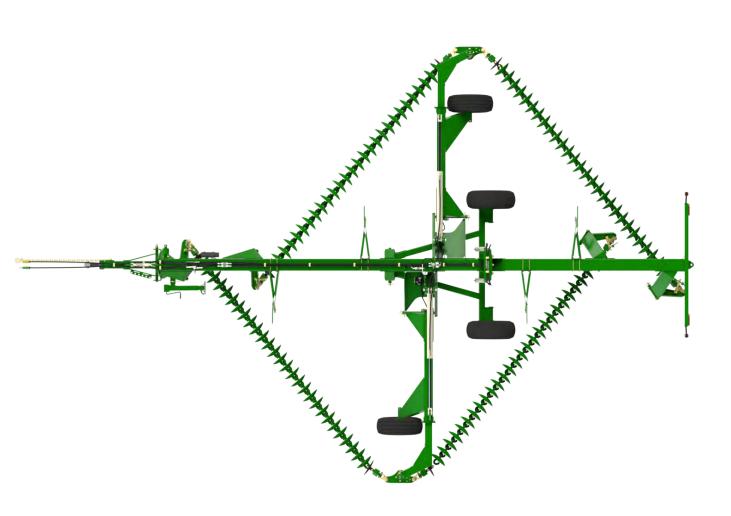


Assembly Manual

KELLY TILLAGE SYSTEM 2006

KEASM-E-18122020



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.



Section 1 - Unpacking

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



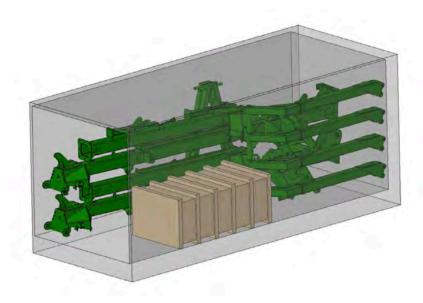
Before unloading any loads please inspect exterior for damage.

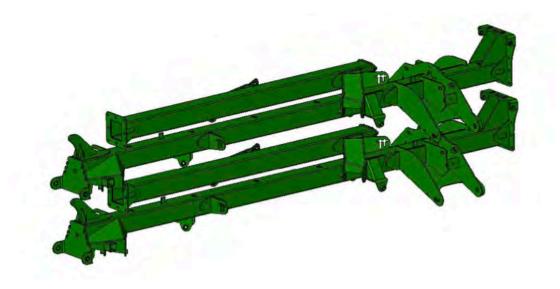


CAUTION

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 (5512 lbs / 2500kg)
- 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.

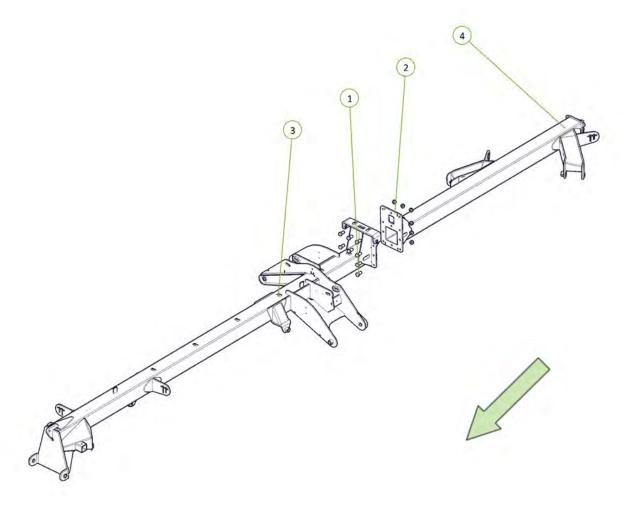
- Remove boxes from rear of container one at a time using a forklift truck. Each box weighs approximately 5512 lbs (2500 kg)
- Cut straps holding bundles and separate parts and place in assembly area
- Once all parts have been identified, the machine is ready for assembly
- Identify parts for each machine 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

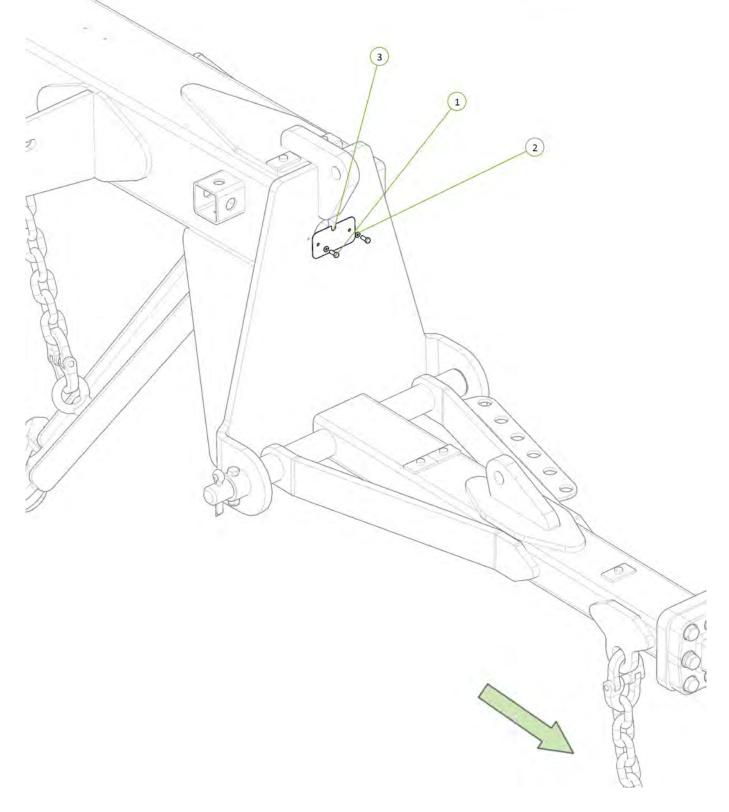
Item No.	Description	Qty	Number
1	M24 x 55 grade 8.8 zp Bolt	11	0211-2455
2	Nyloc Nut M24	11	0221-NYL24
3	6m Centre Section Frame	1	1520-01
4	6m Rear Section Frame	1	1520-03





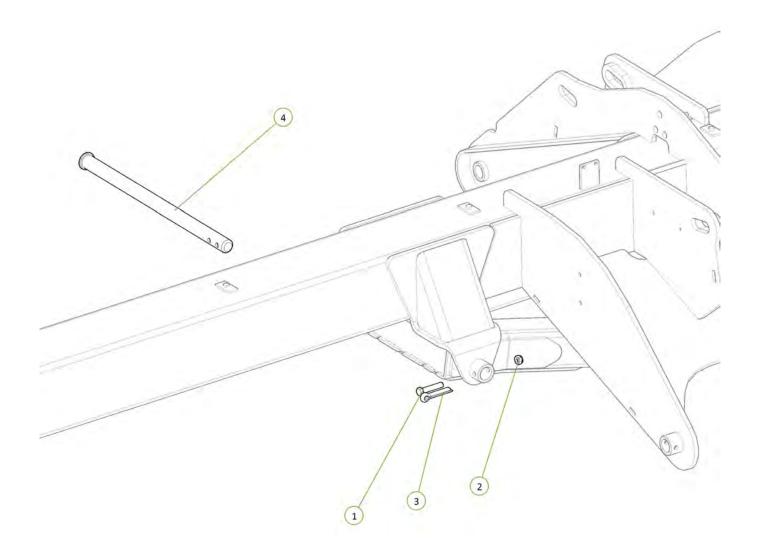
Item No.	Description	Qty	Number
1	M5 x 0.8 x 15mm Grade 4.6 ZP Bolt	2	0211-515
2	M5 Spring Washer	2	0231-55
3	Wiring Capping Plate	1	1500-122

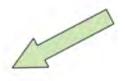




Item No.	Description	Qty	Number
1	M12 x 65 grade 8.8 ZP Bolt	1	0211-1265
2	Nyloc Nut M12	1	0221-NYL12
3	COTTER PIN M13 X 63mm	1	0261-PINC1363
4	Long Pivot Pin	1	1501-35615



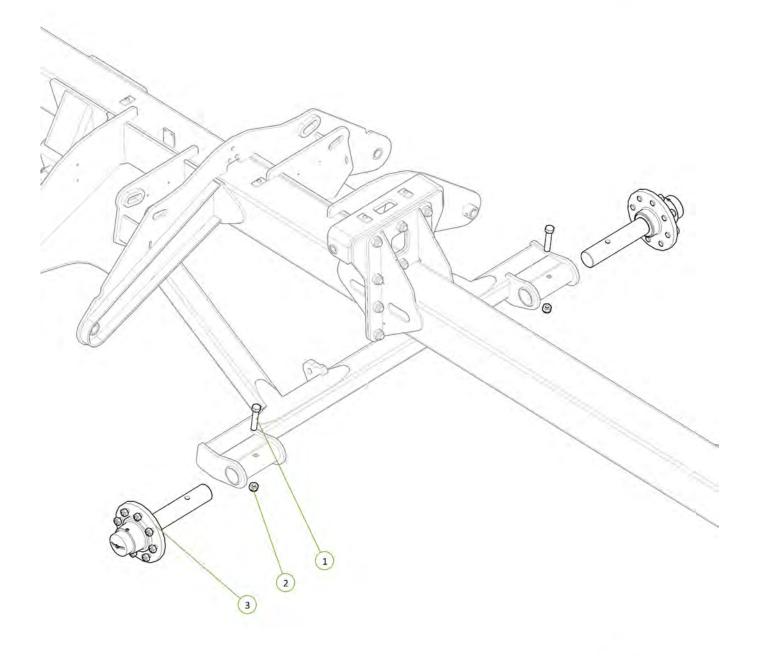




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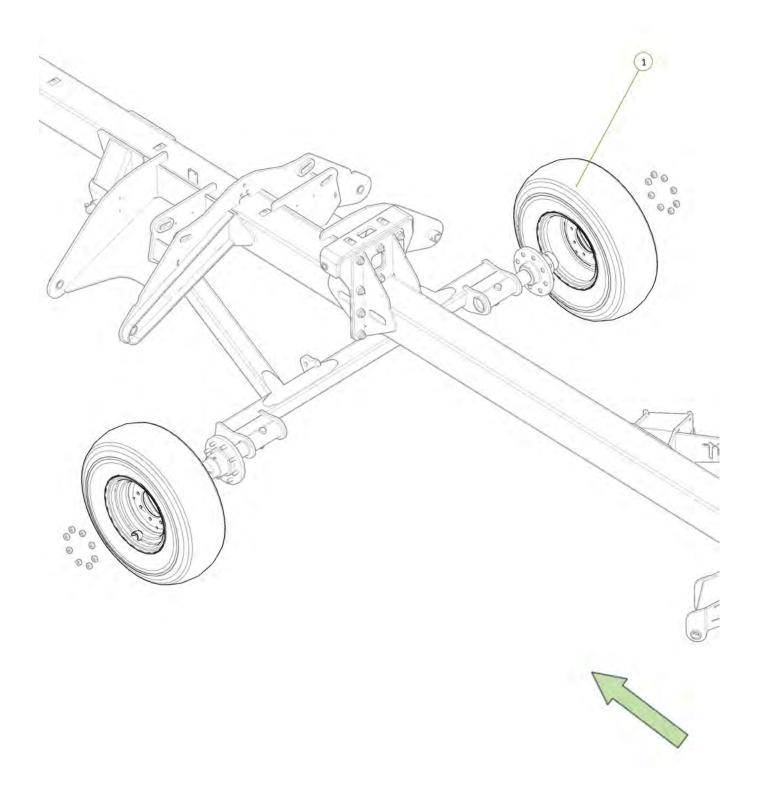
Item No.	Description	Qty	Number
1	M20 x 110 grade 8.8 ZP Bolt	2	0211-20110
2	Nyloc Nut M20	2	0221-NYL20
3	2.75"R C/W 6 tonne 8 on 8" PCD Complete Assembly	2	0733-SH27596880



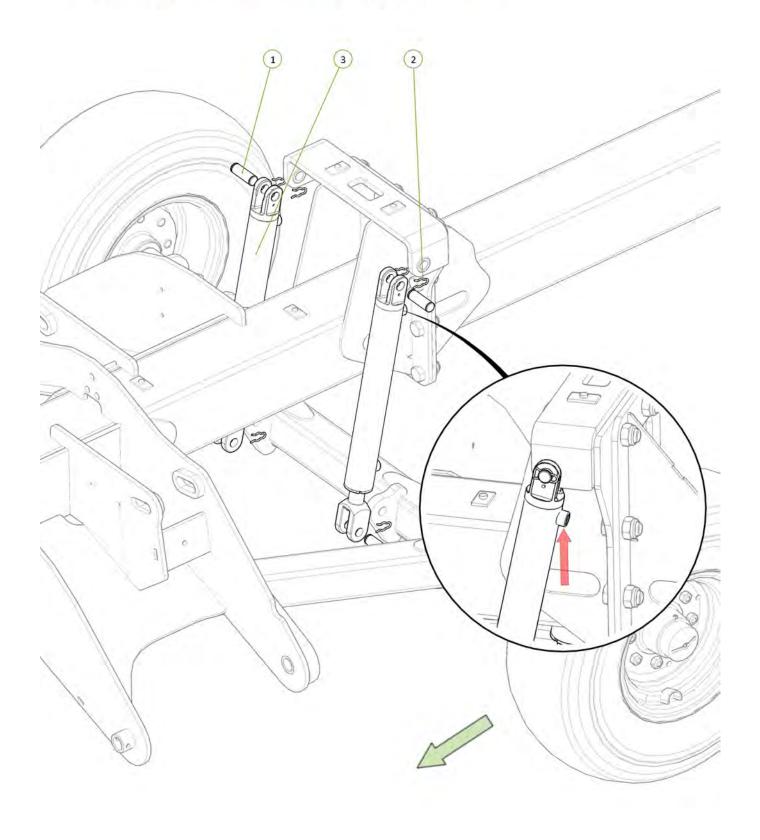




Item No.	Description	Qty	Number
1	11.5/80-15.3 tyre, 9" rim 0 offset, 8 on 8" studs, 162 cntr	2	0711-11.5-80-15.3

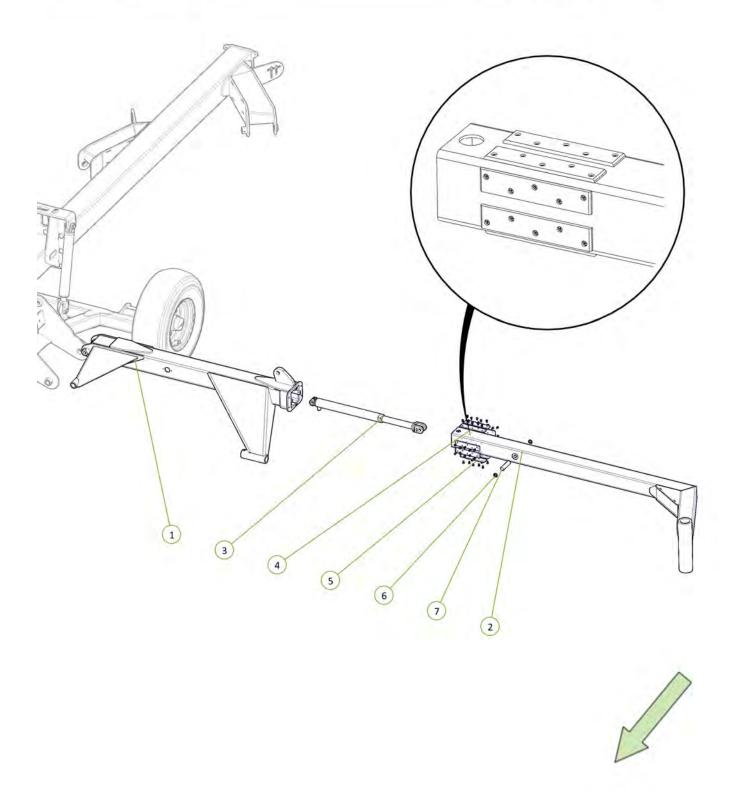


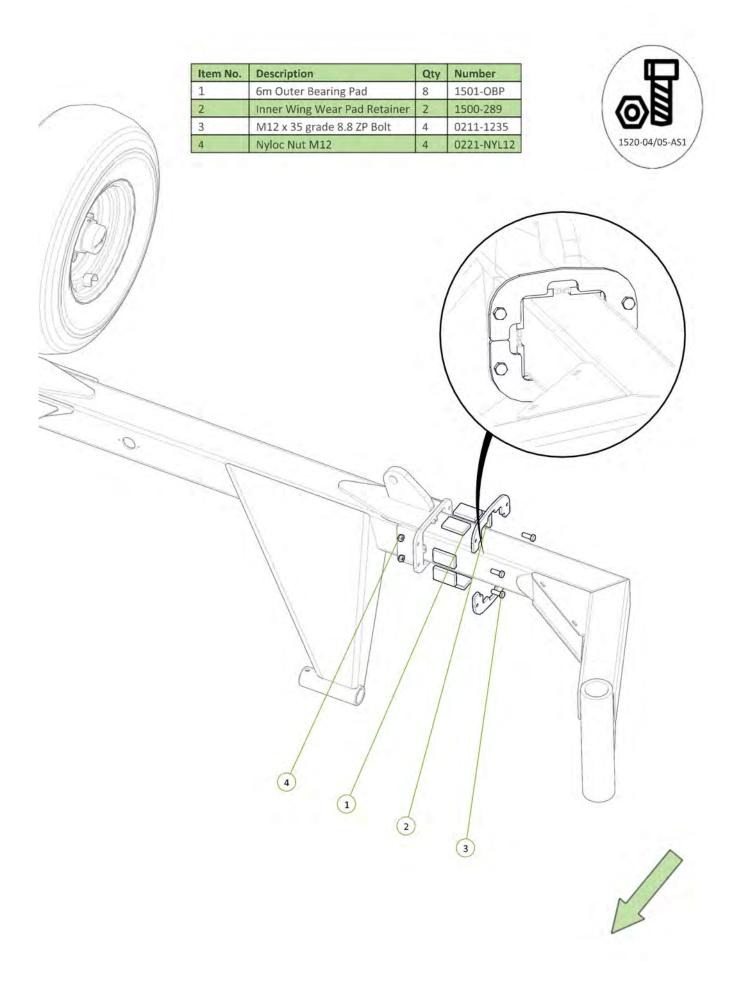
Item No.	Description	Qty	Number
1	Nordon 1" x 80mm Cylinder Pin	4	0313-N1
2	Nordon 1" Cylinder Pin Clip	8	0313-N1C
3	2.5" Bore x 16" Stroke Hydraulic Cylinder	2	0311-2516

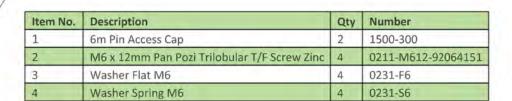


Item No.	Description	Qty	Number
1	6m Inner Wing Frame	1	1520-04
2	6m RH Outer Wing Frame	1	1520-06
3	2" Bore x 20" Stroke 1.75" Rod Single Acting Displacement Cylinder	1	0311-208SADC
4	6m Inner Bearing Pad	8	1501-IBP
5	TEK Phillips Wafer Head Metal Screw 10g x 16mm	40	0241-TEKWH16
6	Circlip Internal 26mm	2	0171-26
7	Wing Tension Pin 2	1	1501-25118

