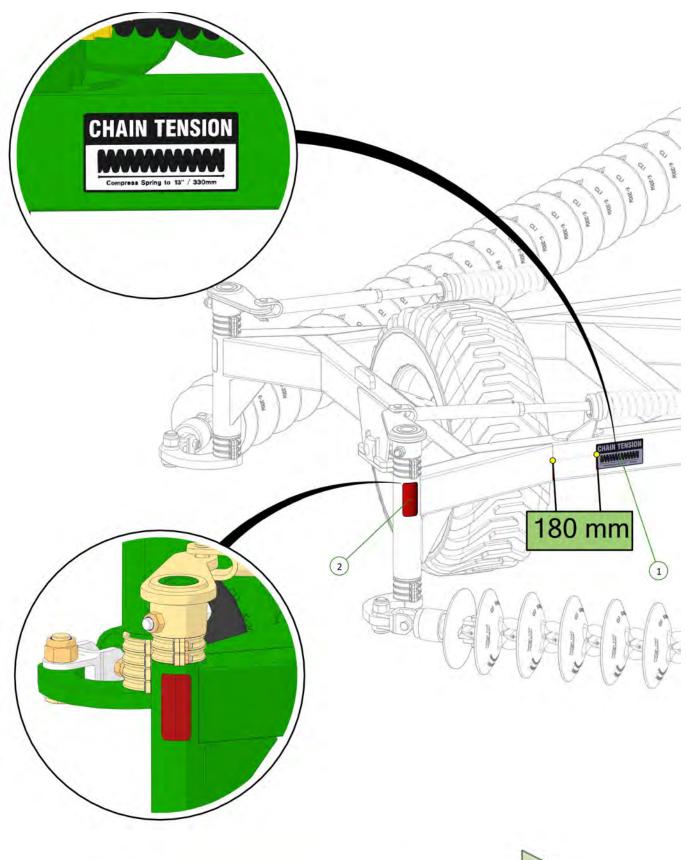




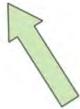
Item No.	Description	Qty	Number
1	Grease Point Indicator	2	1501-S12

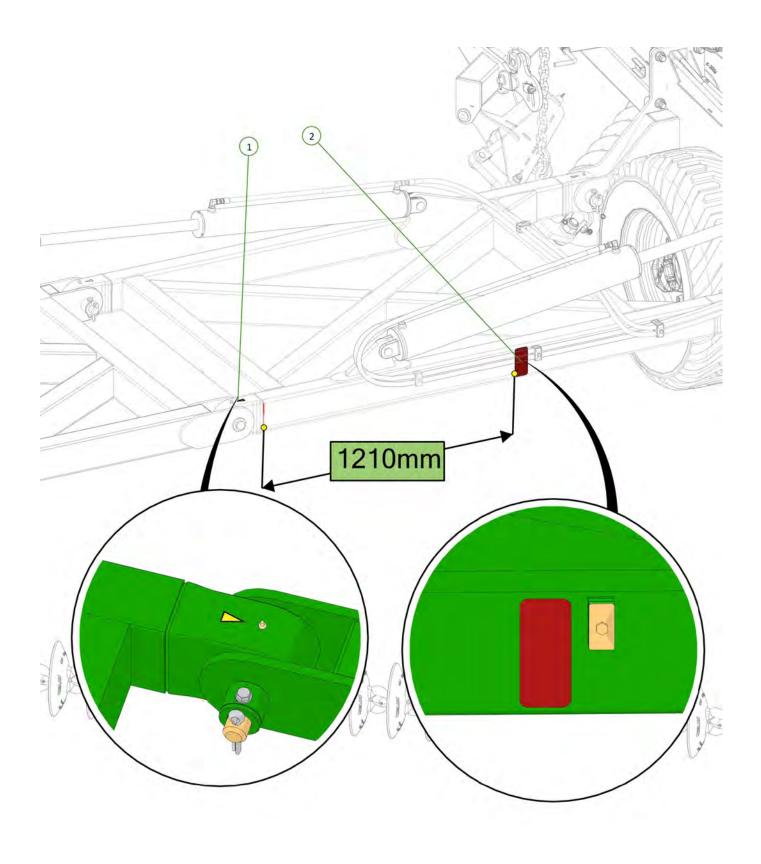


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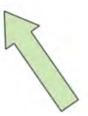


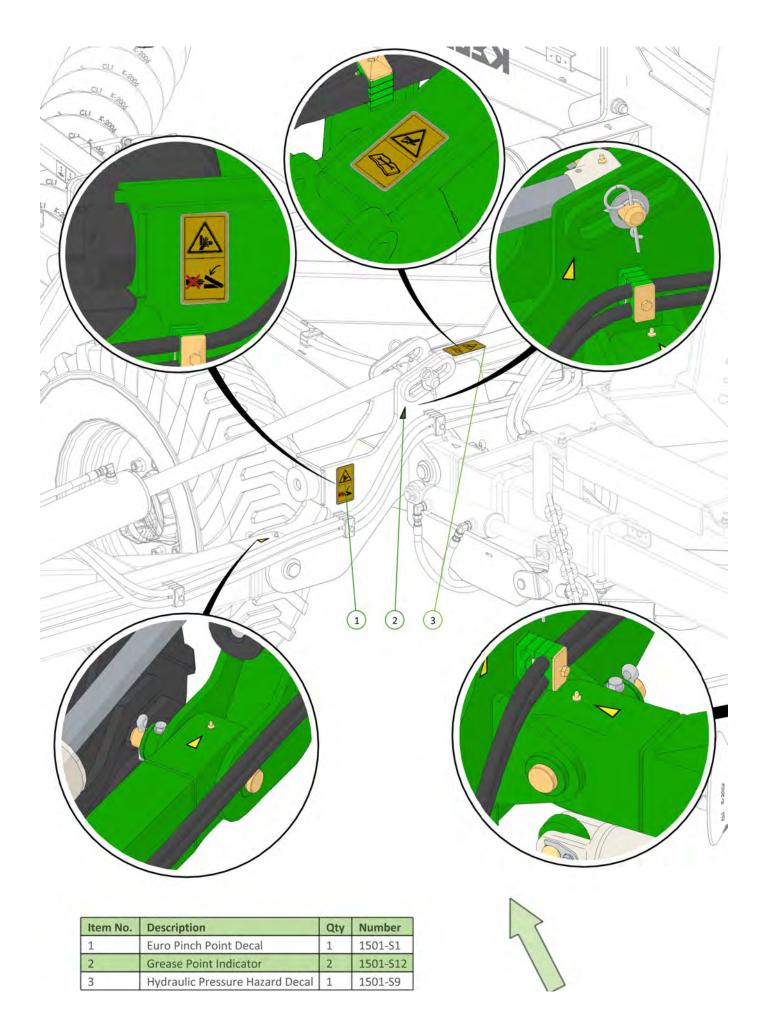
Item No.	Description	Qty	Number
1	Chain Tension 330mm Decal	1	0801-S15
2	Red Reflective Decal	1	0801-SRRF

