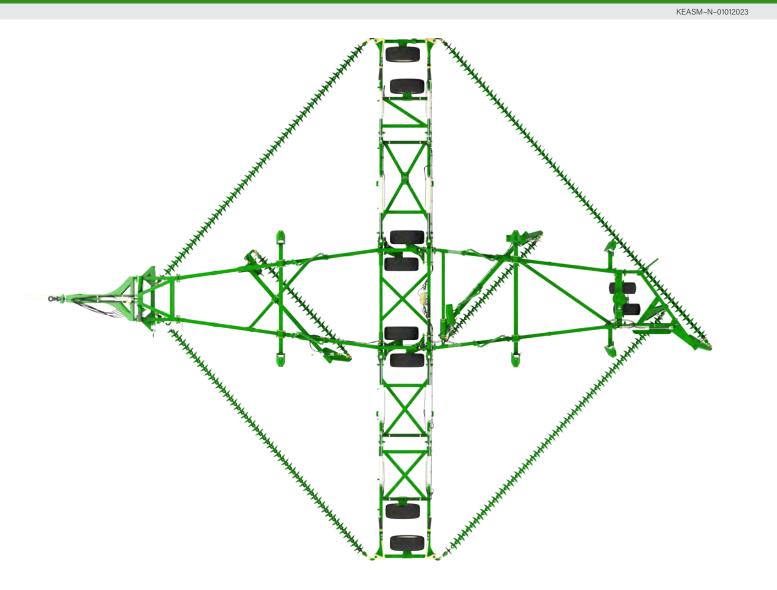


# Assembly Manual

## KELLY TILLAGE SYSTEM 4614



#### **SERIAL NUMBER:**



Phone +61 8 8667 2253 Email sales@kellytillage.com kellytillage.com **Booleroo (Head Office)** 684 Kelly Road, Booleroo Centre SA 5482 Adelaide Office 28 Greenhill Road, Wayville SA 5034

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# 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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Monday - Friday 8am - 4pm SAST

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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.

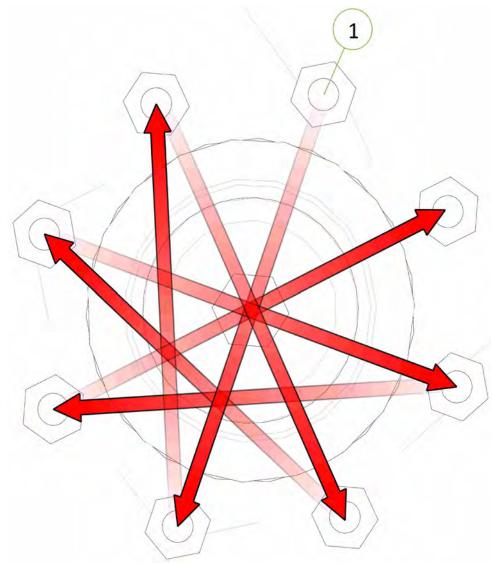
## **Bolt Torque Settings**

| Bolt Type        |     | Whe | el nut | :     | l   | U Boli | t   |     | Clas | s 8.8 | Bolt |     |     | s 10.9<br>olt | Grade<br>8 Bolt |
|------------------|-----|-----|--------|-------|-----|--------|-----|-----|------|-------|------|-----|-----|---------------|-----------------|
| <b>Bolt Size</b> | M18 | M20 | 1/2″   | 9/16″ | M10 | M12    | M16 | M10 | M12  | M16   | M20  | M24 | M20 | M24           | 1" UNF          |
| Ft lb            | 255 | 265 | 90     | 100   | 22  | 36     | 55  | 32  | 48   | 140   | 190  | 270 | 300 | 350           | 849             |
| Nm               | 345 | 360 | 125    | 140   | 30  | 50     | 75  | 44  | 65   | 190   | 260  | 370 | 406 | 475           | 1151            |

[1] When fitting a wheel & 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.

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





# Section 1 - Unpacking



### 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

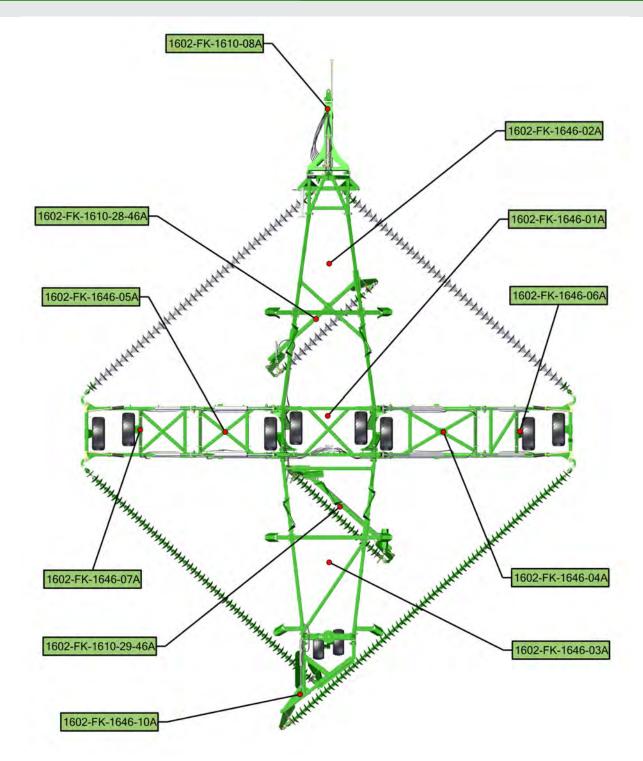
To avoid falling or moving components, before cutting straps attach slings or chains to individual pieces and only cut the straps holding the piece to be lifted.

- 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.

#### Dealer assembly begins at page 57.



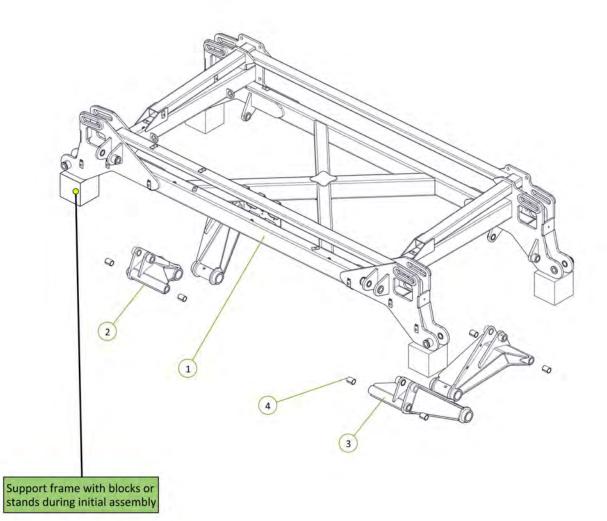
# Section 2 - Assembly



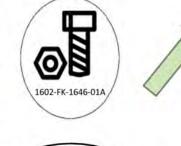
| Item No. | Description           | Number      | Qty |
|----------|-----------------------|-------------|-----|
| 1        | 46' Centre Frame      | 1646-01-2   | 1   |
| 2        | LH Walking Axle Arm   | 1610-40     | 2   |
| 3        | RH Walking Axle Arm   | 1610-41     | 2   |
| 4        | 1-1/2 ID x 2" DU Bush | 0113-24DU32 | 8   |

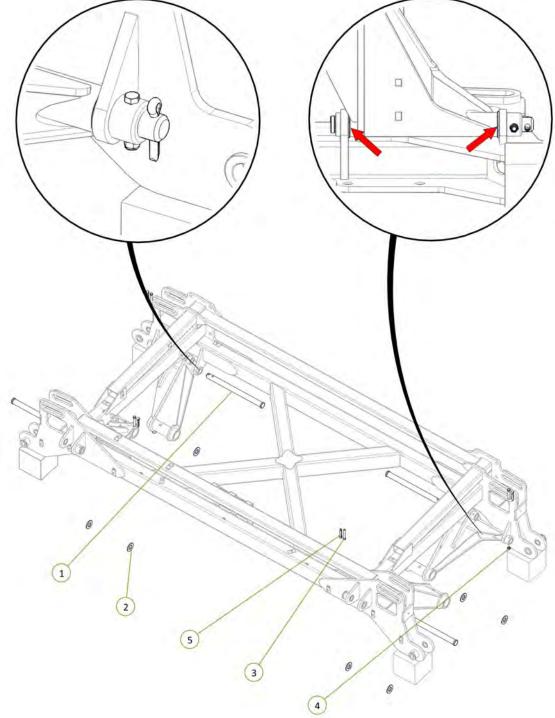


Please note bushes are factory inserted

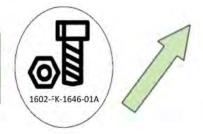


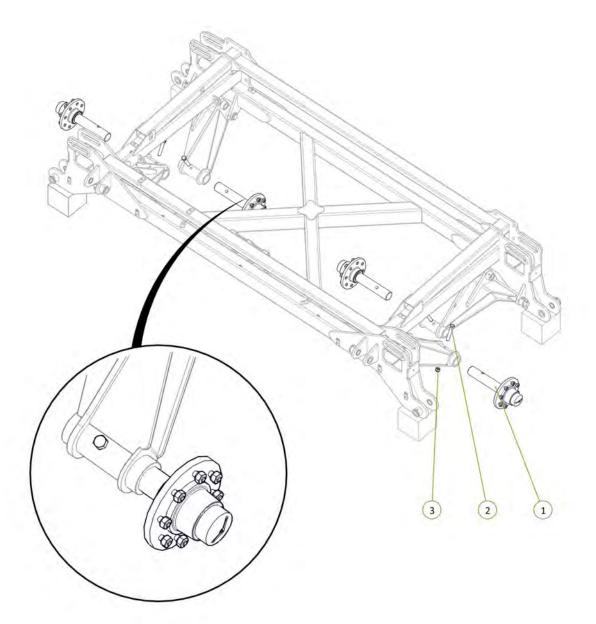
| Item No. | Description                | Number        | Qty |
|----------|----------------------------|---------------|-----|
| 1        | Walking Axle Pivot Pin     | 1601-P38-525  | 4   |
| 2        | Washer High Tensile 1 3/8" | 0232-HT13-8   | 8   |
| 3        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290     | 4   |
| 4        | Nyloc Nut M12              | 0221-NYL12    | 4   |
| 5        | Cotter Pin M13 x 63        | 0261-PINC1363 | 4   |



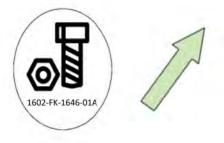


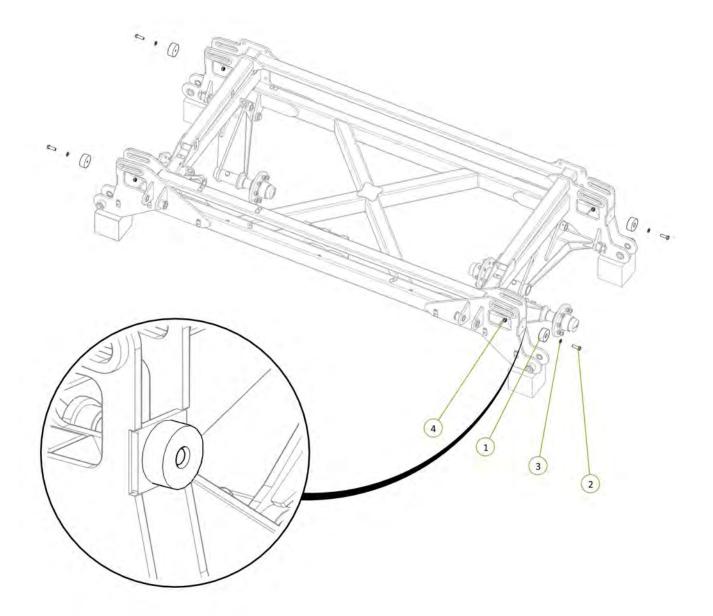
| Item No. | Description                                    | Number          | Qty |
|----------|--|-----------------|-----|
| 1        | 2.75"R 6 Tonne 8 on 8" PCD Hub & Stub Complete | 0733-SH27596880 | 4   |
| 2        | M20 x 120 grade 8.8 ZP Bolt                    | 0211-20120      | 4   |
| 3        | Nyloc Nut M20                                  | 0221-NYL20      | 4   |



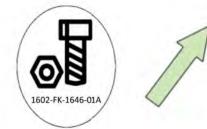


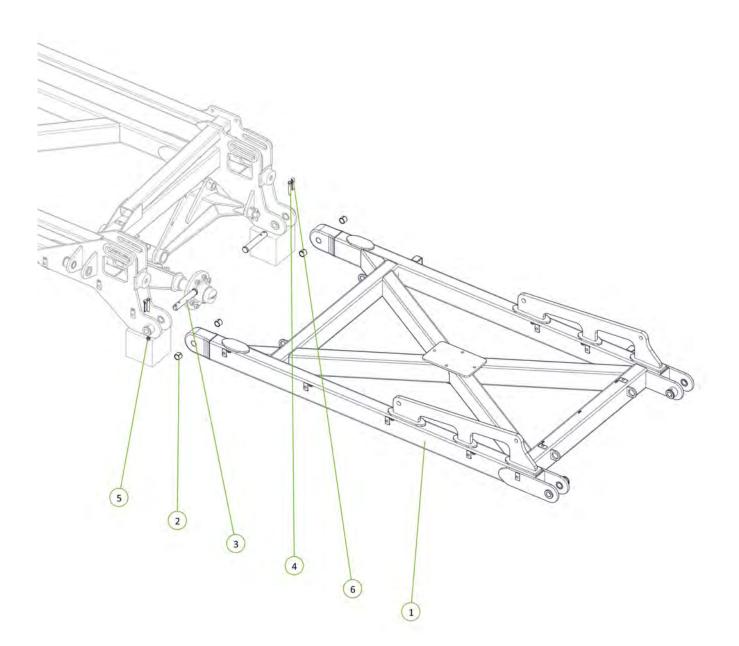
| Item No. | Description                | Number     | Qty |
|----------|----------------------------|------------|-----|
| 1        | Wing Folding Buffer        | 1201-12    | 4   |
| 2        | M16 x 55 grade 8.8 zp Bolt | 0211-1655  | 4   |
| 3        | Washer Flat M16            | 0231-F16   | 4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

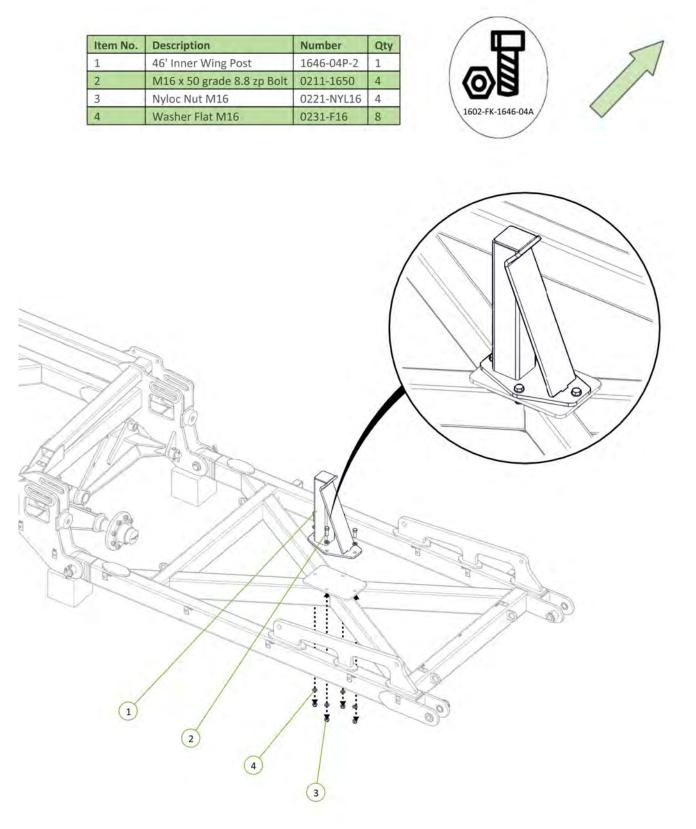




| Item No. | Description                | Number         | Qty |
|----------|----------------------------|----------------|-----|
| 1        | 46' RH Inner Wing Frame    | 1646-04-2      | 1   |
| 2        | 35 ID x 30mm DU Bush       | 0113-MB3530DU  | 4   |
| 3        | PCH Wing Pivot Pin         | 0801-10-08-235 | 2   |
| 4        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290      | 2   |
| 5        | Nyloc Nut M12              | 0221-NYL12     | 2   |
| 6        | Cotter Pin M13 x 63        | 0261-PINC1363  | 2   |



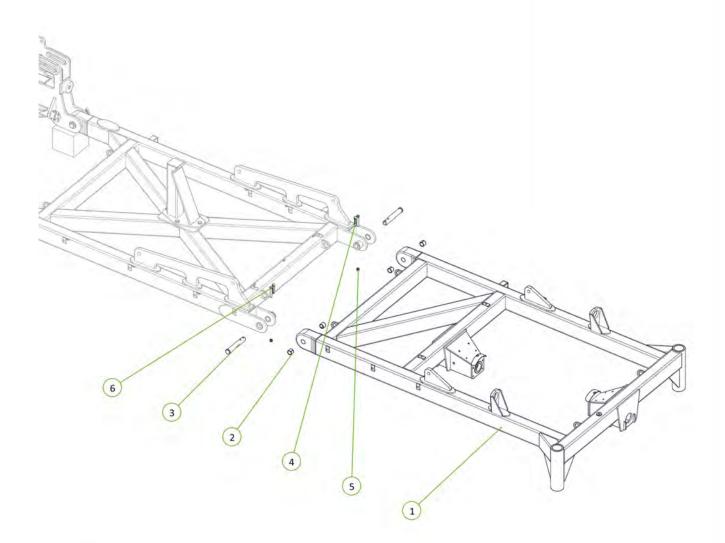




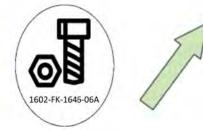
| Item No. | Description                | Number         | Qty |
|----------|----------------------------|----------------|-----|
| 1        | 46' RH Outer Wing Frame    | 1646-06-2      | 1   |
| 2        | 35 ID x 30mm DU Bush       | 0113-MB3530DU  | 4   |
| 3        | PCH Wing Pivot Pin         | 0801-10-08-235 | 2   |
| 4        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290      | 2   |
| 5        | Nyloc Nut M12              | 0221-NYL12     | 2   |
| 6        | Cotter Pin M13 x 63        | 0261-PINC1363  | 2   |

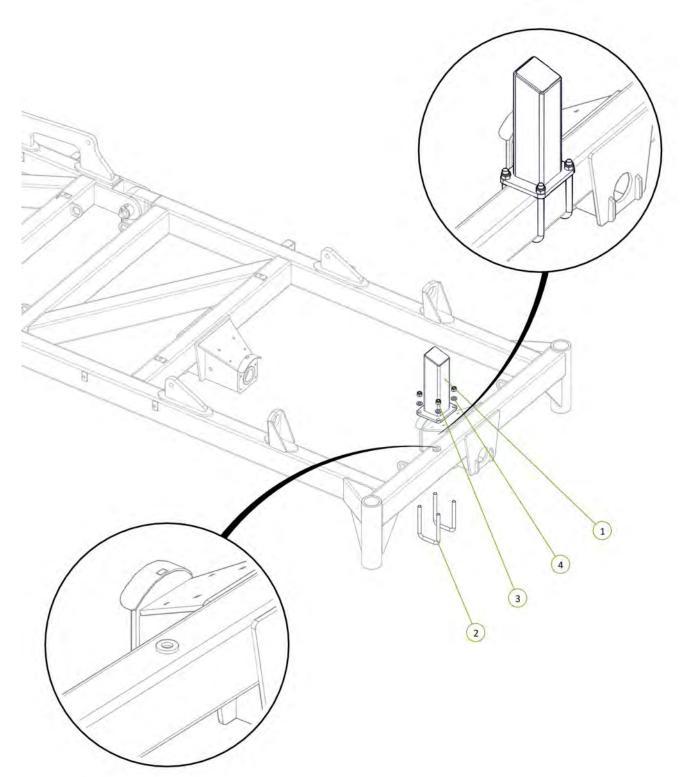




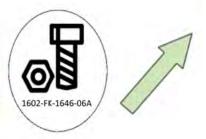


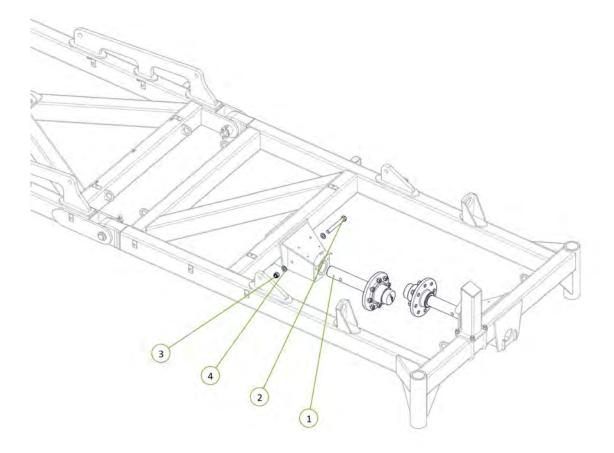
| Item No. | Description                      | Number         | Qty |
|----------|----------------------------------|----------------|-----|
| 1        | 46' Outer Wing Post              | 1646-06P-2     | 1   |
| 2        | U-Bolt M16 x 190 Deep x 106 Wide | 0271-16190106U | 2   |
| 3        | Nyloc Nut M16                    | 0221-NYL16     | 4   |
| 4        | Washer Flat M16                  | 0231-F16       | 4   |





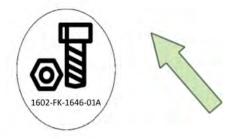
| Item No. | Description                                    | Number          | Qty |
|----------|--|-----------------|-----|
| 1        | 2.75"R 6 Tonne 8 on 8" PCD Hub & Stub Complete | 0733-SH27596880 | 2   |
| 2        | M20 x 170 grade 8.8 ZP Bolt                    | 0211-20170      | 2   |
| 3        | Nyloc Nut M20                                  | 0221-NYL20      | 2   |
| 4        | Washer Flat M20                                | 0231-F20        | 4   |

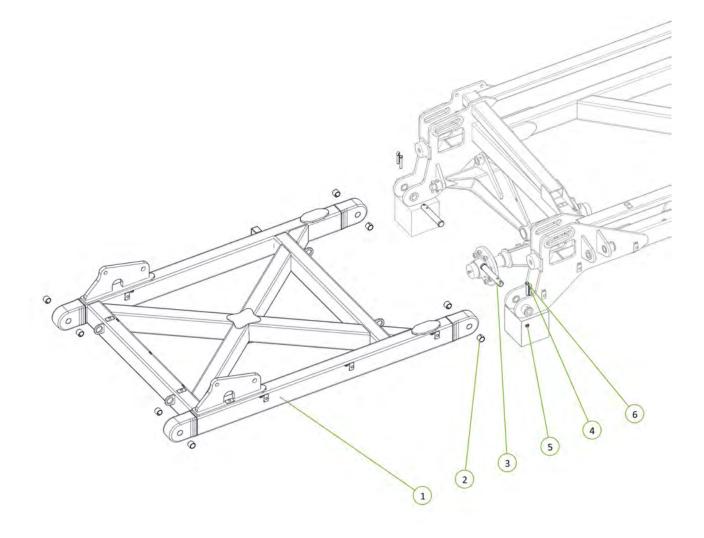




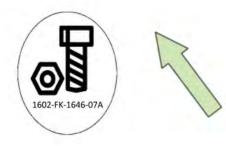
Duel outer wing wheel option shown

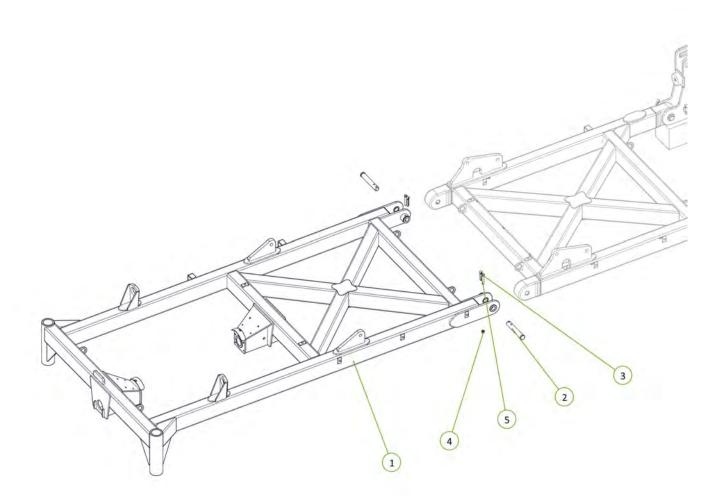
| Item No. | Description                | Number         | Qty |
|----------|----------------------------|----------------|-----|
| 1        | 46' LH Inner Wing Frame    | 1646-05-2      | 1   |
| 2        | 35 ID x 30mm DU Bush       | 0113-MB3530DU  | 8   |
| 3        | PCH Wing Pivot Pin         | 0801-10-08-235 | 2   |
| 4        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290      | 2   |
| 5        | Nyloc Nut M12              | 0221-NYL12     | 2   |
| 6        | Cotter Pin M13 x 63        | 0261-PINC1363  | 2   |