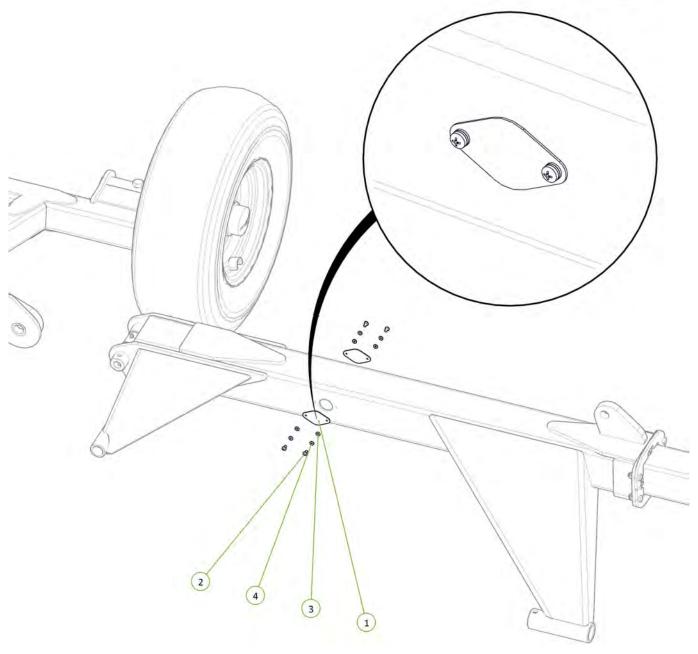






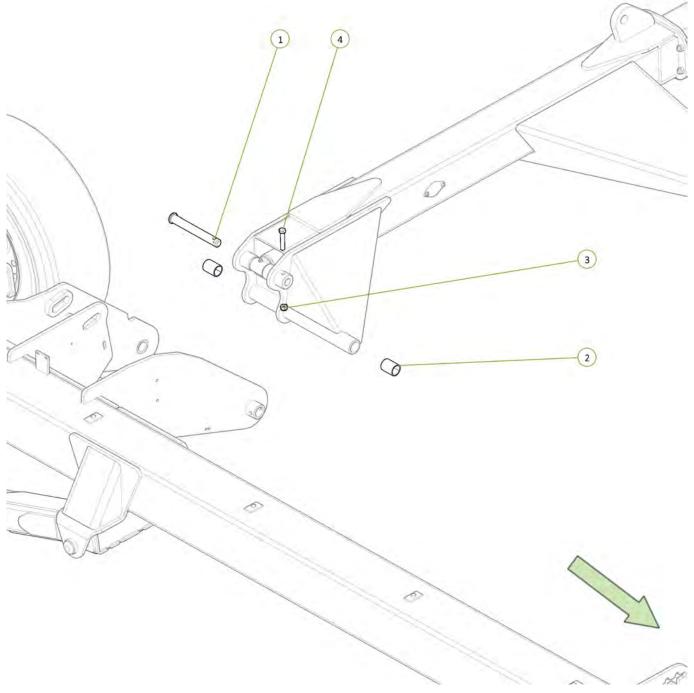


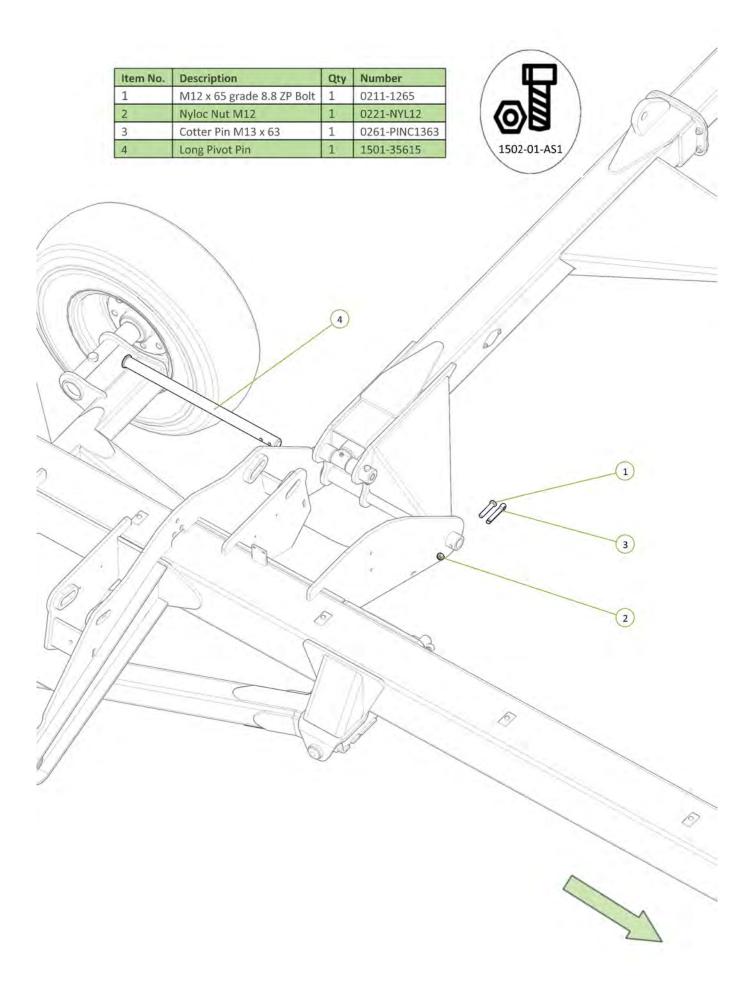




Item No.	Description	Qty	Number
1	Wing Tension Pin	1	1501-25214
2	35 ID x 50mm DU Bush	2	0113-MB 3550DU
3	Nyloc Nut M12	1	0221-NYL12
4	M12 x 70 grade 8.8 ZP Bolt	1	0211-1270

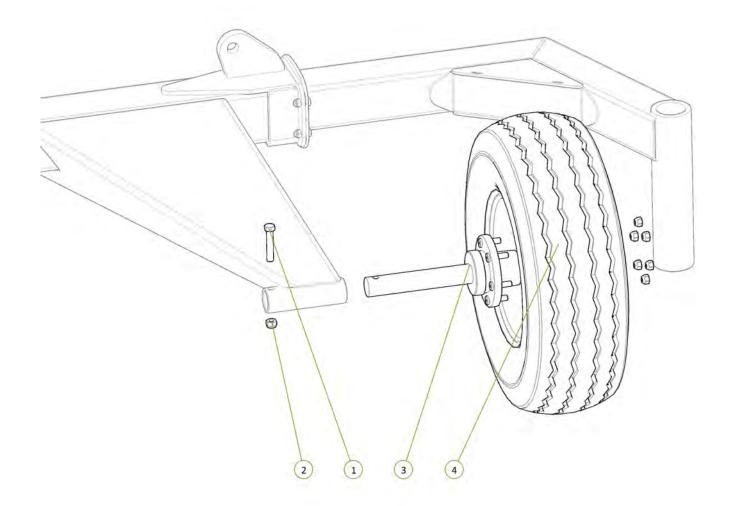


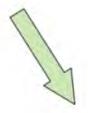




Item No.	Description	Qty	Number
1	M16 x 90 grade 8.8 zp Bolt	1	0211-1690
2	Nyloc Nut M16	1	0221-NYL16
3	Axle 2"R 3T 6 on 6"PCD 330 OHF Complete Assembly	1	0733-K5083T66S
4	11L15F3 tyre On Rim	1	0721-15X8

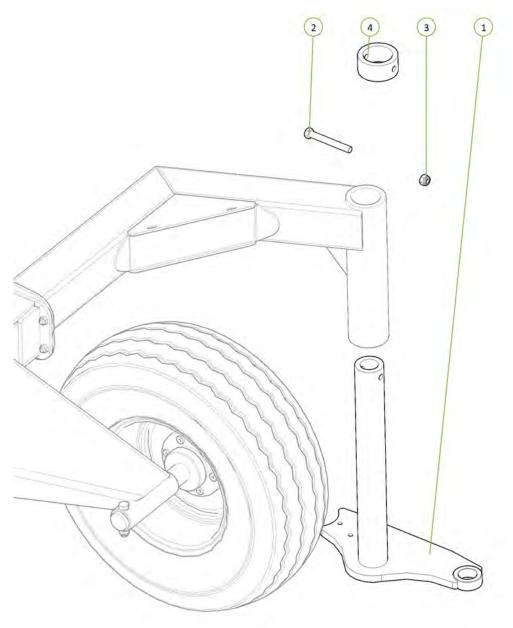


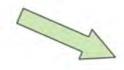




Item No.	Description	Qty	Number
1	LH Drop Leg	1	1510-25
2	M16 x 130 grade 8.8 zp Bolt	1	0211-16130
3	Nyloc Nut M16	1	0221-NYL16
4	Drop Leg Retaining Bush	1	1501-26

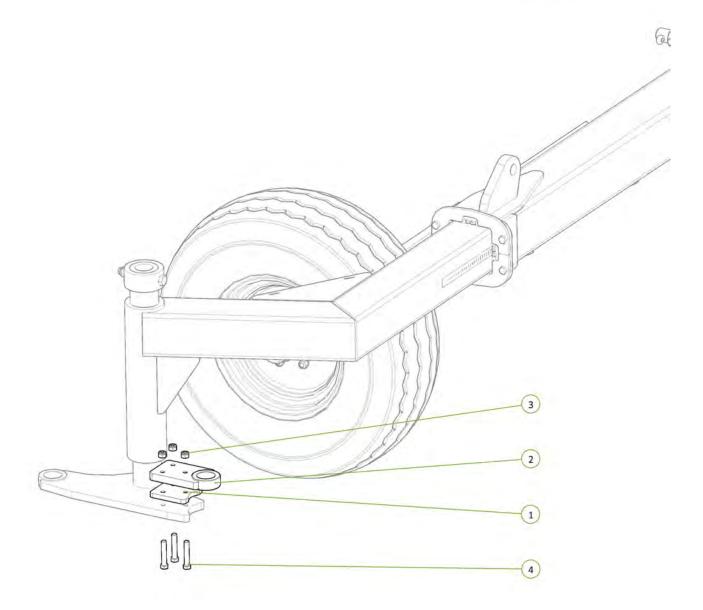


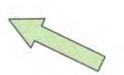




Item No.	Description	Qty	Number
1	Drop Leg Spacer Plate	1	1500-095
2	Drop Leg Bush Housing	1	1510-23
3	Nyloc Nut M12	3	0221-NYL12
4	M12 x 70 grade 8.8 ZP Bolt	3	0211-1270

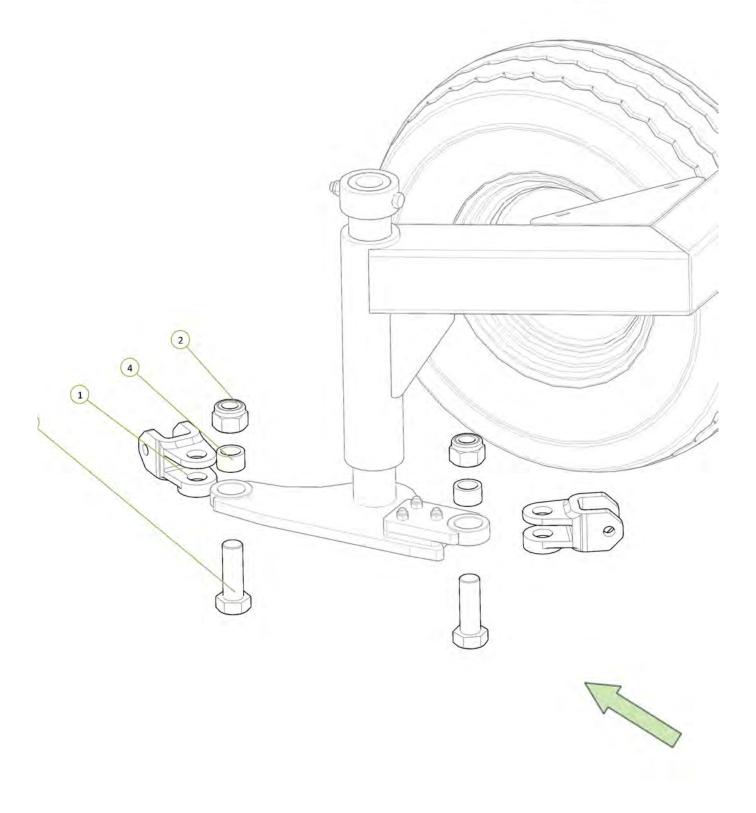






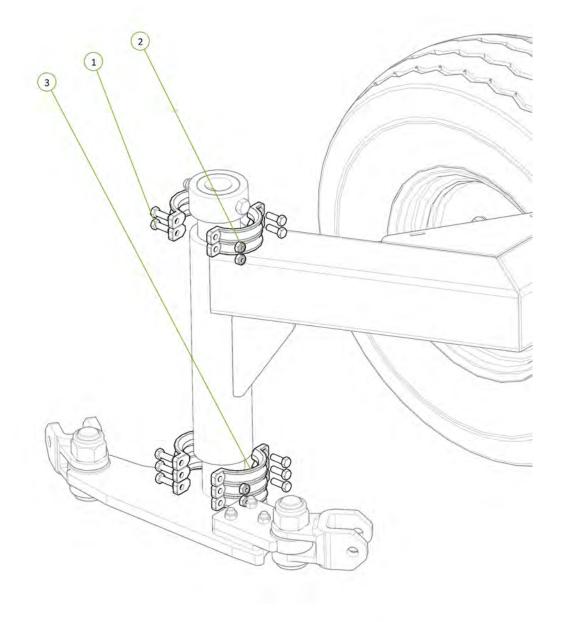
Item No.	Description	Qty	Number
1	Forged Clevis 21mm Bolt Hole	2	0801-FC21
2	Nyloc Nut M36	2	0221-NYL36
3	M36 x 105 grade 8.8 ZP Bolt	2	0211-36105
4	Wear Bush	2	1501-365033-SS

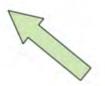




Item No.	Description	Qty	Number
1	M10 x 30 grade 8.8 ZP Bolt	10	0211-1030
2	Nyloc Nut M10	10	0221-NYL10
3	25mm Drop Leg Spacer Half	10	0801-CS25

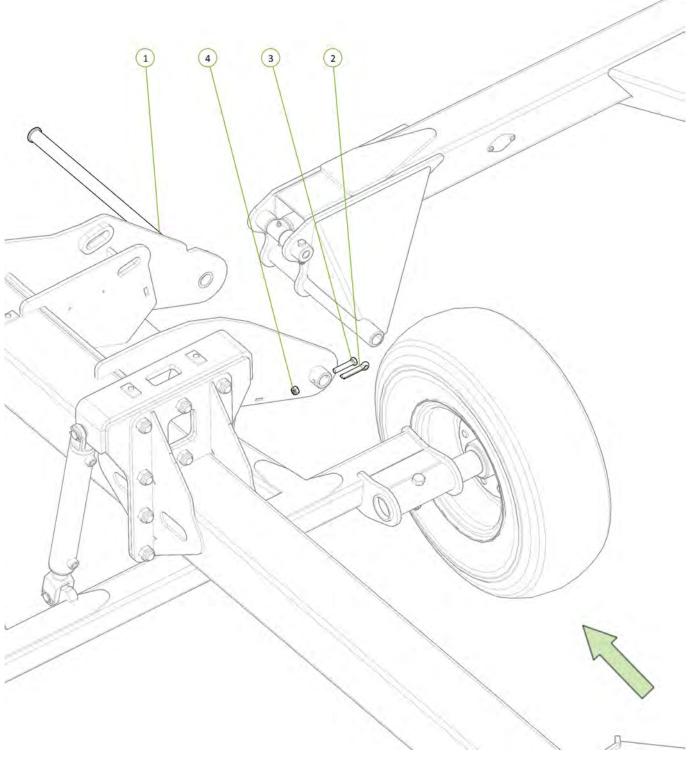






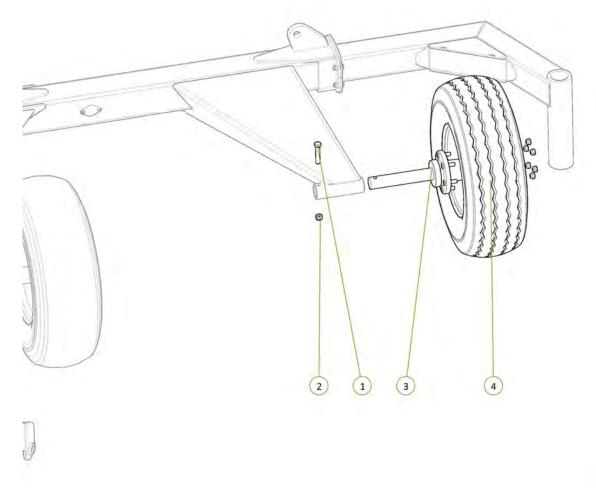
Item No.	Description	Qty	Number
1	Long Pivot Pin	1	1501-35615
2	COTTER PIN M13 X 63mm	1	0261-PINC1363
3	M12 x 65 grade 8.8 ZP Bolt	1	0211-1265
4	Nyloc Nut M12	1	0221-NYL12

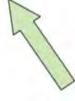




Item No.	Description	Qty	Number
1	M16 x 90 grade 8.8 zp Bolt	1	0211-1690
2	Nyloc Nut M16	1	0221-NYL16
3	Axle 2"R 3T 6 on 6"PCD 330 OHF Complete Assembly	1	0732-K5083TS
4	11L15 F3 Tyre on 6 on 6" Stud Rim	1	0751-11L15

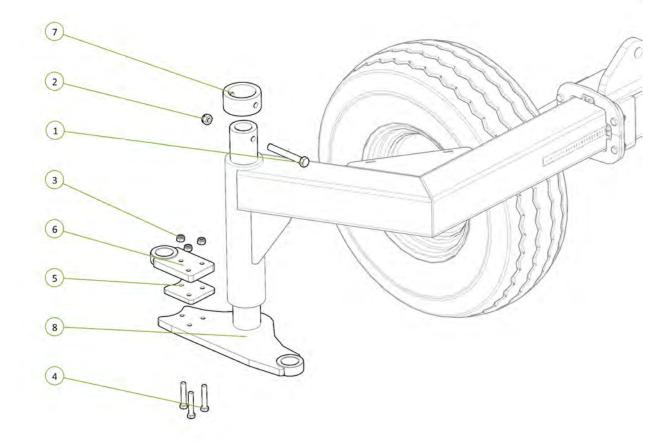


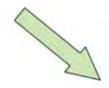


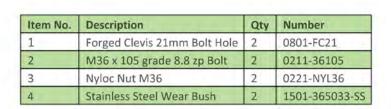


Item No.	Description	Qty	Number
1	M16 x 130 grade 8.8 zp Bolt	1	0211-16130
2	Nyloc Nut M16	1	0221-NYL16
3	Nyloc Nut M12	3	0221-NYL12
4	M12 x 70 grade 8.8 ZP Bolt	3	0211-1270
5	Drop Leg Spacer Plate	1	1500-095
6	Drop Leg Bush Housing	1	1510-23
7	Drop Leg Retaining Bush	1	1501-26
8	RH Drop Leg	1	1510-24



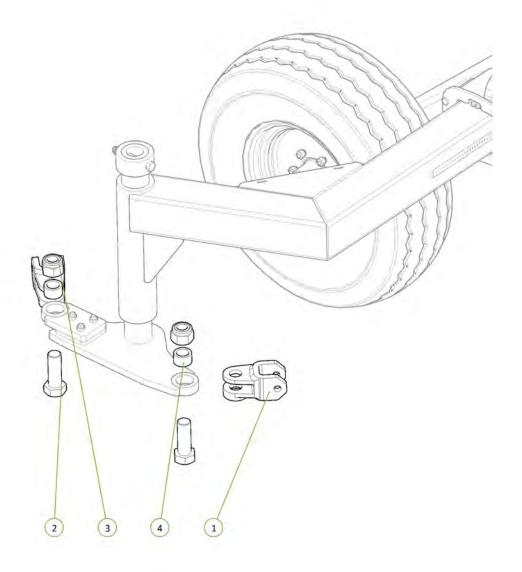


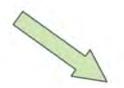






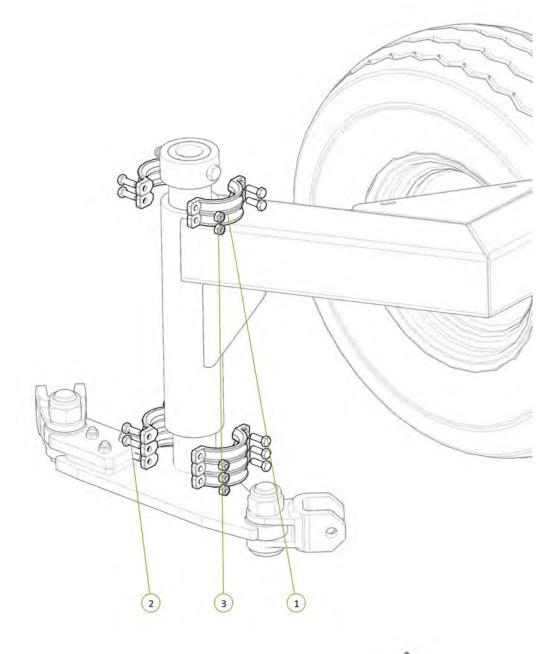


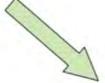


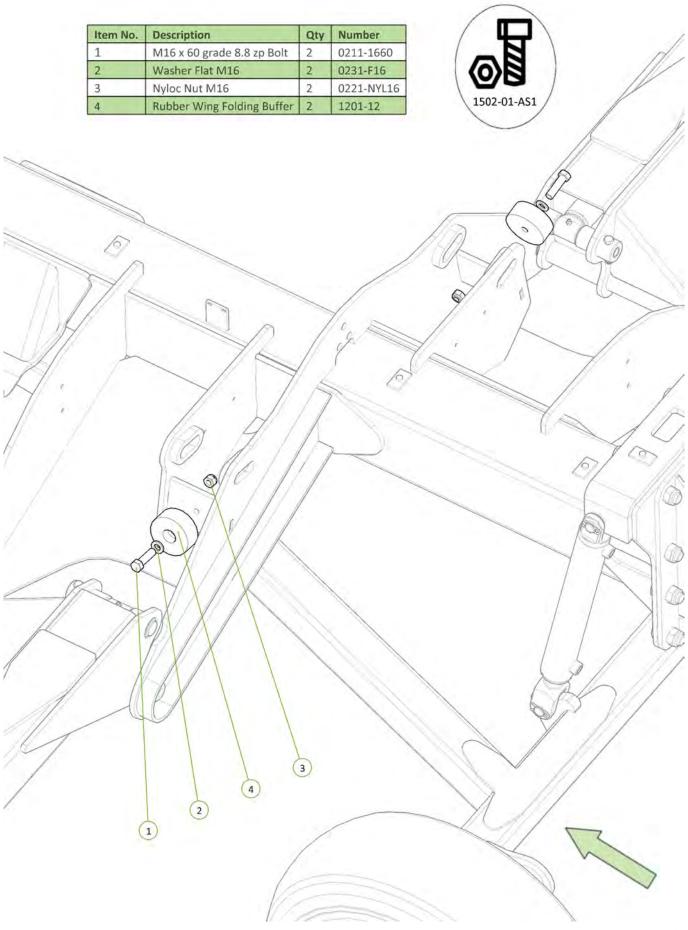


Item No.	Description	Qty	Number
1	25mm Drop Leg Spacer Half	10	0801-CS25
2	M10 x 30 grade 8.8 ZP Bolt	10	0211-1030
3	Nyloc Nut M10	10	0221-NYL10