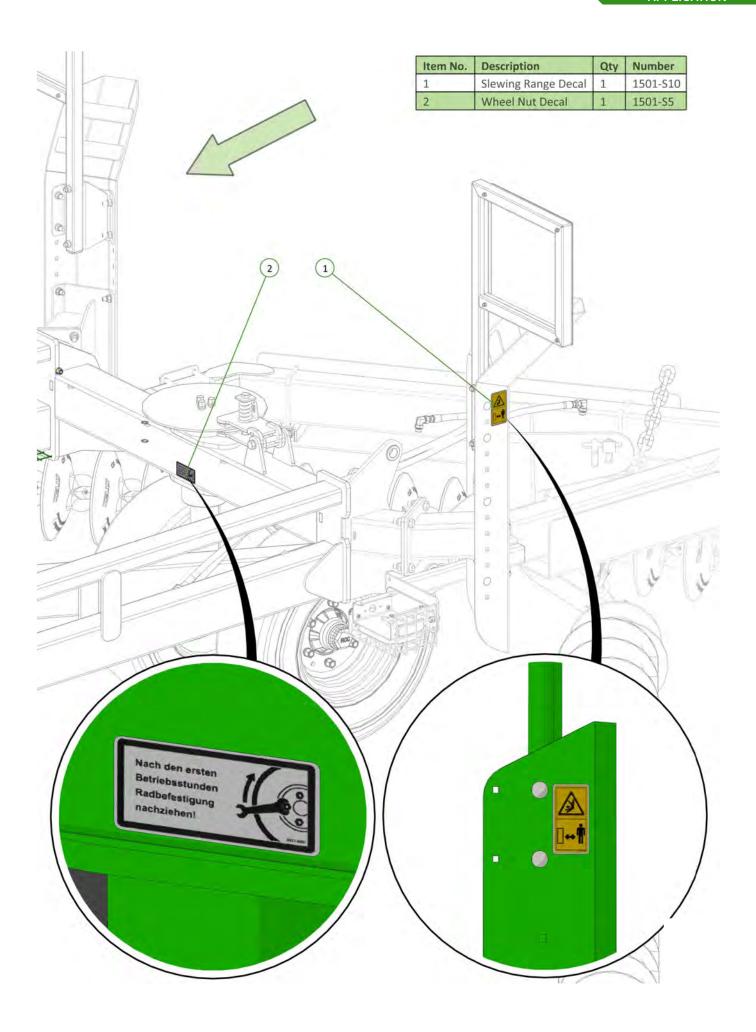


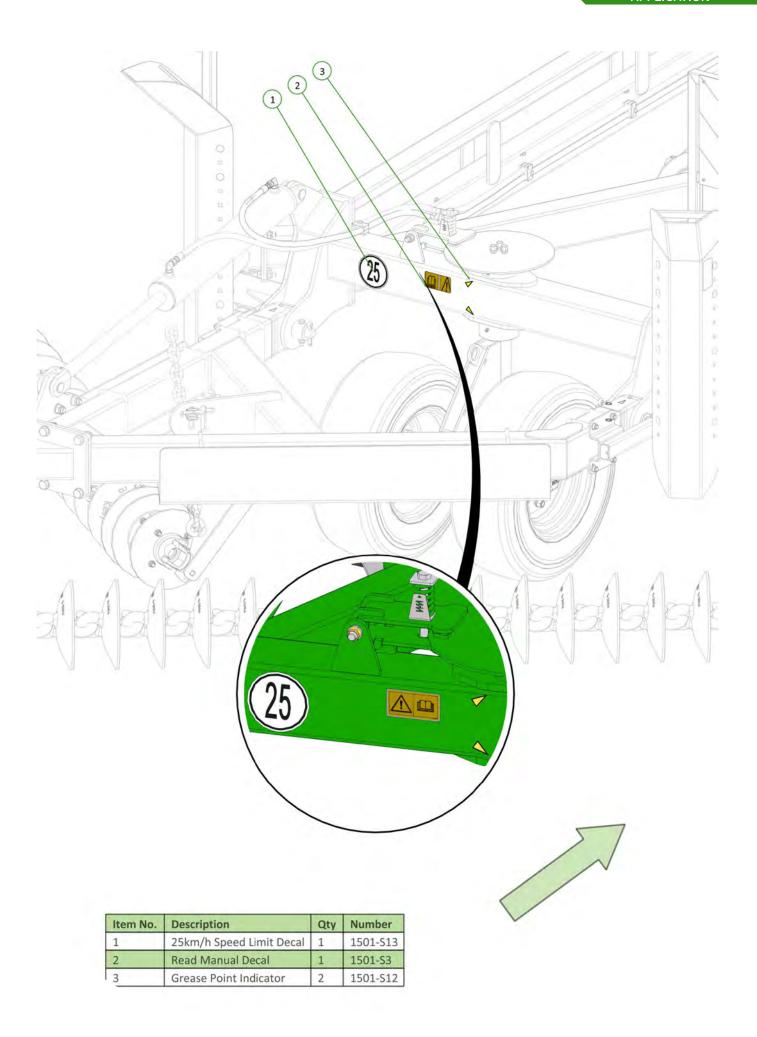


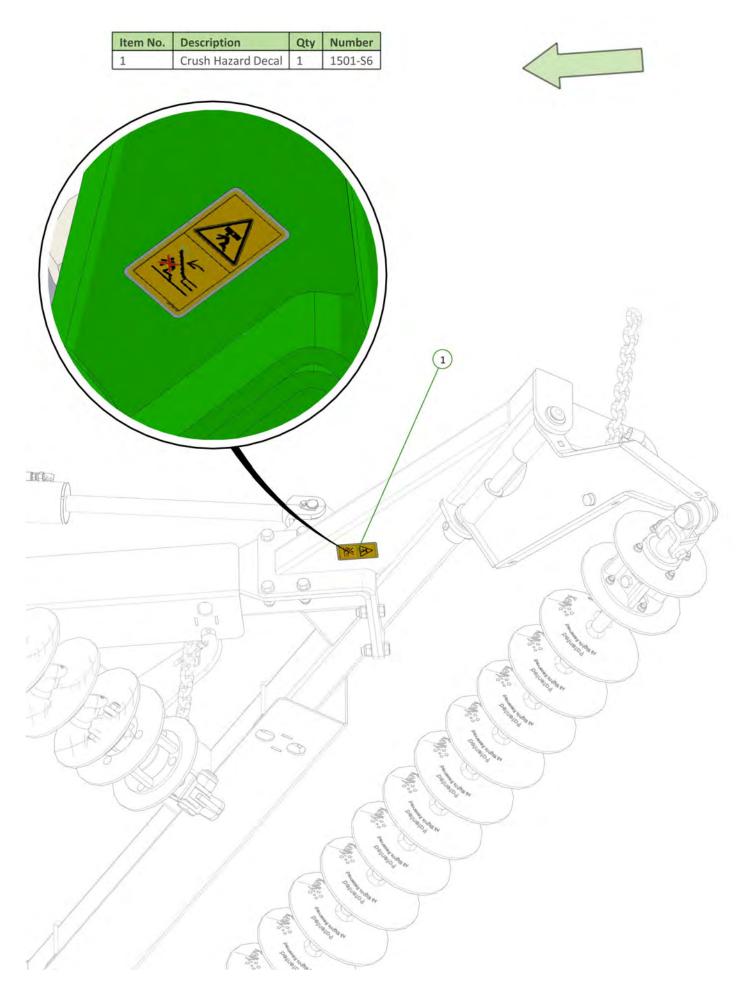
Item No.	Description	Qty	Number
1	Grease Point Indicator	1	1501-S12
2	Red Reflective Decal	1	0801-SRRF