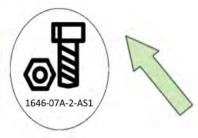


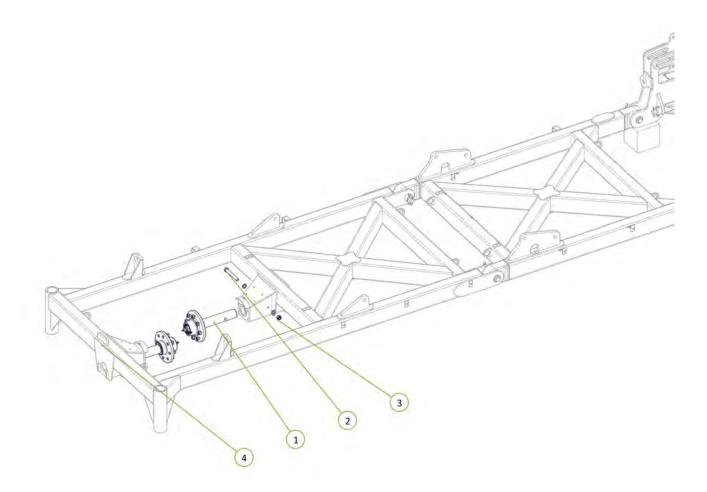
| Item No. | Description                | Number         | Qty |
|----------|----------------------------|----------------|-----|
| 1        | 46' LH Outer Wing Frame    | 1646-07-2      | 1   |
| 2        | PCH Wing Pivot Pin         | 0801-10-08-235 | 2   |
| 3        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290      | 2   |
| 4        | Nyloc Nut M12              | 0221-NYL12     | 2   |
| 5        | Cotter Pin M13 x 63        | 0261-PINC1363  | 2   |



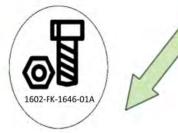


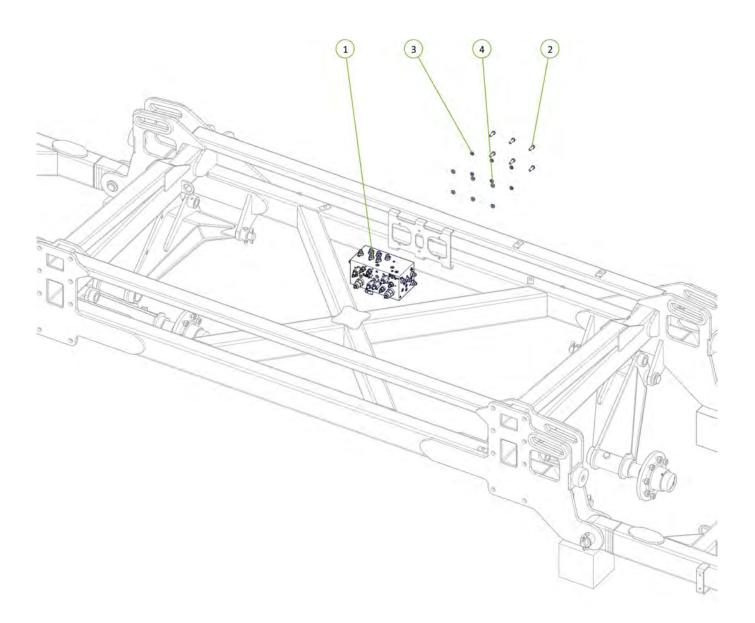
| Item No. | Description                                    | Number          | Qty |
|----------|--|-----------------|-----|
| 1        | 2.75"R 6 Tonne 8 on 8" PCD Hub & Stub Complete | 0733-SH27596880 | 2   |
| 2        | M20 x 170 Class 8.8 ZP Bolt                    | 0211-20170      | 2   |
| 3        | Nyloc Nut M20                                  | 0221-NYL20      | 2   |
| 4        | Washer Flat M20                                | 0231-F20        | 4   |



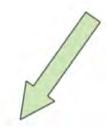


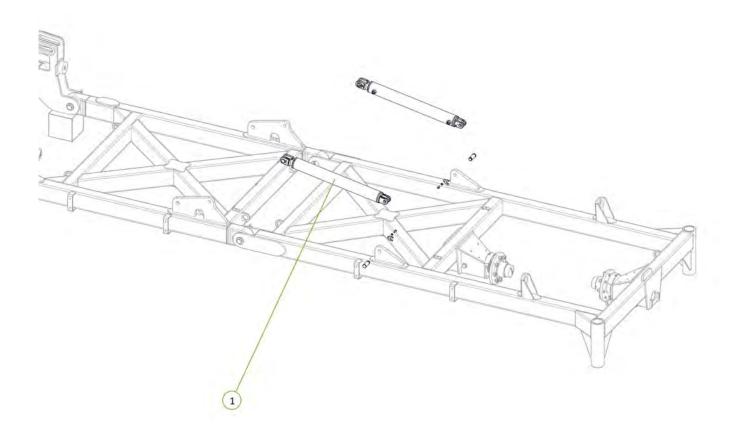
| Item No. | Description                                  | Number      | Qty |
|----------|--|-------------|-----|
| 1        | Dual Circuit 3 Stage Sequence Manifold V12.5 | 0802-692196 | 1   |
| 2        | M10 x 30 grade 8.8 ZP Bolt                   | 0211-1030   | 6   |
| 3        | Washer Spring M10                            | 0231-S10    | 6   |
| 4        | Washer Flat M10                              | 0231-F10    | 6   |

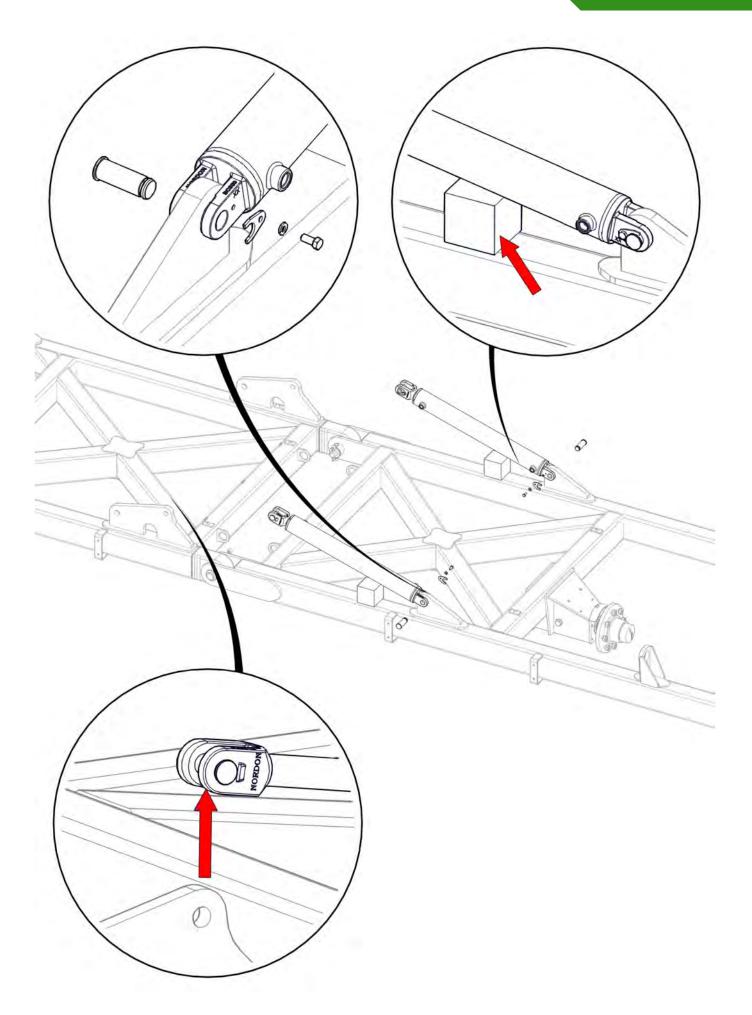


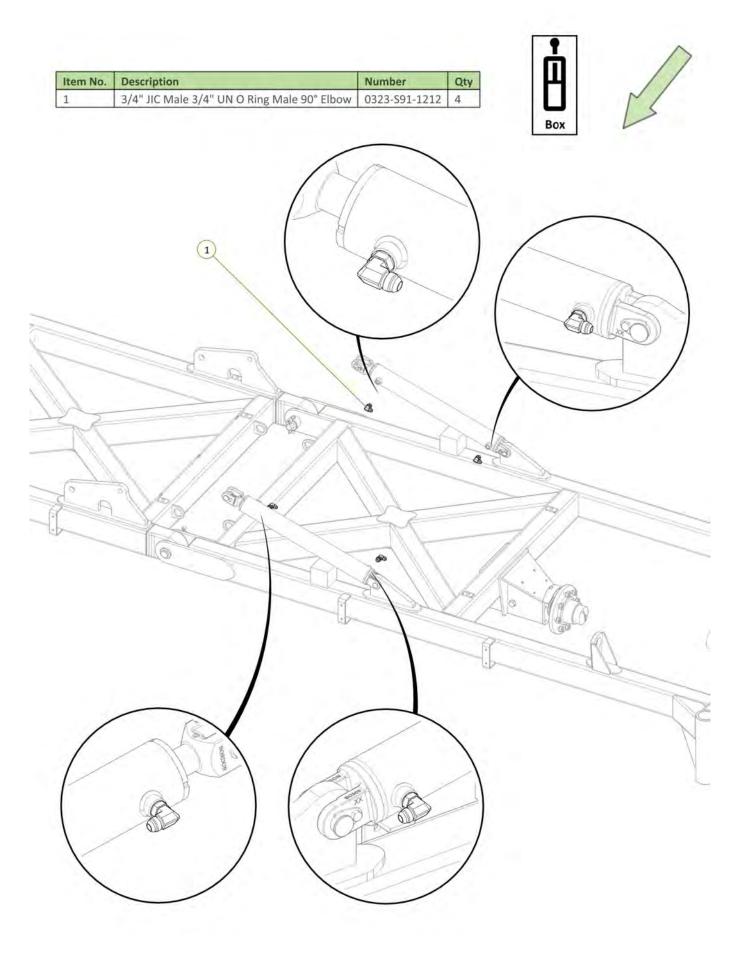


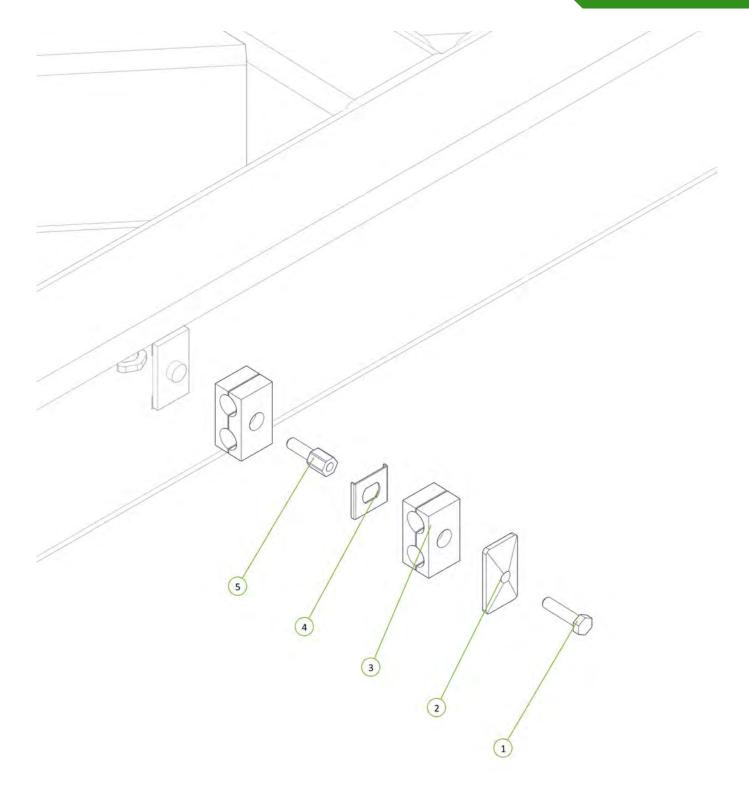
| Item No. | Description  | Number       | Qty |
|----------|--|--------------|-----|
| 1        | 3" Bore x 24" Stroke 1.5" Rod Hydraulic Cylinder Side Port | 0311-324STSP | 2   |







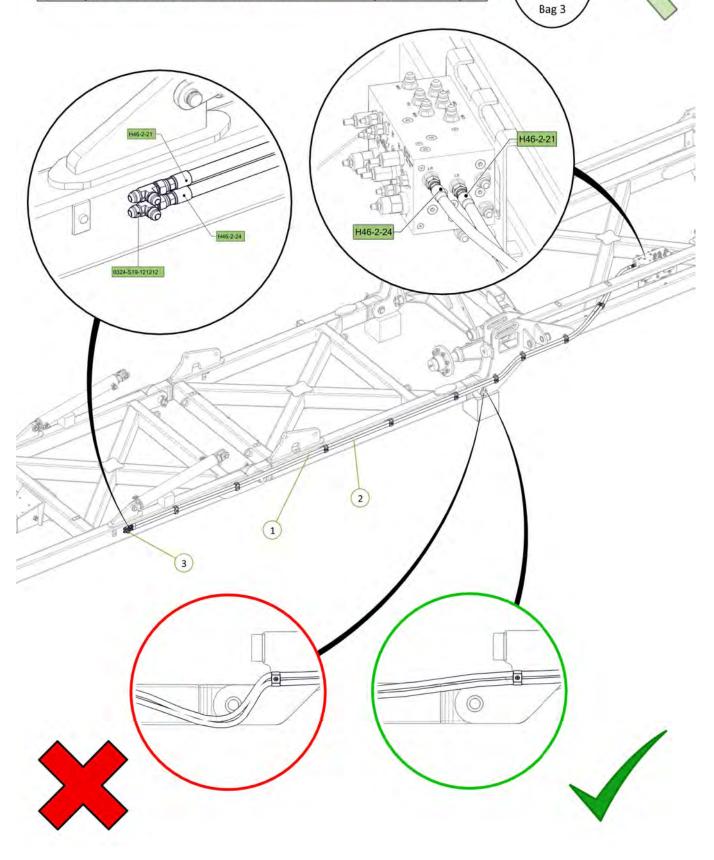




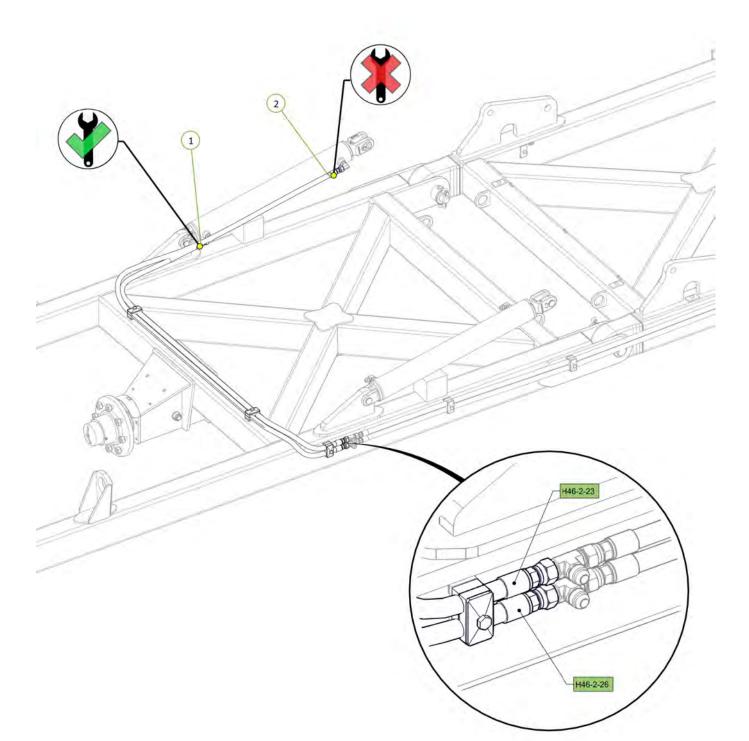
| Item No. | Description  | Number       | Qty |  |
|----------|--|--------------|-----|--|
| 1        | Double Clamp Bolt Group 2                              | 0325-RCD-2BH | 1   |  |
| 2        | Clamp top plate group 2                                | 0325-RCD-2PT | 1   |  |
| 3        | 17mm Clamp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



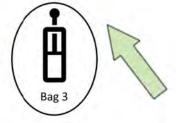
| Item No. | Description  | Number          | Qty |
|----------|--|-----------------|-----|
| 1        | LH Sequence Valve LE Port to LH Outer Wing Extend Tee            | H46-2-21        | 1   |
| 2        | LH Sequence Valve LR Port to LH Outer Wing Cylinder Retract Port | H46-2-24        | 1   |
| 3        | 3/4" JIC Male Tee 3/4" JIC Male Tee 3/4" JIC Male Tee            | 0324-S19-121212 | 2   |

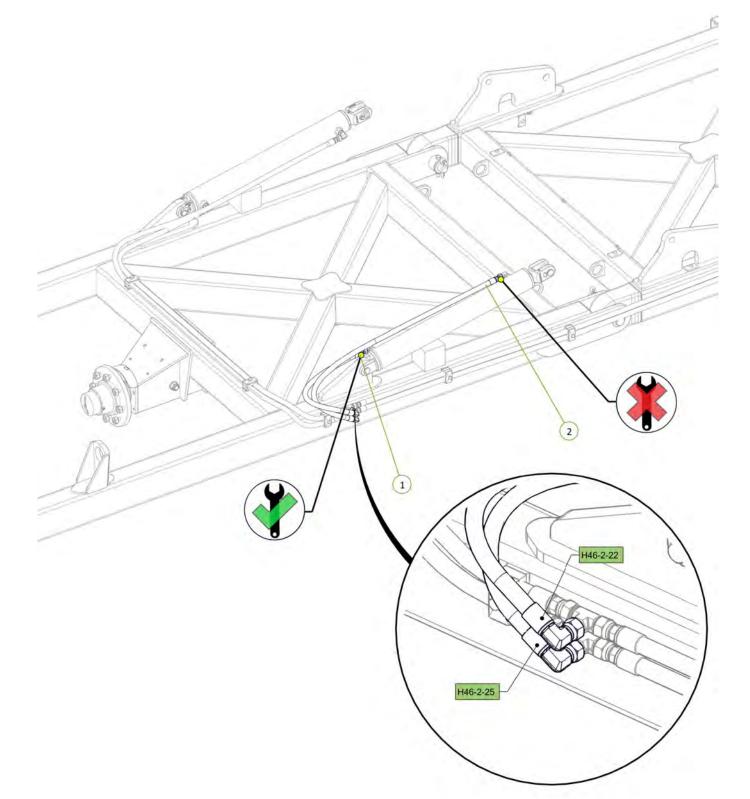


| Item No. | Description  | Number   | Qt |
|----------|--|----------|----|
| 1        | LH Outer Wing Extend Tee to LH Inner Wing Front Cylinder Extend Port   | H46-2-23 | 1  |
| 2        | LH Outer Wing Retract Tee to LH Inner Wing Front Cylinder Retract Port | H46-2-26 | 1  |



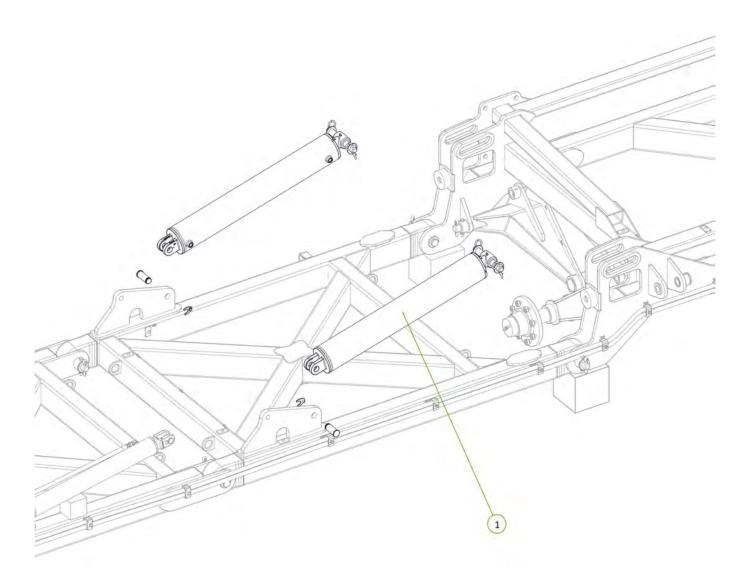
| Item No. | Description   | Number   | Qty |
|----------|---|----------|-----|
| 1        | LH Outer Wing Extend Tee to LH Inner Wing Rear Cylinder Extend Port   | H46-2-22 | 1   |
| 2        | LH Outer Wing Retract Tee to LH Inner Wing Rear Cylinder Retract Port | H46-2-25 | 1   |

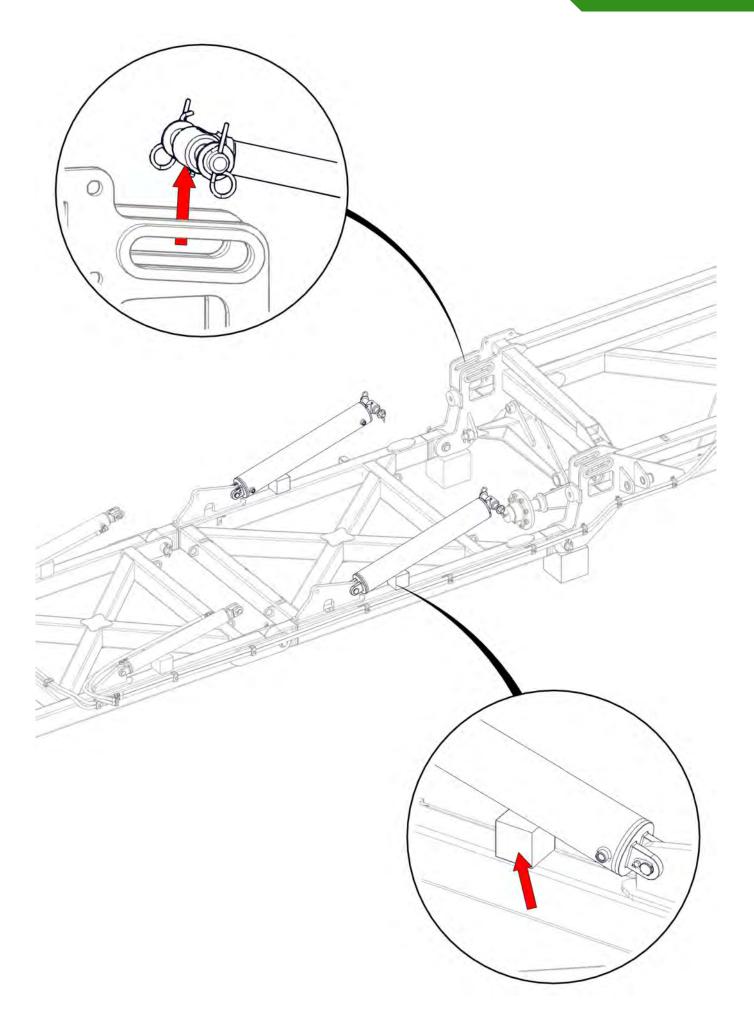


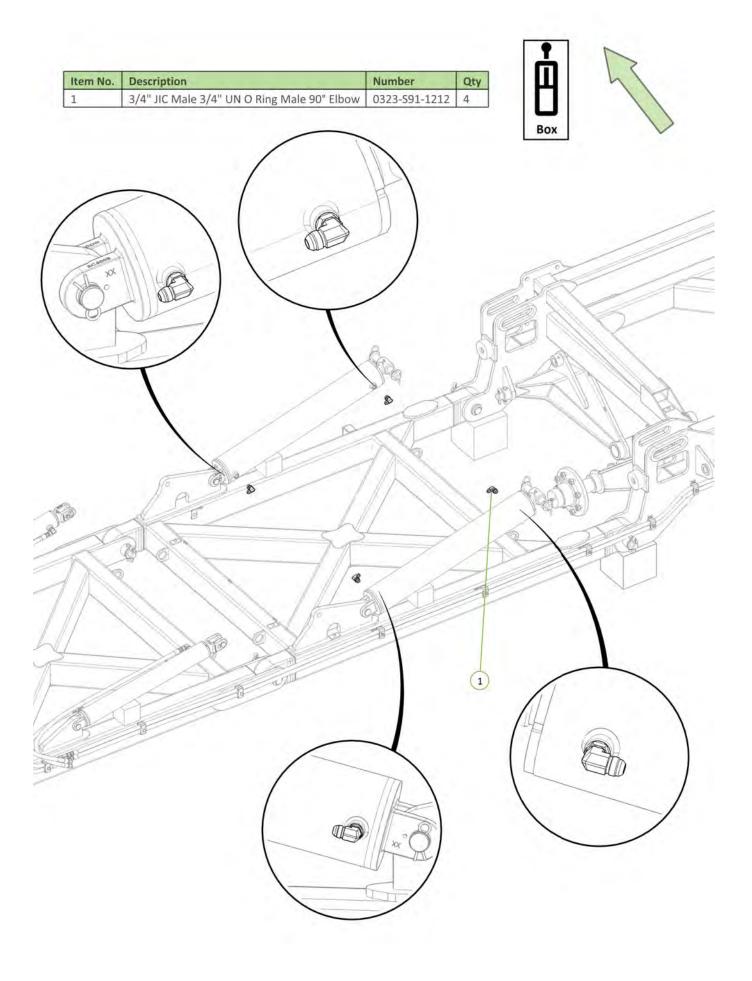


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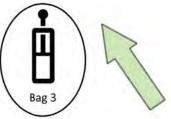
| Item No. | Description  | Number       | Qty |
|----------|--|--------------|-----|
| 1        | 5" Bore 30" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder | 0311-530STSP | 2   |