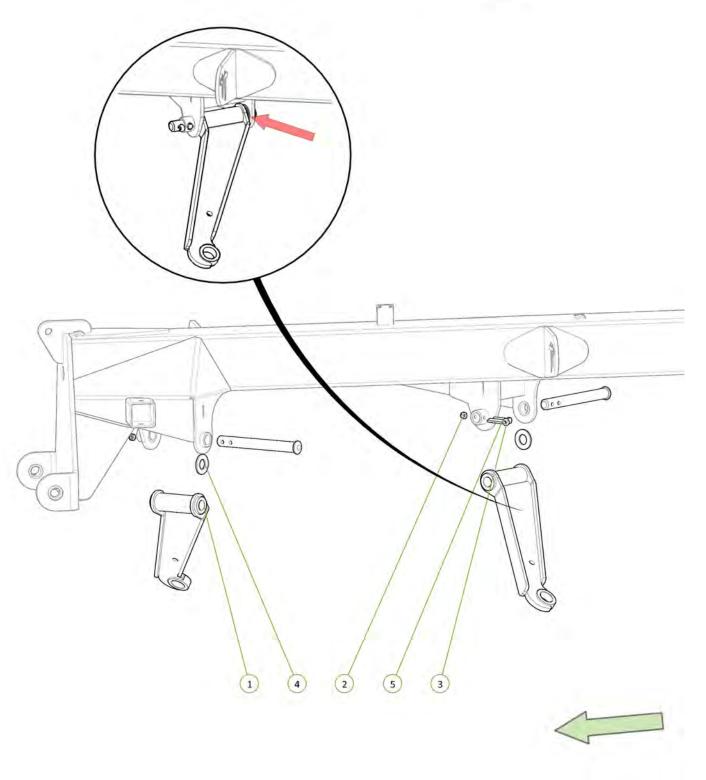






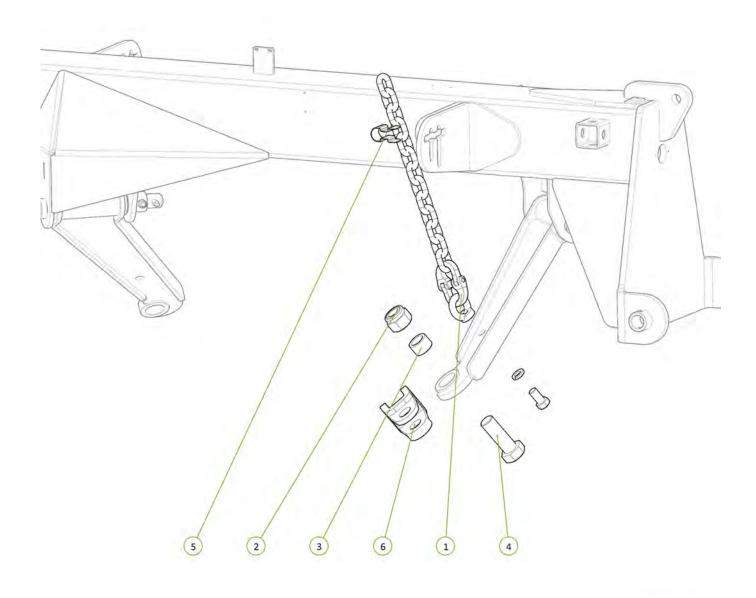
Item No.	Description	Qty	Number
1	Chain Mt Plate	2	1510-20
2	Nyloc Nut M12	2	0221-NYL12
3	M12 x 65 grade 8.8 ZP Bolt	2	0211-1265
4	Washer High Tensile 1 3/8"	2	0232-HT13-8
5	Cotter Pin M13 X 63mm	2	0261-PINC1363

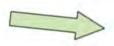




Item No.	Description	Qty	Number
1	Height Adjusting Chain Assembly 13 Link	1	0801-20MCA
2	Nyloc Nut M36	1	0221-NYL36
3	Wear Bush	1	1501-365033-SS
4	M36 x 105 grade 8.8 ZP Bolt	1	0211-36105
5	Height Adjustor Retaining Clip	1	0801-KE014
6	Forged Clevis 21mm Bolt Hole	1	0801-FC21



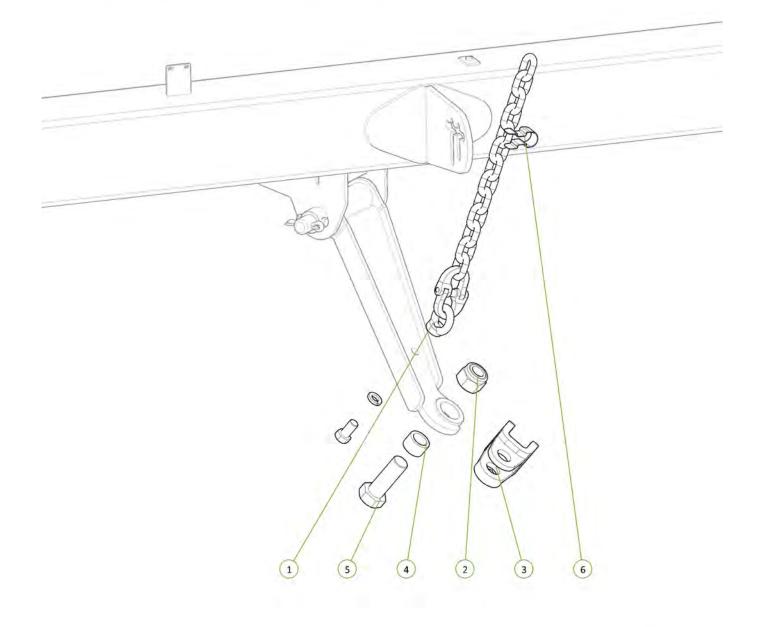




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Item No.	Description	Qty	Number
1	Height Adjusting Chain Assembly 13 Link	1	0801-20MCA
2	Nyloc Nut M36	1	0221-NYL36
3	Forged Clevis 21mm Bolt Hole	1	0801-FC21
4	Wear Bush	1	1501-365033-SS
5	M36 x 105 grade 8.8 ZP Bolt	1	0211-36105
6	Height Adjustor Retaining Clip	1	0801-KE014

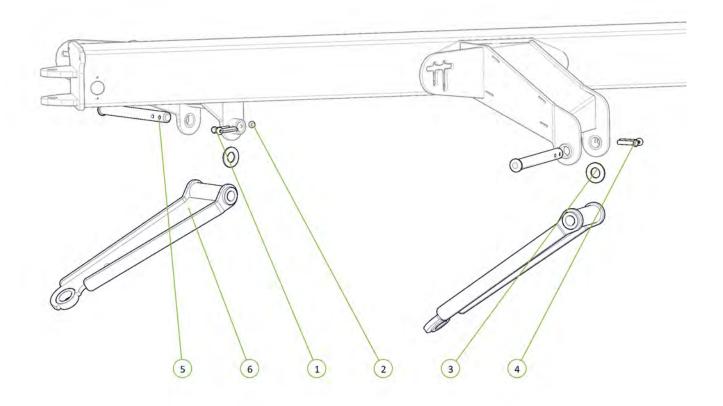


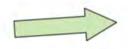




Item No.	Description	Qty	Number
1	M12 x 65 grade 8.8 ZP Bolt	2	0211-1265
2	Nyloc Nut M12	2	0221-NYL12
3	Washer High Tensile 1 3/8"	2	0232-HT13-8
4	Cotter Pin M13 X 63mm	2	0261-PINC1363
5	Short Pivot Pin	2	1501-35330
6	Chain Mt Plate	2	1510-20

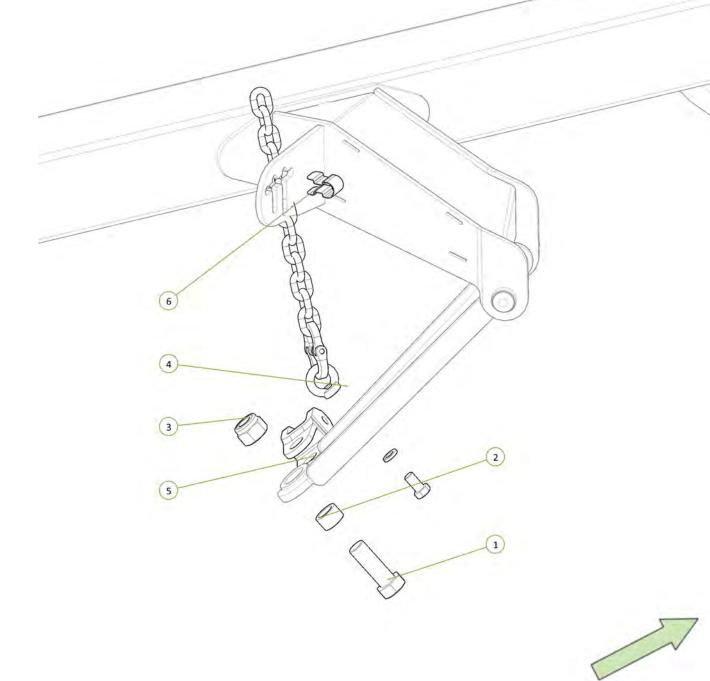


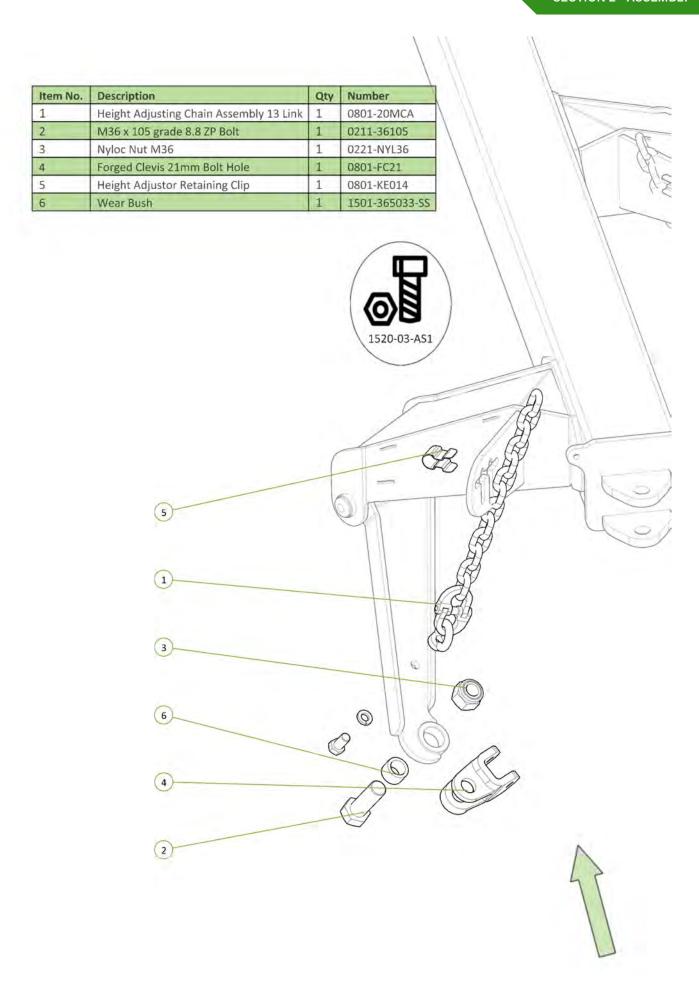




Item No.	Description	Qty	Number
1	M36 x 105 grade 8.8 ZP Bolt	1	0211-36105
2	Wear Bush	1	1501-365033-SS
3	Nyloc Nut M36	1	0221-NYL36
4	Height Adjusting Chain Assembly 13 Link	1	0801-20MCA
5	Forged Clevis 21mm Bolt Hole	1	0801-FC21
6	Height Adjustor Retaining Clip	1	0801-KE014

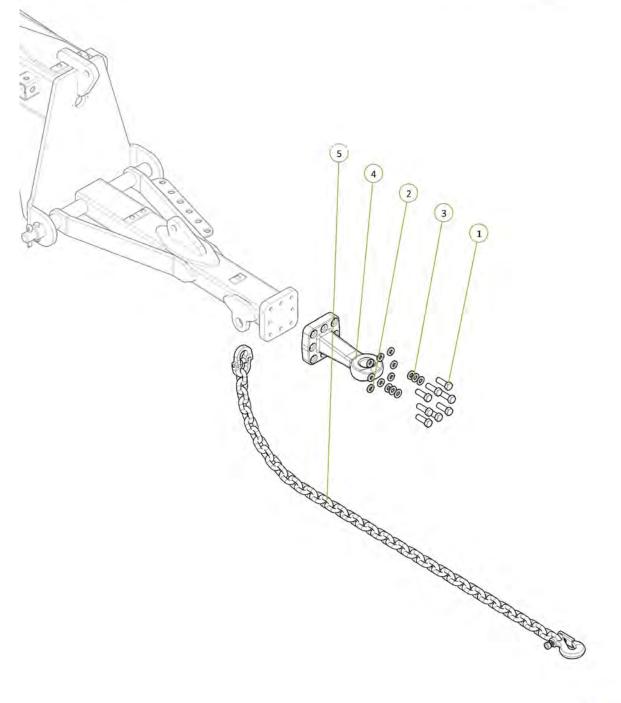






Item No.	Description M16 x 50 grade 8.8 zp Bolt	Qty 8	Number	
1			0211-1650	
2	M16 Spring Washer	8	0231-S16	
3	Washer Flat M16	6	0231-F16	
4	50mm Flanged Drawbar Eye	1	1501-RCBD50MM	
5	Safety Chain Assembly	1	0810-16	

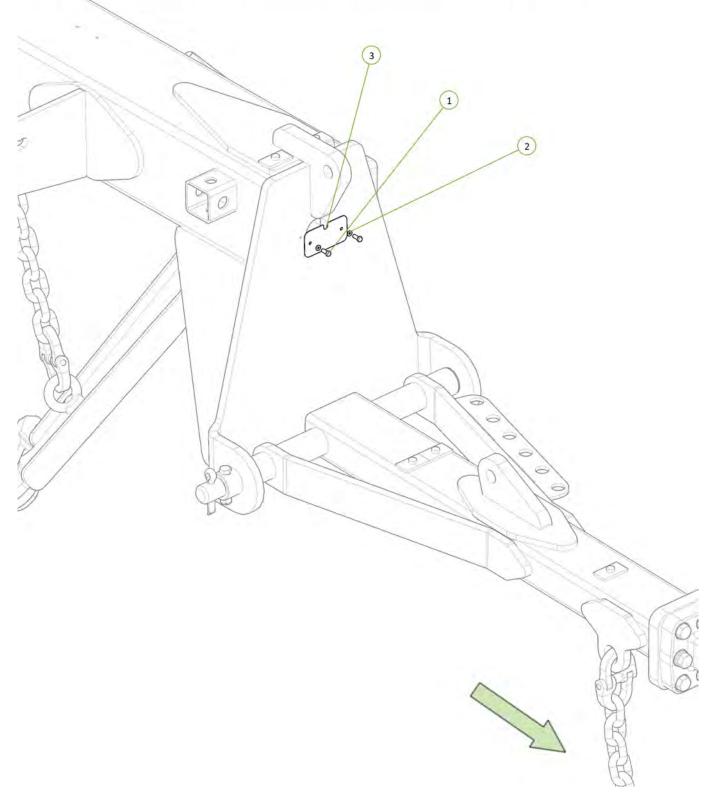




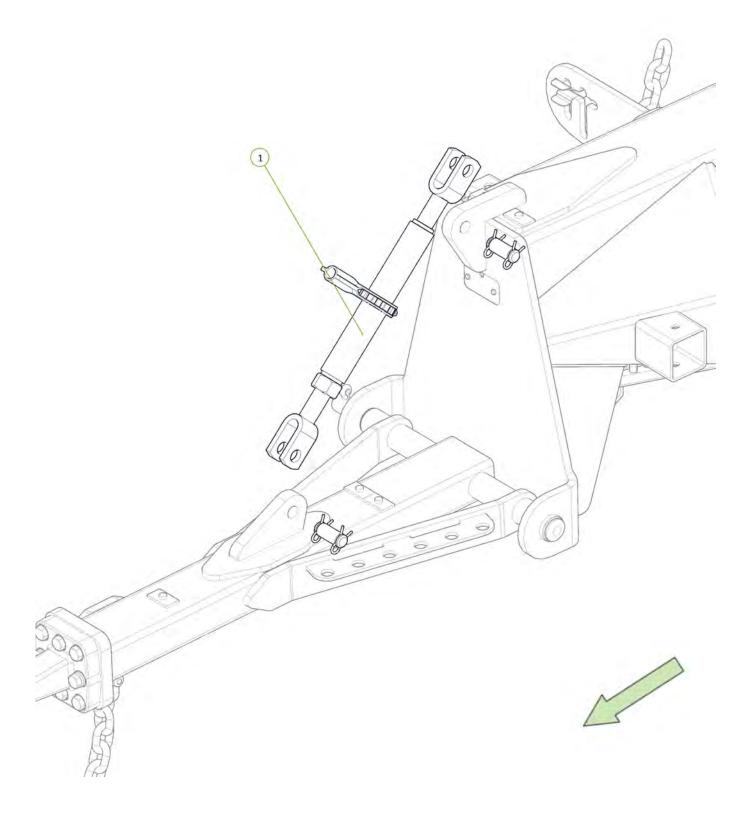


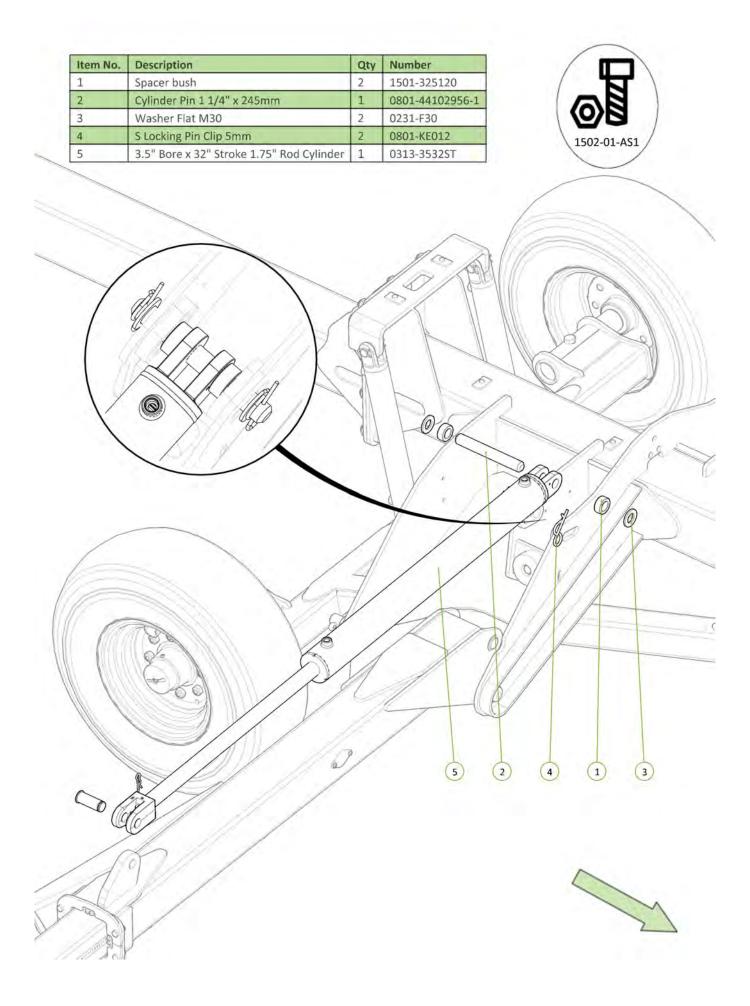
Item No.	Description		Number
1	M5 x 0.8 x 15mm Grade 4.6 ZP Bolt	2	0211-515
2	M5 Spring Washer	2	0231-55
3	Wiring Capping Plate	1	1500-122