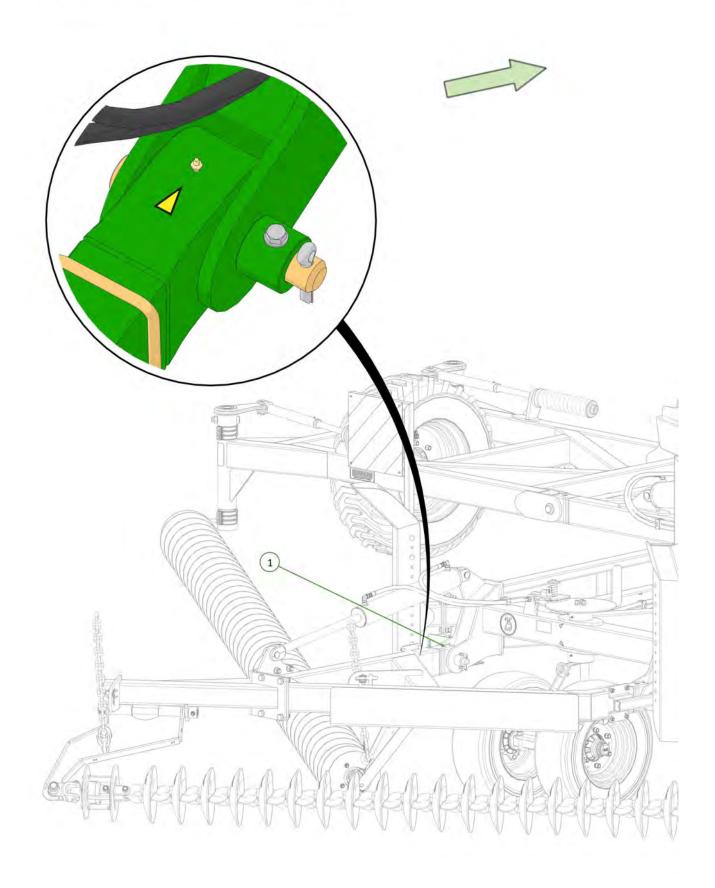


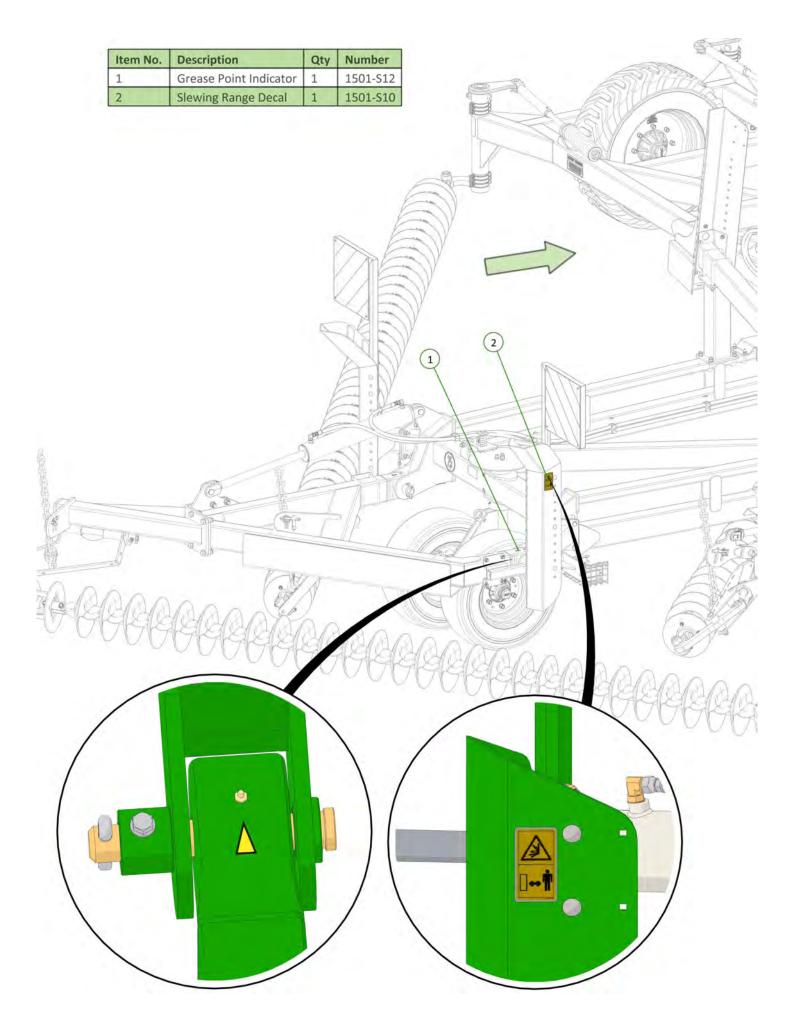


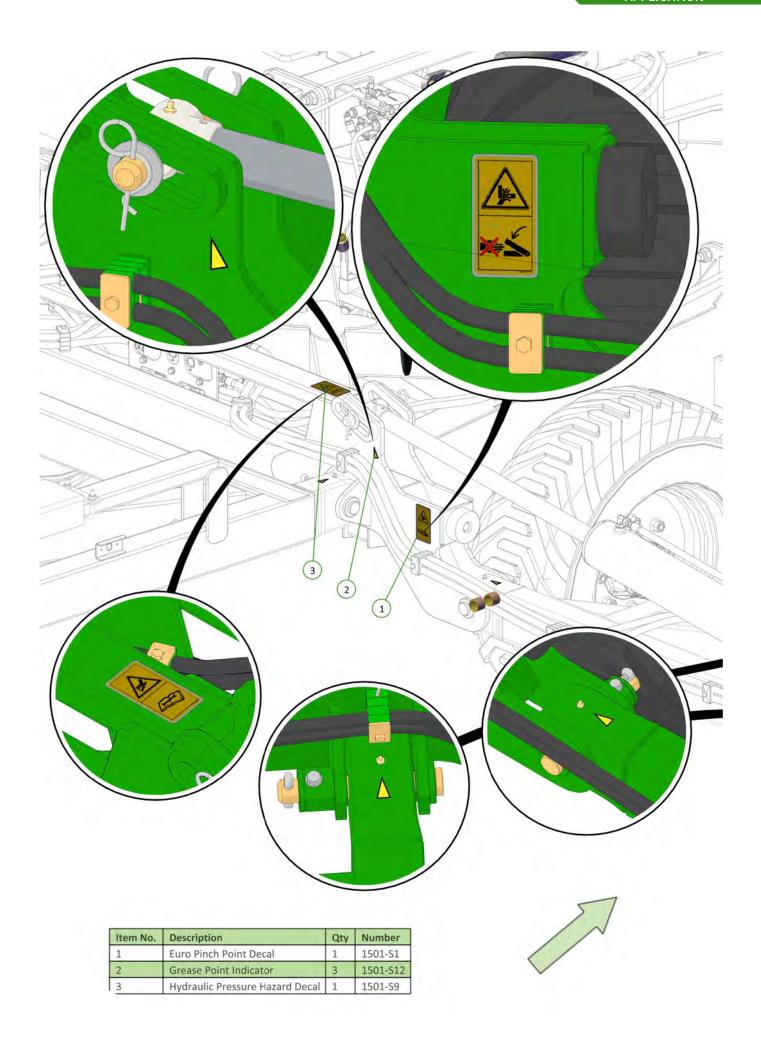