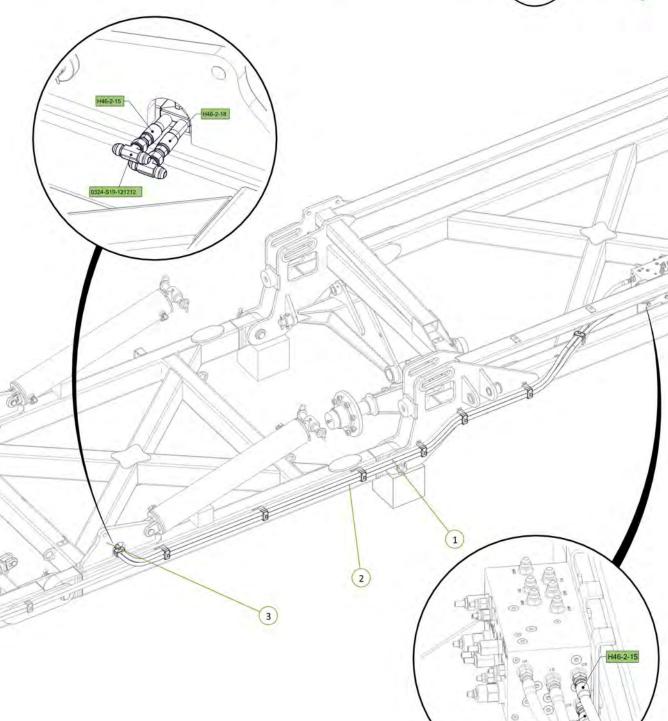






| Item No. | Description  | Number          | Qty |
|----------|--|-----------------|-----|
| 1        | LH Sequence Valve CE Port to LH Inner Wing Extend Tee  | H46-2-15        | 1   |
| 2        | LH Sequence Valve CR Port to LH Inner Wing Retract Tee | H46-2-18        | 1   |
| 3        | 3/4" JIC Male Tee 3/4" JIC Male Tee 3/4" JIC Male Tee  | 0324-519-121212 | 2   |

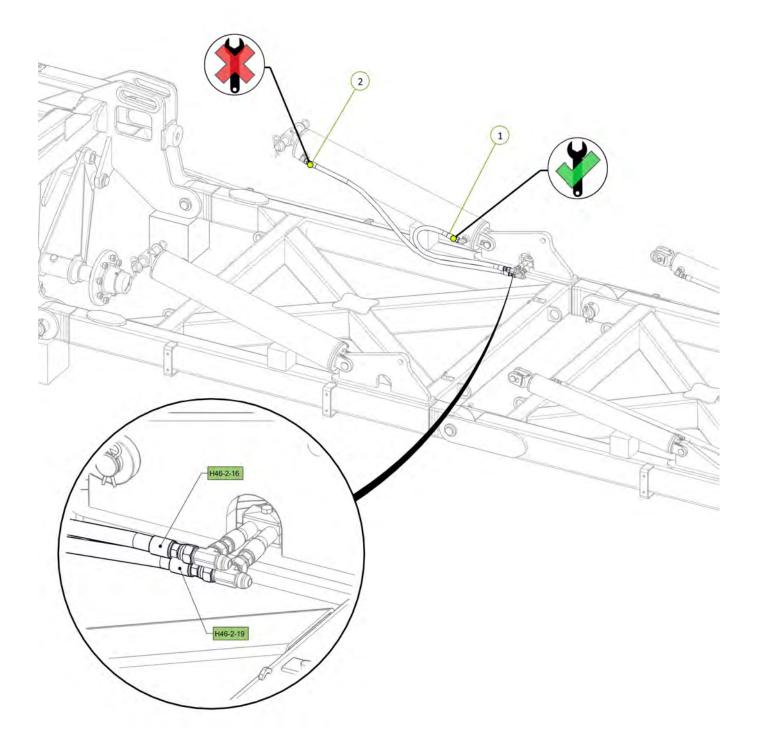


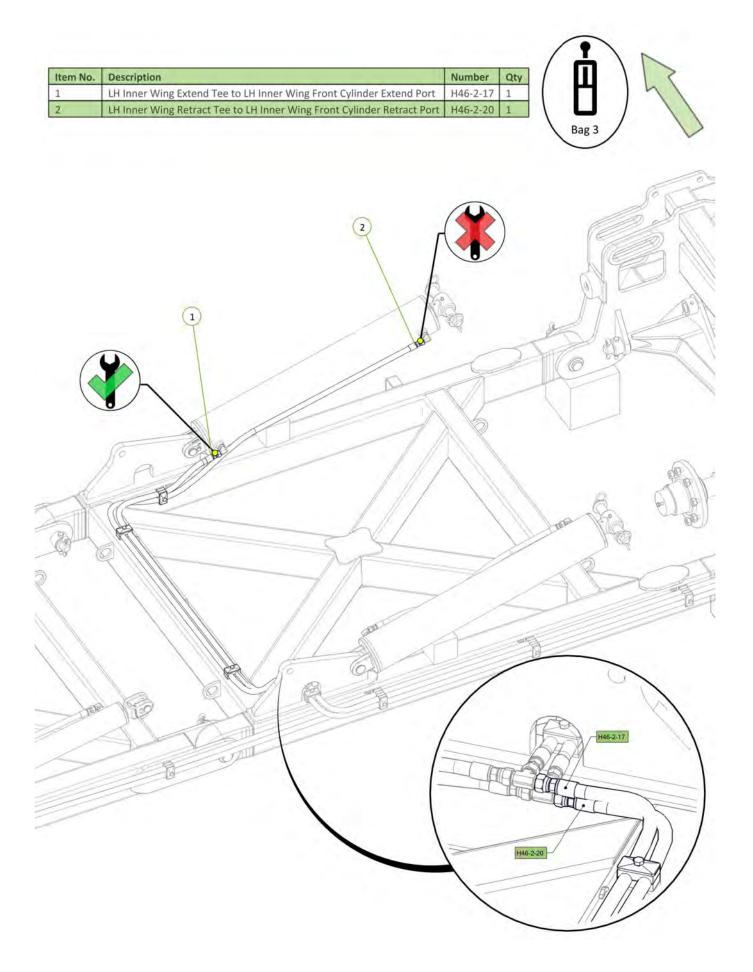


H46-2-18

Bag 3

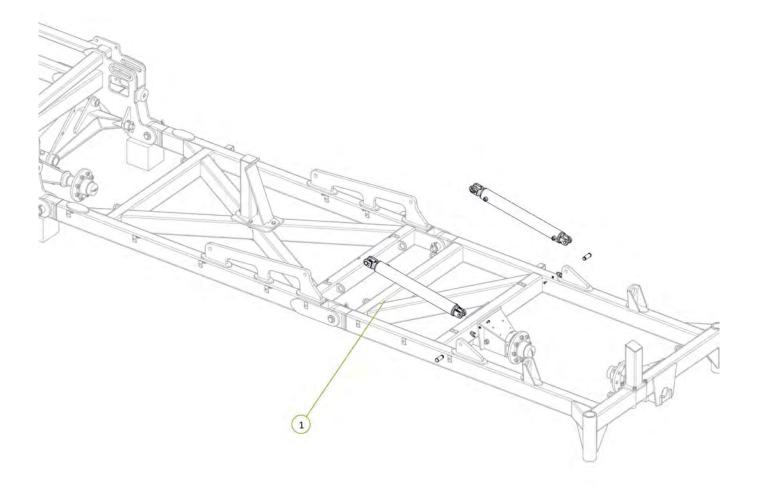
| Item No. | Description   | Number   | Qty |
|----------|---|----------|-----|
| 1        | LH Inner Wing Extend Tee to LH Inner Wing Rear Cylinder Extend Port   | H46-2-16 | 1   |
| 2        | LH Inner Wing Retract Tee to LH Inner Wing Rear Cylinder Retract Port | H46-2-19 | 1   |

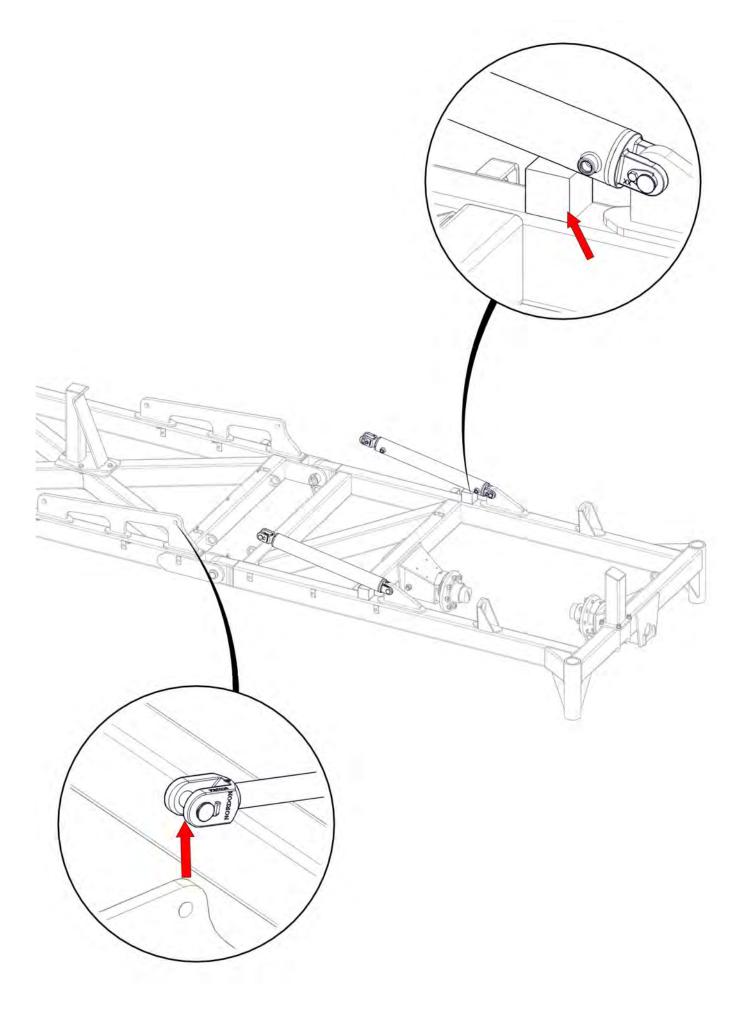


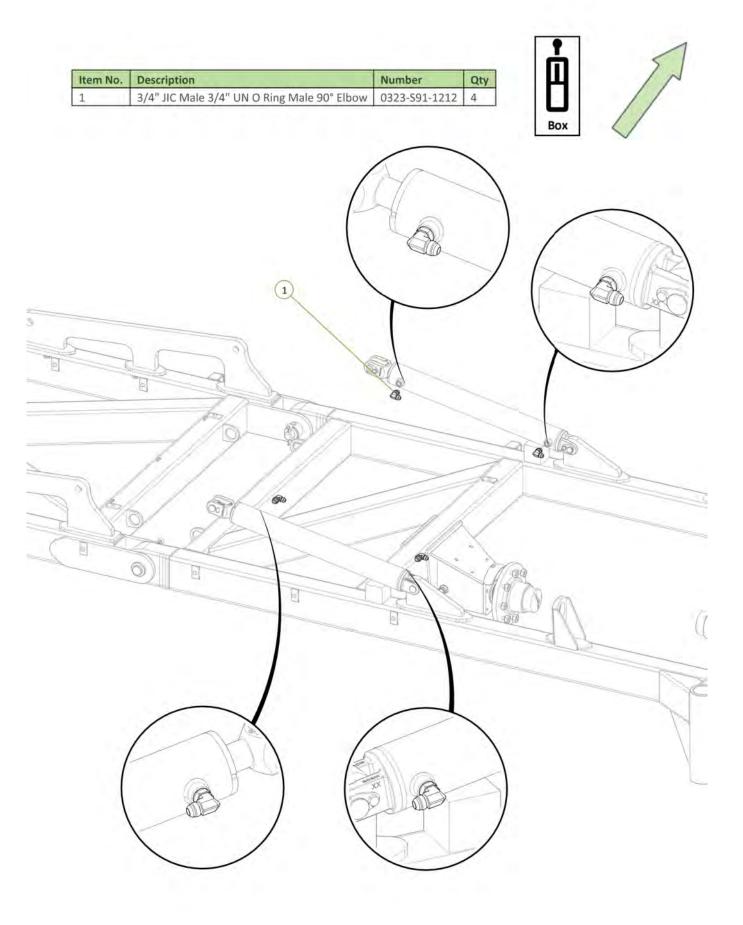


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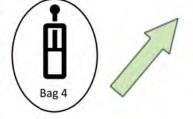
| Item No. | Description  | Number       | Qty |
|----------|--|--------------|-----|
| 1        | 3" Bore x 24" Stroke 1.5" Rod Hydraulic Cylinder Side Port | 0311-324STSP | 2   |

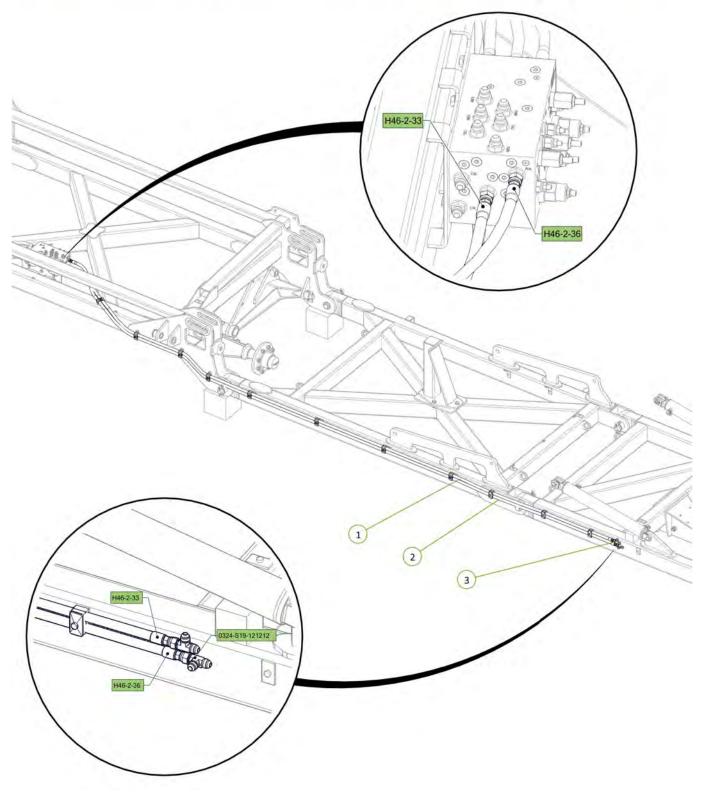


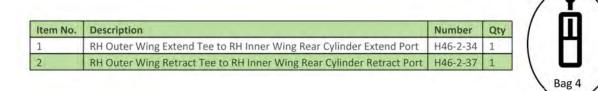


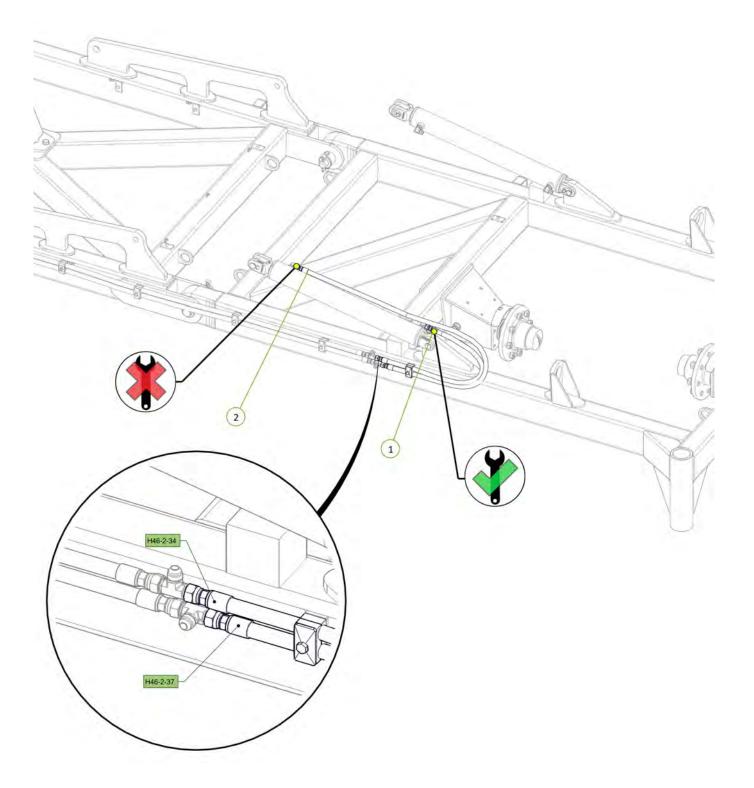


| Item No. | Description  | Number          | Qty |
|----------|--|-----------------|-----|
| 1        | RH Sequence Valve RE Port to RH Outer Wing Extend Tee  | H46-2-33        | 1   |
| 2        | RH Sequence Valve RR Port to RH Outer Wing Retract Tee | H46-2-36        | 1   |
| 3        | 3/4" JIC Male Tee 3/4" JIC Male Tee 3/4" JIC Male Tee  | 0324-S19-121212 | 2   |

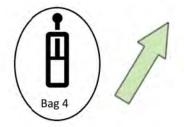


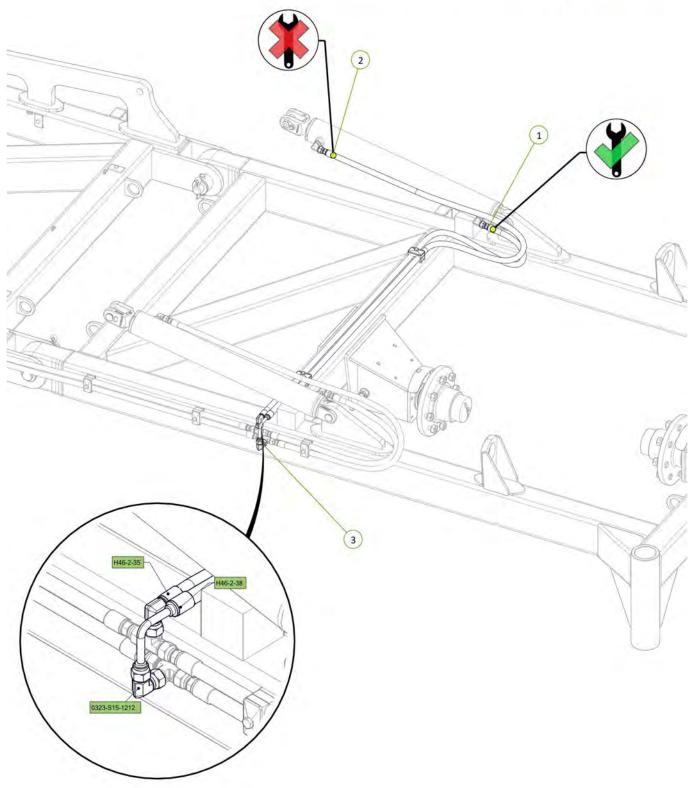






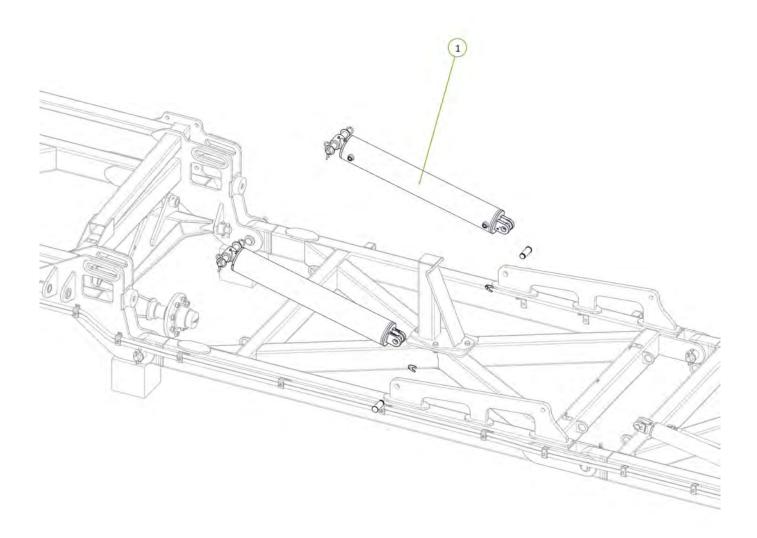
| Item No. | Description  | Number        | Qty |
|----------|--|---------------|-----|
| 1        | RH Outer Wing Extend Tee to RH Inner Wing Front Cylinder Extend Port   | H46-2-35      | 1   |
| 2        | RH Outer Wing Retract Tee to RH Inner Wing Front Cylinder Retract Port | H46-2-38      | 1   |
| 3        | 3/4" JIC Male 3/4" JIC Female Swivel 90° Elbow                         | 0323-515-1212 | 1   |

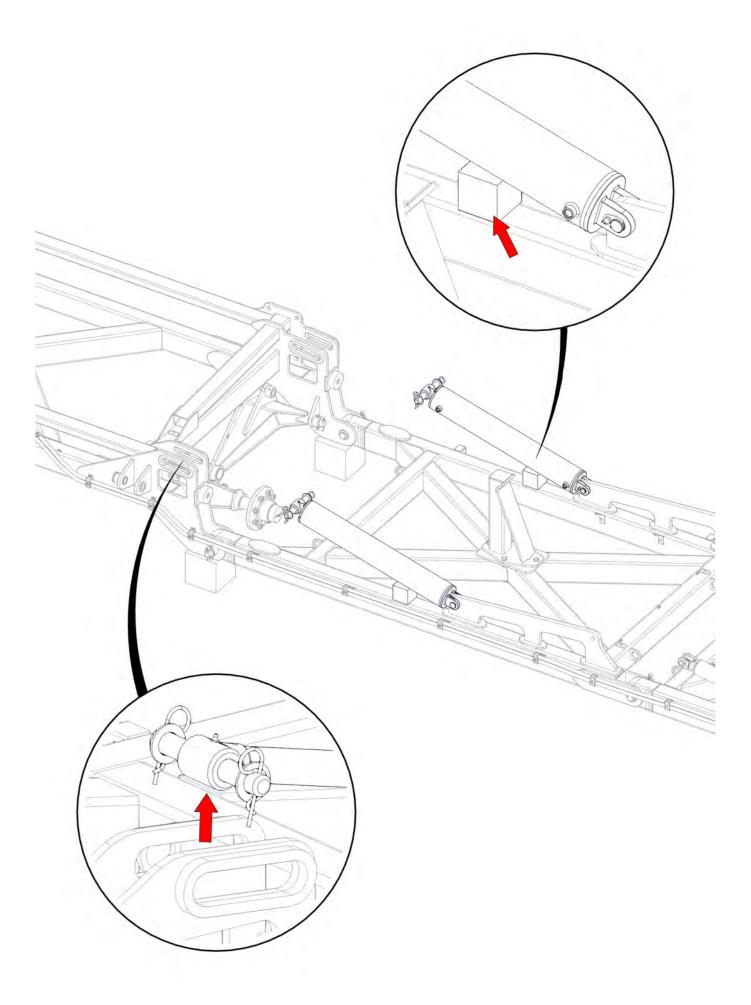


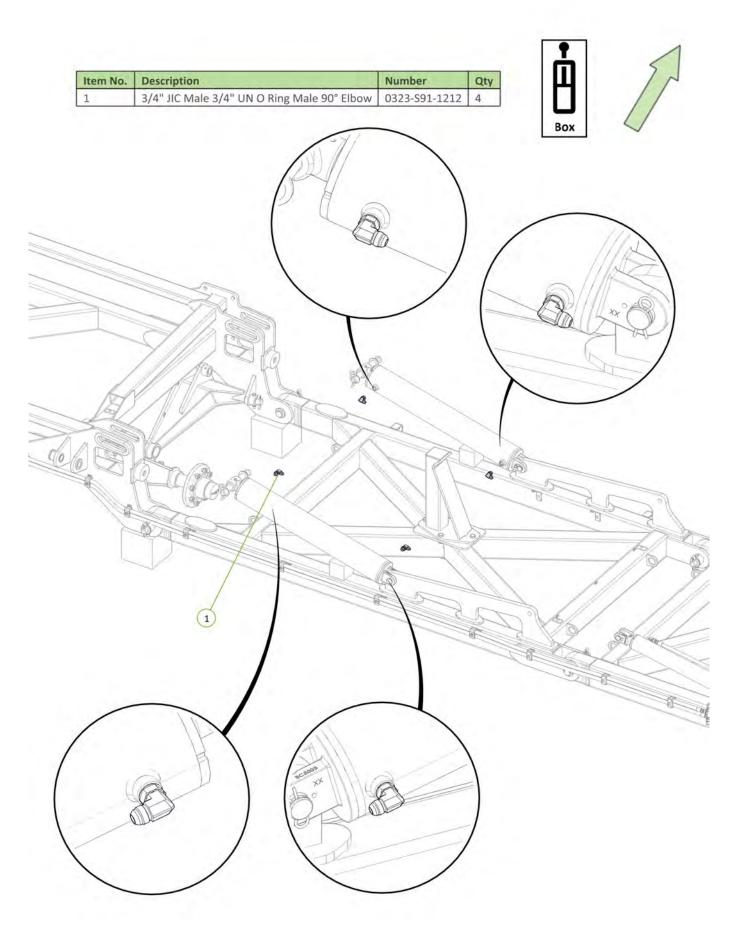


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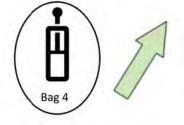
| Item No. | Description  | Number       | Qty |
|----------|--|--------------|-----|
| 1        | 5" Bore 30" Stroke 3 1/8" S/Tube 2" Rod Hydraulic Cylinder | 0311-530STSP | 2   |