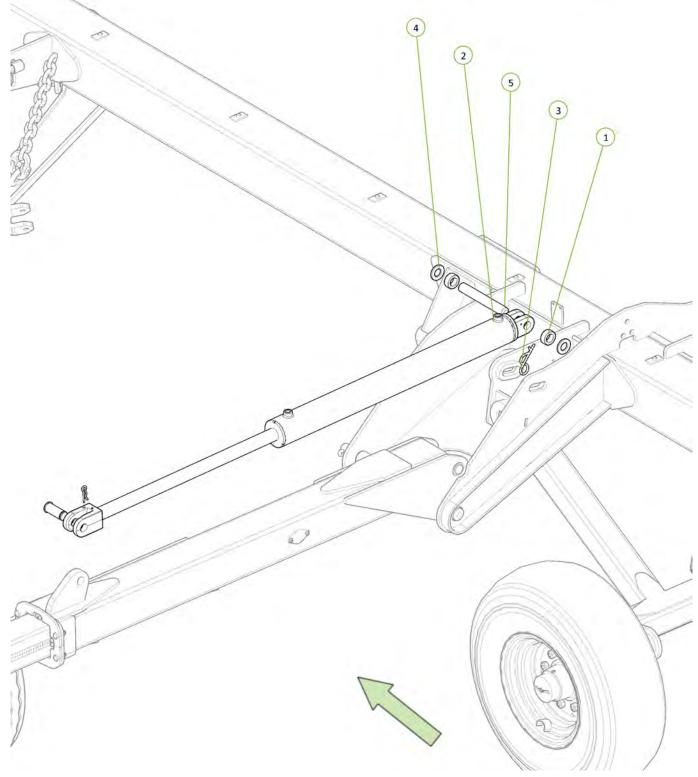
Item No.	Description	Qty	Number
1	Heavy Duty Ratchet Ram	1	0801-19RAJ013





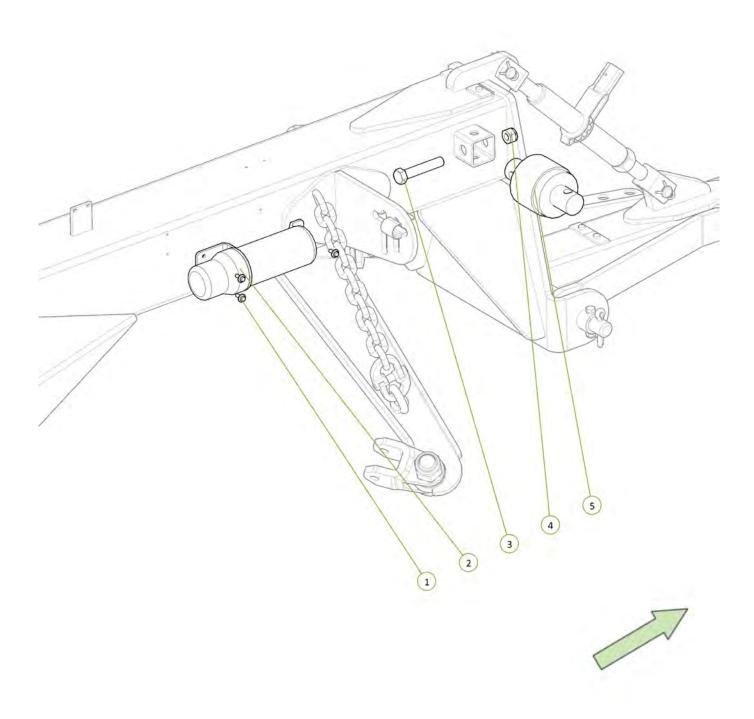
Item No.	Description	Qty	Number
1	Spacer bush	2	1501-325120
2	3.5" Bore x 32" Stroke 1.75" Rod Cylinder	1	0313-3532ST
3	S Locking Pin Clip 5mm	2	0801-KE012
4	Washer Flat M30	2	0231-F30
5	Cylinder Pin 1 1/4" x 245mm	1	0801-44102956-1



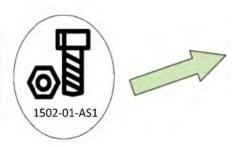


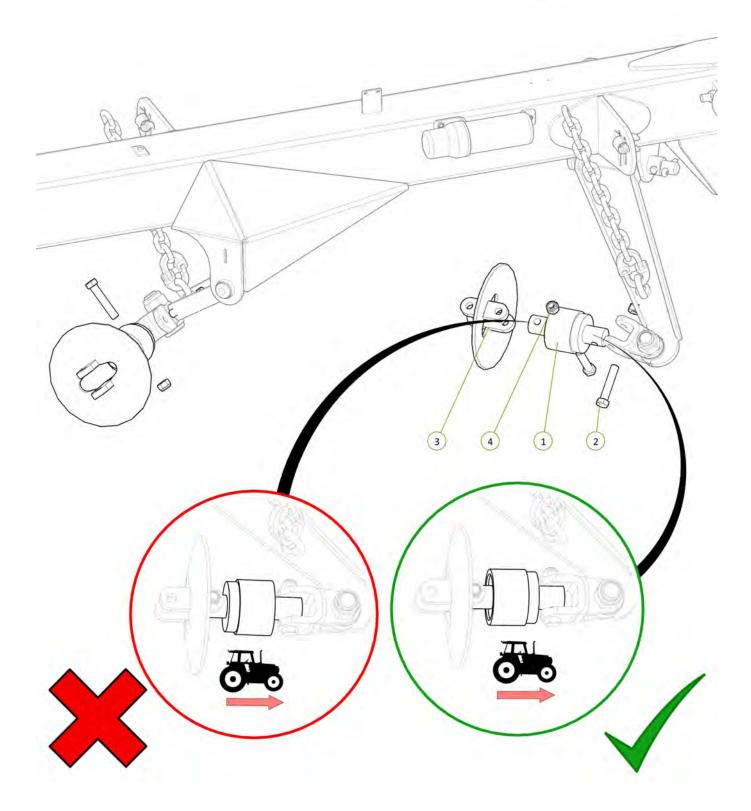
Item No.	Description	Qty	Number
1	M6 x 20mm Trilobe Screw	3	0211-M620MZPHTF
2	OPERATOR MANUAL CANNISTER	1	0801-OMC
3	M20 x 110 grade 10.9 ZP Short Thread Bolt	1	0211-20110 ST
4	Nyloc Nut M20	1	0221-NYL20
5	20mm Bolt Swivel Unit	1	0802-PCHB55





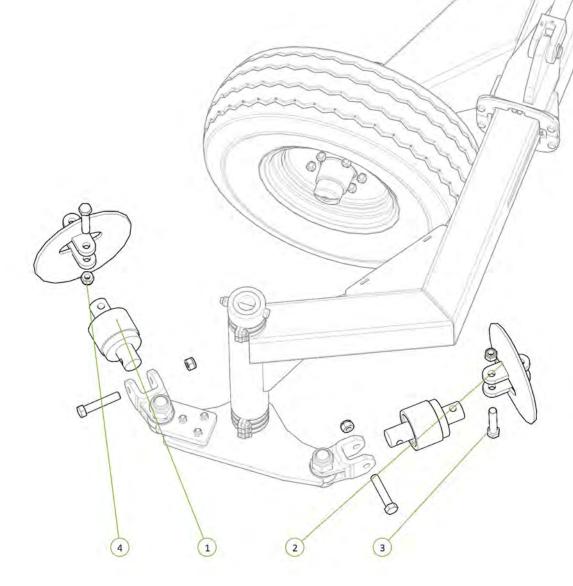
Item No.	Description	Qty	Number
1	20mm Bolt Swivel Unit	2	0802-PCHB55
2	M20 x 110 grade 10.9 ZP Short Thread Bolt	4	0211-20110 ST
3	Tie Plate Disc 20mm	2	0802-DCTP-20
4	Nyloc Nut M20	4	0221-NYL

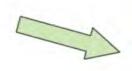


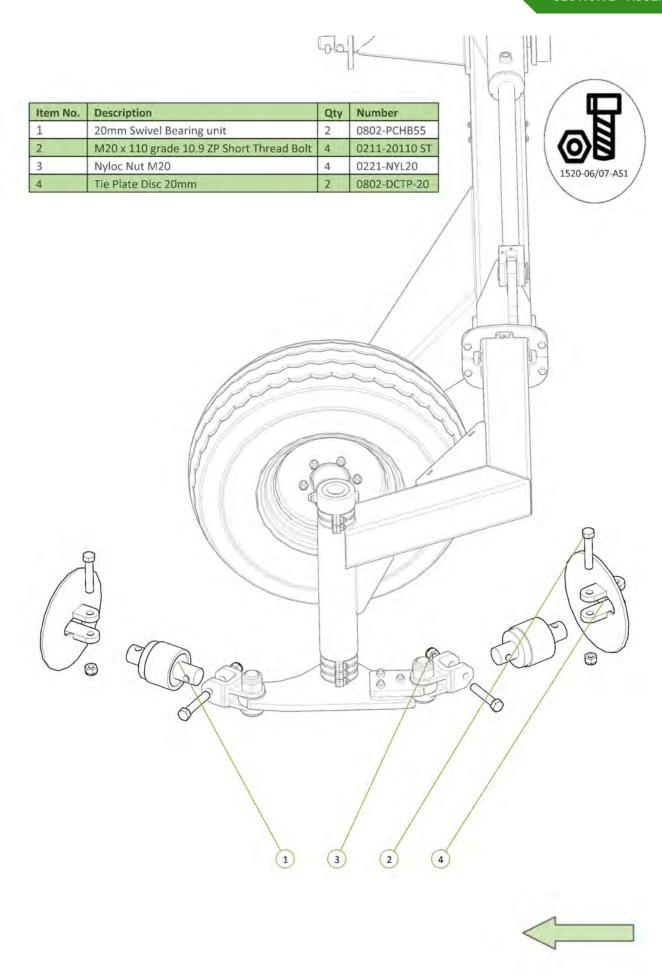


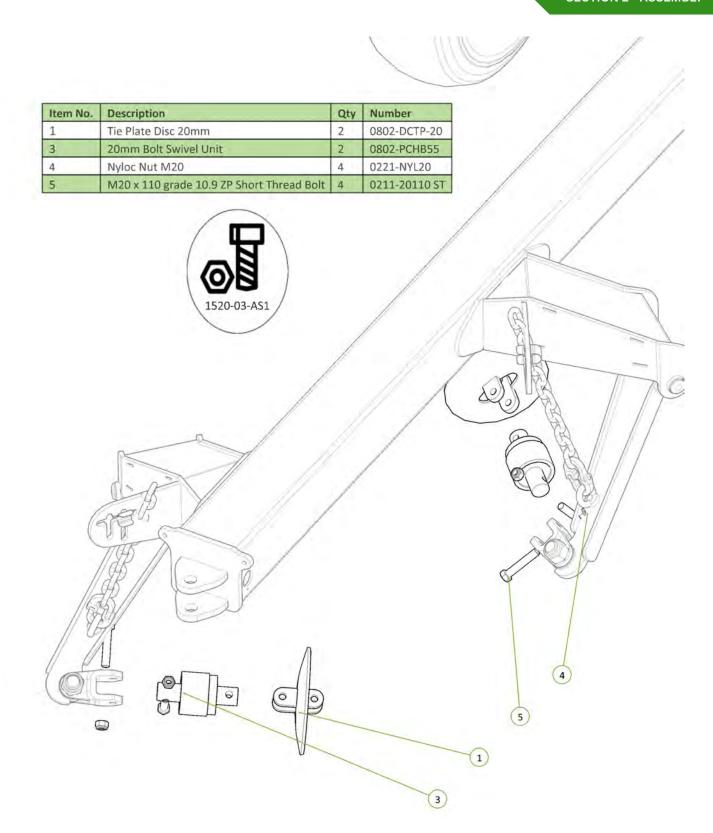
Item No.	Description	Qty	Number
1	20mm Bolt Swivel Unit	2	0802-PCHB55
2	Tie Plate Disc 20mm	2	0802-DCTP-20
3	M20 x 110 grade 10.9 ZP Short Thread Bolt	4	0211-20110 ST
4	Nyloc Nut M20	4	0221-NYL20





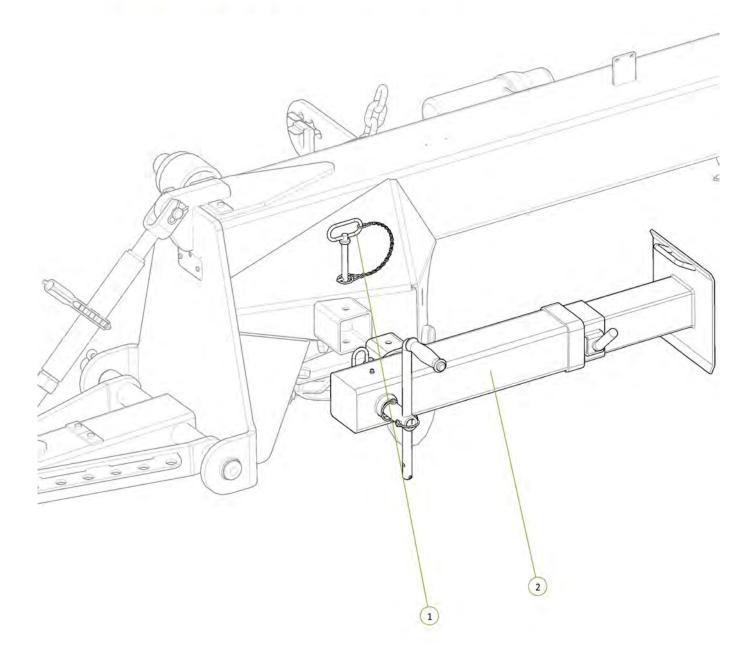


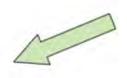






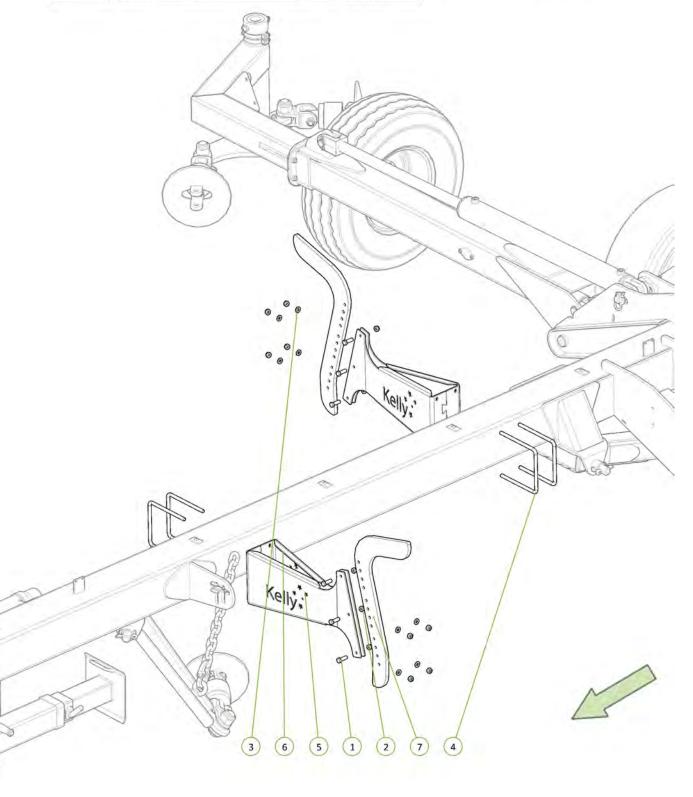
Item No.	Description	Qty	Number
1	Jack Pin	1	0801-B3077
2	Heavy Duty Jack Assembly	1	0810-37A





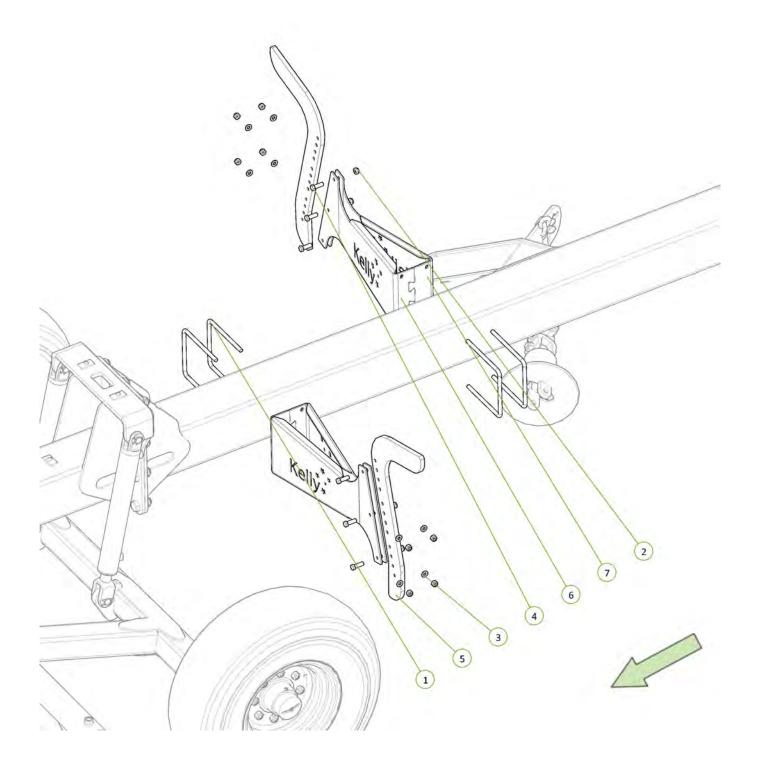
Item No.	Description	Qty	Number
1	M12 x 40 grade 8.8 ZP Bolt	6	0211-1240
2	Nyloc Nut M12	14	0221-NYL12
3	Washer Flat M12	8	0231-F12
4	U-Bolt M12 x 225 Deep x 202 Wide	4	0271-12225202
5	Chain Carrier Web LH Side	2	1500-086
6	Chain Carrier Web RH Side	2	1500-085
7	Chain Catch 6M	2	1500-084

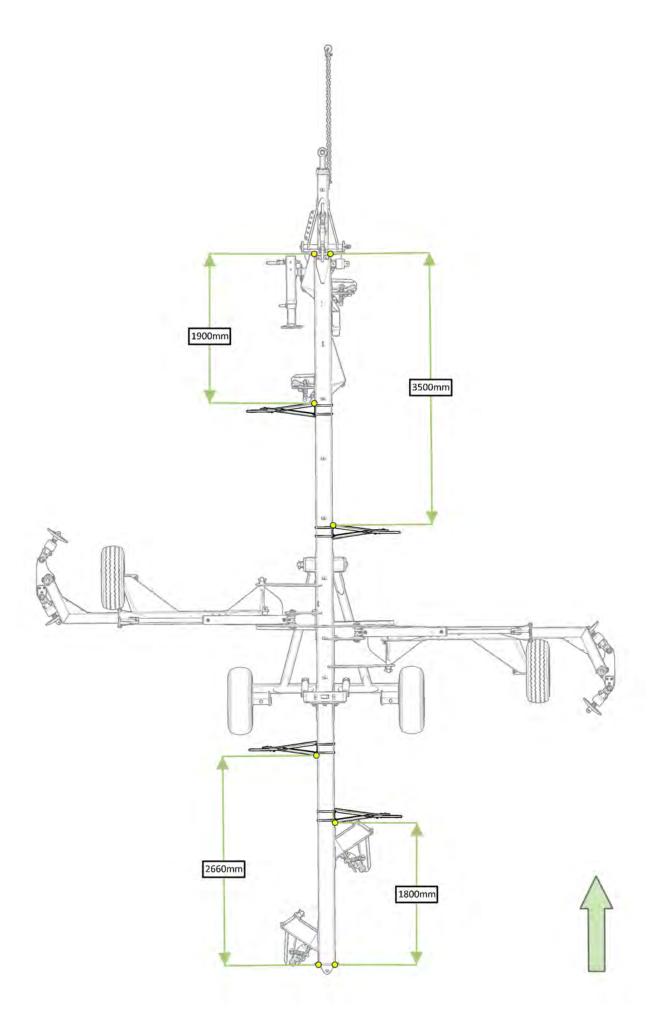




Item No.	Description	Qty	Number
1	U-Bolt M12 x 225 Deep x 202 Wide	4	0271-12225202
2	Nyloc Nut M12	14	0221-NYL12
3	Washer Flat M12	8	0231-F12
4	M12 x 40 grade 8.8 ZP Bolt	6	0211-1240
5	Chain Catch 6M	2	1500-084
6	Chain Carrier Web RH Side	2	1500-085
7	Chain Carrier Web LH Side	2	1500-086