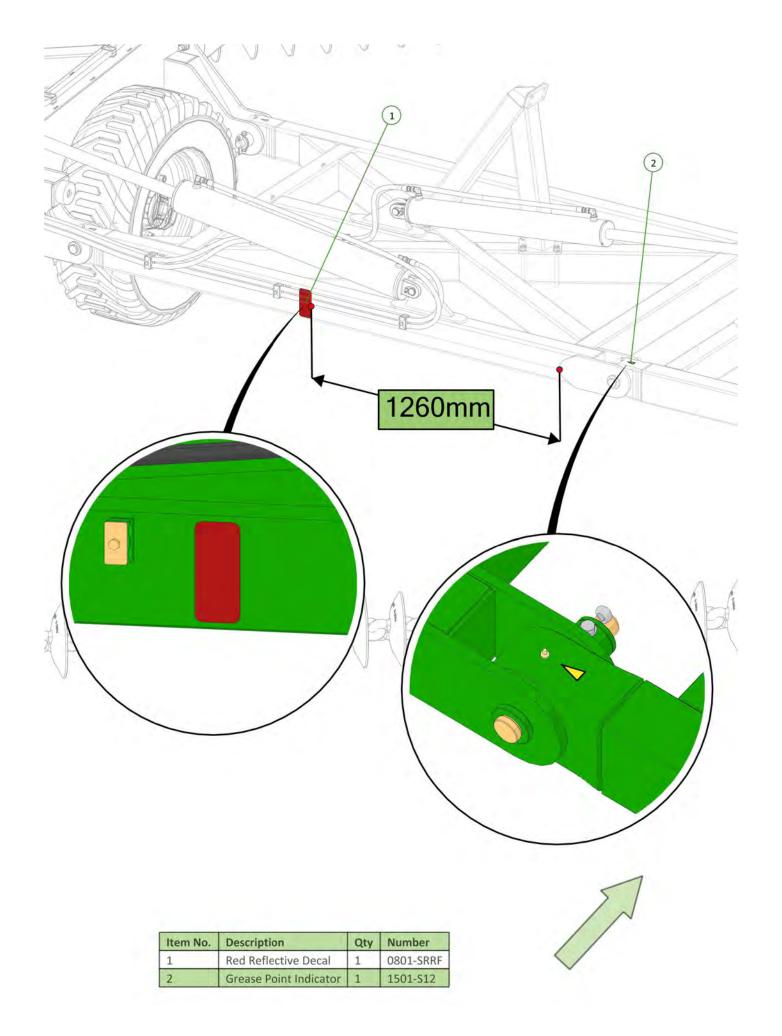


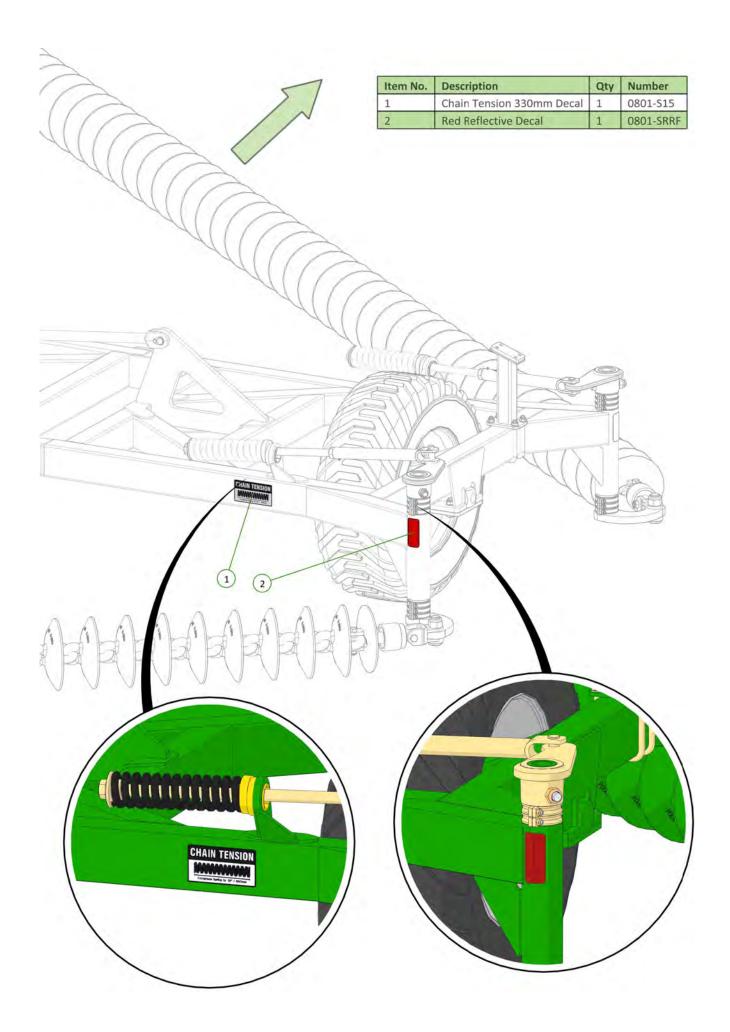
Item No.	Description	Qty	Number
1	Grease Point Indicator	1	1501-S12