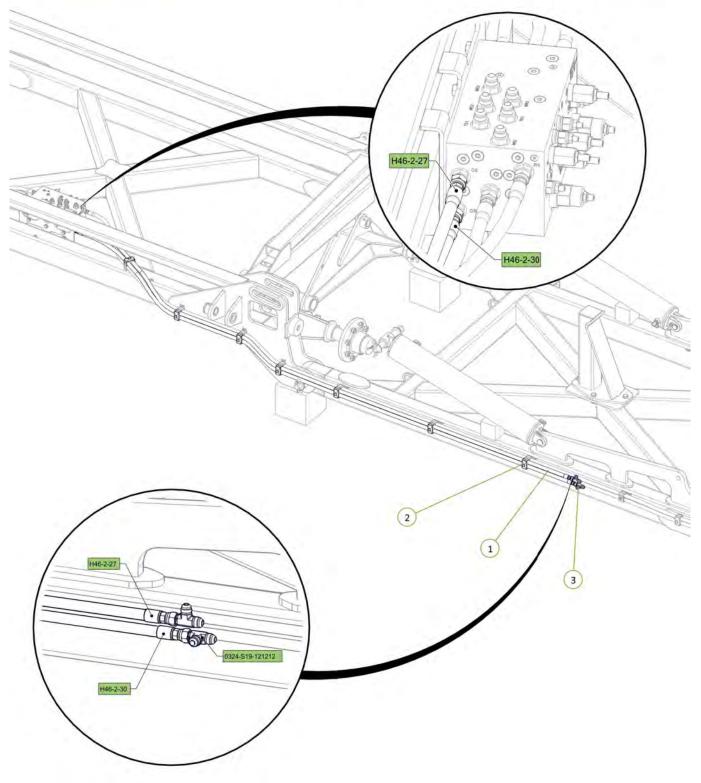


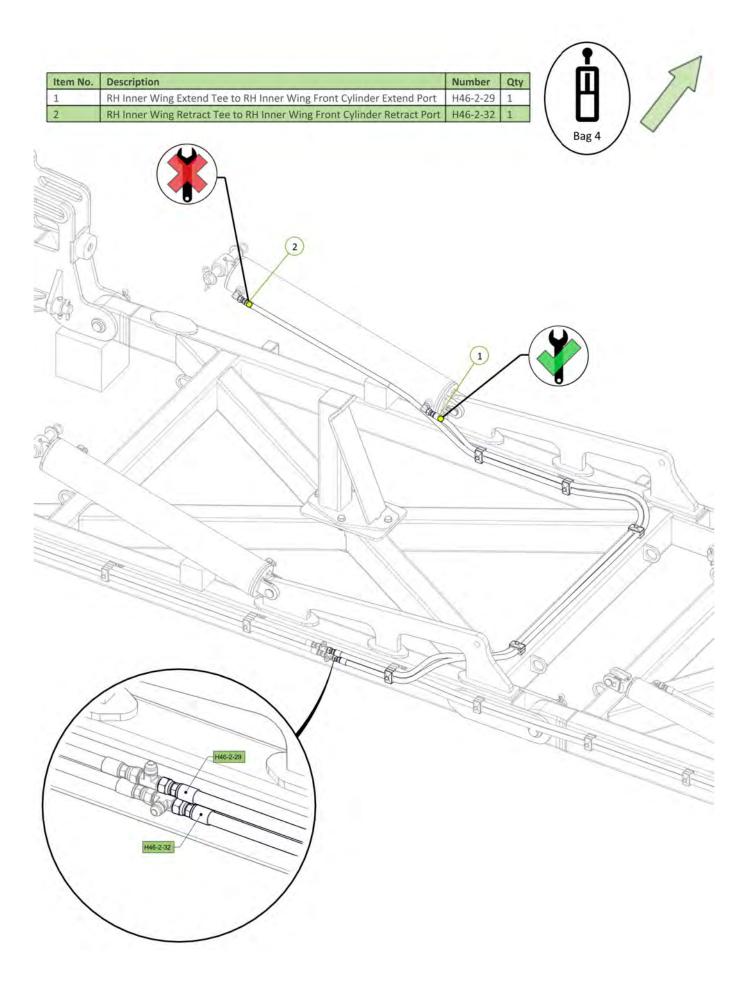


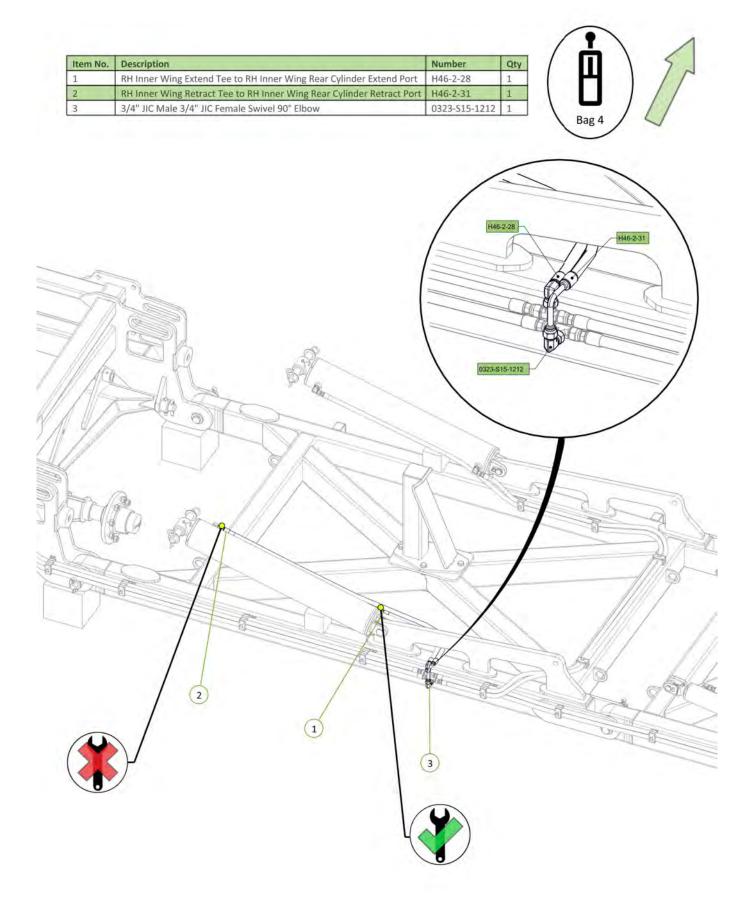


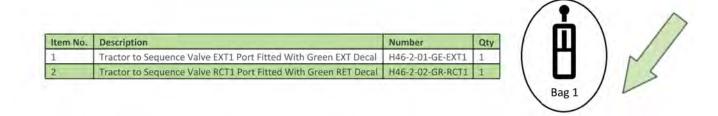
| Item No. | Description  | Number          | Qty |
|----------|--|-----------------|-----|
| 1        | RH Sequence Valve CE Port to RH Inner Wing Extend Tee  | H46-2-27        | 1   |
| 2        | RH Sequence Valve CR Port to RH Inner Wing Retract Tee | H46-2-30        | 1   |
| 3        | 3/4" JIC Male Tee 3/4" JIC Male Tee 3/4" JIC Male Tee  | 0324-S19-121212 | 2   |

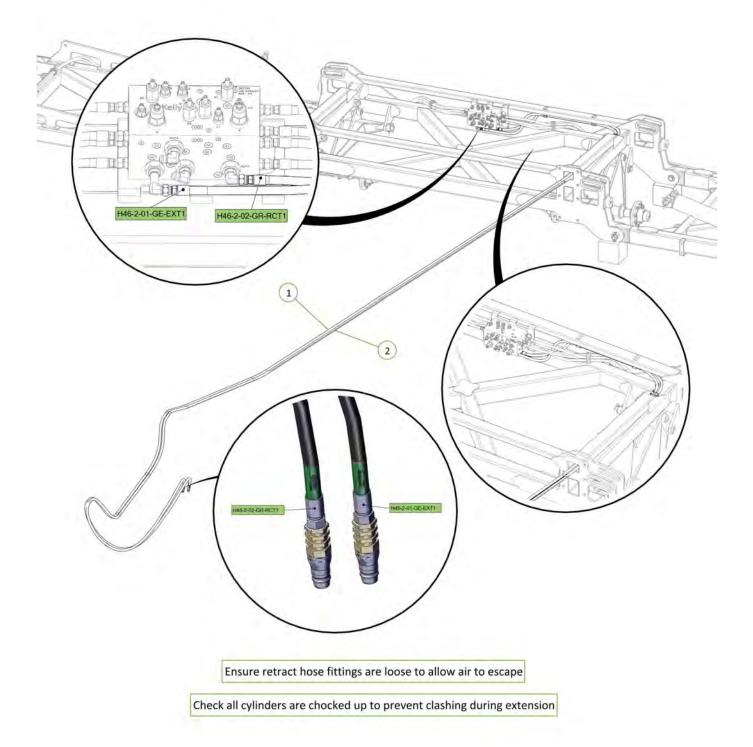


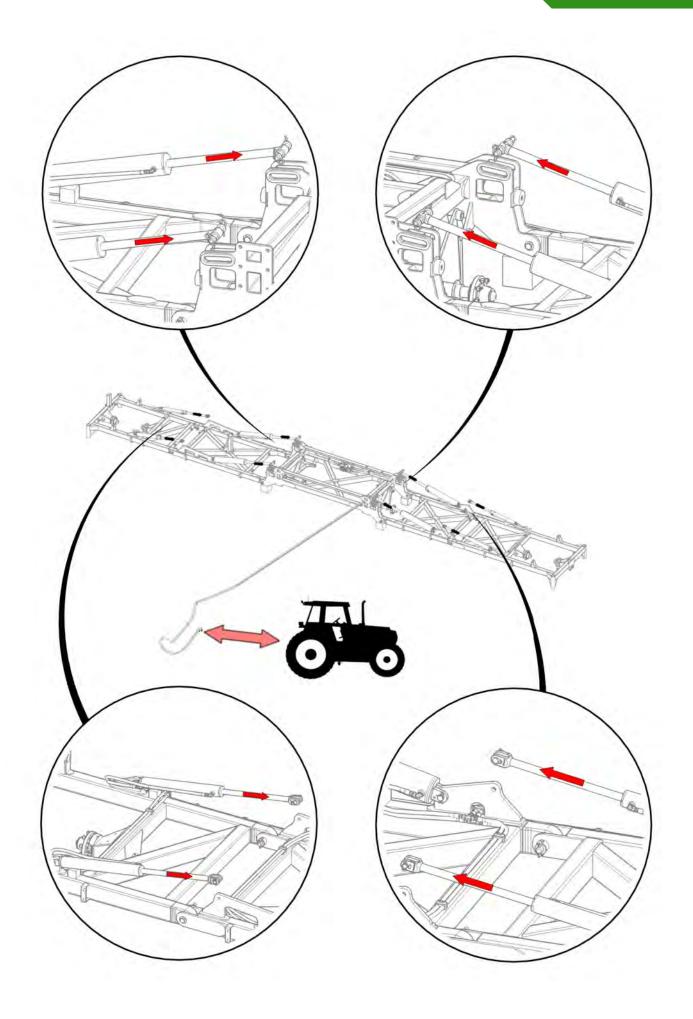


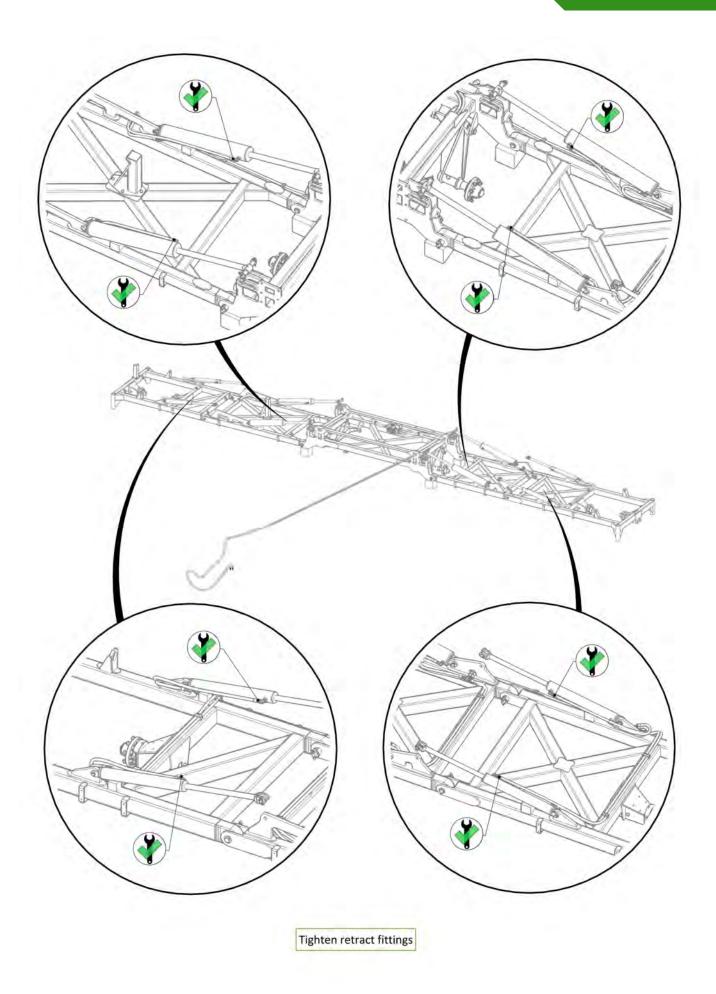


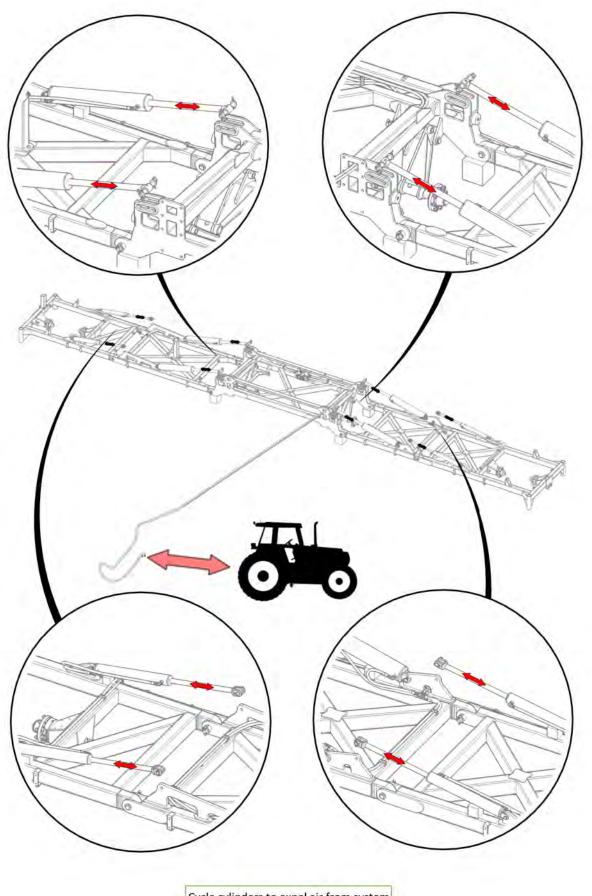




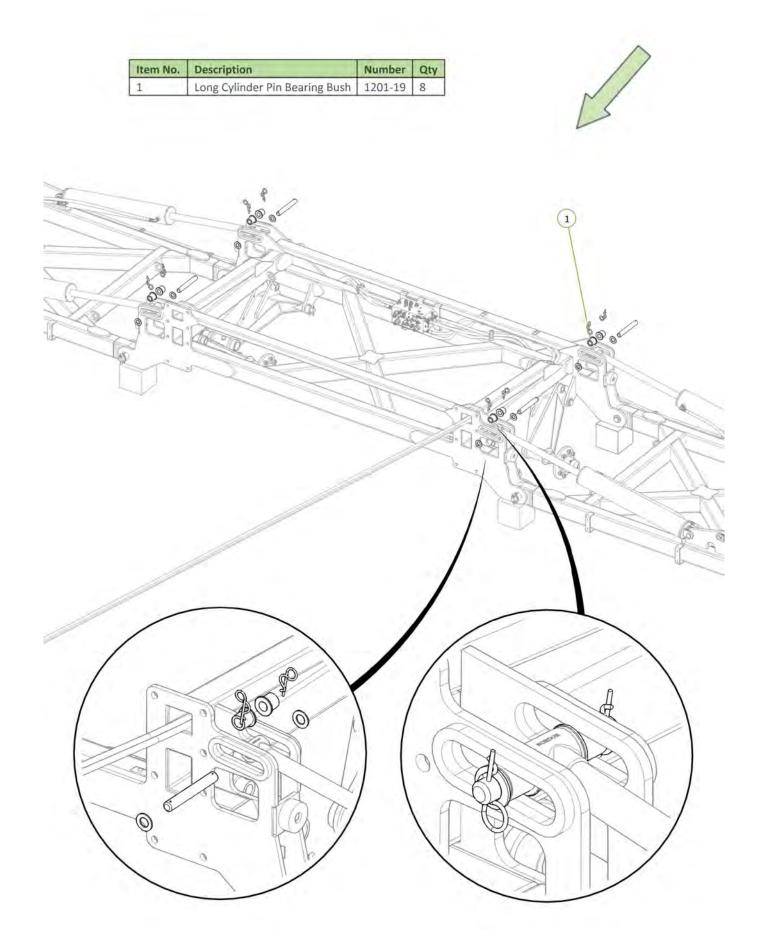


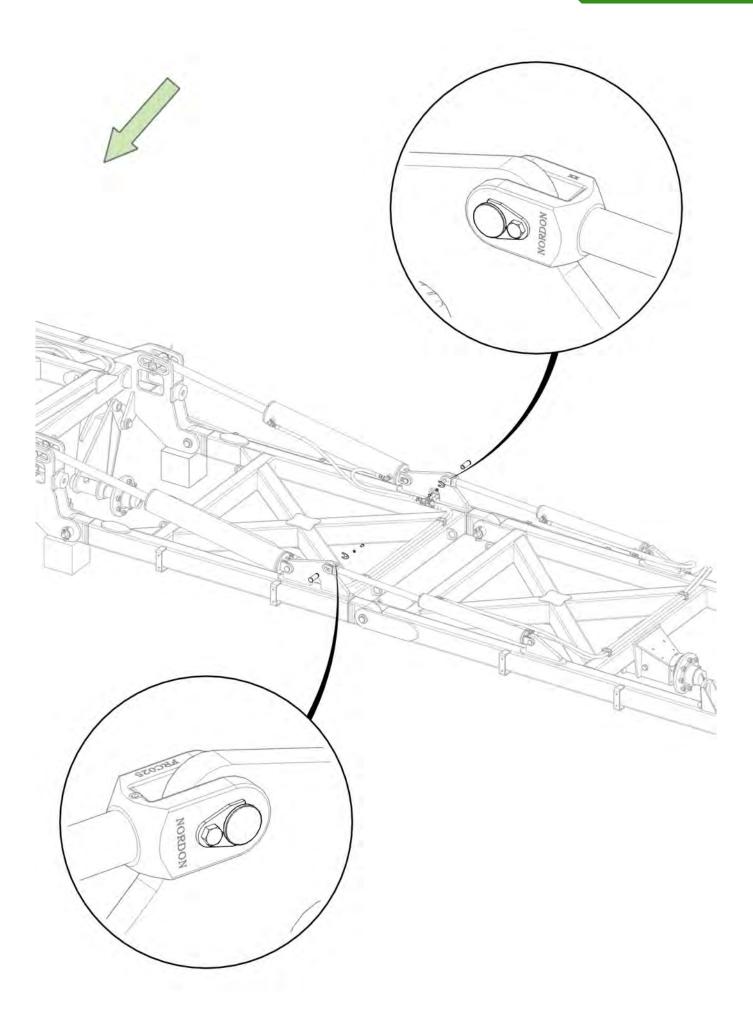


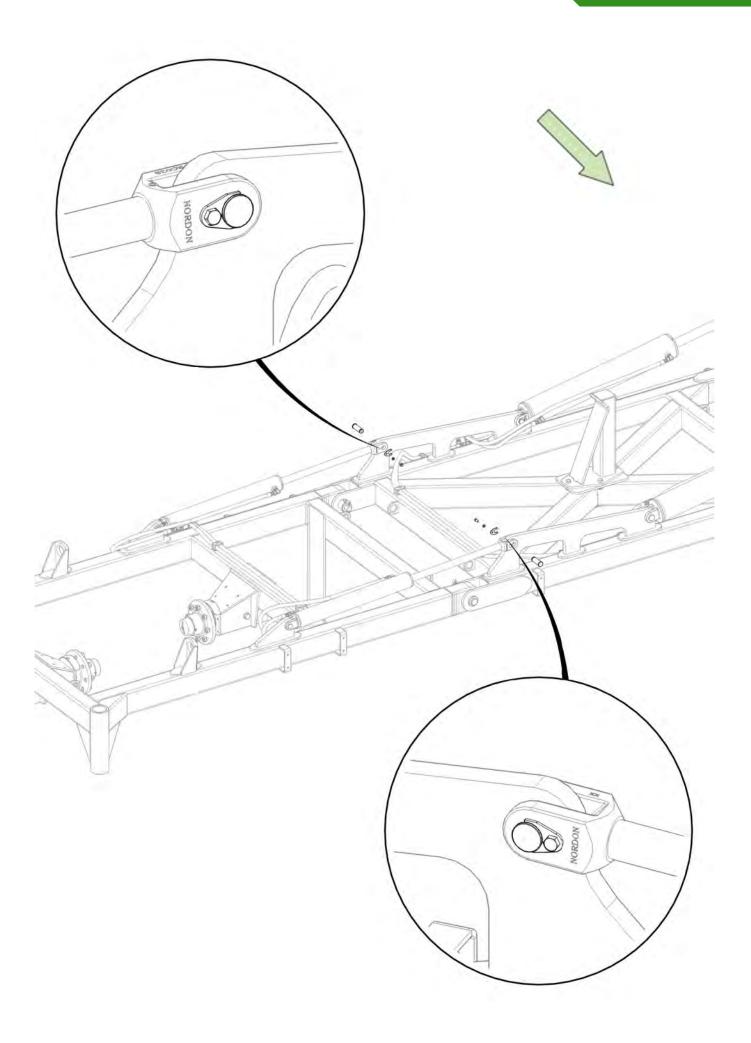




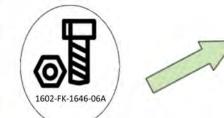
Cycle cylinders to expel air from system

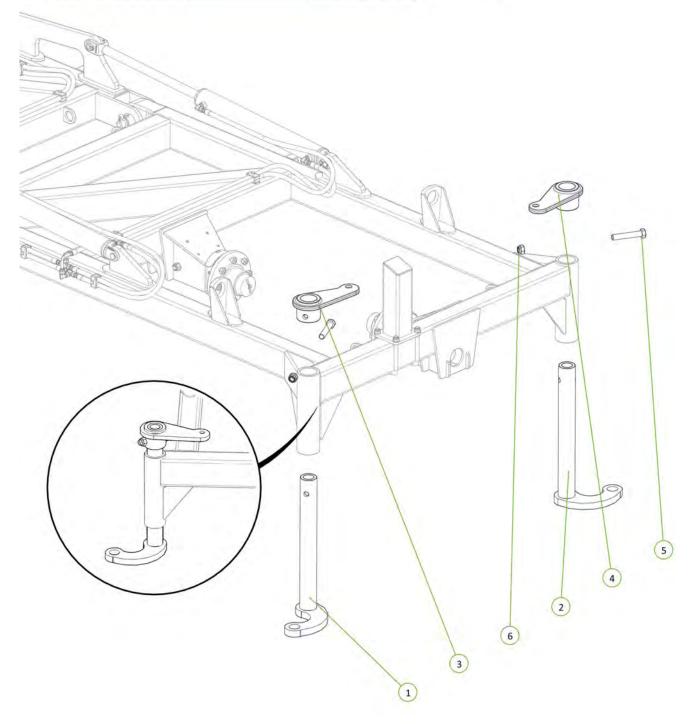


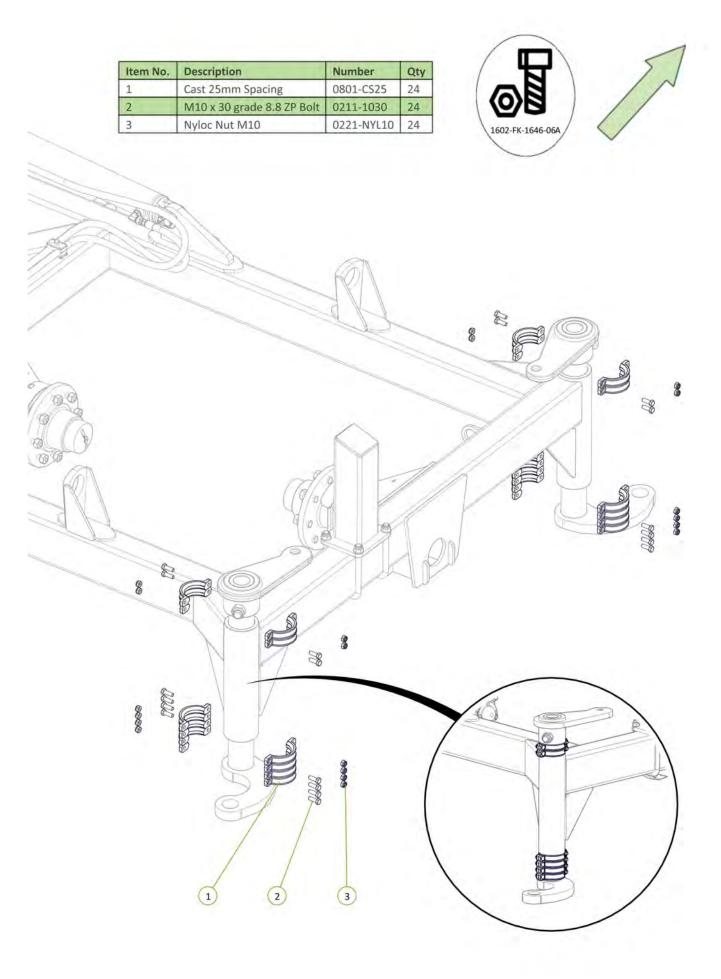




| Item No. | Description                        | Number     | Qty |
|----------|------------------------------------|------------|-----|
| 1        | Super Single LH Drop Leg No Clevis | 0810-24SF  | 1   |
| 2        | Super Single RH Drop Leg No Clevis | 0810-25SF  | 1   |
| 3        | LH Chain Adjusting Lug             | 0810-26    | 1   |
| 4        | RH Chain Adjusting Lug             | 0810-27    | 1   |
| 5        | M24 x 140 grade 8.8 zp Bolt        | 0211-24140 | 2   |
| 6        | Nyloc Nut M24                      | 0221-NYL24 | 2   |