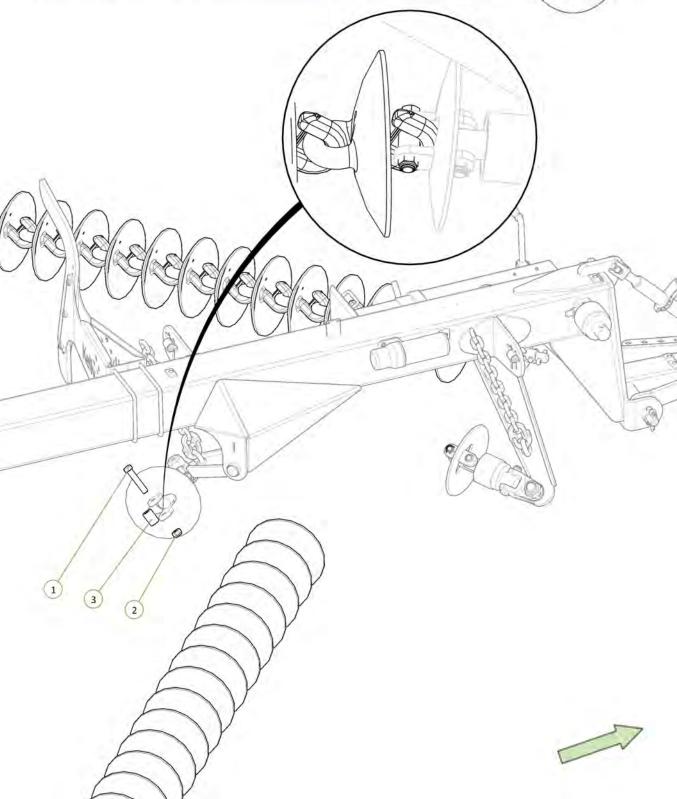


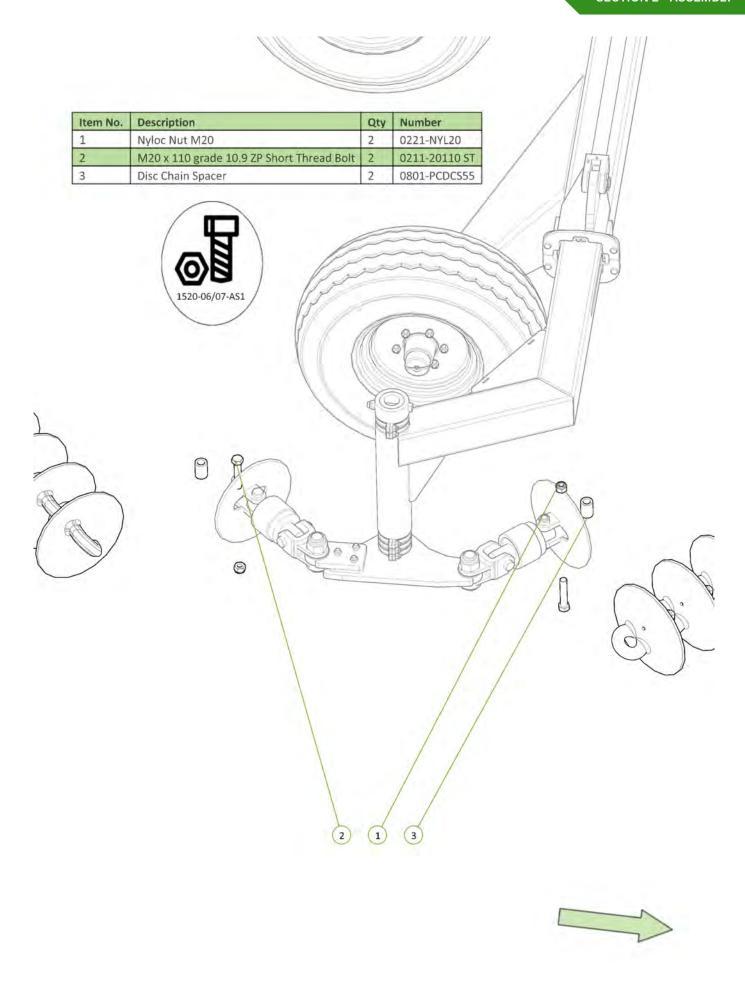


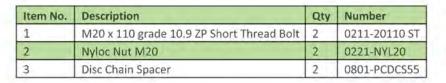


Item No.	Description	Qty	Number
1	M20 x 110 grade 10.9 ZP Short Thread Bolt	2	0211-20110 ST
2	Nyloc Nut M20	2	0221-NYL20
3	Disc Chain Spacer	2	0801-PCDCS55



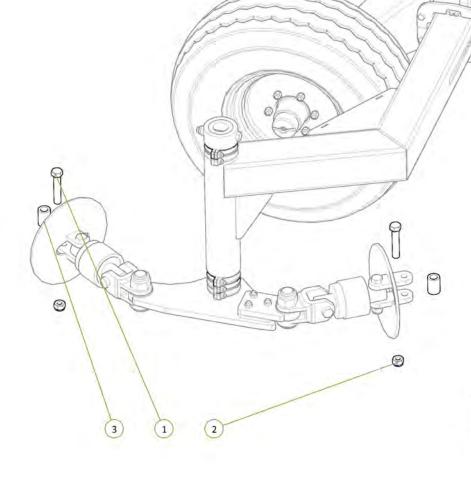








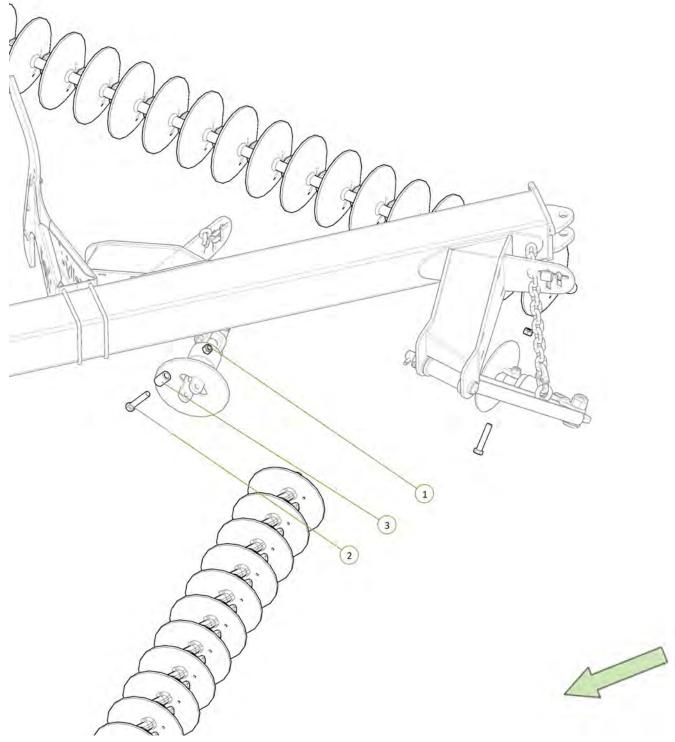


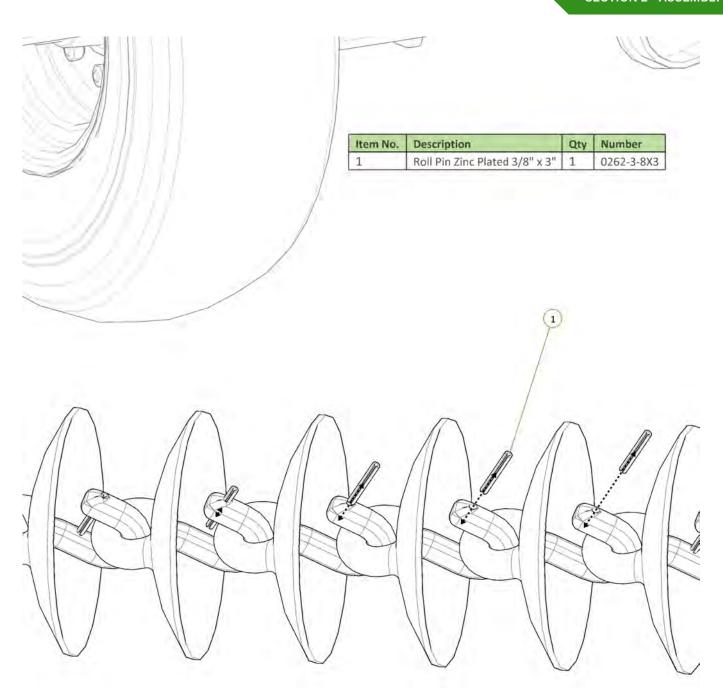




Item No.	Description	Qty	Number
1	Nyloc Nut M20	2	0221-NYL20
2	M20 x 110 grade 10.9 ZP Short Thread Bolt	2	0211-20110 ST
3	Disc Chain Spacer	2	0801-PCDCS55

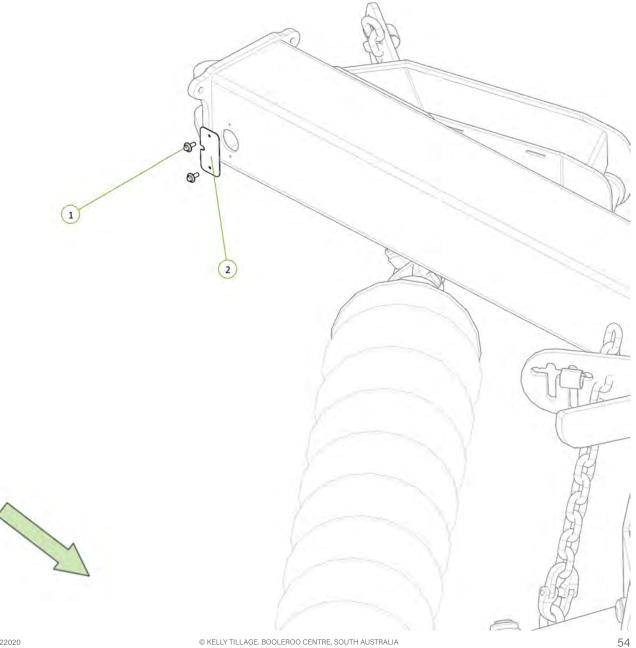






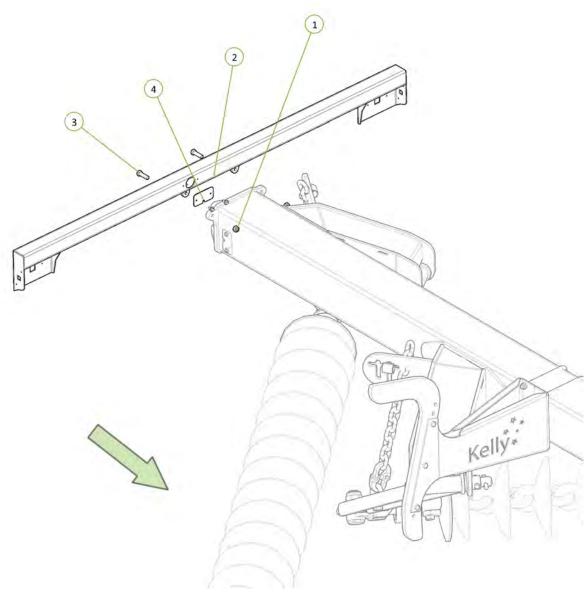
Item No.	Description	Qty	Number
1	M6 x 20mm Trilobe Screw	2	0211-M620MZPHTF
2	Wiring Capping Plate	1	1500-122

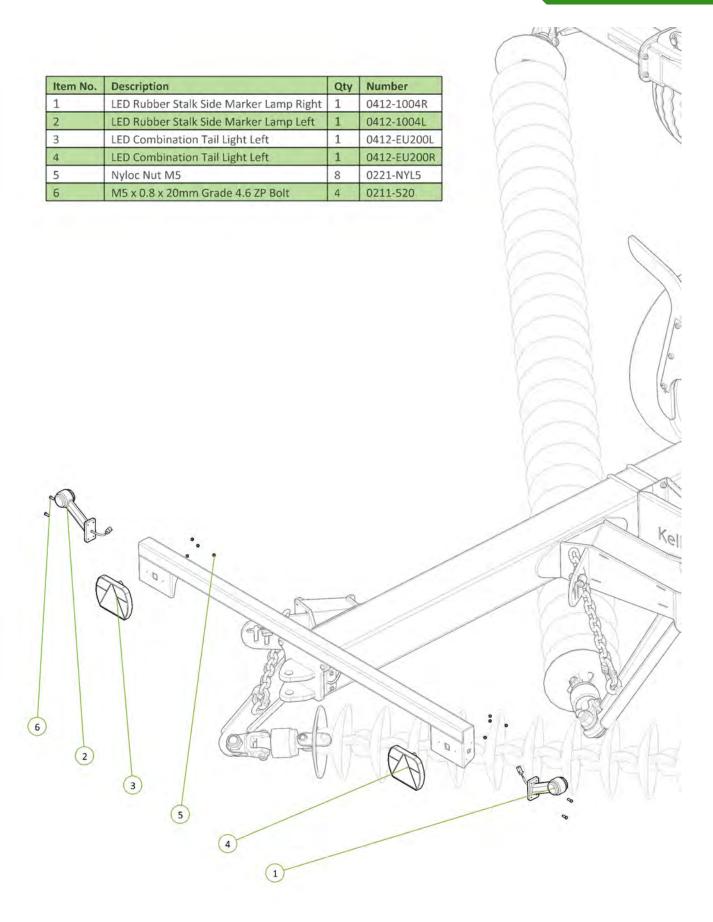




Item No.	Description	Qty	Number
1	Nyloc Nut M12	2	0221-NYL12
2	Sign and Light Bar	1	1510-27
3	M12 x 45 grade 8.8 ZP Bolt	2	0211-1245
4	Wiring capping plate	1	1500-122





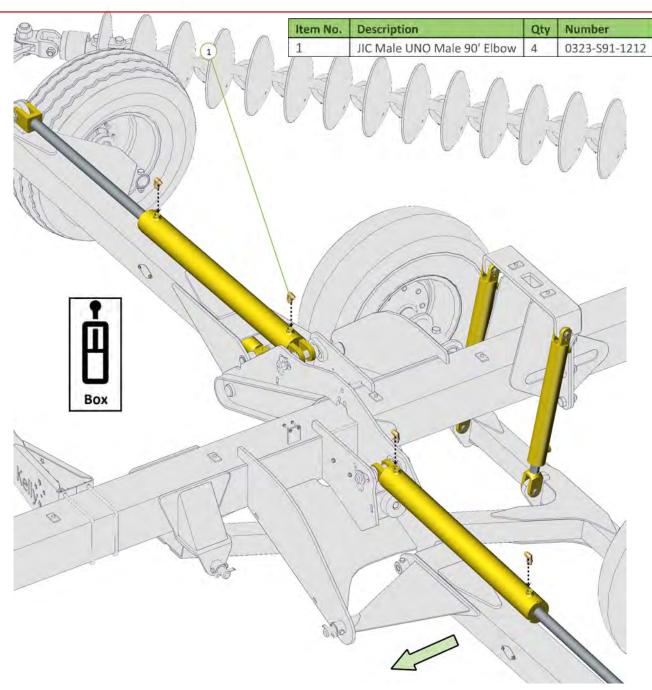


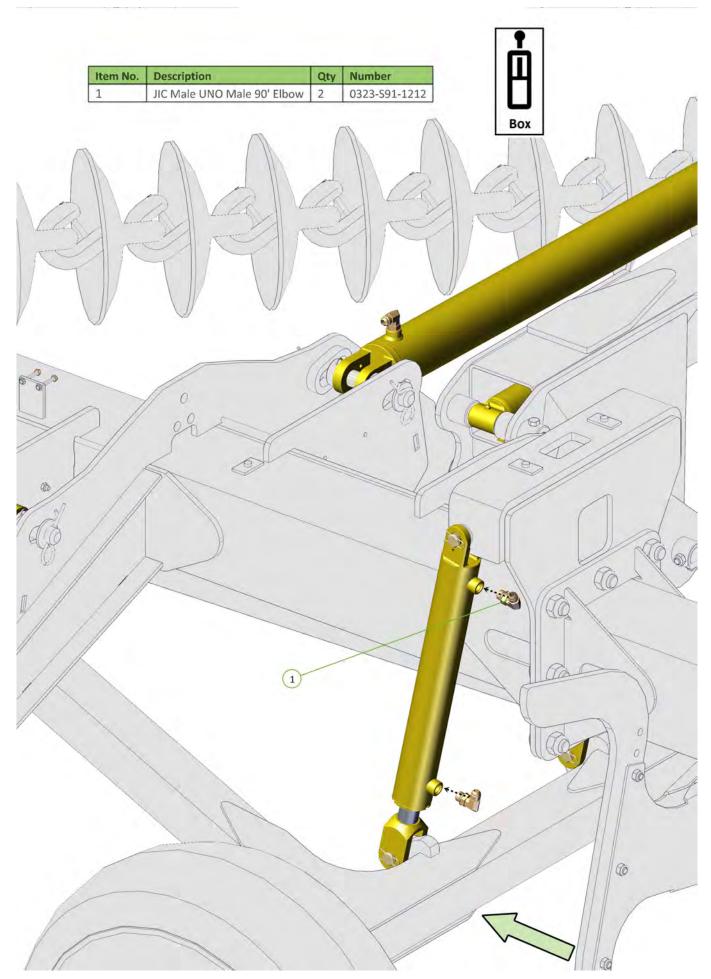
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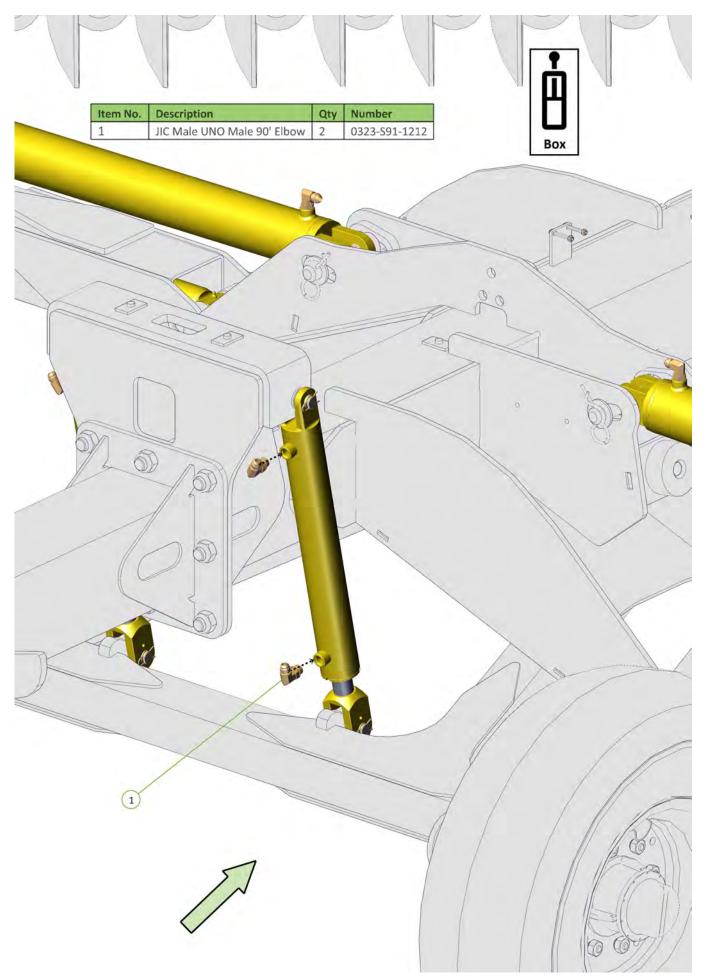


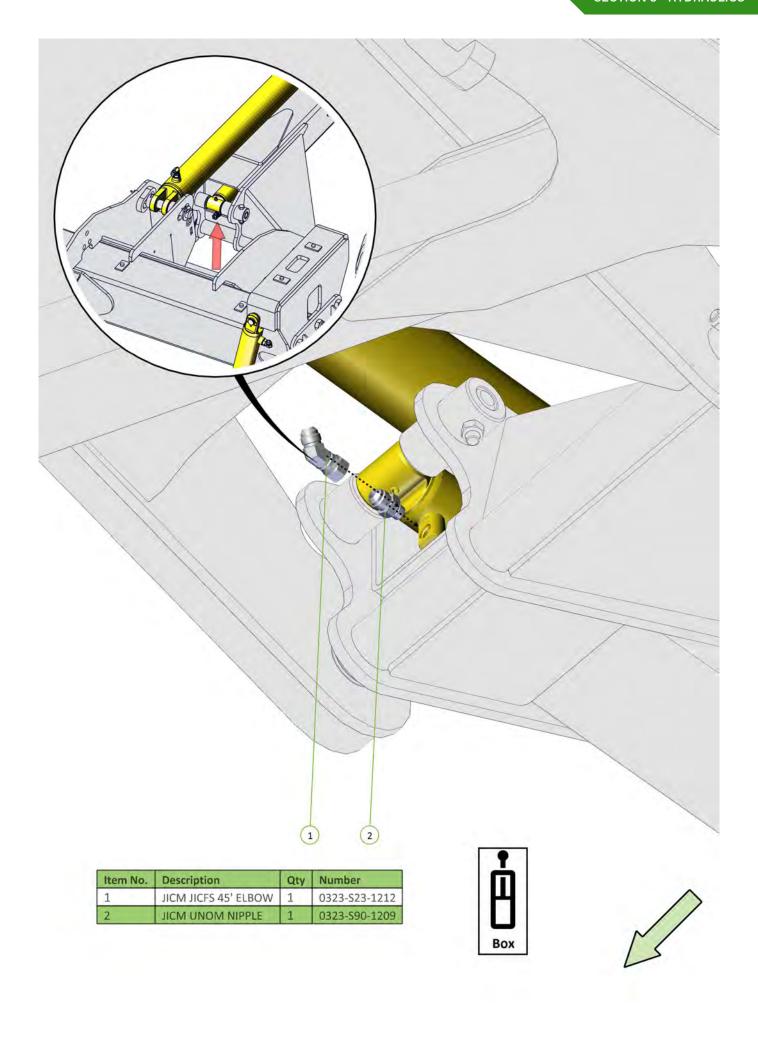
Section 3 - Hydraulics

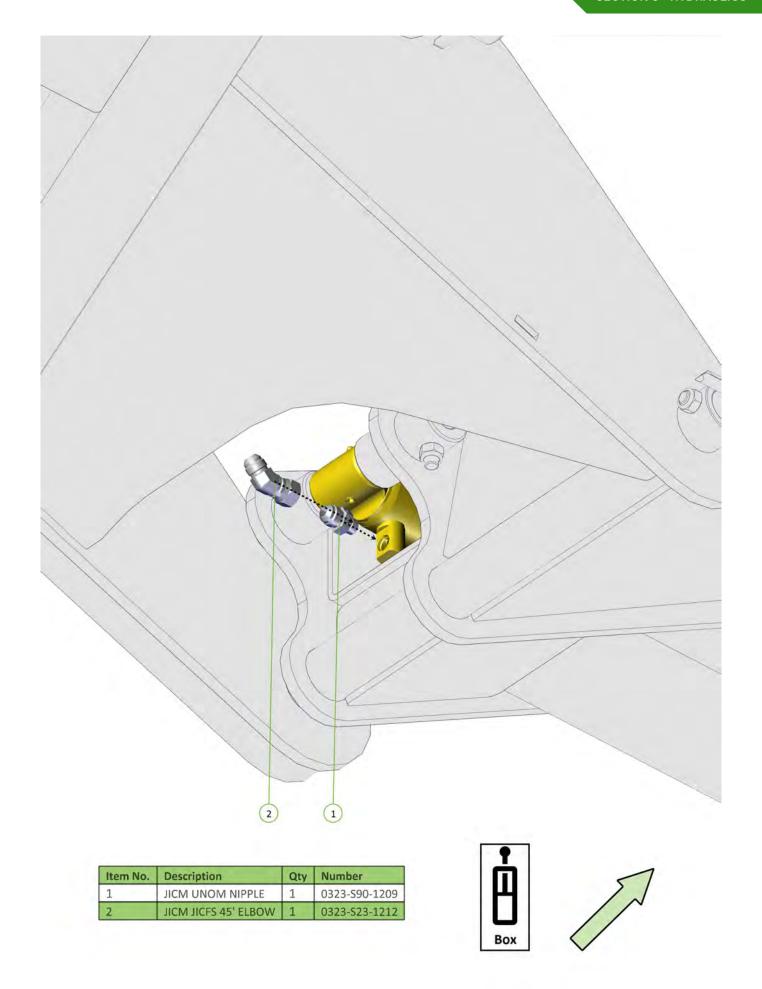
Please Note: The black hose/s identifies the current assembly step.