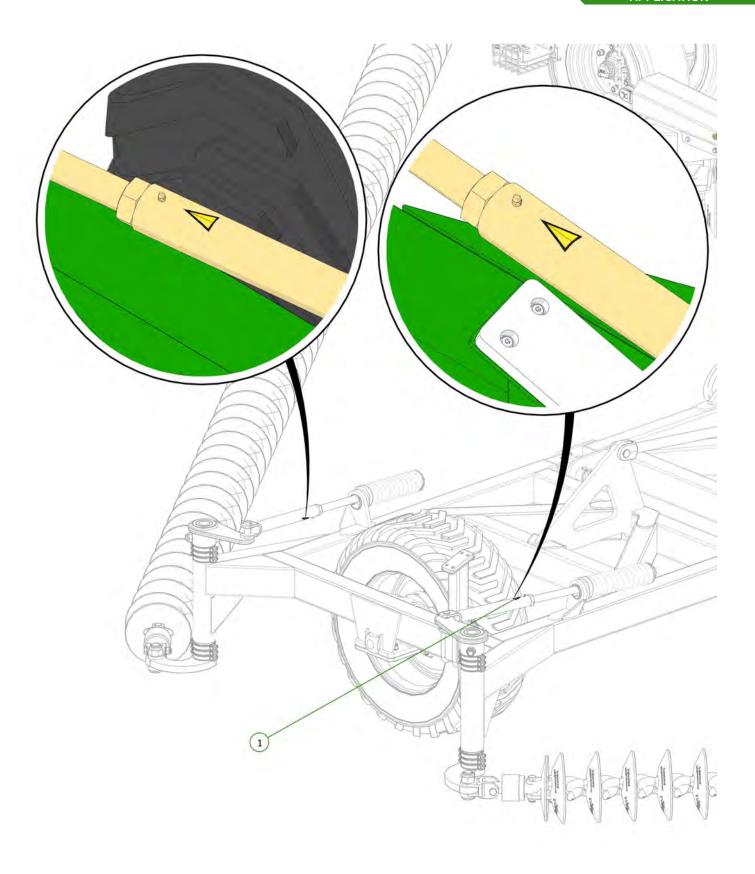




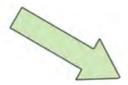


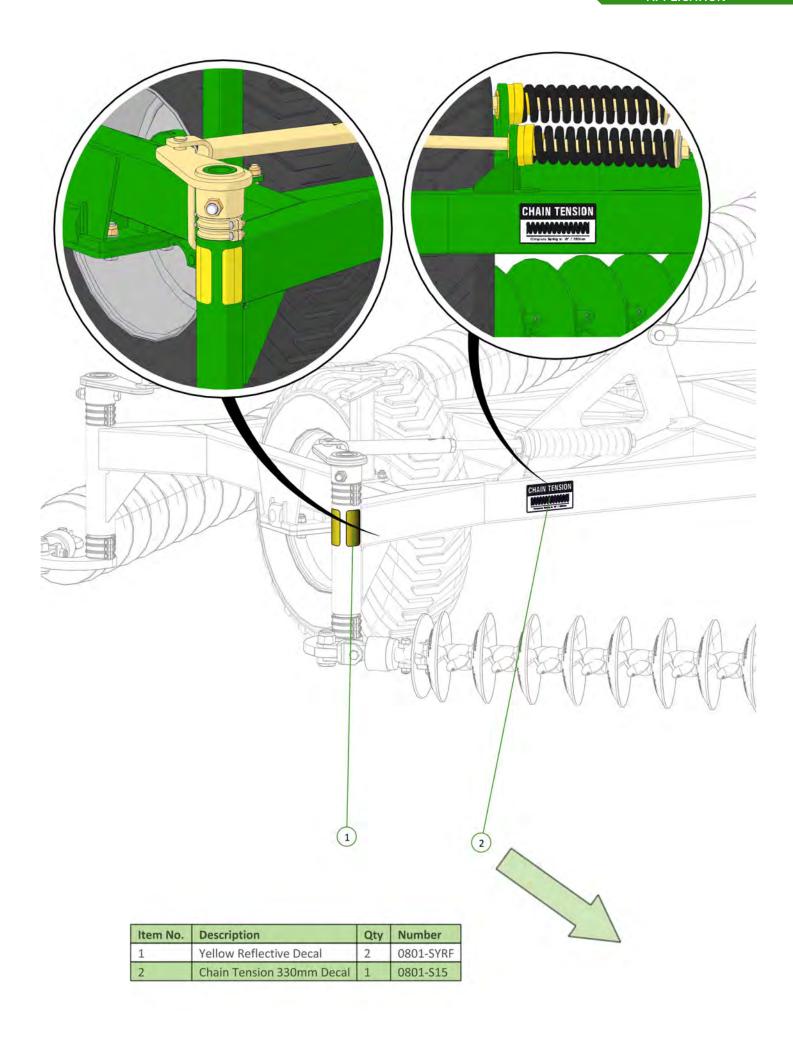


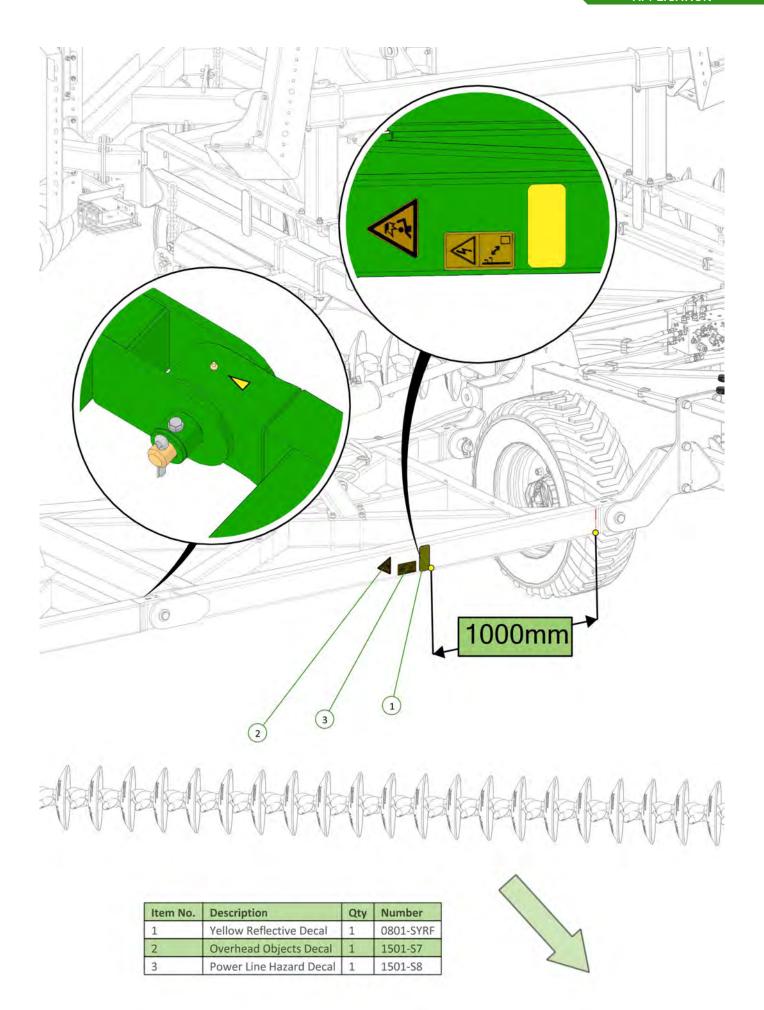


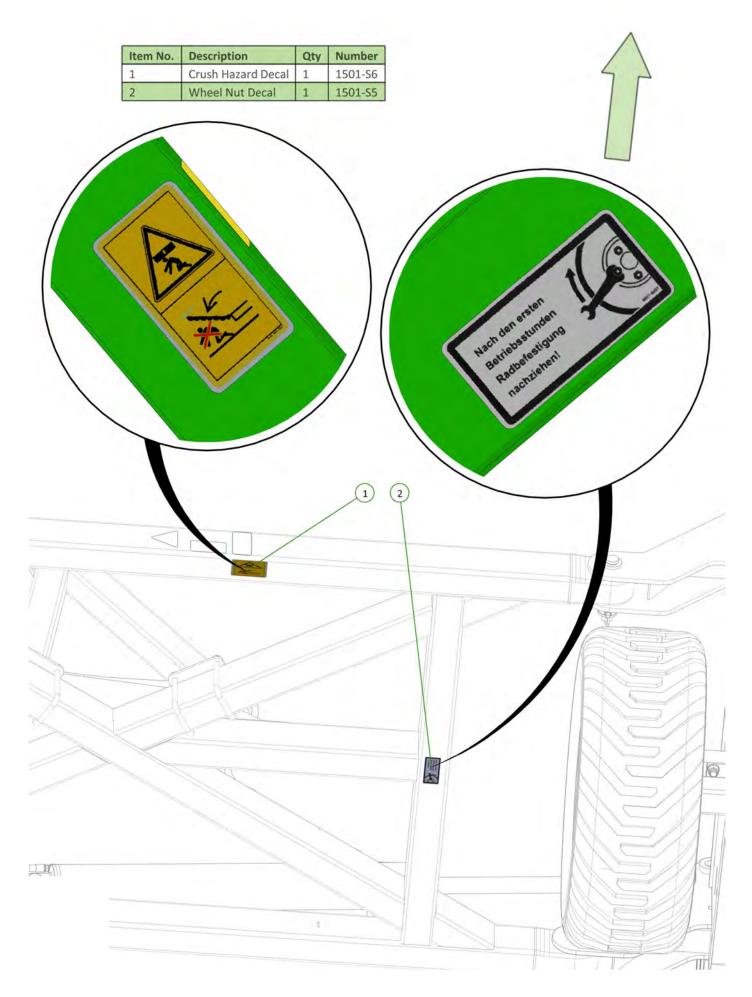


Item No.	Description	Qty	Number