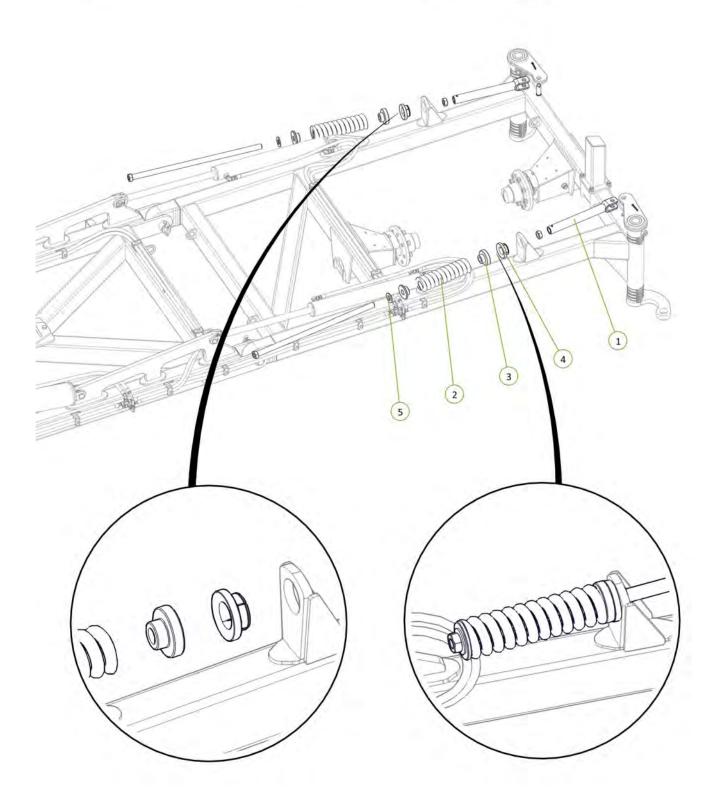






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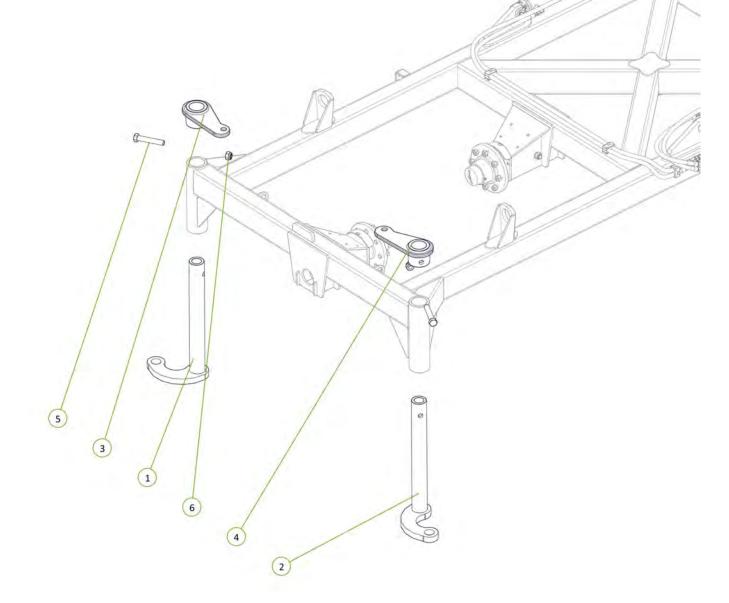
| Item No. | Description                 | Number        | Qty |
|----------|-----------------------------|---------------|-----|
| 1        | Chain Tension Adjustor      | 0802-PCHTA    | 2   |
| 2        | Heavy Duty Coil Spring 24mm | 0801-K2455350 | 2   |
| 3        | Tensioner Cup - Male        | 0801-KE0805-3 | 2   |
| 4        | Female Spring Locator       | 0801-KE0805-4 | 2   |
| 5        | Washer High Tensile 1 1/4"  | 0232-HT11-4   | 2   |



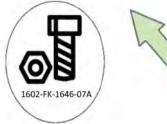
| Item No. | Description                        | Number     | Qty |
|----------|------------------------------------|------------|-----|
| 1        | Super Single LH Drop Leg No Clevis | 0810-24SF  | 1   |
| 2        | Super Single RH Drop Leg No Clevis | 0810-25SF  | 1   |
| 3        | LH Chain Adjusting Lug             | 0810-26    | 1   |
| 4        | RH Chain Adjusting Lug             | 0810-27    | 1   |
| 5        | M24 x 140 grade 8.8 zp Bolt        | 0211-24140 | 2   |
| 6        | Nyloc Nut M24                      | 0221-NYL24 | 2   |



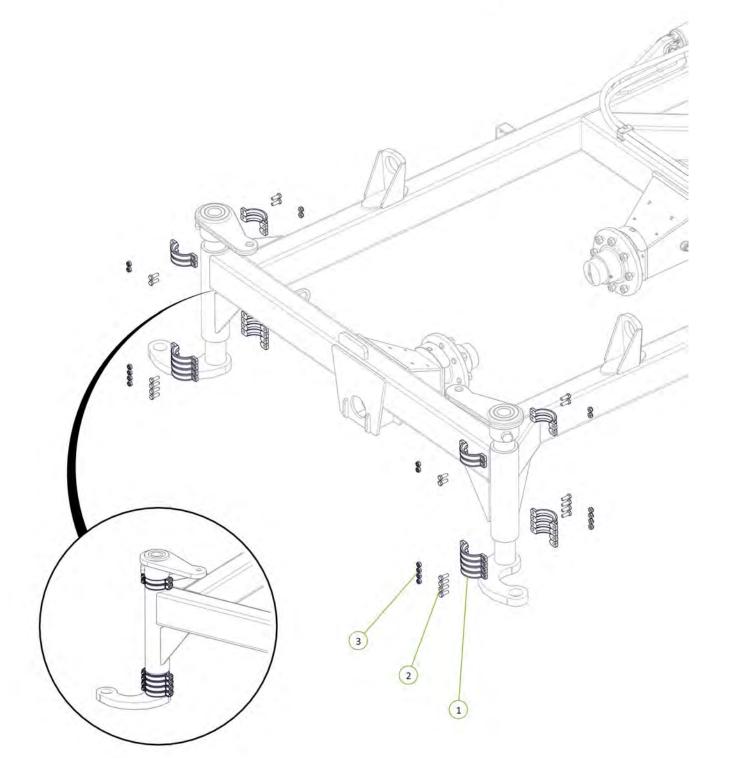




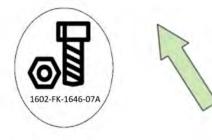
| Item No. | Description                | Number     | Qty |
|----------|----------------------------|------------|-----|
| 1        | Cast 25mm Spacing          | 0801-CS25  | 24  |
| 2        | M10 x 30 grade 8.8 ZP Bolt | 0211-1030  | 24  |
| 3        | Nyloc Nut M10              | 0221-NYL10 | 24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

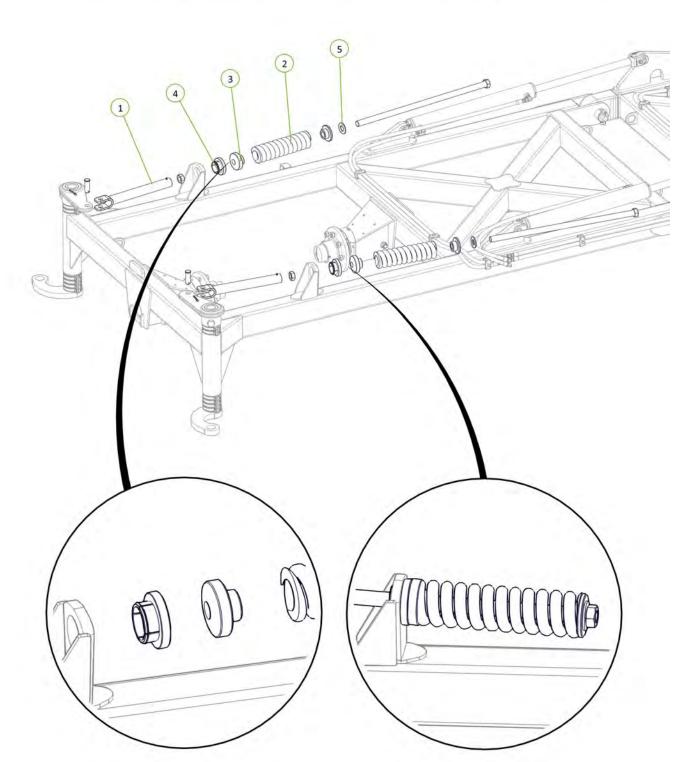






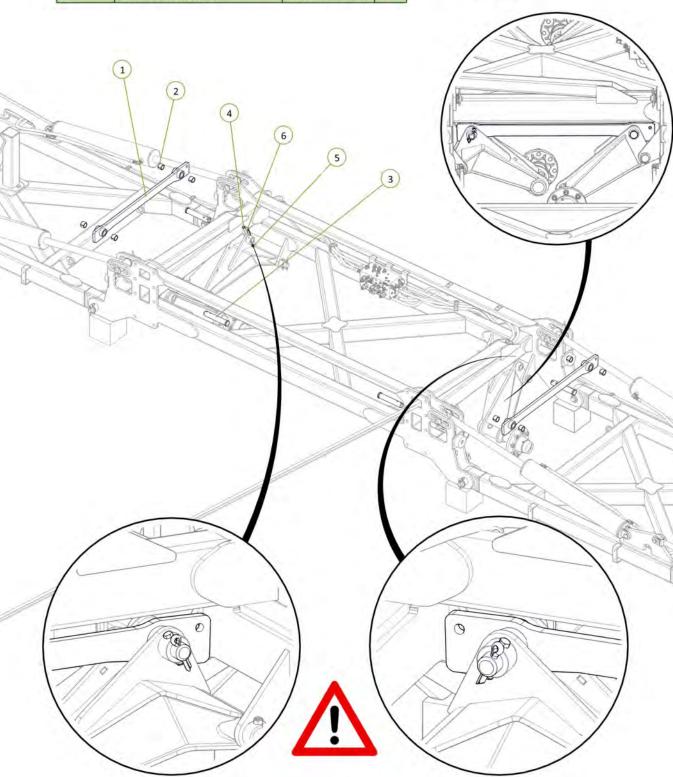
| Item No. | Description                 | Number        | Qty |
|----------|-----------------------------|---------------|-----|
| 1        | Chain Tension Adjustor      | 0802-PCHTA    | 2   |
| 2        | Heavy Duty Coil Spring 24mm | 0801-K2455350 | 2   |
| 3        | Tensioner Cup - Male        | 0801-KE0805-3 | 2   |
| 4        | Female Spring Locator       | 0801-KE0805-4 | 2   |
| 5        | Washer High Tensile 1 1/4"  | 0232-HT11-4   | 2   |





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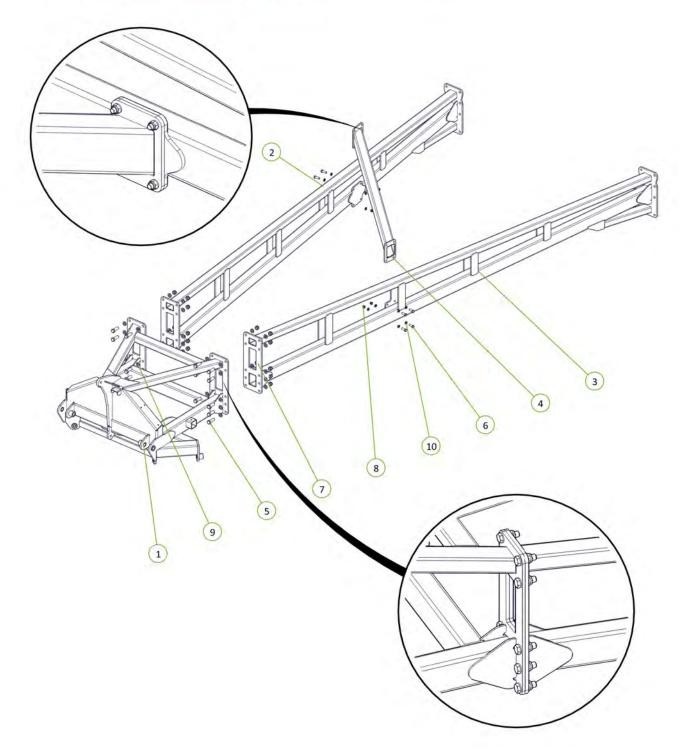
| Item No. | Description                    | Number        | Qty |
|----------|--------------------------------|---------------|-----|
| 1        | Walking Axle Linkage           | 1610-33       | 2   |
| 2        | 1-1/2 ID x 1-1/4mm DU Bush     | 0113-24DU20   | 8   |
| 3        | Walking Axle Linkage Pivot Pin | 1601-P38-220  | 4   |
| 4        | M12 x 90 Class 8.8 ZP Bolt     | 0211-1290     | 4   |
| 5        | Nyloc Nut M12                  | 0221-NYL12    | 4   |
| 6        | Cotter Pin M13 x 63            | 0261-PINC1363 | 4   |



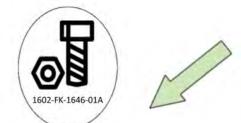
| Item No. | Description                   | Number     | Qty |
|----------|-------------------------------|------------|-----|
| 1        | 46' Main Pull - Nose          | 1646-02-01 | 1   |
| 2        | 46' Main Pull Right Hand Side | 1646-02-02 | 1   |
| 3        | 46' Main Pull Left Hand Side  | 1646-02-03 | 1   |
| 4        | 46' Main Pull Brace           | 1646-02-04 | 1   |
| 5        | M24 x 75 grade 8.8 zp Bolt    | 0211-2475  | 20  |
| 6        | M16 x 50 grade 8.8 zp Bolt    | 0211-1650  | 8   |
| 7        | Nyloc Nut M24                 | 0221-NYL24 | 20  |
| 8        | Nyloc Nut M16                 | 0221-NYL16 | 8   |
| 9        | Washer Flat M24               | 0231-F24   | 40  |
| 10       | Washer Flat M16               | 0231-F16   | 16  |

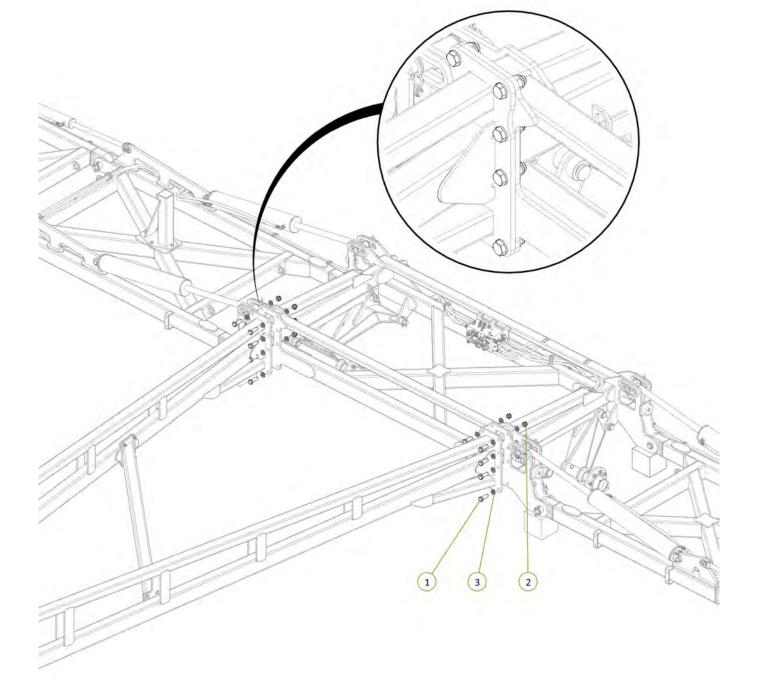






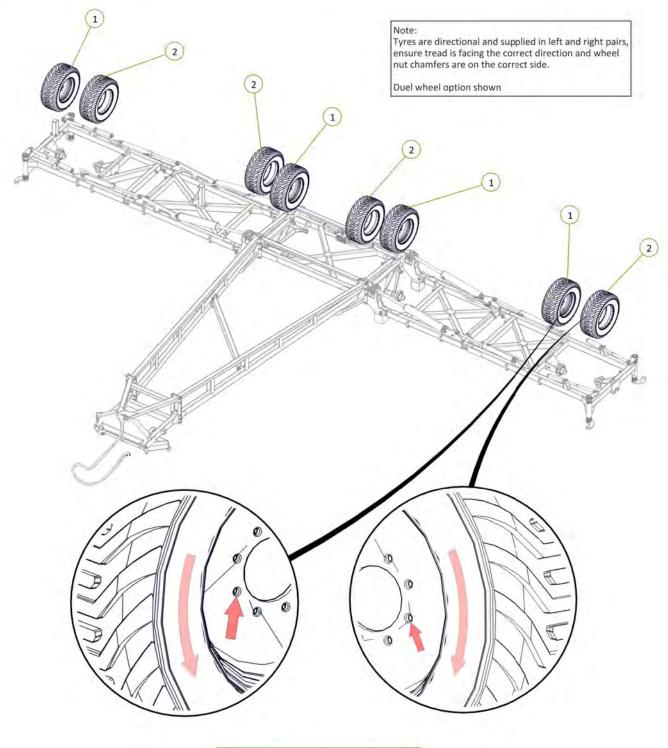
| Item No. | Description                | Number     | Qty |
|----------|----------------------------|------------|-----|
| 1        | M24 x 75 Class 8.8 ZP Bolt | 0211-2475  | 16  |
| 2        | Nyloc Nut M24              | 0221-NYL24 | 16  |
| 3        | Washer Flat M24            | 0231-F24   | 32  |





| Item No. | Description                                      | Number               | Qty |
|----------|--|----------------------|-----|
| 1        | 400/55-22.5 Tyre on 8 on 8" PCD Rim (Right Hand) | 0751-400-55-22.5TR-R | 4   |
| 2        | 400/55-22.5 Tyre on 8 on 8" PCD Rim (Left Hand)  | 0751-400-55-22.5TR-L | 4   |

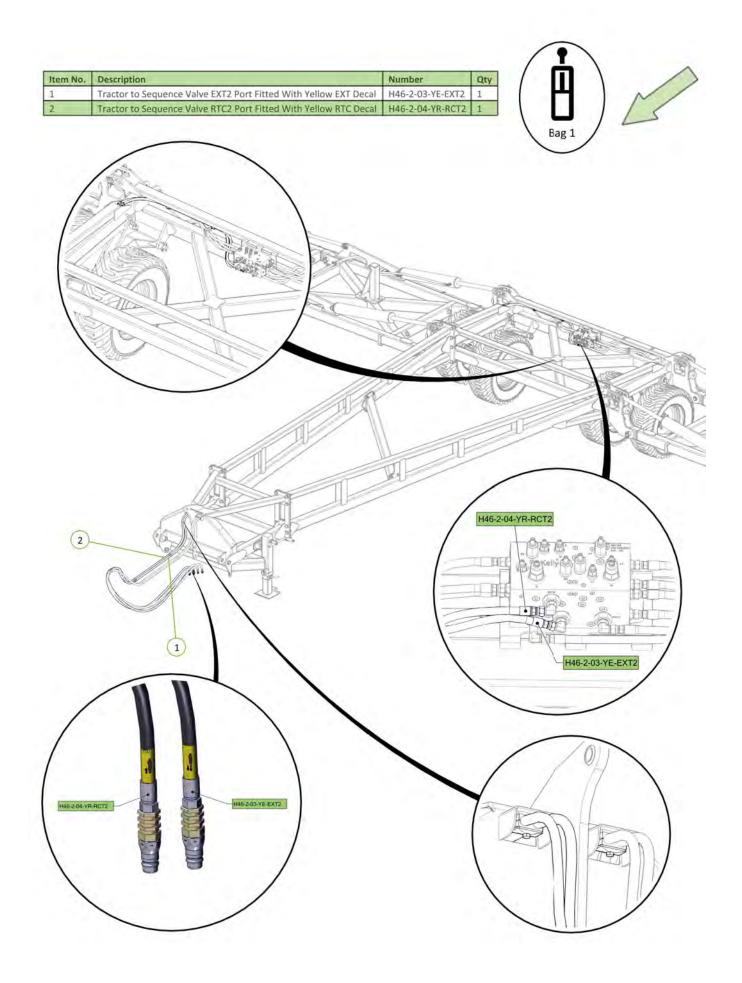


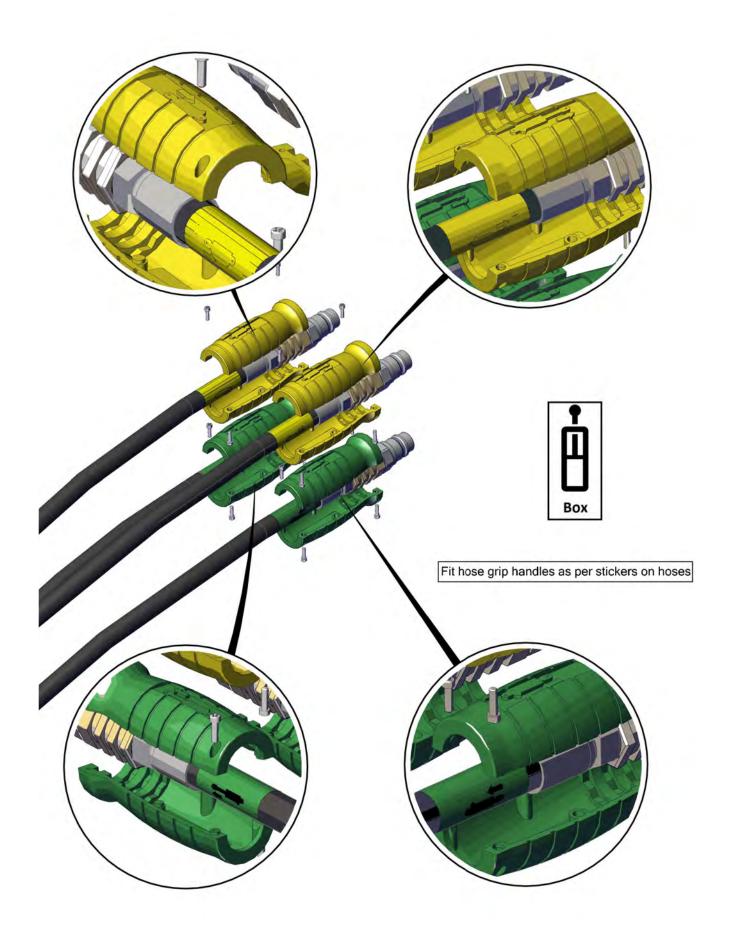


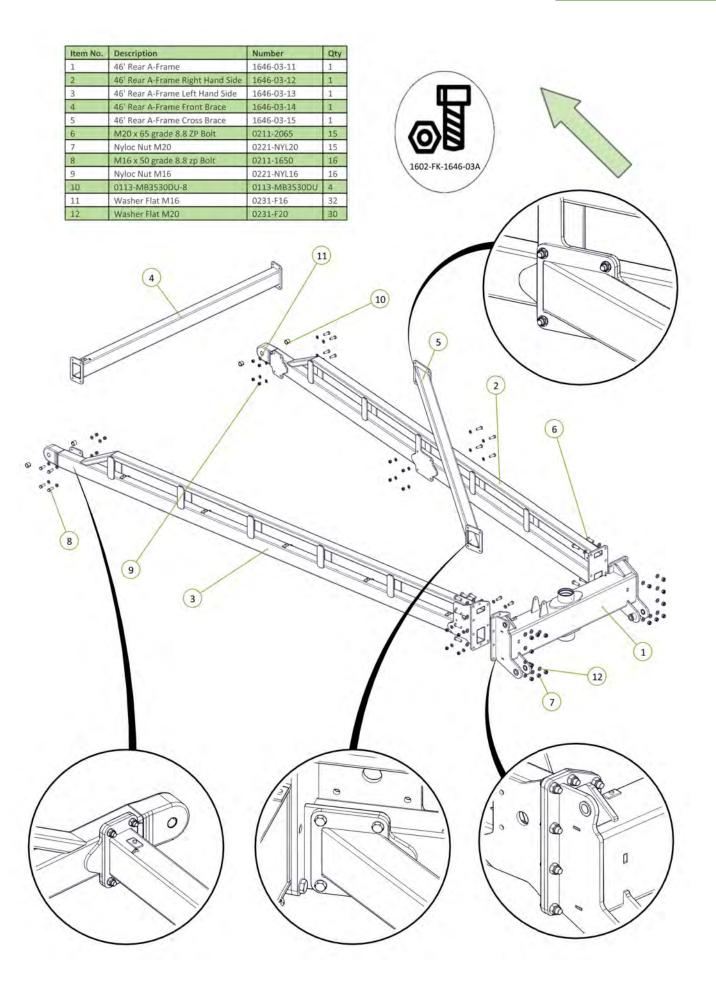
Torque wheel nuts to 100ft-lb / 140Nm

| Item No. | Description                  | Number        | Qty |
|----------|------------------------------|---------------|-----|
| 1        | Heavy Duty Jack              | 0801-SAK45B-1 | 1   |
| 2        | Jack Pin                     | 0801-B3077    | 1   |
| 3        | Jack Handle Assembly 4 Tonne | 0801-622110HA | 1   |