Item No.	Description	Qty	Number
1	M6 x 1 x 85mm Grade 4.6 ZP Bolt	2	0211-685
2	Nyloc Nut M6	2	0221-NYL6
3	BSPP O Ring Male Jic Male Nipple	4	0323-S74-0812
4	Ball Valve BSPP 1/2"	2	0341-RL20SH-0808





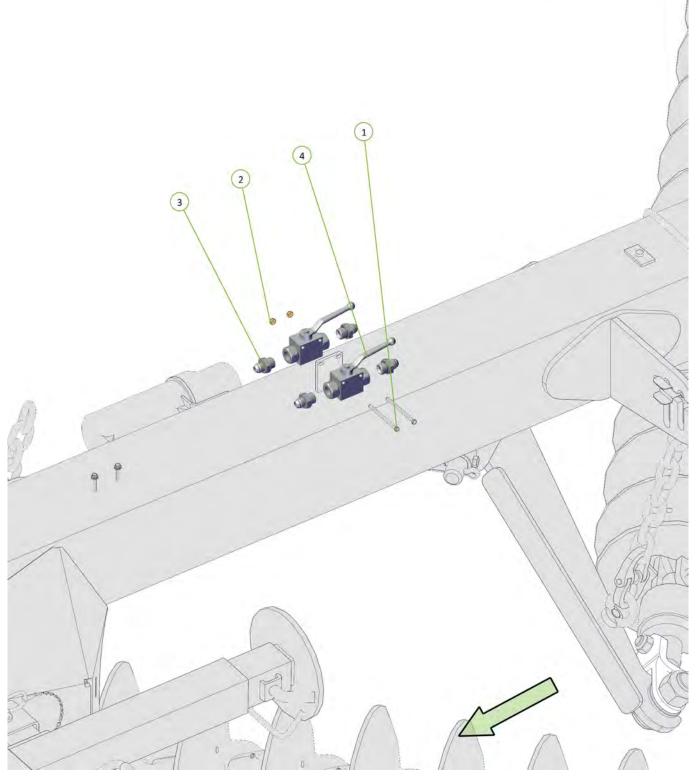


Image 1



Please Note -

- 1. Unbolt tap handle from tap (as seen in image 1).
- 2. Flip one plate over so they are a mirror image (as seen in image 1).
- 3. Bolt tap handle back in original position (as seen in image 2)
- 4. Correct fitment will ensure taps are closed when both facing outwards on the machine (as seen in image 3).

Image 2



Image 3

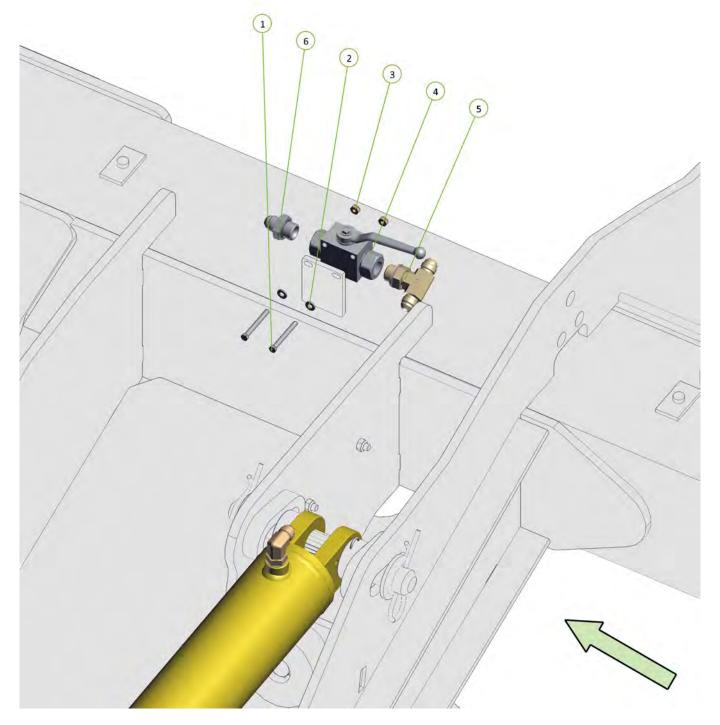




Item No.	Description	Qty	Number
1	M6 x 1 x 50mm Grade 4.6 ZP Bolt	2	0211-650
2	Washer Flat M6	2	0231-F6
3	Nyloc Nut M6	2	0221-NYL6
4	Ball Valve BSPP 1/2"	1	0341-RL20SH-0808
5	JICM JICM BSPPOM TEE	1	0324-S79-121208
6	BSPP O Ring Male Jic Male Nipple	1	0323-574-0812



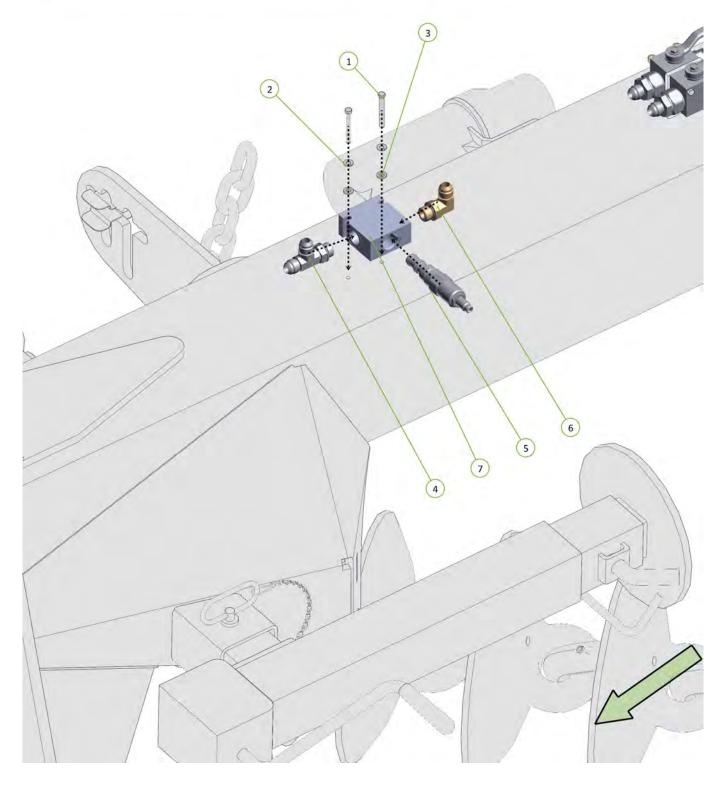




Item No.	Description	Qty	Number
1	M6 x 1 x 50mm Grade 4.6 ZP Bolt	2	0211-650
2	Washer Spring M6	2	0231-S6
3	Washer Flat M6	2	0231-F6
4	JICM UNOM JICM TEE	1	0324-S87-121212
5	Pressure Reducing/Relieving Valve Cartridge	1	0341-PR50-36A0P30
6	JIC Male UNO Male 90' Elbow	1	0323-S91-1212
7	10-Size 3-way Valve Housing	1	0341-7024380

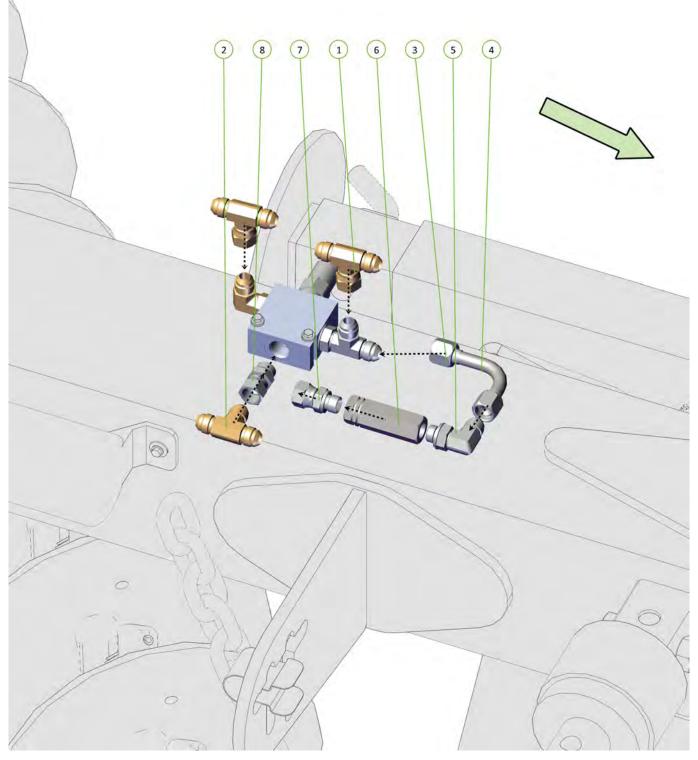






Item No.	Description	Qty	Number
1	JICM JICM JICFS TEE	2	0324-S68-121212
2	JICM JICM JICM TEE	1	0324-S19-121212
3	3/4" JIC Female Nut & Swivel	2	0323-S6-1208
4	ACCUM-VALVE-P2	1	0323-ACCUM-VALVE-P2
5	BSPPOM JICM 90' ELBOW	1	0323-S76-0612
6	3/8"BSPP Port Check Valve	1	0341-RCV-0606
7	BSPPOM JICFS ADAPTOR	1	0323-571-0612
8	JIC FEMALE UNO RING MALE	1	0323-S101-1212

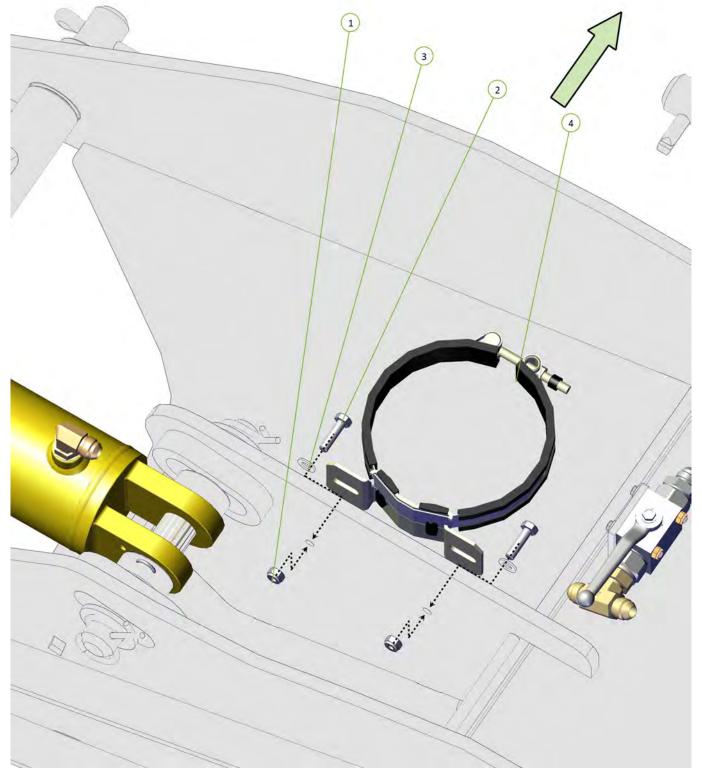




Item No.	Description	Qty	Number
1	Nyloc Nut M8	2	0221-NYL8
2	M8 x 30 grade 8.8 ZP Bolt	2	0211-830
3	Washer Flat M8	2	0231-F8
4	HYRAC 143-151 (151)	1	0343-ACCUCLAMP-143-151

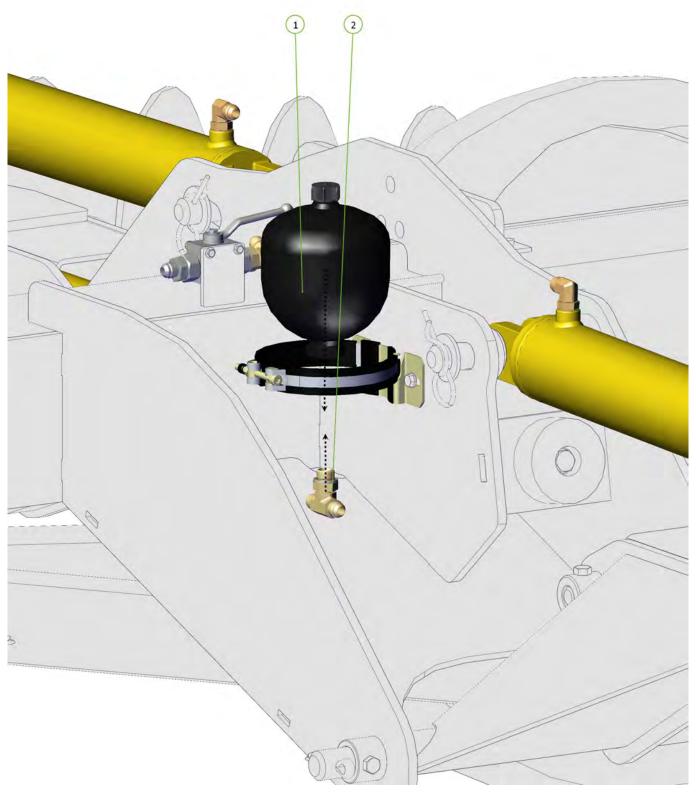


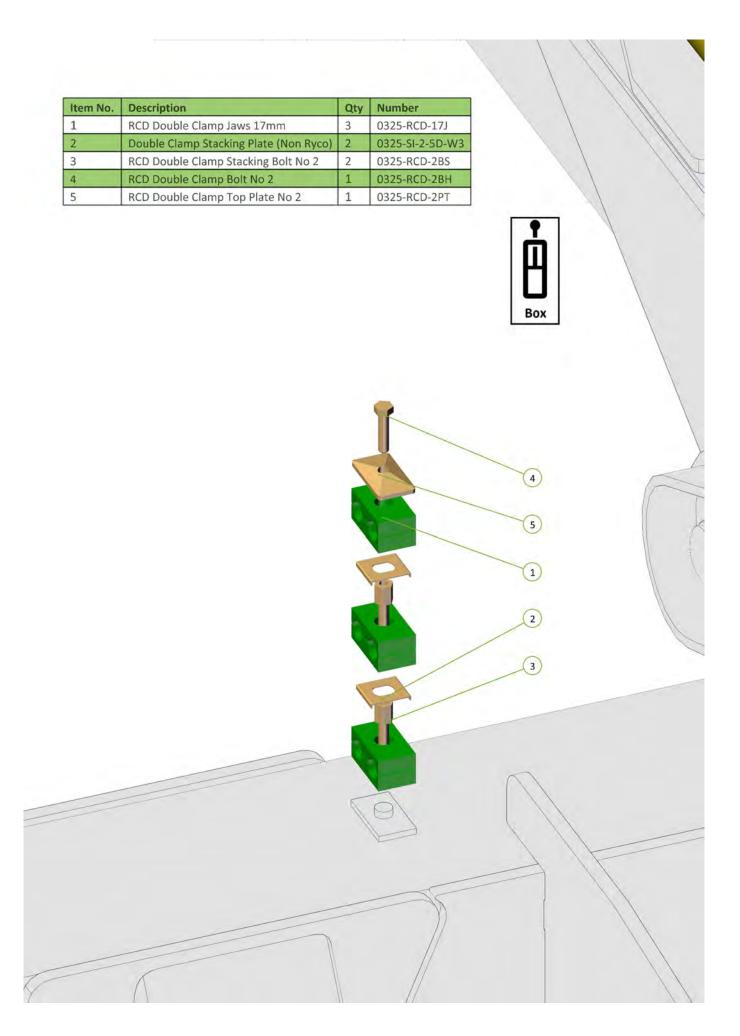




Item No.	Description	Qty	Number
1	1.4L Accumulator	1	0343-SBO210-1.4EI
2	JICM JICM BSPPOM TEE	1	0324-579-121208



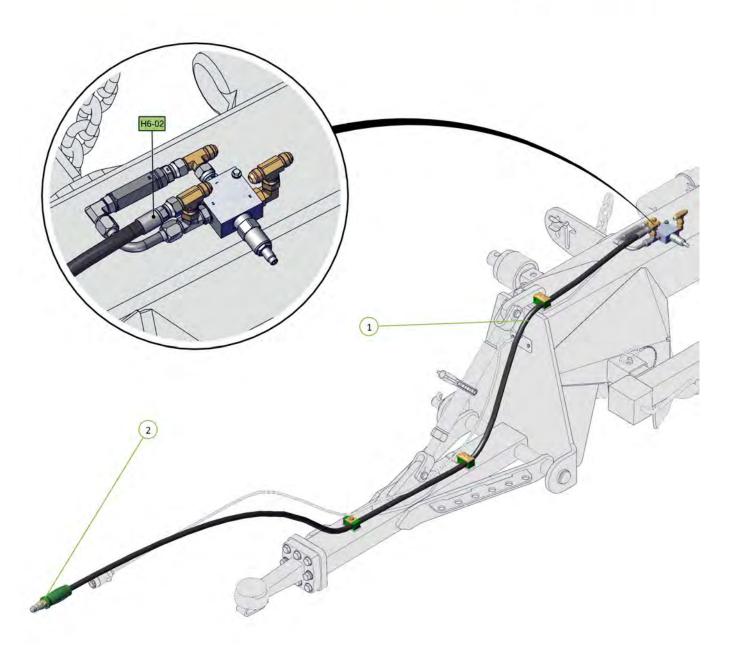




Item No.	Description	Qty	Number
1	Tractor to Main Pressure Relief Extend	1	H6-02-GE
2	BSPPF QRC/BALL MALE TIP	1	0325-R91-08M