1	Grease Point Indicator	2	1501-S12

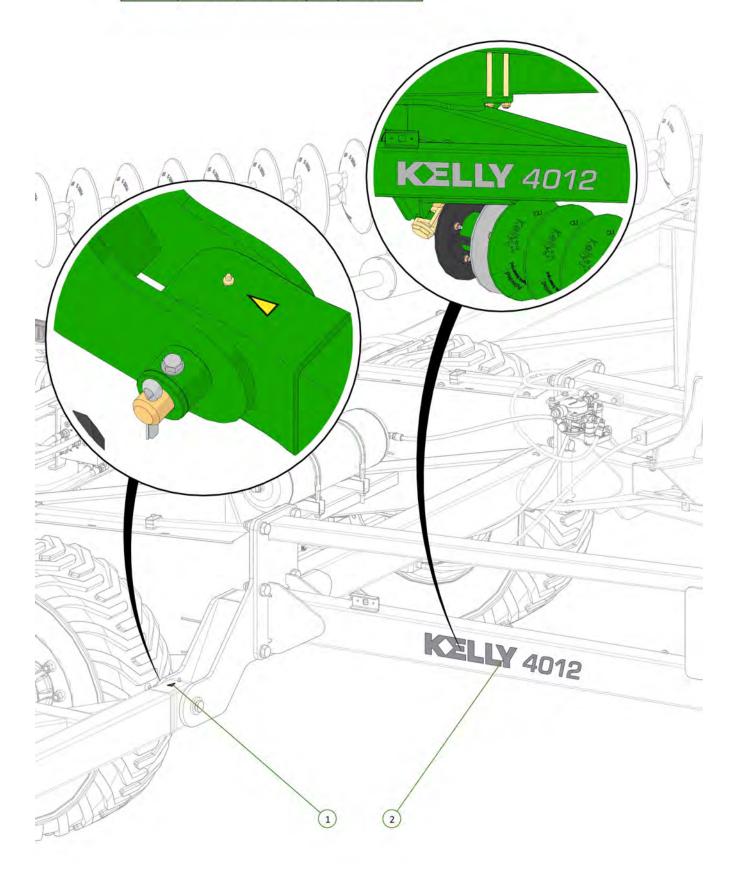








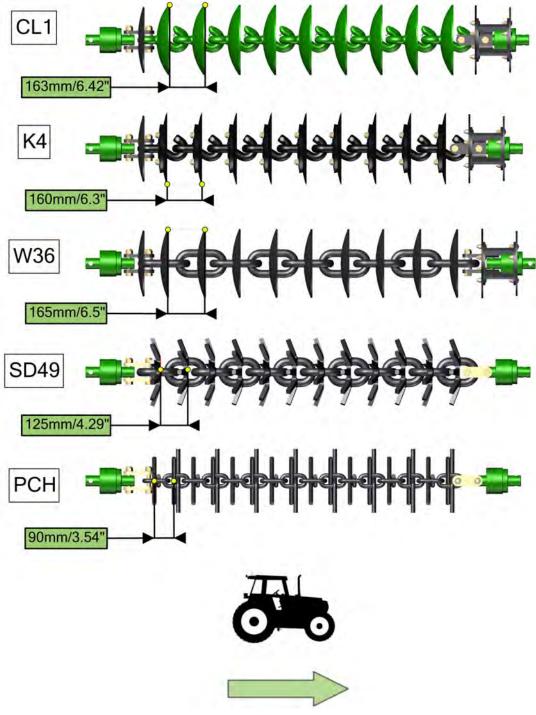
Item No.	Description	Qty	Number
1	Grease Point Indicator	1	1501-S12
2	Kelly Tillage 4012 Decal	1	0801-SKT4012