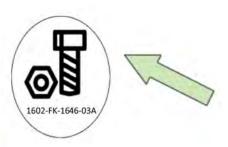
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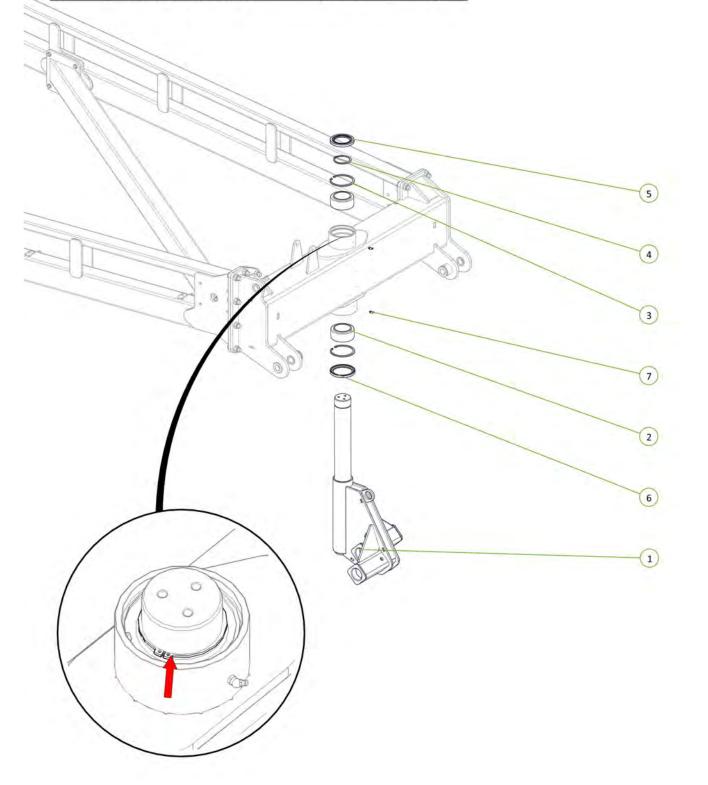






| Item No. | Description                        | Number           | Qty |
|----------|------------------------------------|------------------|-----|
| 1        | Jockey Wheel 90mm Shaft 70mm Axles | 1610-13-90       | 1   |
| 2        | Plain Spherical Bearing 90mm       | 0113-GE90DO-2RSP | 2   |
| 3        | Circlip Internal 130mm             | 0171-J130        | 2   |
| 4        | Circlip External 90mm              | 0172-D1400-90    | 1   |
| 5        | TC Seal 90mm x 135mm x 12mm        | 0121-TC12906     | 1   |
| 6        | TC Seal 110mm x 140mm x 12mm       | 0121-TC12700     | 1   |
| 7        | Grease Nipple 1/4" UNF 45°         | 0181-GN1/445     | 2   |

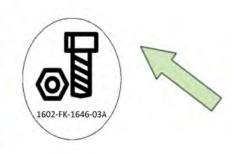


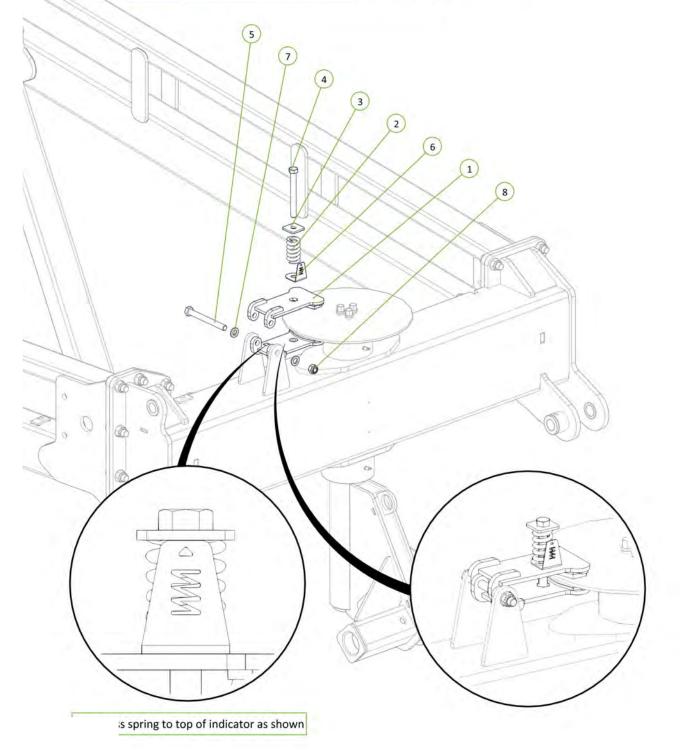


| Item No.     Description     Number     Qty       1     Brake Disc     1600-405     1       2     M12 x 24 Wheel Bolt     0216-WB1224     3 | 1     Brake Disc     1600-405     1       2     M12 x 24 Wheel Bolt     0216-WB1224     3 |
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|   |   |

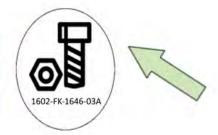
Torque wheel bolts to 65ft-lb / 88Nm

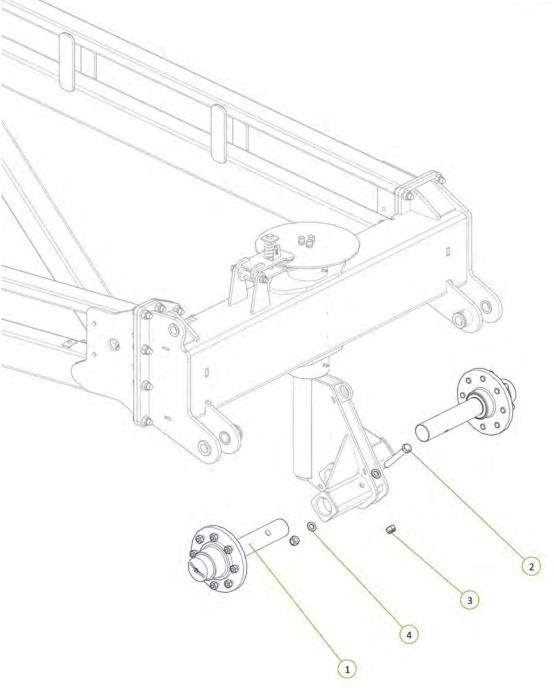
| Item No. | Description                 | Number       | Qty |
|----------|-----------------------------|--------------|-----|
| 1        | Jockey Wheel Brake Caliper  | 0810-12CAL   | 1   |
| 2        | Brake Compression Spring    | 0801-KE009   | 1   |
| 3        | Washer Square M16 x 50 x 5  | 0231-SQ16505 | 1   |
| 4        | M16 x 150 Class 8.8 ZP Bolt | 0211-16150   | 1   |
| 5        | M16 x 160 Class 8.8 ZP Bolt | 0211-16160   | 1   |
| 6        | Brake Spring Indicator      | 0800-772     | 1   |
| 7        | Washer Flat M16             | 0231-F16     | 2   |
| 8        | Nyloc Nut M16               | 0221-NYL16   | 1   |

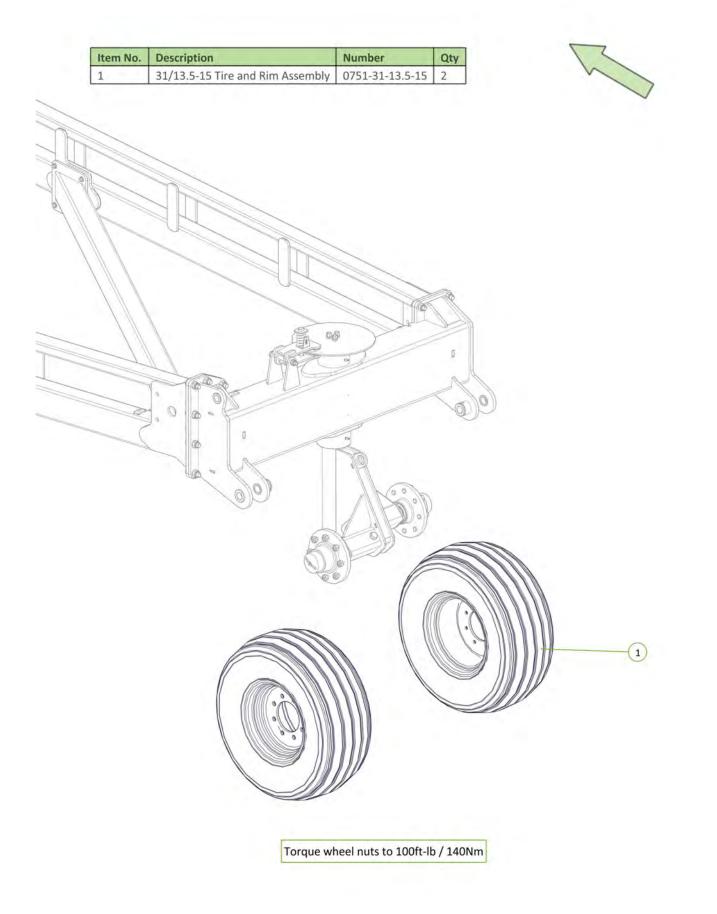




| Item No. | Description                                    | Number          | Qty |
|----------|--|-----------------|-----|
| 1        | 2.75"R 6 Tonne 8 on 8" PCD Hub & Stub Complete | 0733-SH27596880 | 2   |
| 2        | M20 x 140 grade 8.8 ZP Bolt                    | 0211-20140      | 2   |
| 3        | Nyloc Nut M20                                  | 0221-NYL20      | 2   |
| 4        | Washer Flat M20                                | 0231-F20        | 4   |



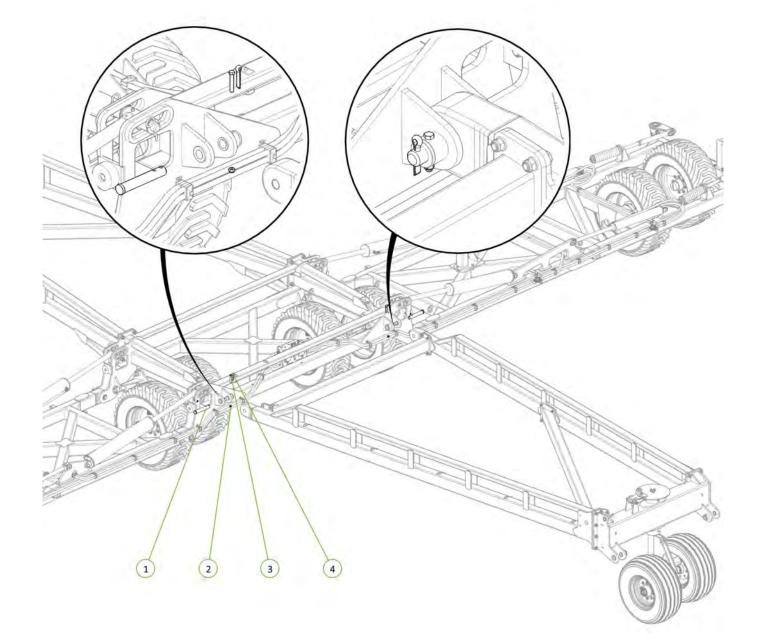




| Item No. | Description                | Number         | Qty |
|----------|----------------------------|----------------|-----|
| 1        | PCH Wing Pivot Pin         | 0801-10-08-235 | 2   |
| 2        | Nyloc Nut M12              | 0221-NYL12     | 2   |
| 3        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290      | 2   |
| 4        | Cotter Pin M13 x 63        | 0261-PINC1363  | 2   |



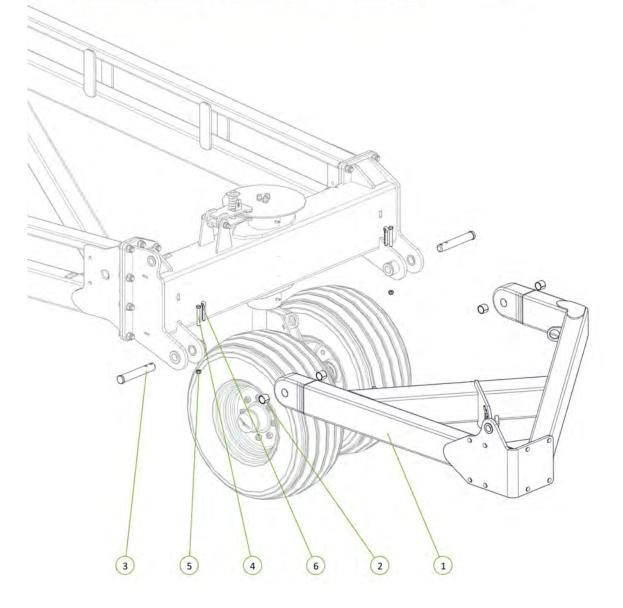




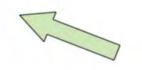
| Item No. | Description                | Number         | Qty |
|----------|----------------------------|----------------|-----|
| 1        | Rear Tail                  | 1510-40S-2     | 1   |
| 2        | 35 ID x 30mm DU Bush       | 0113-MB3530DU  | 4   |
| 3        | PCH Wing Pivot Pin         | 0801-10-08-235 | 2   |
| 4        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290      | 2   |
| 5        | Nyloc Nut M12              | 0221-NYL12     | 2   |
| 6        | Cotter Pin M13 x 63        | 0261-PINC1363  | 2   |

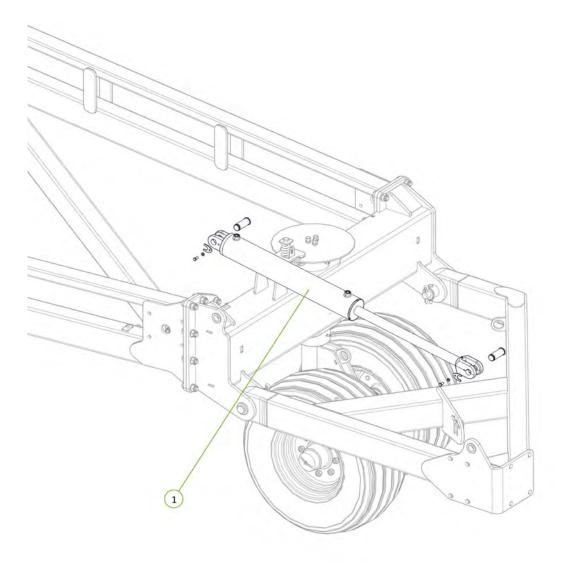


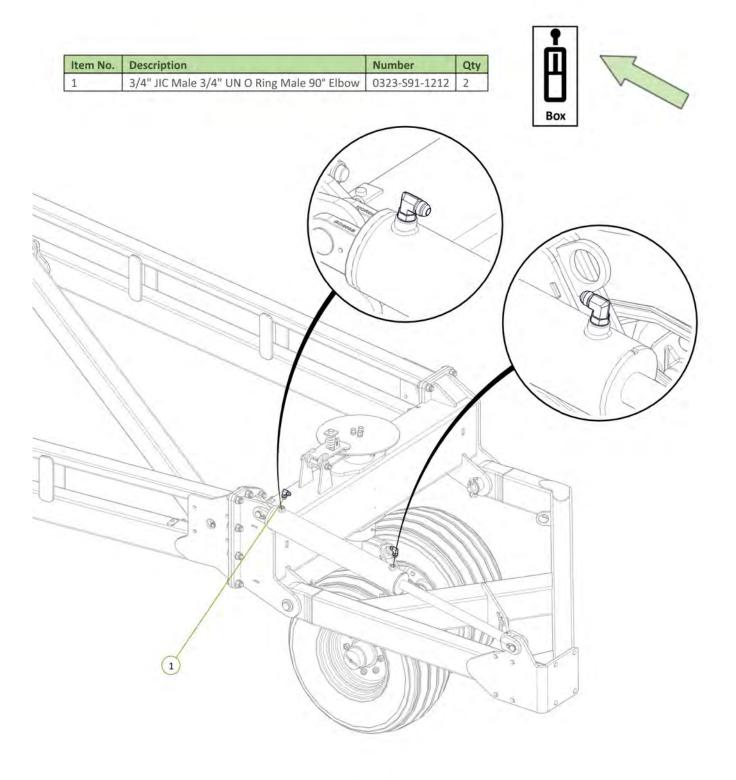


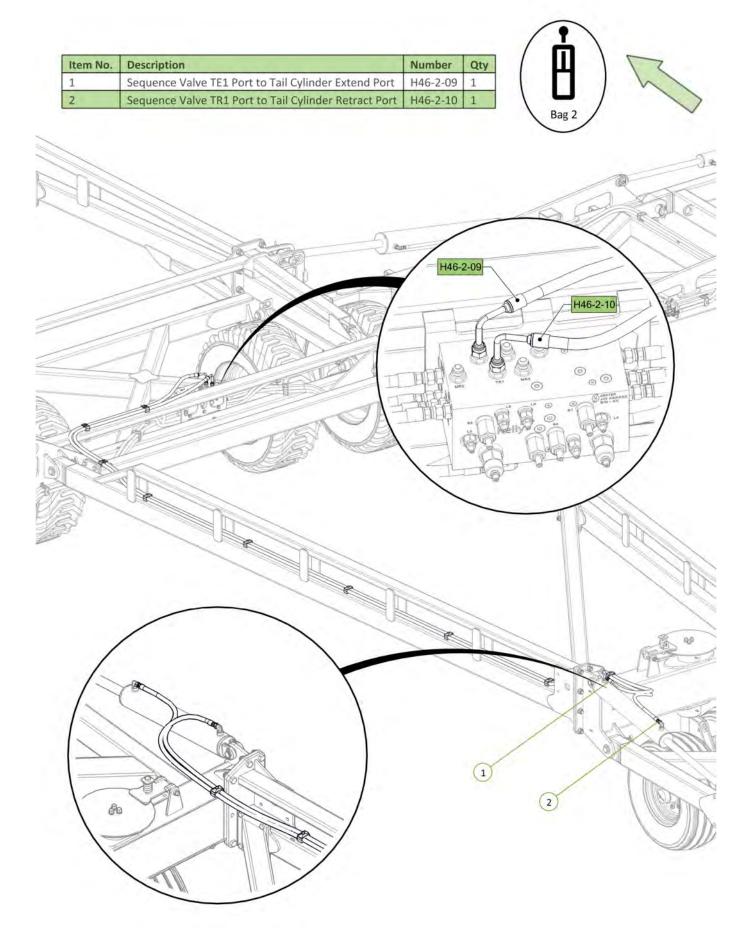


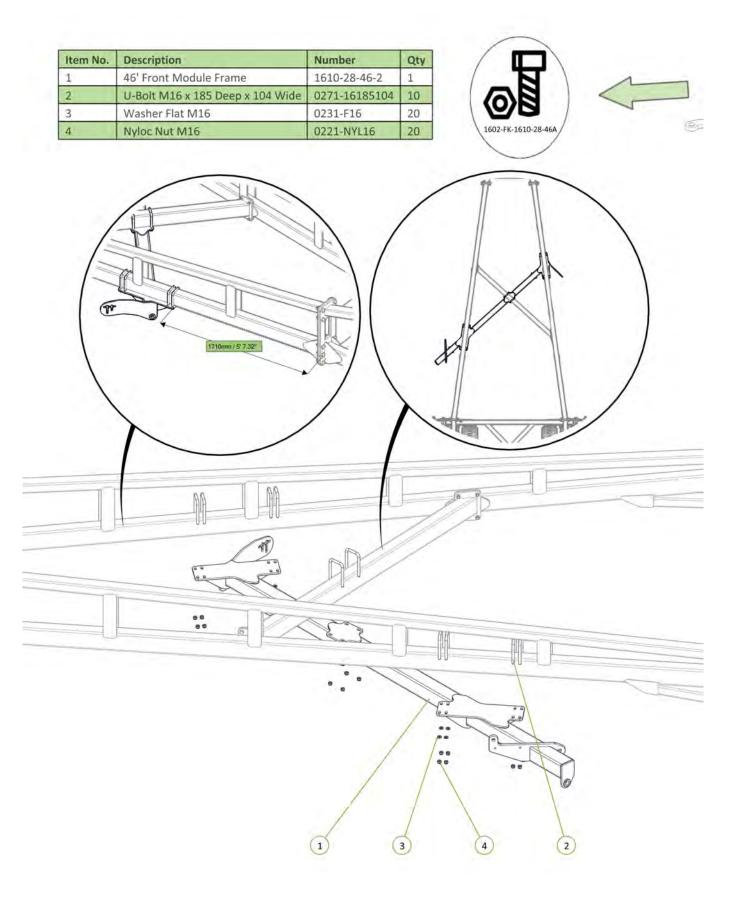
| Item No. | Description                                     | Number   | Qty |
|----------|---|----------|-----|
| 1        | 4" Bore 24" Stroke 1.75" Rod Hydraulic Cylinder | 0311-424 | 1   |







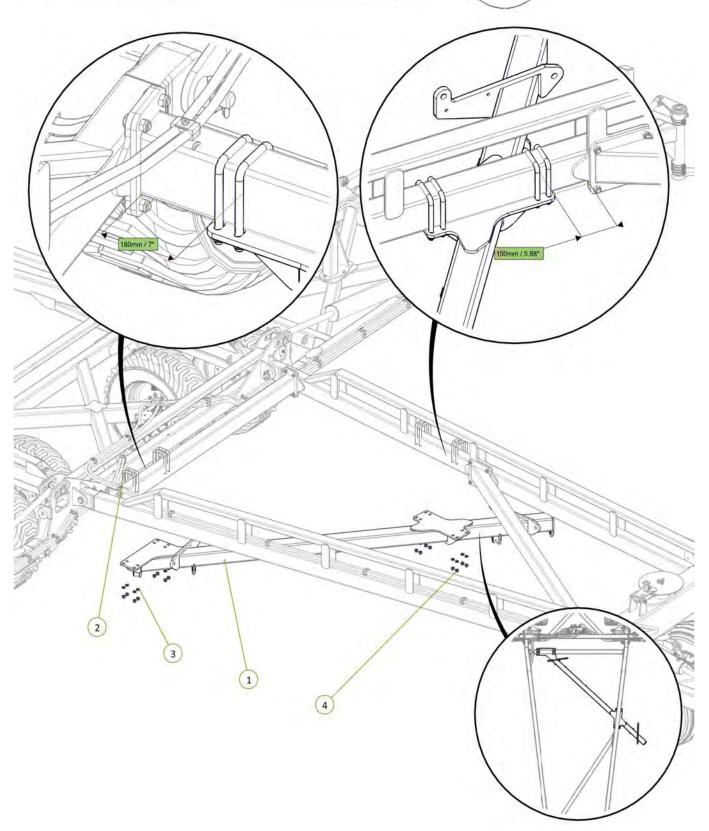




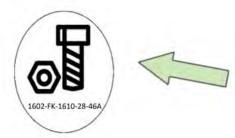
| Item No. | Description                      | Number        | Qty |
|----------|----------------------------------|---------------|-----|
| 1        | 46' Rear Module Frame            | 1610-29-46-2  | 1   |
| 2        | U-Bolt M16 x 185 Deep x 104 Wide | 0271-16185104 | 8   |
| 3        | Washer Flat M16                  | 0231-F16      | 16  |
| 4        | Nyloc Nut M16                    | 0221-NYL16    | 16  |