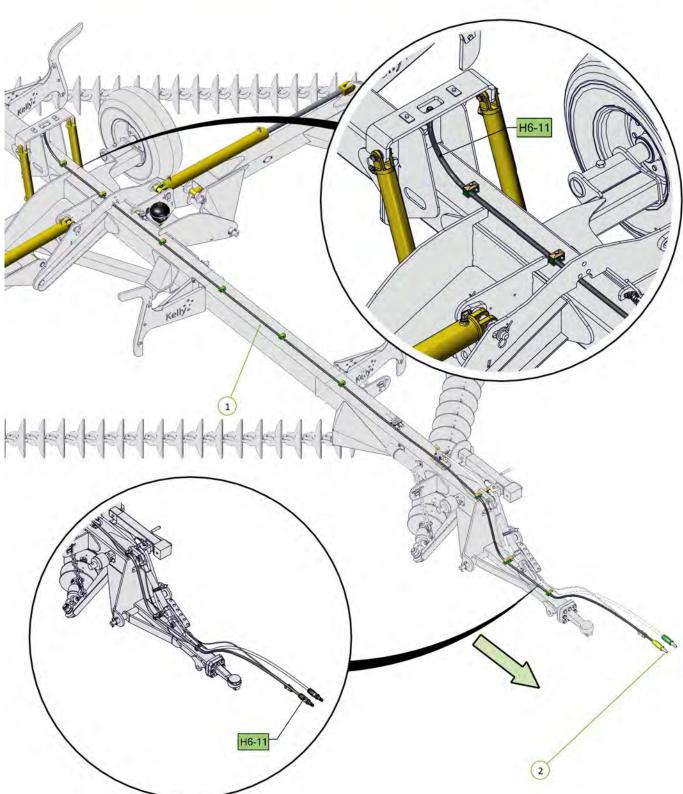




Item No.	Description	Qty	Number
1	Tractor to Wheel Retact	1	H6-11-YR
2	BSPPF QRC/BALL MALE TIP	1	0325-R91-08M



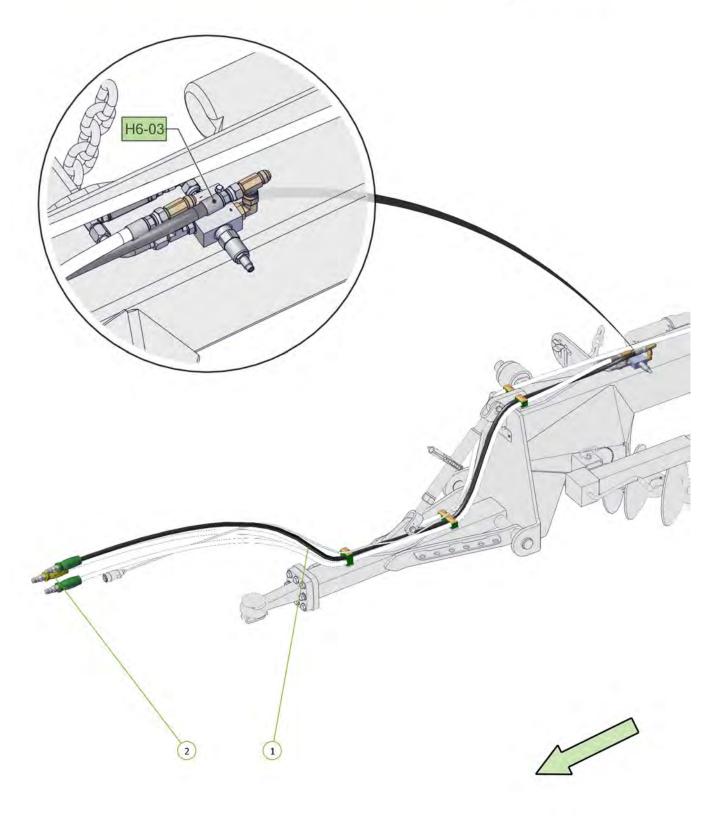


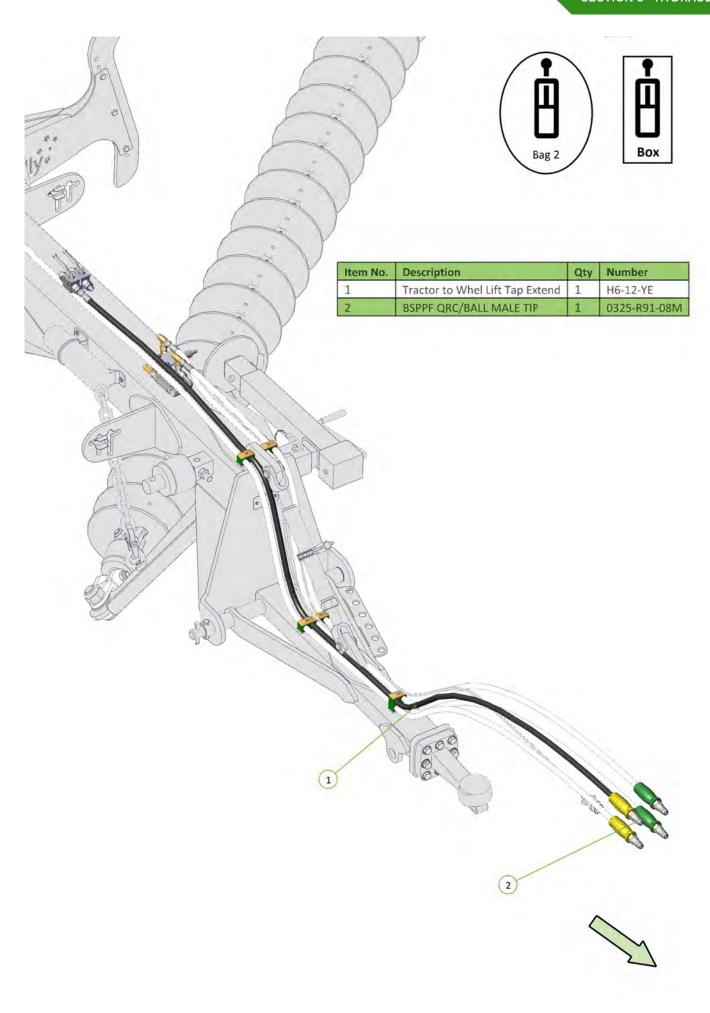


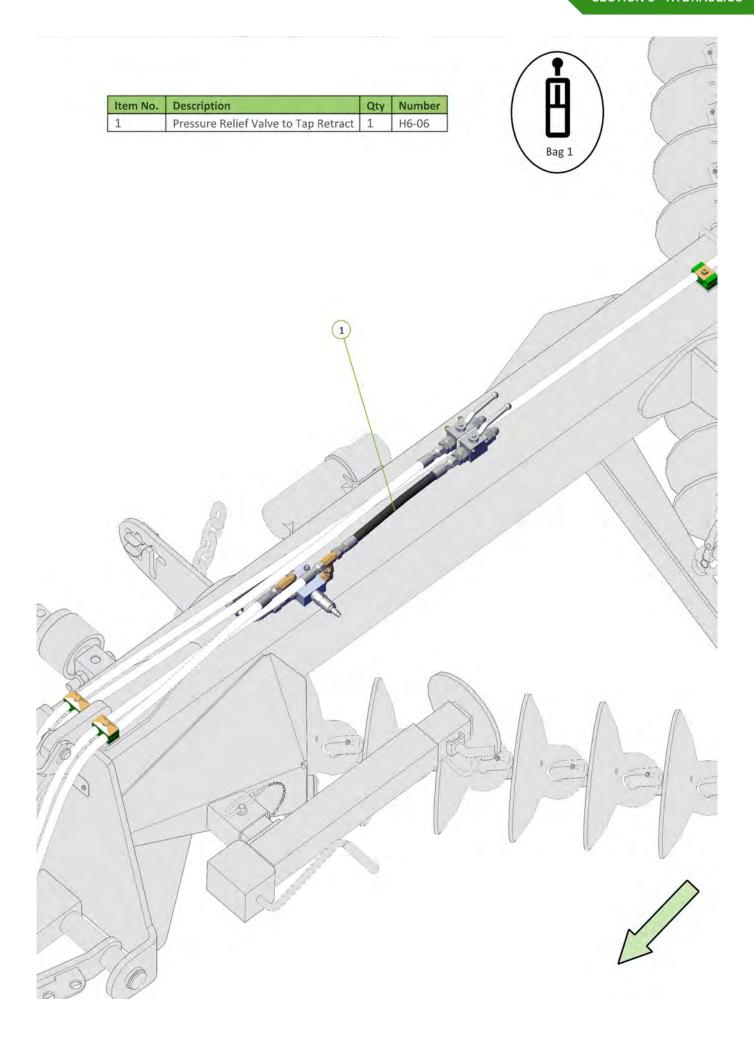
Item No.	Description	Qty	Number
1	Tractor to Pressure Relief Valve Retract	1	H6-03-GR
2	BSPPF QRC/BALL MALE TIP	1	0325-R91-08M







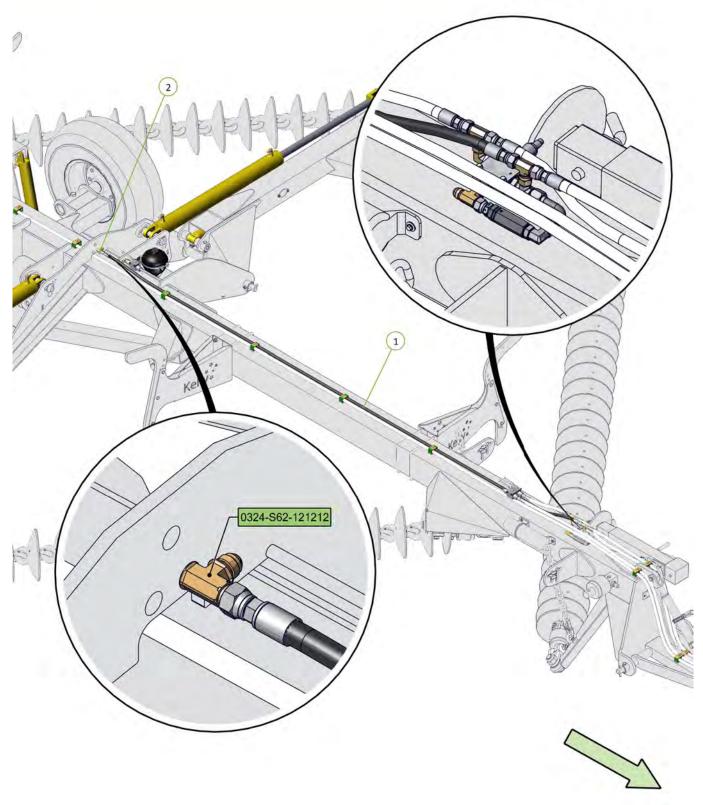


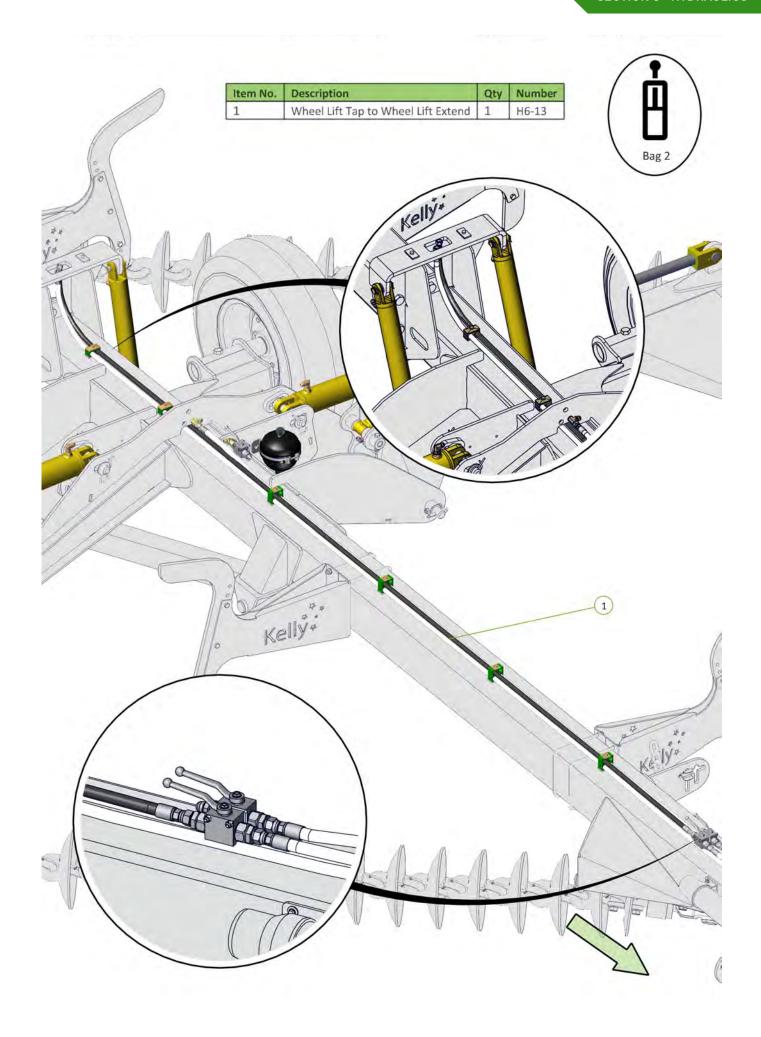


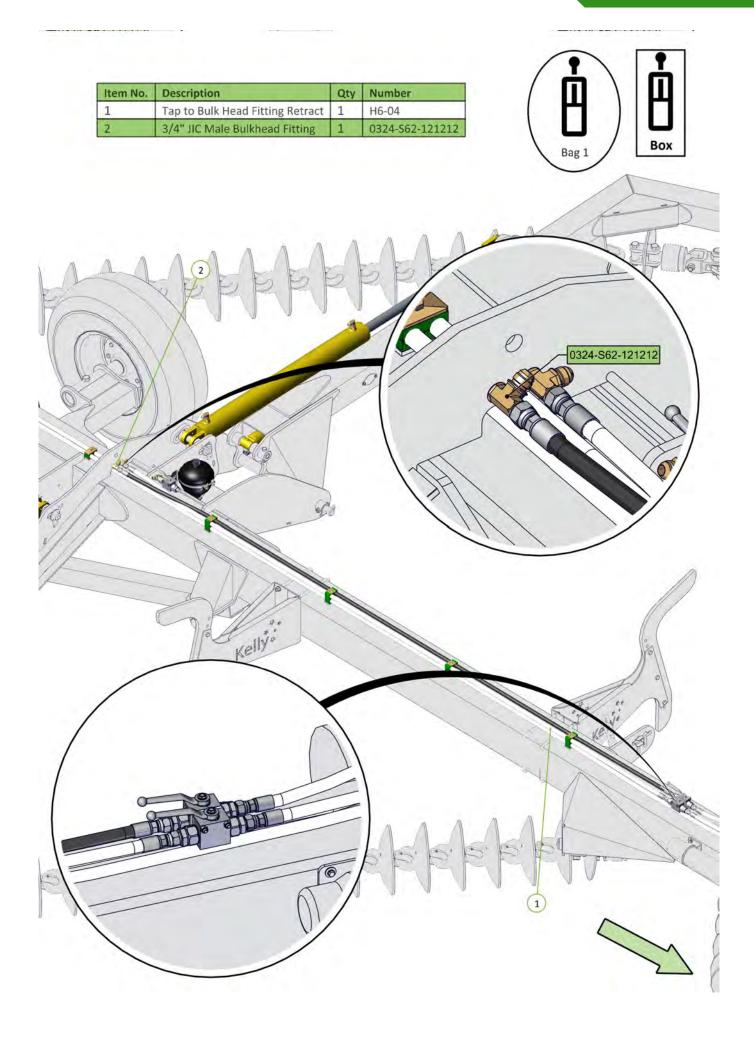
Item No.	Description	Qty	Number
1	Pressure Relief Valve to Bulk Head Fittting Extend	1	H6-05
2	3/4" JIC Male Bulkhead Fitting	1	0324-S62-121212