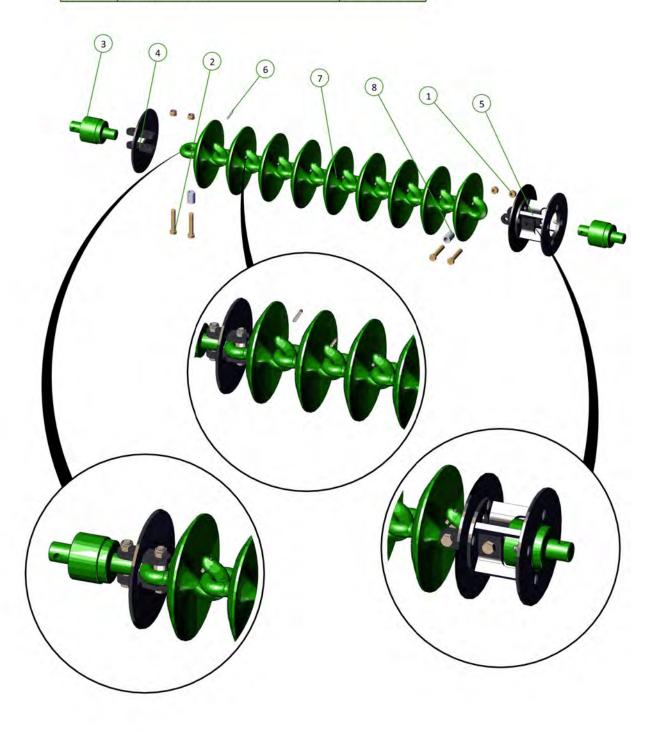


Section 5 - Chain Assembly

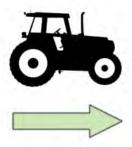


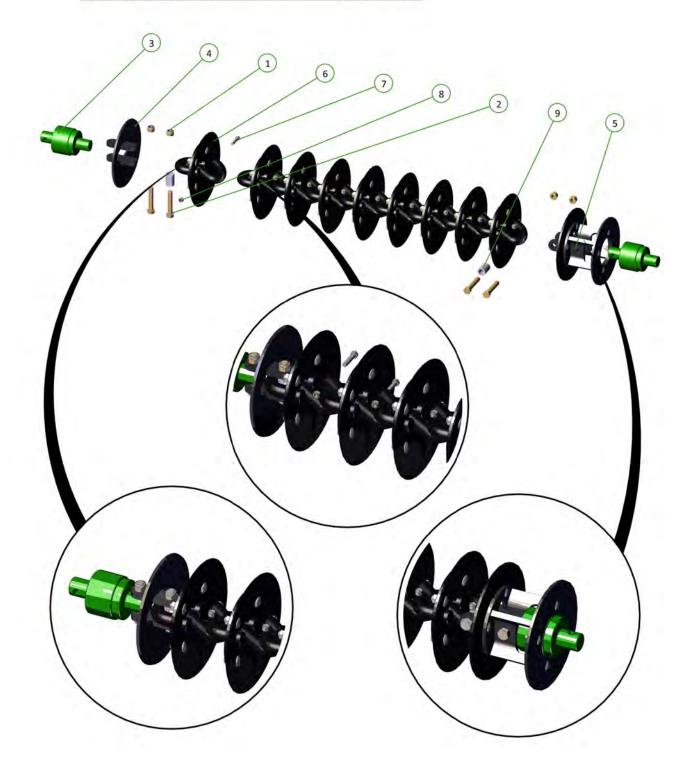
Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate Disc 20mm	0802-DCTP-20
5	Tapered Chain End Assembly	0810-45A
6	Roll Pin Zinc Plated 3/8" x 2"	0262-3-8X2
7	CL1-B Chain Disc Link	0803-CL1
8	Disc Chain Spacer	0801-PCDCS55

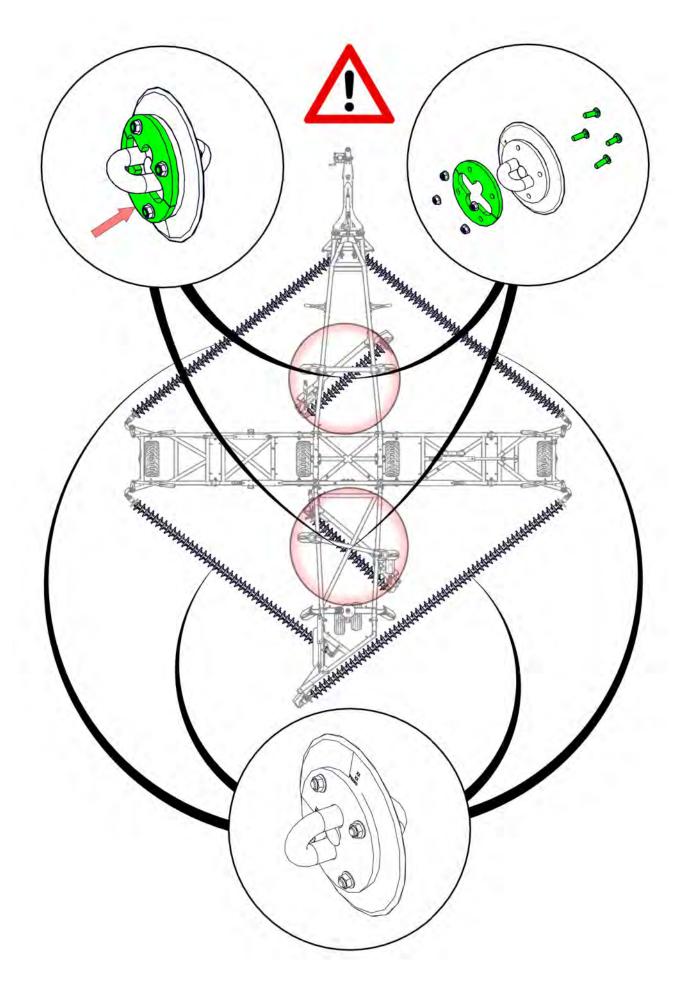




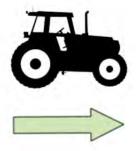
Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate Disc 20mm	0802-DCTP-20
5	Tapered Chain End Assembly	0810-45A
6	K4 Disc Assembly	0803-K4
7	M12 x 55 Class 8.8 ZP Bolt	0211-1255
8	Nyloc Nut M12	0221-NYL12
9	Disc Chain Spacer	0801-PCDCS55





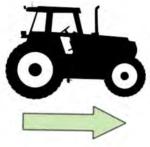


Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate Disc 20mm	0802-DCTP-20
5	Disc Chain Spacer	0801-PCDCS55
6	W36/25 Chain Link	0803-W36
8	Tapered Chain End Assembly	0810-45A

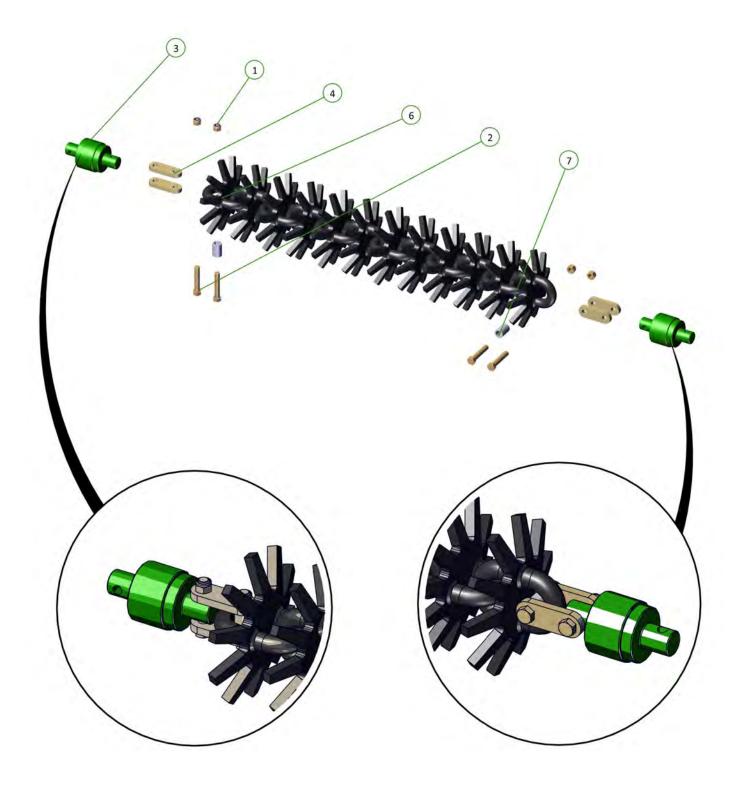


For correct chain tension, chain links may need to be removed from the end of the chain as follows: 3 W36 Disc Chain - cut a disc chain link from the end of the disc chain