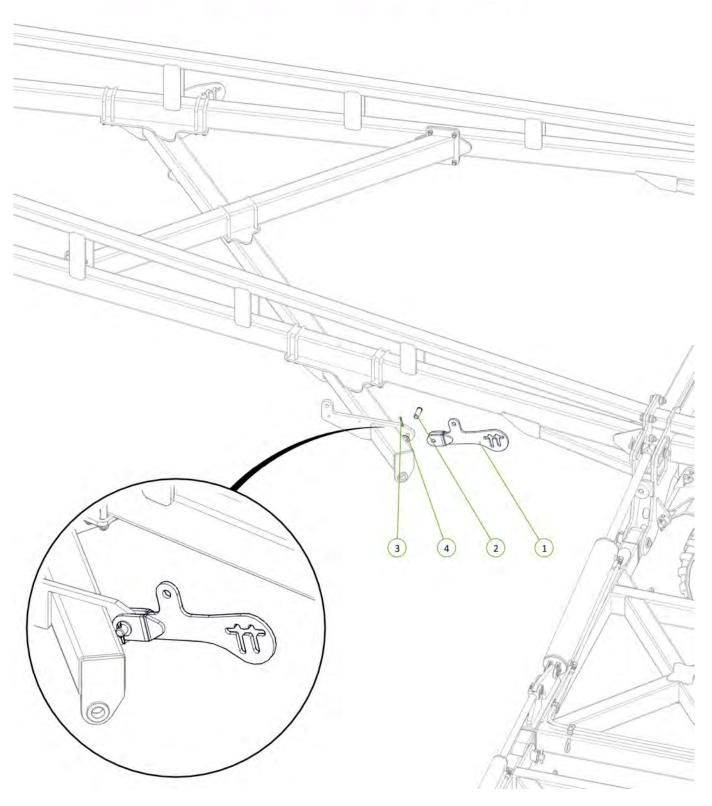


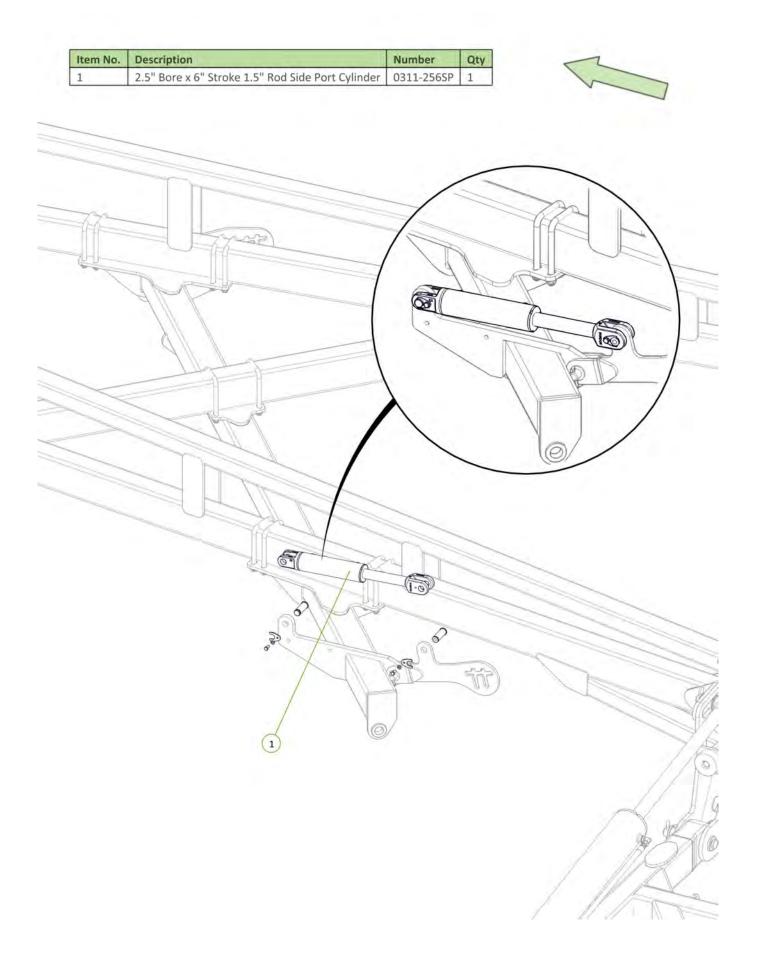


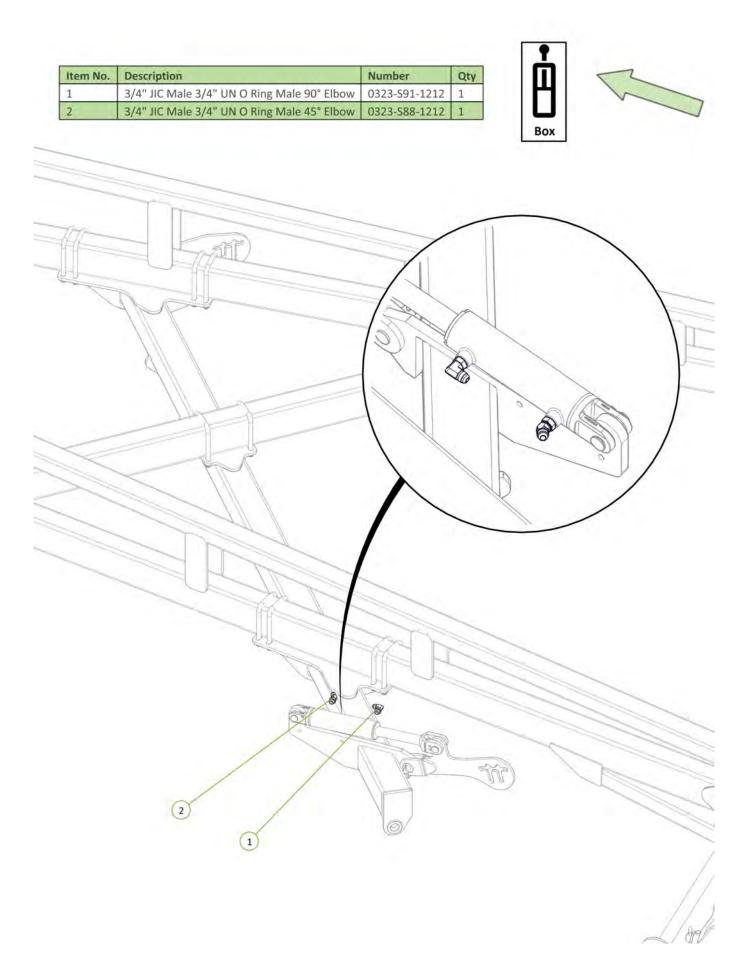


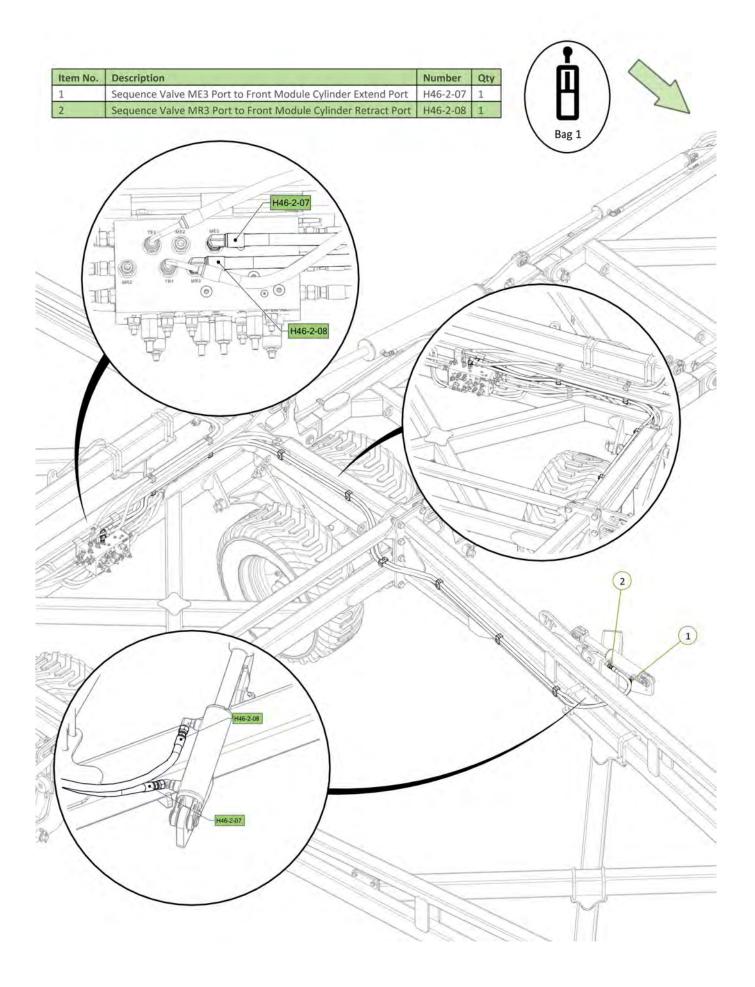
| Item No. | Description            | Number        | Qty |
|----------|------------------------|---------------|-----|
| 1        | Long Module Lift Arm   | 1610-106      | 1   |
| 2        | Clevis Pin 25mm x 75mm | 0801-KE0307-1 | 1   |
| 3        | Cotter Pin M5 x 50     | 0261-PINC550  | 1   |
| 4        | Washer Flat M24        | 0231-F24      | 1   |







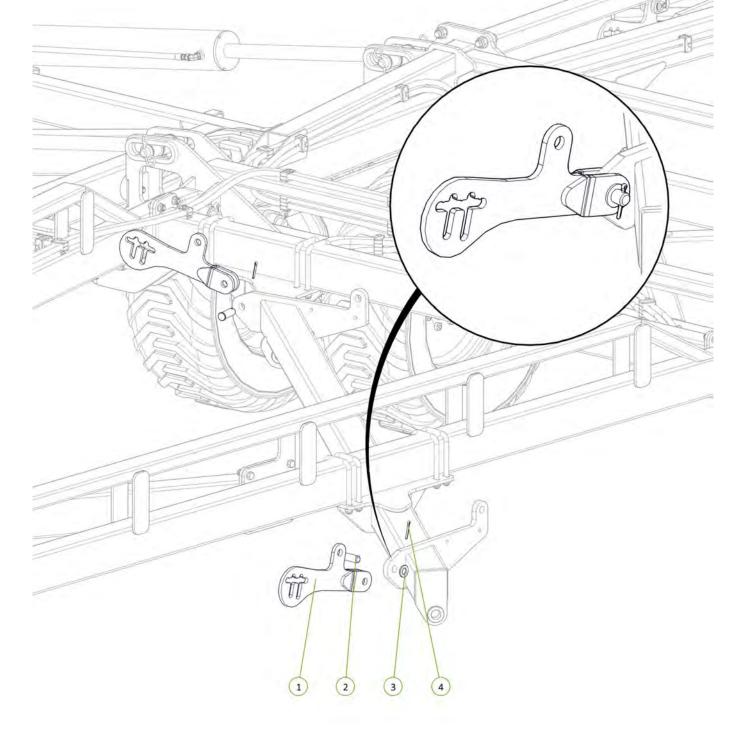


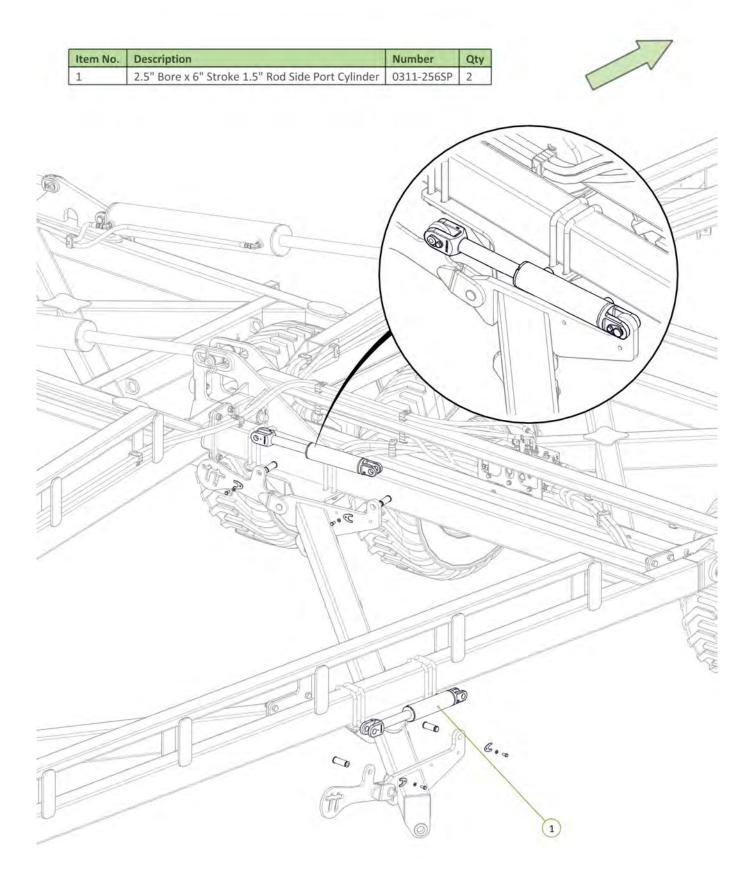


| Item No. | Description            | Number        | Qty |
|----------|------------------------|---------------|-----|
| 1        | Long Module Lift Arm   | 1610-106      | 2   |
| 2        | Clevis Pin 25mm x 75mm | 0801-KE0307-1 | 2   |
| 3        | Washer Flat M24        | 0231-F24      | 2   |
| 4        | Cotter Pin M5 x 50     | 0261-PINC550  | 2   |

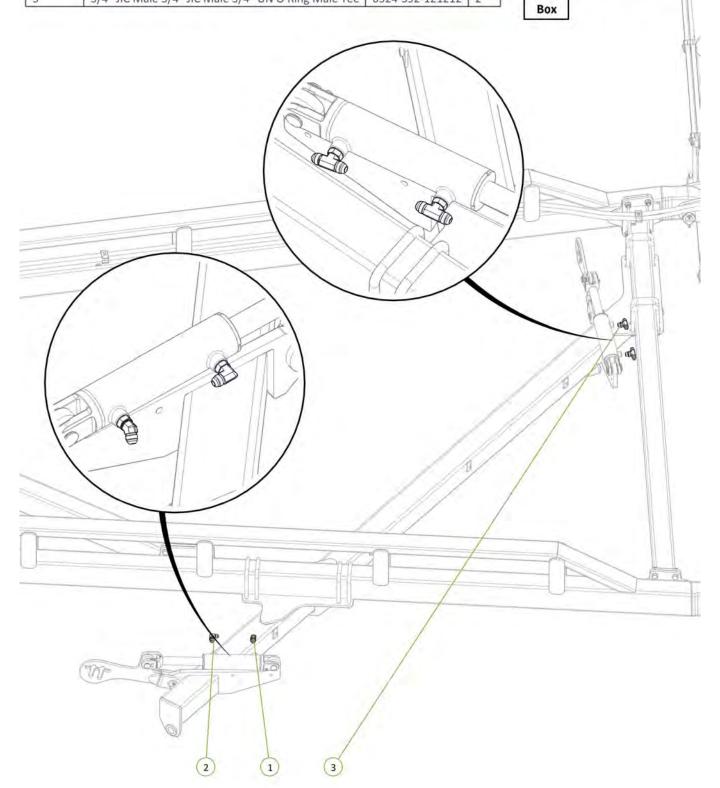


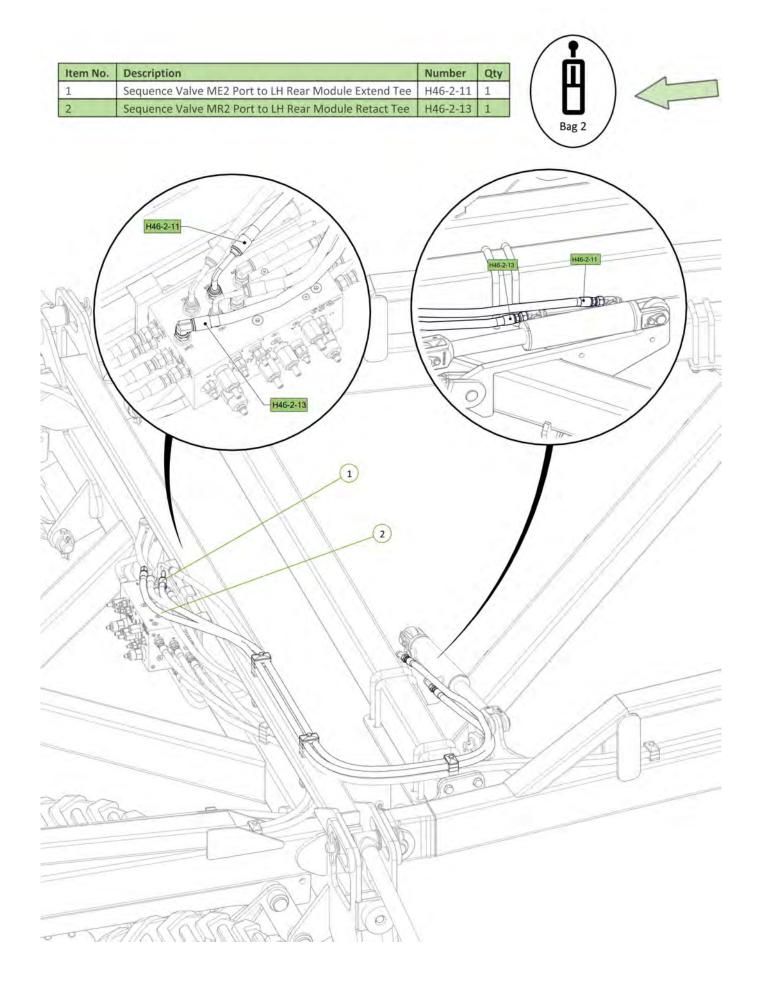


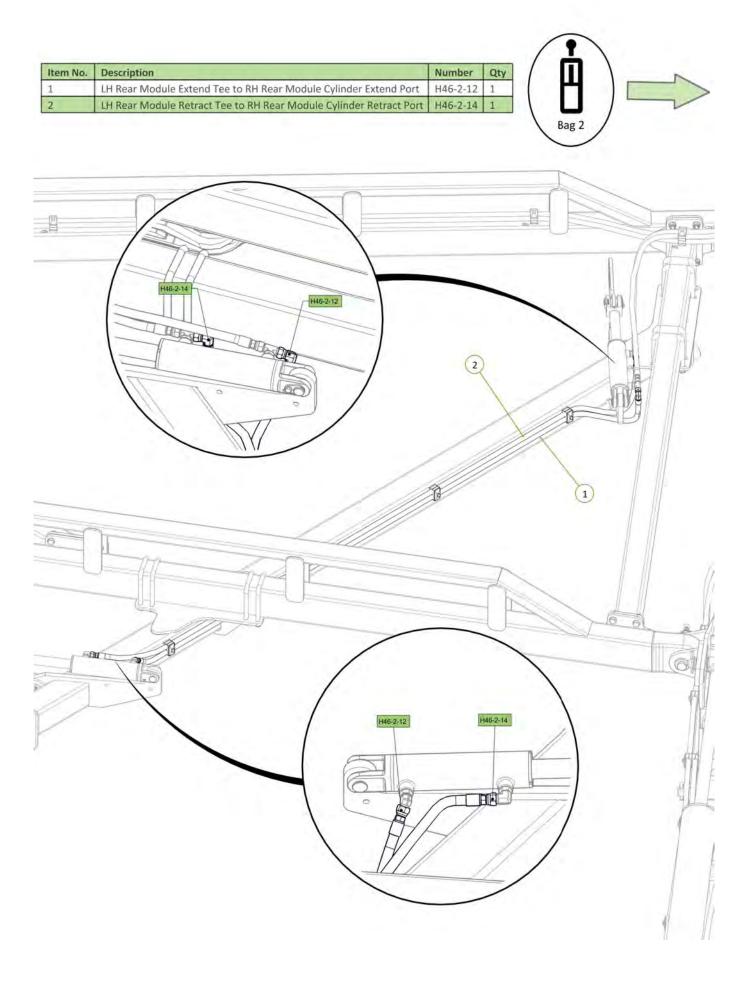


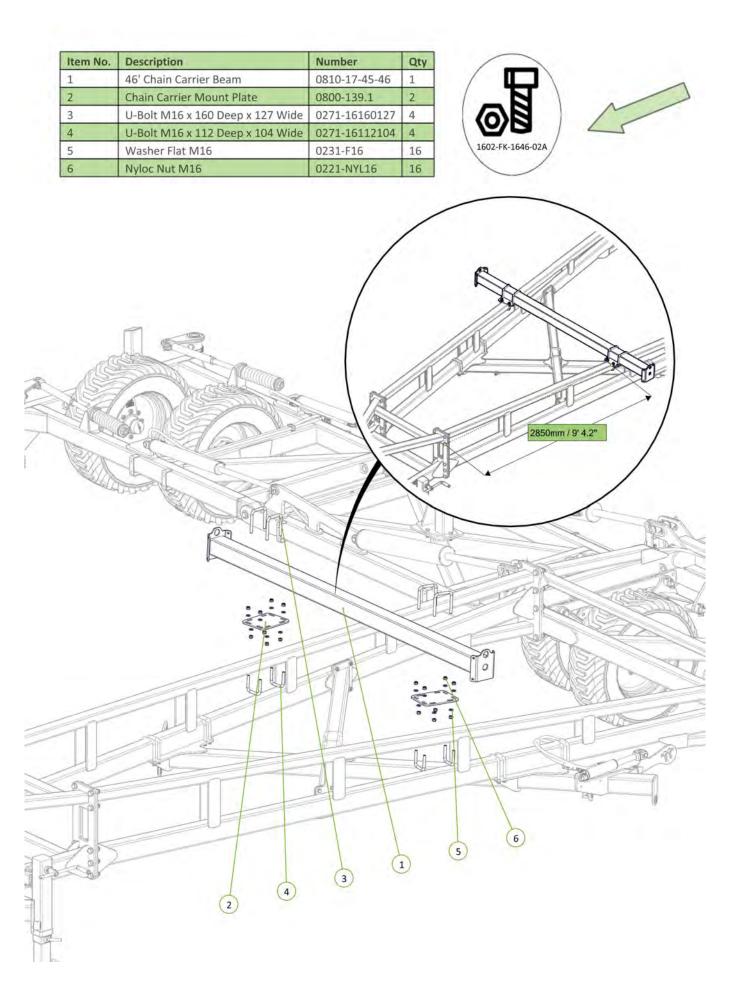


| Item No. | Description   | Number          | Qty |
|----------|---|-----------------|-----|
| 1        | 3/4" JIC Male 3/4" UN O Ring Male 45° Elbow         | 0323-588-1212   | 1   |
| 2        | 3/4" JIC Male 3/4" UN O Ring Male 90° Elbow         | 0323-591-1212   | 1   |
| 3        | 3/4" JIC Male 3/4" JIC Male 3/4" UN O Ring Male Tee | 0324-S92-121212 | 2   |

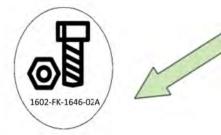


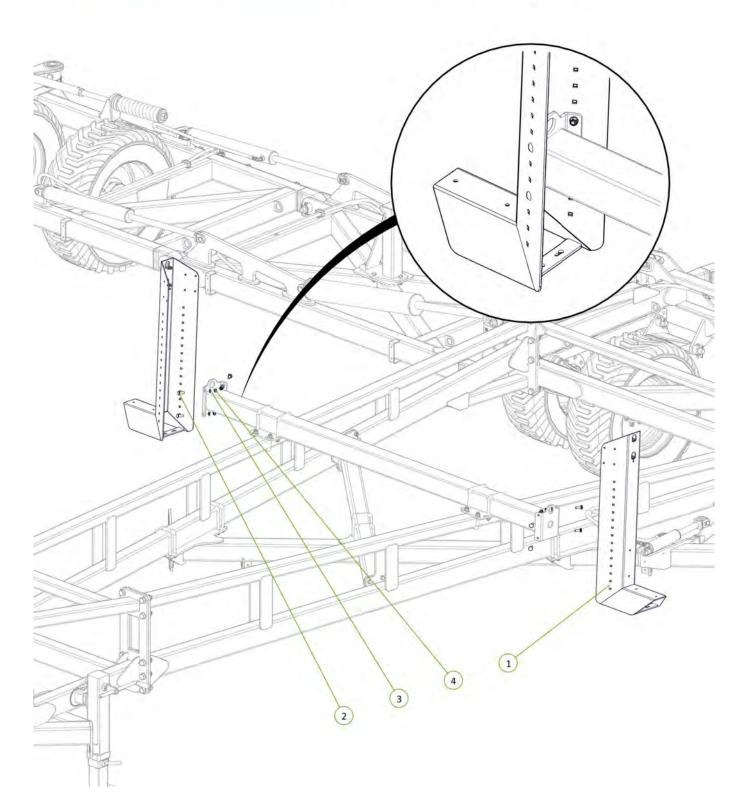




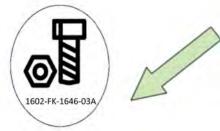


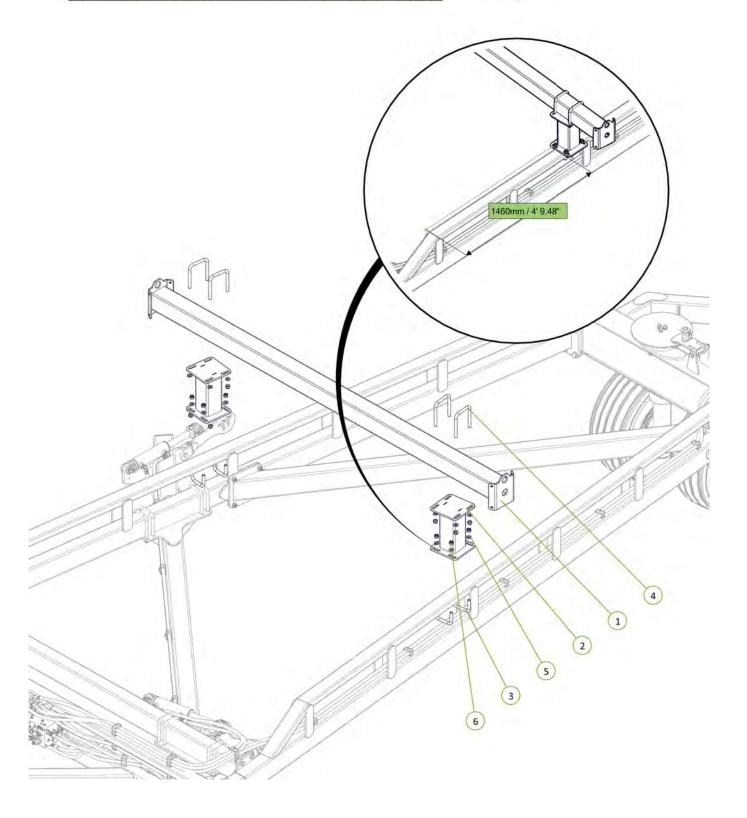
| Item No. | Description                        | Number      | Qty |
|----------|------------------------------------|-------------|-----|
| 1        | Extended Chain Carrier Bolt on End | 0810-17LE   | 2   |
| 2        | M12 x 40 Coach Head Bolt           | 0215-CH1240 | 8   |
| 3        | Washer Flat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





| Item No. | Description                      | Number        | Qty |
|----------|----------------------------------|---------------|-----|
| 1        | 46' Chain Carrier Beam           | 0810-17-45-46 | 1   |
| 2        | 300mm Chain Carrier Pedestal     | 1510-43       | 2   |
| 3        | U-Bolt M16 x 104 Wide x 85 Deep  | 0271-1610485  | 4   |
| 4        | U-Bolt M16 x 160 Deep x 127 Wide | 0271-16160127 | 4   |
| 5        | Washer Flat M16                  | 0231-F16      | 16  |
| 6        | Nyloc Nut M16                    | 0221-NYL16    | 16  |

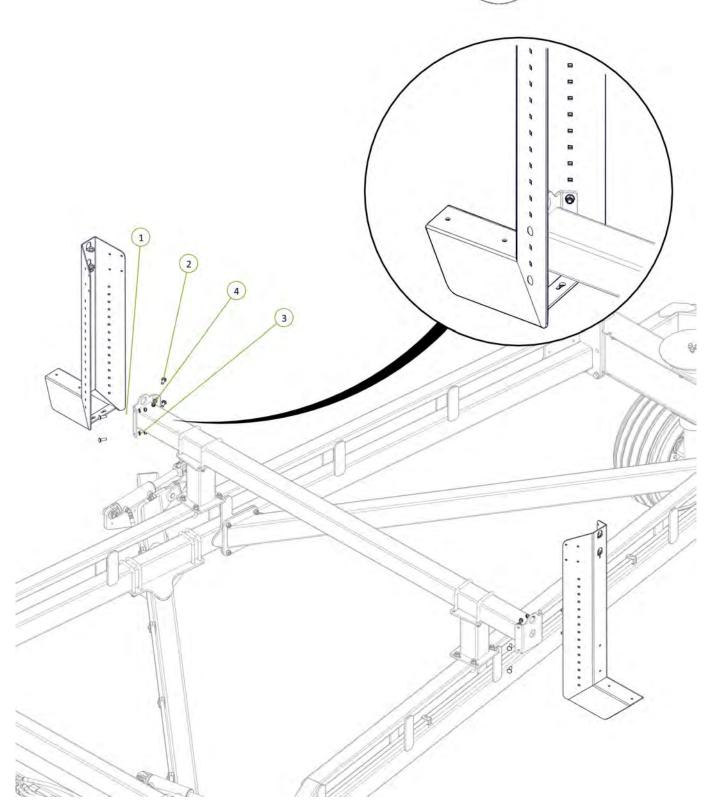




| Item No. | Description                        | Number      | Qty |
|----------|------------------------------------|-------------|-----|
| 1        | Extended Chain Carrier Bolt on End | 0810-17LE   | 2   |
| 2        | M12 x 40 Coach Head Bolt           | 0215-CH1240 | 8   |
| 3        | Washer Flat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