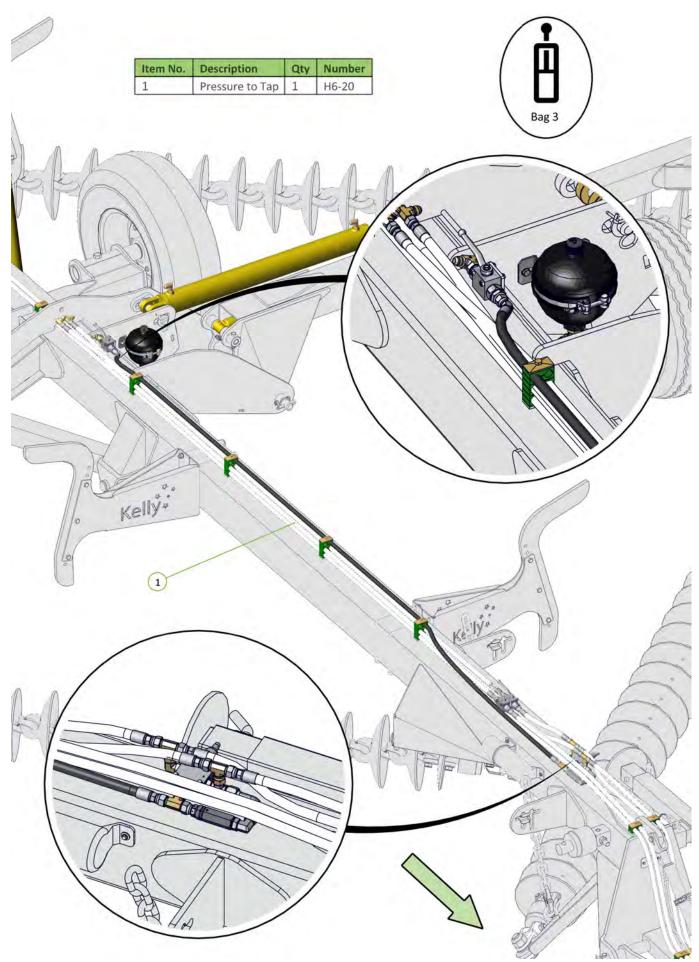


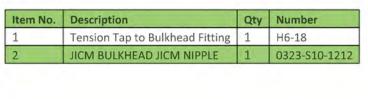






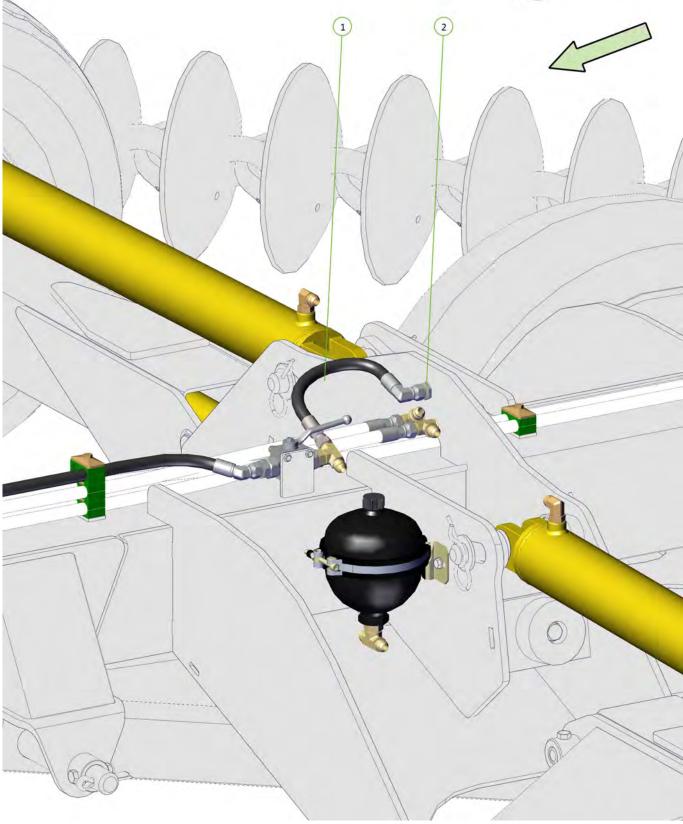


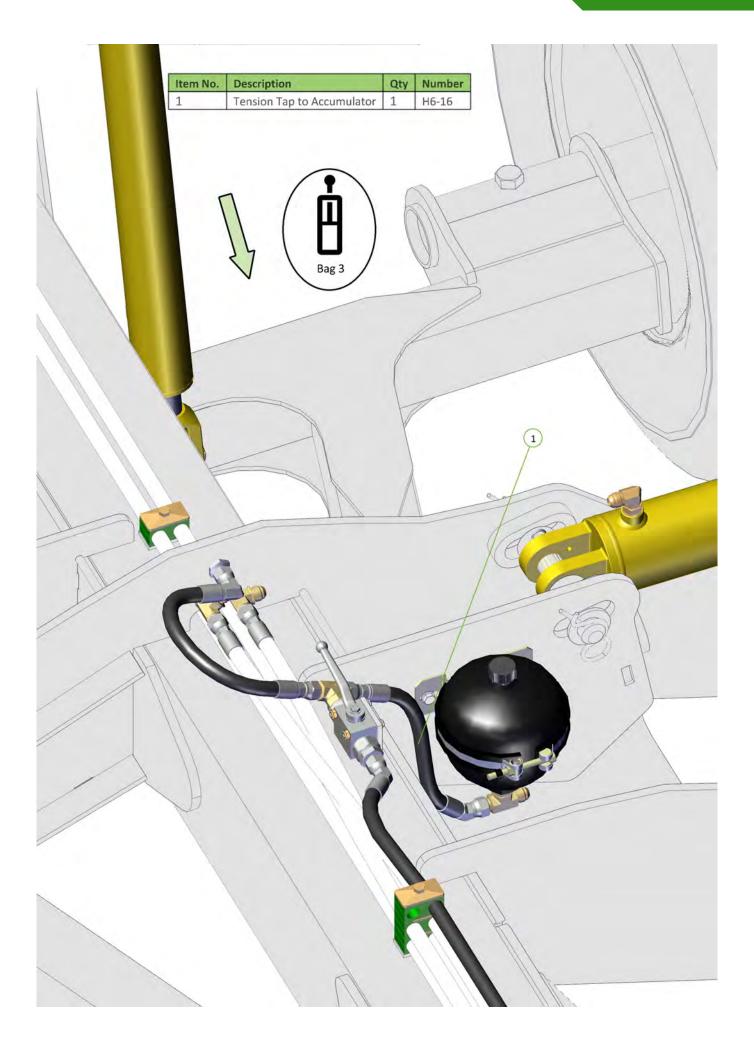


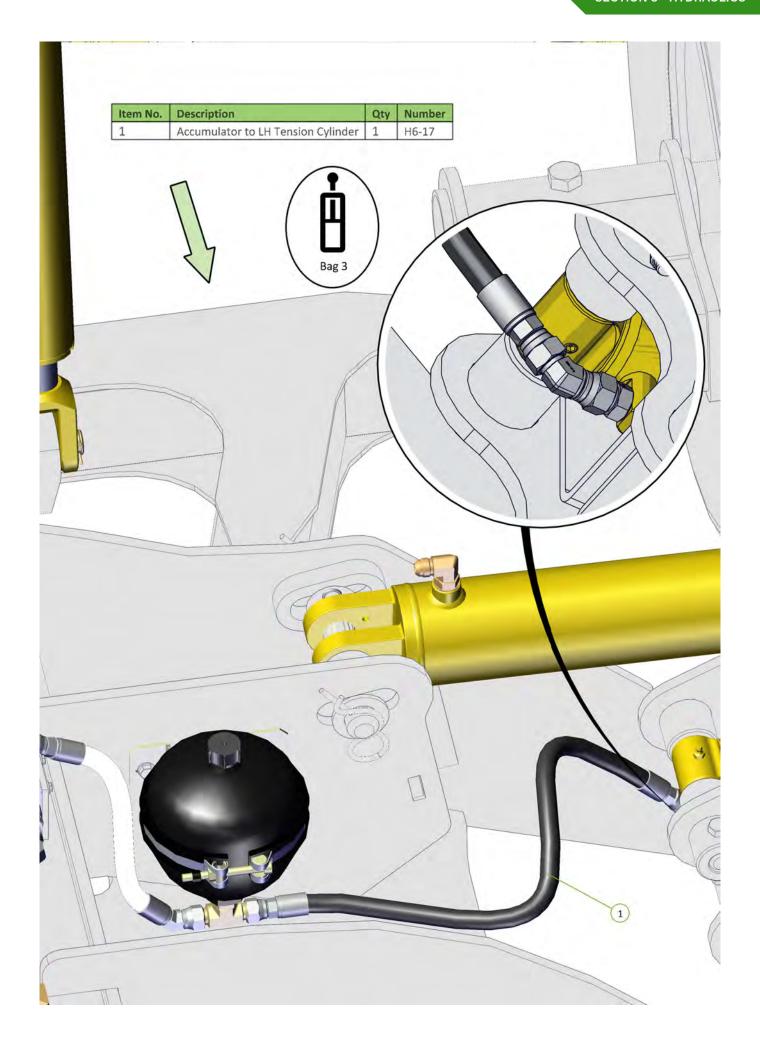


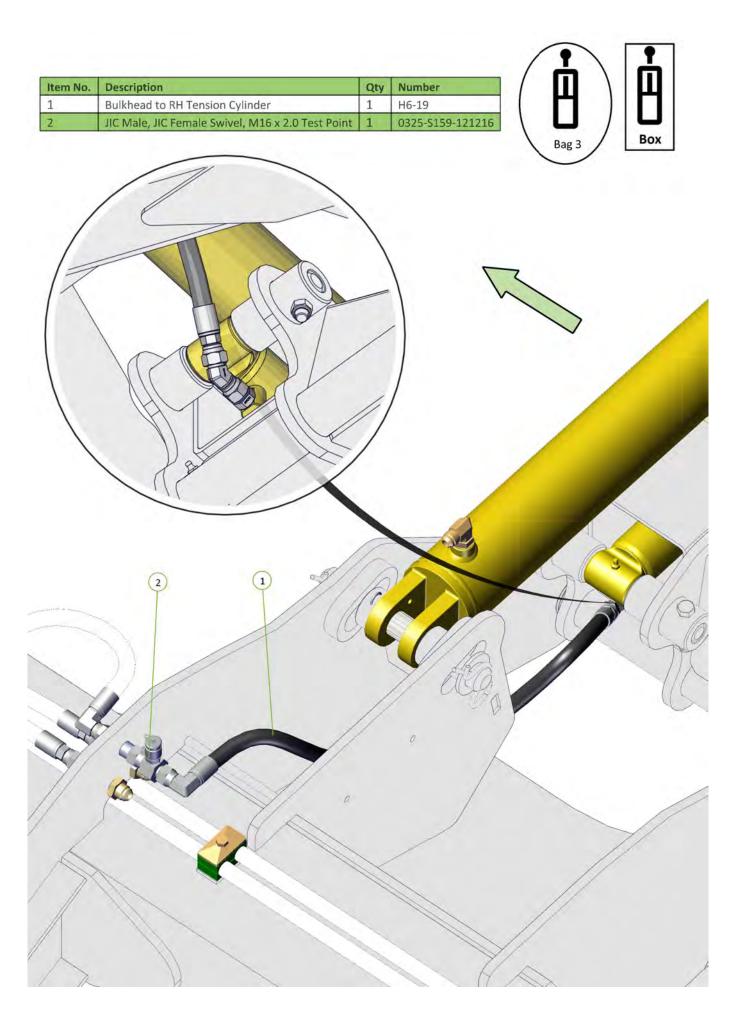


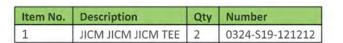






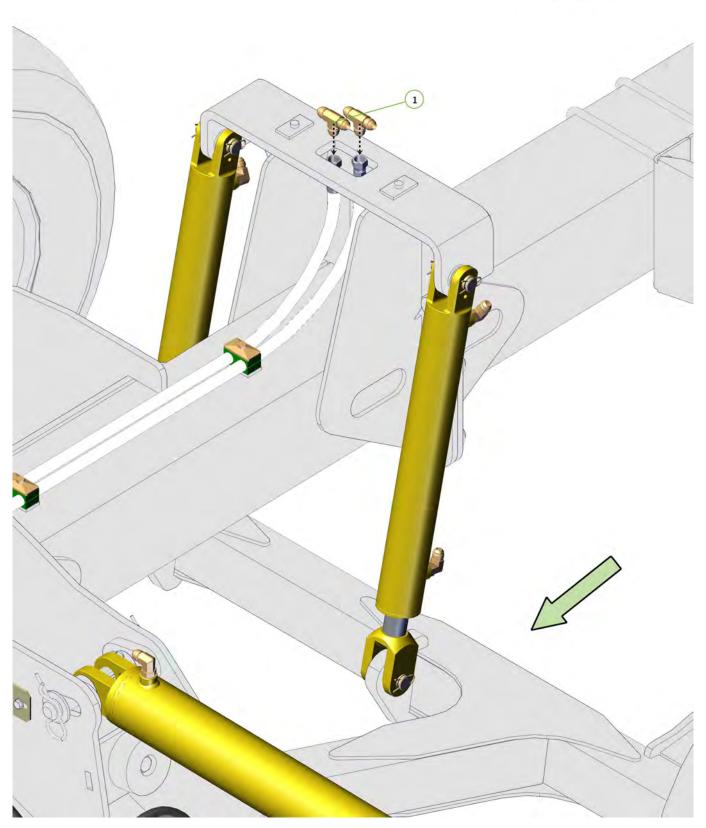


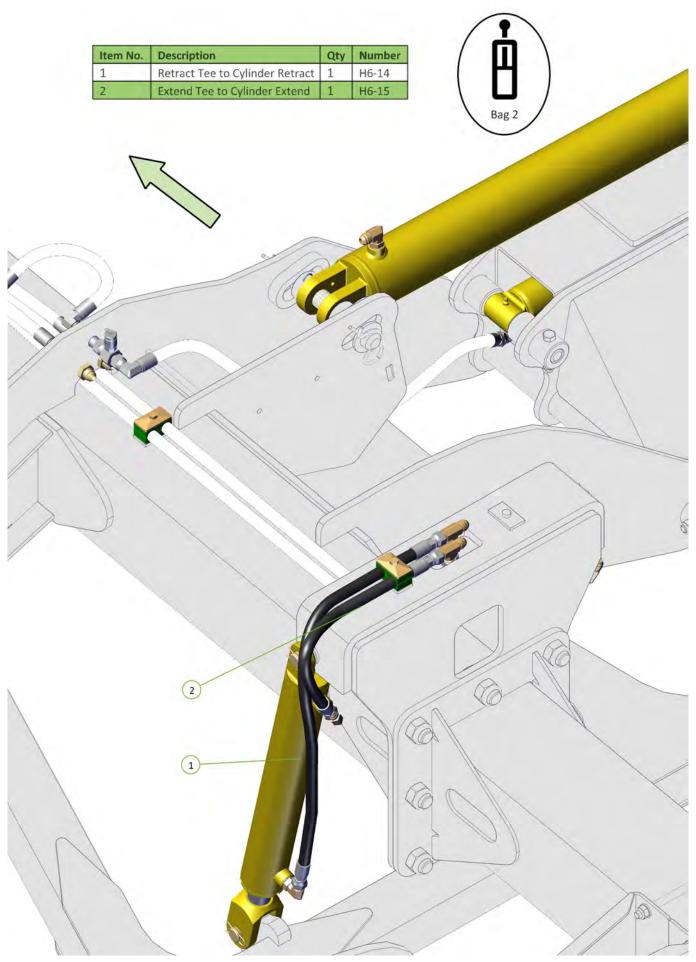


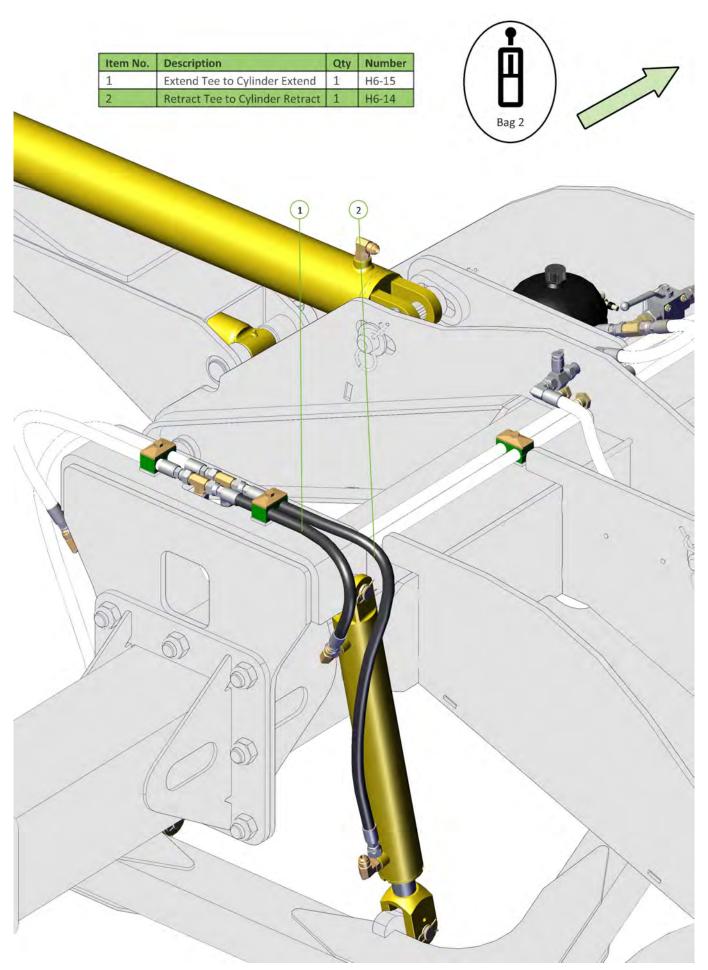


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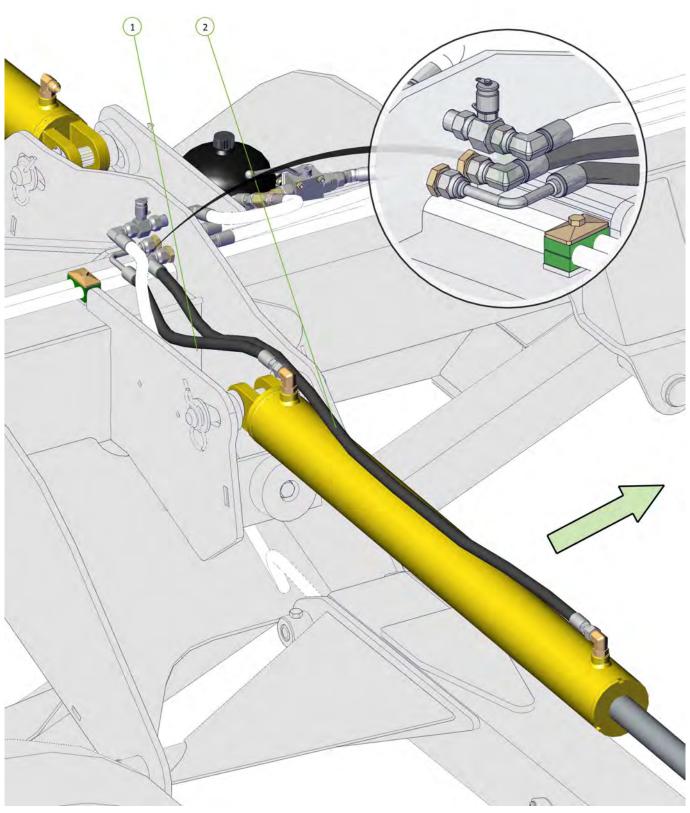


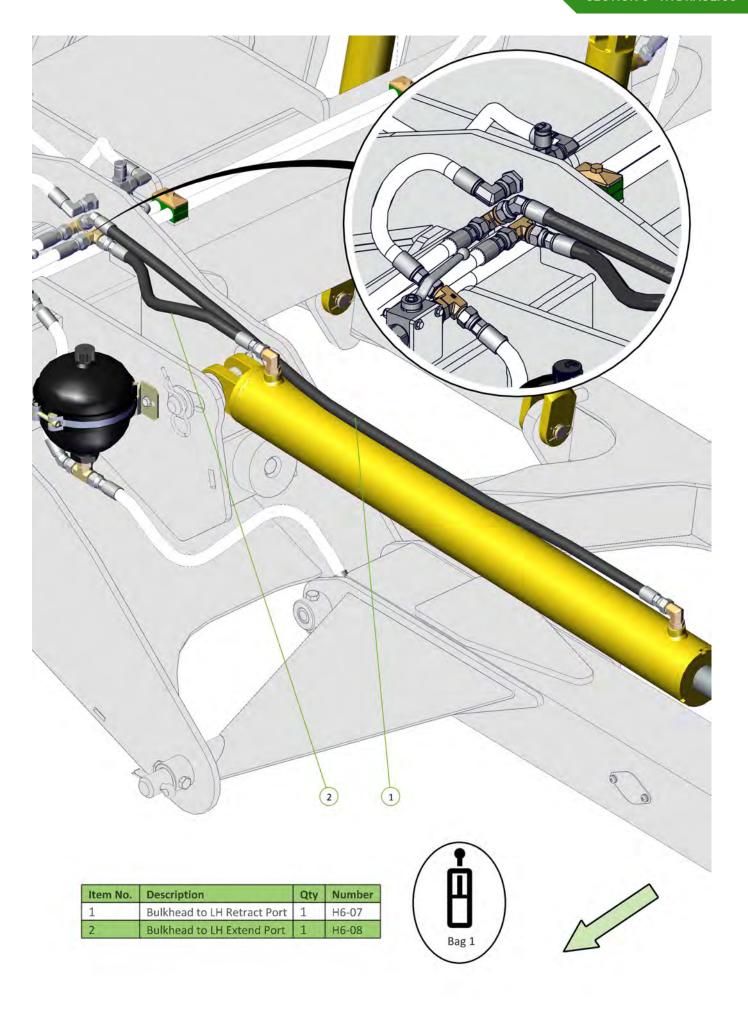


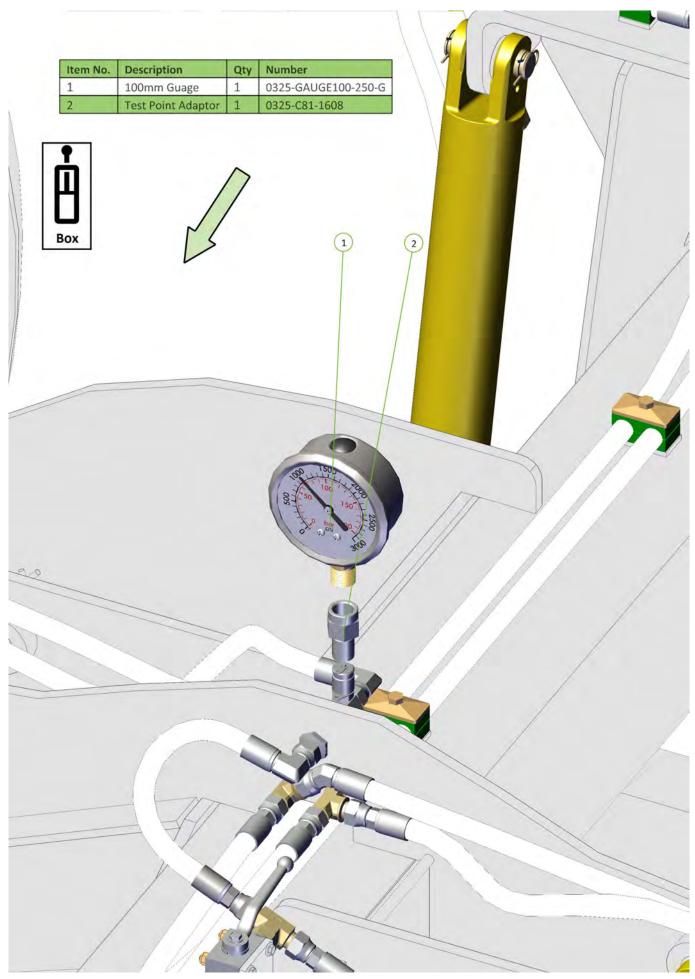


Item No.	Description	Qty	Number
1	Bulkhead to Right Hand Extend Port	1	H6-10
2	Bulkhead to RH Retract Port	1	H6-09







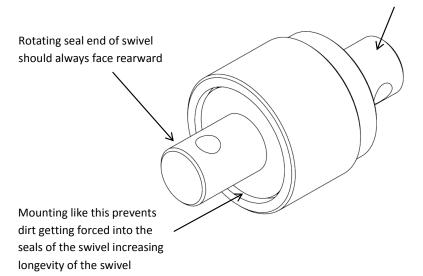


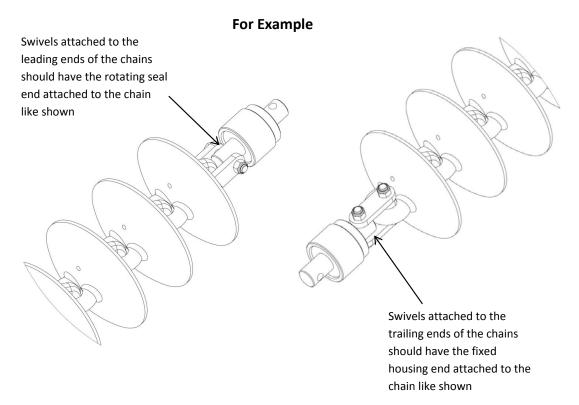


Section 4 - Diagrams

Mounting Swivels

Fixed housing end of swivel should always face forward







Section 5 - Specifications

Operating speeds

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

Chain Harrow specifications

Model	2006
Working width	6.4m
Transport width	2.4m
Transport height	3.9m
Transport length	10.4m

Bolt Torque Settings

Bolt Type		Whe	el nut			U Bolt	t		Grad	de 8.8	Bolt		Gra 10.9	ade Bolt
Bolt Size	M18	M20	1/2"	9/16"	M10	M12	M16	M10	M12	M16	M20	M24	M20	M24
Ft lb	255	265	90	100	22	36	55	32	48	140	190	270	300	350
Nm	345	360	125	140	30	50	75	44	65	190	260	370	406	475

[1] When fitting a wheel & tire to a hub, tighten the wheel nuts in rotation to the correct tension. To achieve this choose a wheel nut & tighten, then proceed clockwise 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.

Chain Quantities

Model		Length	CL2	CL1	W36	R300	SD49	Prickle chain
			CL2 disc chain also requires CL1 disc chain					
2006	Front right	4.51m	CL2 - 19 CL1 - 2	28	26	36	36	50
	Front left	4.53m	CL2 - 19 CL1 - 2	28	26	36	36	50
	Rear right	4.60m	CL2 - 20 CL1 - 2	28	27	37	37	51
	Rear left	4.62m	CL2 - 20 CL1 - 2	28	27	37	37	51

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



Notes