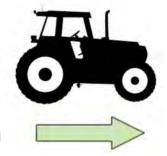
Item No.	Description	Number
1	Nyloc Nut M20	0221-NYL20
2	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
3	20mm Bolt Swivel Unit	0802-PCHB55
4	Tie Plate For 20mm Bolt	0800-83.2
6	10 Spike Disc Chain 49/27/5	0803-SD49
7	Disc Chain Spacer	0801-PCDCS55



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

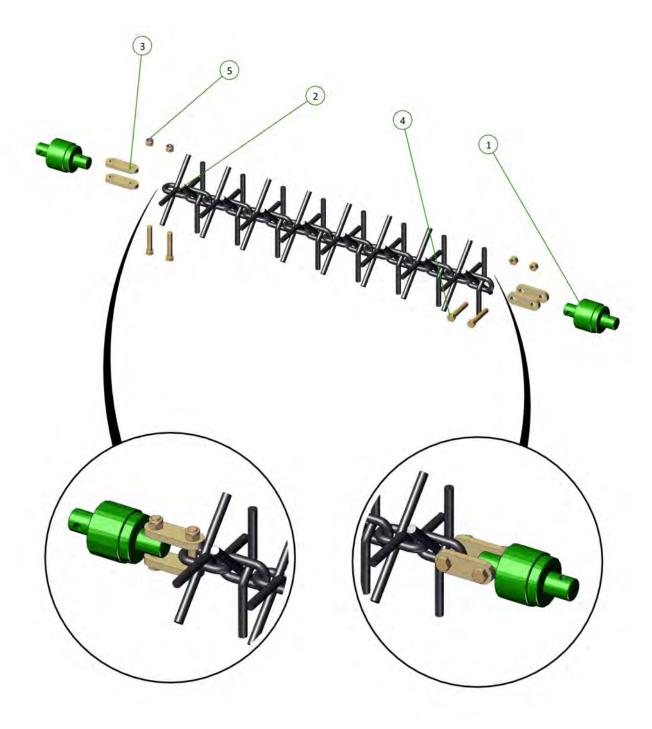


Item No.	Description	Number
1	20mm Bolt Swivel Unit	0802-PCHB55
2	Prickle Chain	0803-PCH
3	Tie Plate For 20mm Bolt	0800-83.2
4	M20 x 110 Class 10.9 ZP Short Thread Bolt	0211-20110ST
5	Nyloc Nut M20	0221-NYL20



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

Prickle Chain - cut a prickle chain link from the end of the prickle chain





Section 6 - Basic Operation

Operating Speeds

Recommended operating speeds in normal conditions with all chain types			
Operating / working speed	10-12 kph		
Transport / towing speed	25 kph		

Tyre Pressure

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

4012 Specifications

4012 Specifications		
Operating width	12.93 +0.16/-0.13m	
Transport width	2.98 m	
Transport height	3.89 m	
Transport length	14.30 m	

Chain Quantities

Chair Quarting Co							
Mode	I	Length	CL1	K4	W36	SD49	PCH
4012	Front right	7.3m	44	45	42	57	79
	Front left	7.3m	44	45	42	57	79
	Rear right	9.2m	55	57	53	72	101
	Rear left	7.1m	41	42	39	53	74
	Front module	2.6m	16	16	15	21	29
	Rear module	2.6m	16	16	15	21	29

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

- CL1 Disc Chain unhook disc chain link/s from end of the disc chain
- 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
- 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

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



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Basic Operation

Unfolding:

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

Folding:

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

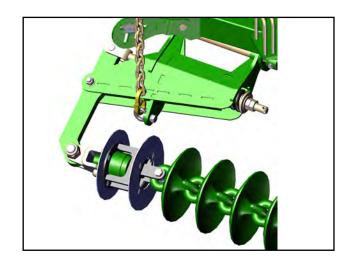
Setting for correct chain tension

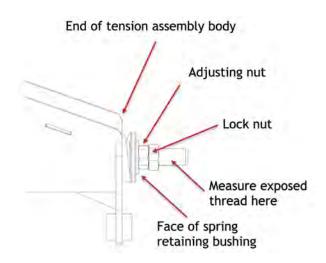
Wings

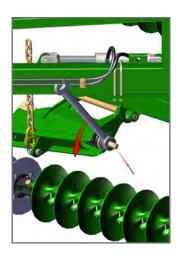
- Use the spanner supplied. Loosen the lock nut adjacent to the tensioner assembly body.
- Turn the tension bolt clockwise to compress the coil spring to 330mm. Correct tension is acheived when spring retains its set length when operator rolls the chain fore and aft on the ground.
- Re-tighten the lock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

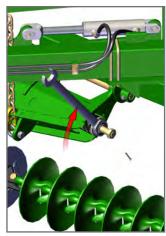
Modules

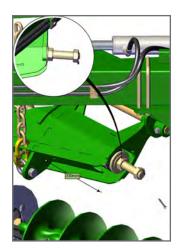
- Loosen the lock nut on the draw bolt.
- Tighten the adjusting nut clockwise until the outer face of the spring retaining washer is flushed with the body of the module tensioning unit.
- Re-tighten the lock nut.
- After setting the tension assemblies to have the recommended thread showing (less than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

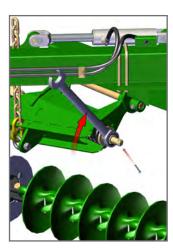












Importance of chain tension

Operational

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

Loose chains lead to:

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

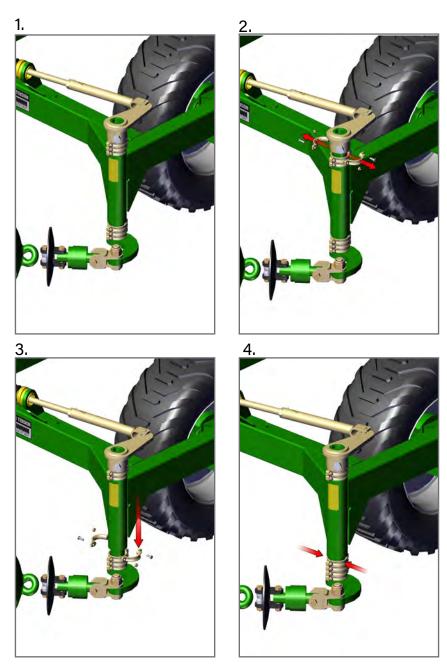
A correctly adjusted machine will not have this problem.

Correct chain height adjustment

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

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

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





Section 7 - Pre-Delivery Checklist

Dealer Pre-Delivery Checklist

To be completed by the Dealer on commissioning of the machine

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

Completed Pre-Delivery Checklist to be returned to $\underline{\text{warranty@kellytillage.com}}$ within 7 days of delivery to the customer.

Name:	Signature:
On behalf of the Dealer	Date:



Notes

KTAM-I-01072023 ENGLISH - EN