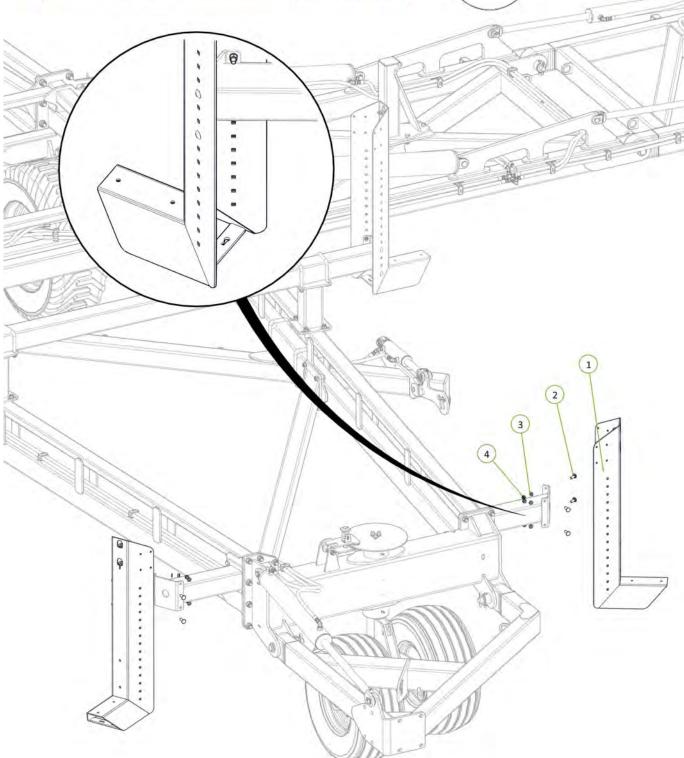




| Item No.       Description       Number       Qty         1       46' Outrigger       1610-109       2         2       M16 x 50 grade 8.8 zp Bolt       0211-1650       8         3       Nyloc Nut M16       0221-WYL16       8         4       Washer Flat M16       0231-F16       16         IOUZ-RW126         IOUZ-RW166-03A |
|--|
| 3 Nyloc Nut M16 0221-NYL16 8<br>4 Washer Flat M16 0231-F16 16<br>1602-FK-1646-03A  |
| 4 Washer Flat M16 0231-F16 16 1602-FK-1646-03A   |
|  |
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|  |

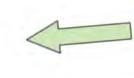
1602-FK-1646-03A

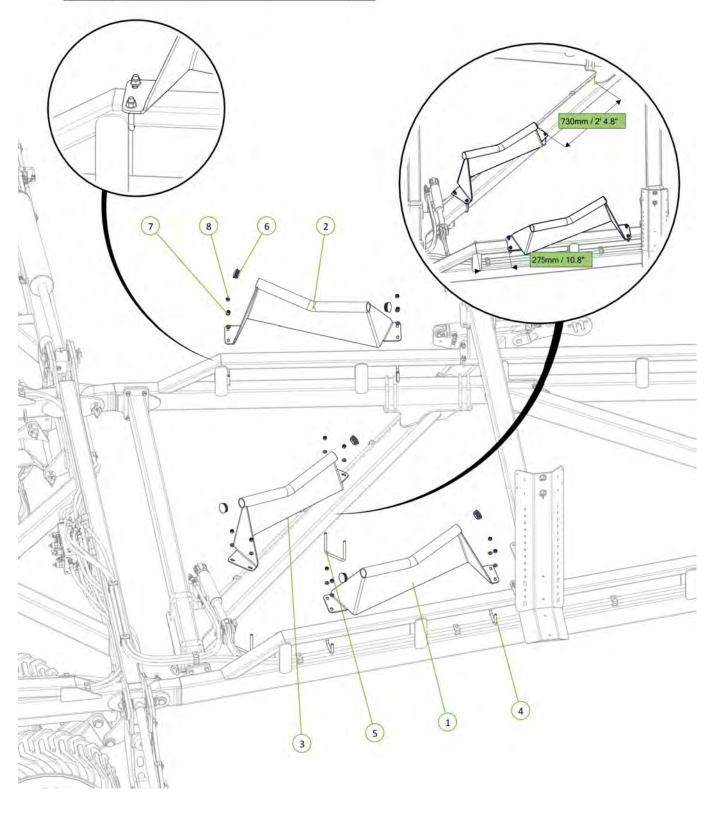
| Item No. | Description                        | Number      | Qty |
|----------|------------------------------------|-------------|-----|
| 1        | Extended Chain Carrier Bolt on End | 0810-17LE   | 2   |
| 2        | M12 x 40 Coach Head Bolt           | 0215-CH1240 | 8   |
| 3        | Washer Flat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



| Item No. | Description                      | Number         | Qty |
|----------|----------------------------------|----------------|-----|
| 1        | Rignt Hand Off Set M             | 0810-18R       | 1   |
| 2        | Left Hand Off Set M              | 0810-19L       | 1   |
| 3        | Module M                         | 1610-189       | 1   |
| 4        | U-Bolt M12 x 104 Wide x 77 Deep  | 0271-1210477   | 4   |
| 5        | U-Bolt M12 x 155 Deep x 127 Wide | 0271-12155127  | 2   |
| 6        | Round Tube Insert 60.3 x 3.2-5mm | 0264-RTRi-5584 | 6   |
| 7        | Washer Flat M12                  | 0231-F12       | 12  |
| 8        | Nyloc Nut M12                    | 0221-NYL12     | 12  |



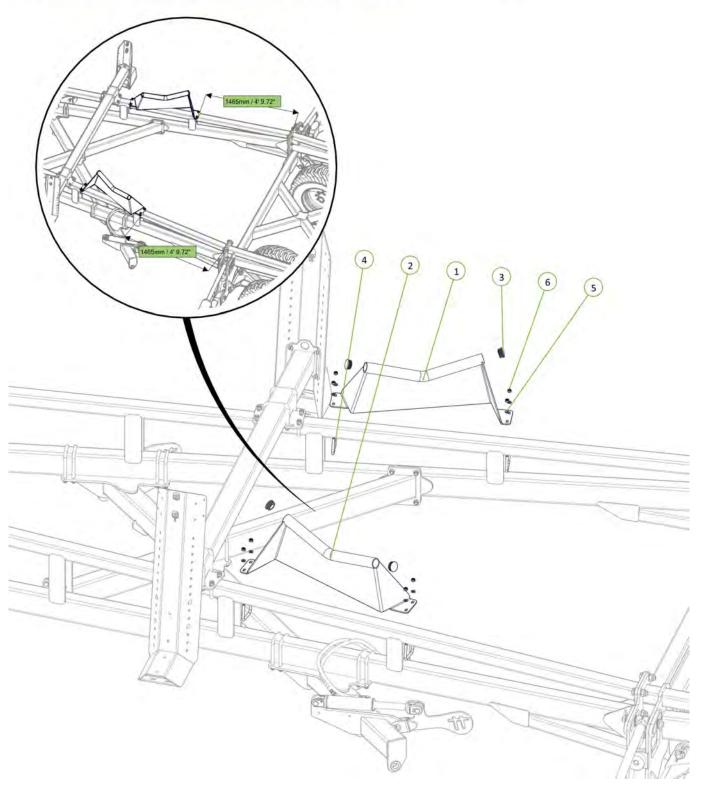


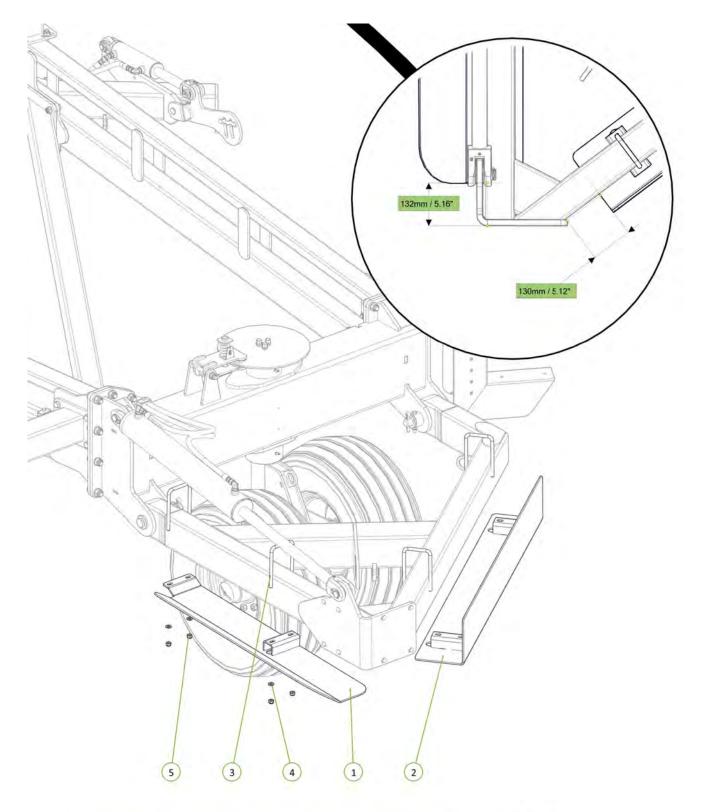


| Item No. | Description                      | Number         | Qty |
|----------|----------------------------------|----------------|-----|
| 1        | Right Hand Off Set M             | 0810-18R       | 1   |
| 2        | Left Hand Off Set M              | 0810-19L       | 1   |
| 3        | Round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

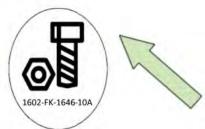


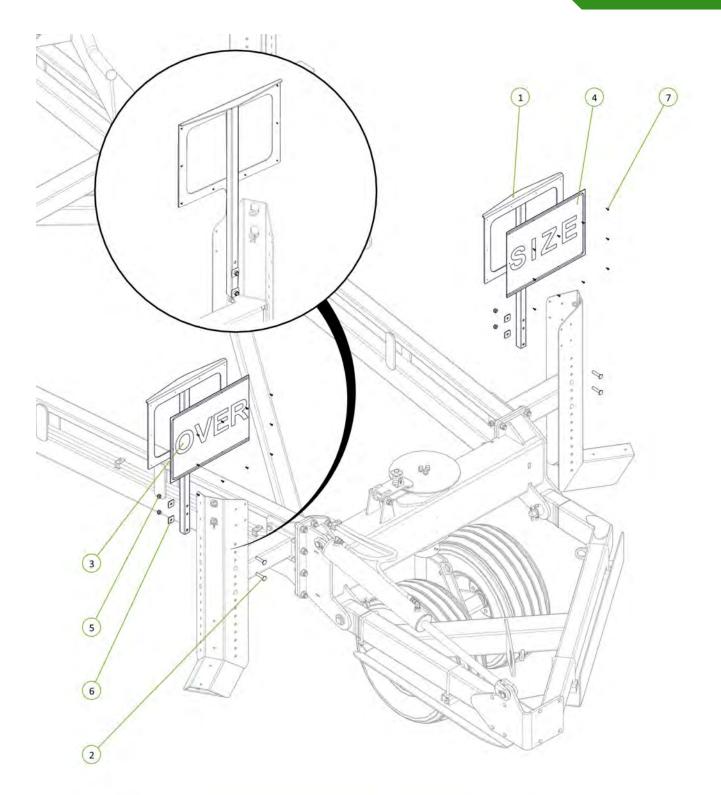




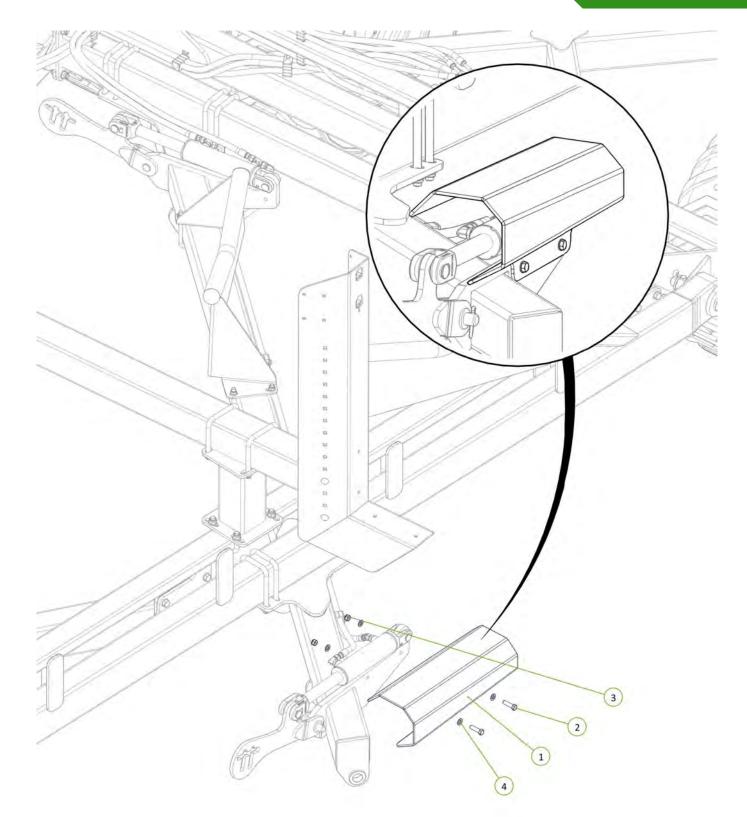


| Item No. | Description                      | Number        | Qty |
|----------|----------------------------------|---------------|-----|
| 1        | Rear Guard 12m                   | 1510-229      | 1   |
| 2        | Rear Tail Guard                  | 1610-188      | 1   |
| 3        | U-Bolt M12 x 185 Deep x 104 Wide | 0271-12185104 | 4   |
| 4        | Washer Flat M12                  | 0231-F12      | 4   |
| 5        | Nyloc Nut M12                    | 0221-NYL12    | 6   |





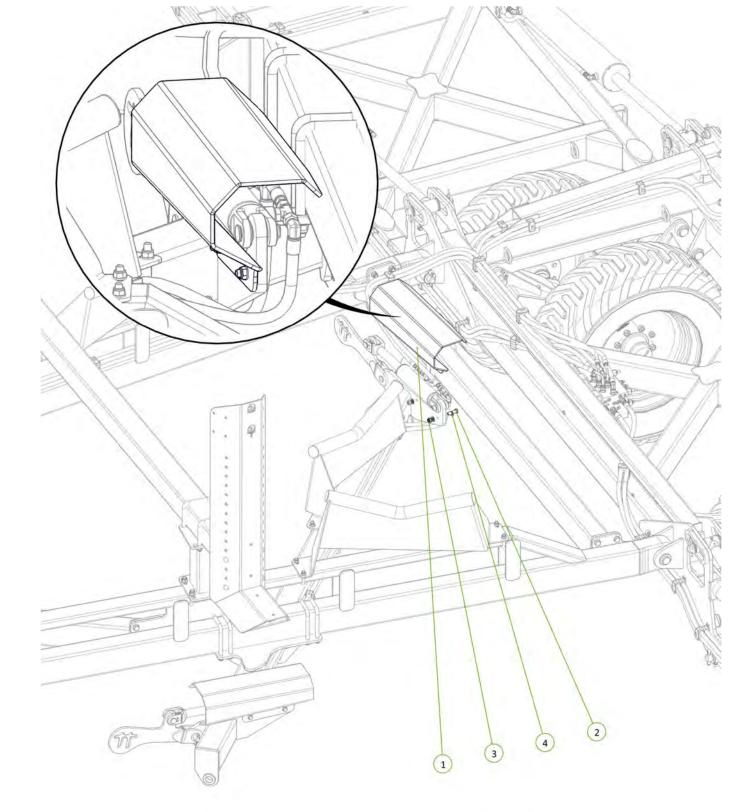
| tem No. | Description                                    | Number       | Qty |
|---------|--|--------------|-----|
| 1       | AU Oversize Sign                               | 0810-46      | 2   |
| 2       | M12 x 65 Coach Head Bolt                       | 0215-CH1265  | 4   |
| 3       | Oversize Sign Left Hand                        | 0801-SIGNOSL | 1   |
| 4       | Oversize Sign Right Hand                       | 0801-SIGNOSR | 1   |
| 5       | Nyloc Nut M12                                  | 0221-NYL12   | 4   |
| 6       | Washer Square M12 x 40 x 3                     | 0231-SQ12403 | 4   |
| 7       | TEK Phillips Wafer Head Metal Screw 10g x 16mm | 0241-TEKWH16 | 20  |



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







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

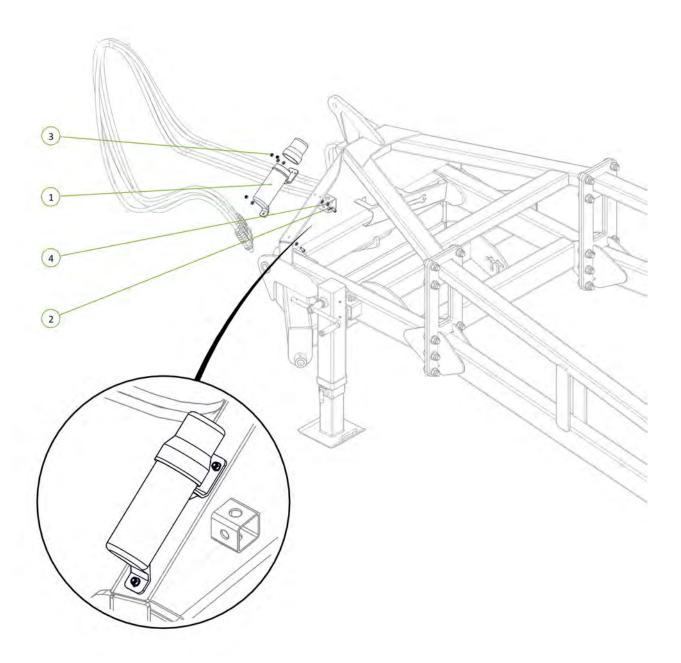




| Item No. | Description               | Number     | Qty |
|----------|---------------------------|------------|-----|
| 1        | Operator Manual Cannister | 0801-OMC-1 | 1   |
| 2        | M8 x 25 grade 8.8 ZP Bolt | 0211-825   | 3   |
| 3        | Nyloc Nut M8              | 0221-NYL8  | 3   |
| 4        | Washer Flat M8            | 0231-F8    | 6   |







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





Ensure ALL clevis's can pivot after installation

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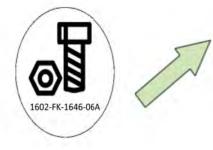
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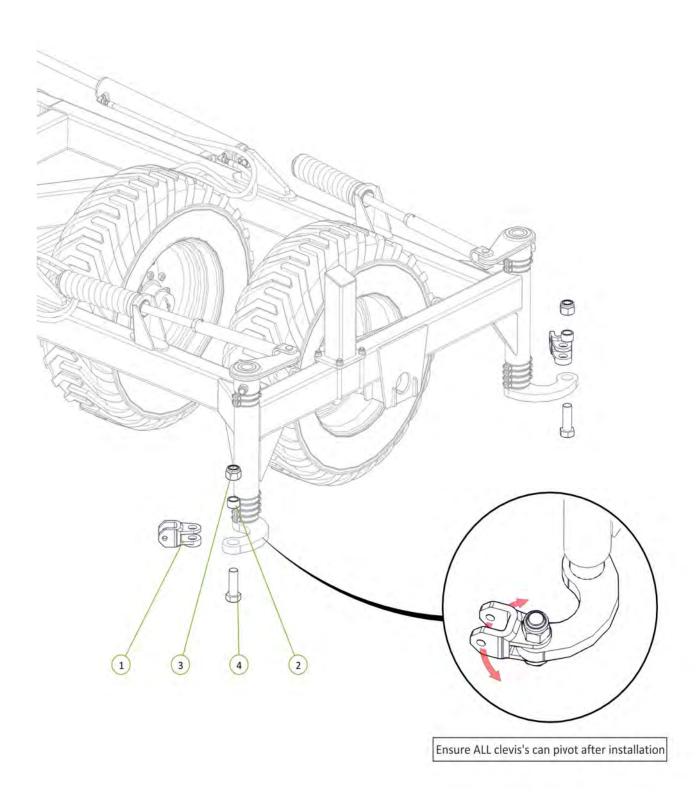
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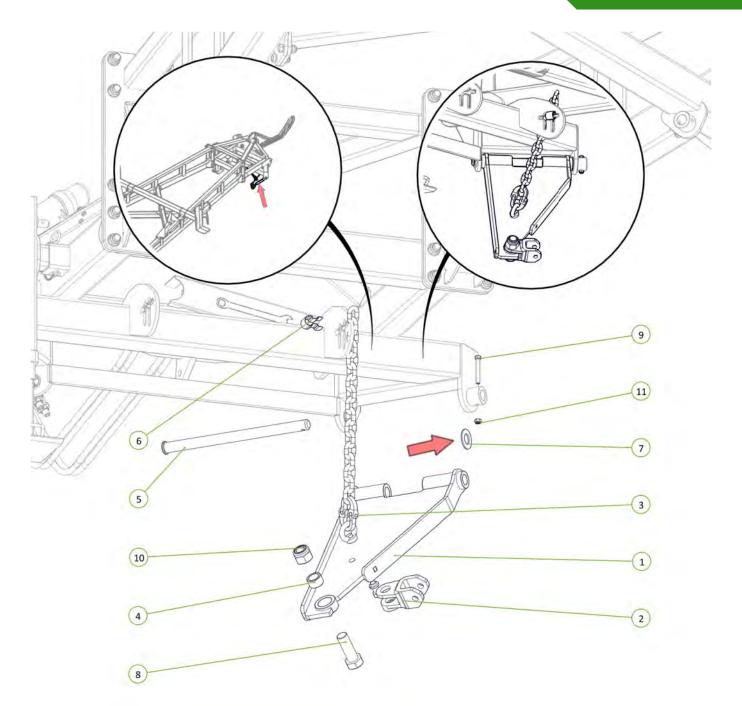
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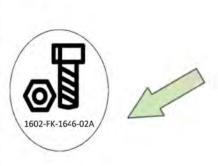
| Item No. | Description                  | Number         | Qty |
|----------|------------------------------|----------------|-----|
| 1        | Forged Clevis 21mm Bolt Hole | 0801-FC21      | 2   |
| 2        | Stainless Steel Wear Bush    | 1501-365033-SS | 2   |
| 3        | Nyloc Nut M36      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

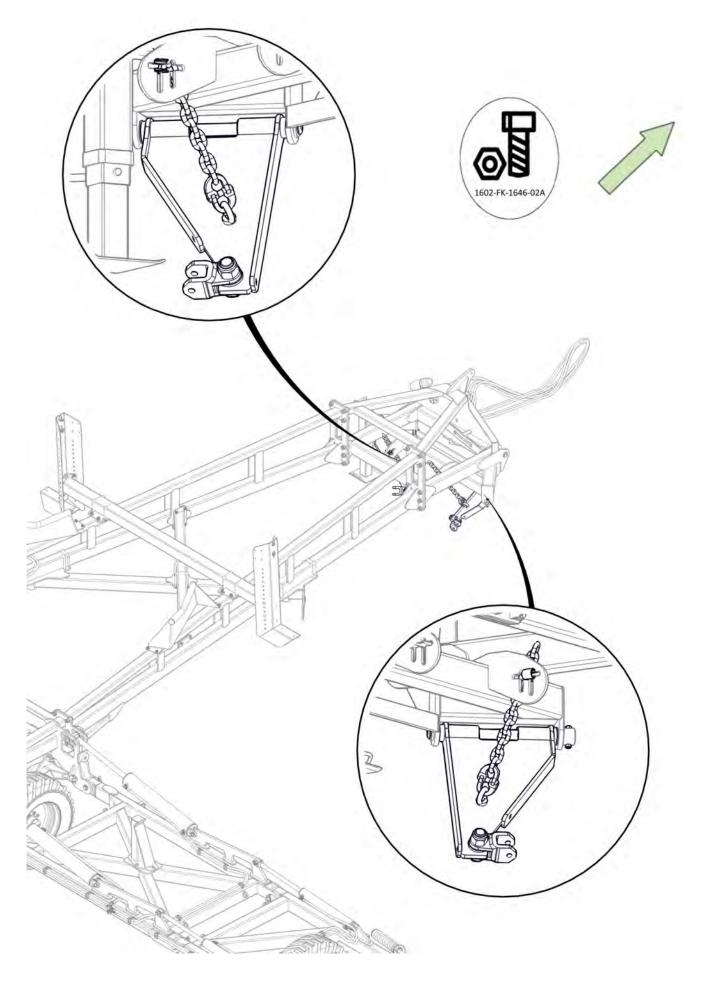






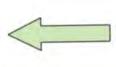
| Item No. | Description                             | Number         | Qty |
|----------|---|----------------|-----|
| 1        | Standard Chain Mount Plate              | 1610-20        | 1   |
| 2        | Forged Clevis 21mm Bolt Hole            | 0801-FC21      | 1   |
| 3        | Height Adjusting Chain Assembly 17 Link | 0801-20MCA-17  | 1   |
| 4        | Stainless Steel Wear Bush               | 1501-365033-SS | 1   |
| 5        | Chain Mount Pivot Pin                   | 0801-10-51     | 1   |
| 6        | Height Adjustor Retaining Clip          | 0801-KE014     | 1   |
| 7        | Washer High Tensile 1 3/8"              | 0232-HT13-8    | 1   |
| 8        | M36 x 105 grade 8.8 zp Bolt             | 0211-36105     | 1   |
| 9        | M12 x 90 Class 8.8 ZP Bolt              | 0211-1290      | 1   |
| 10       | Nyloc Nut M36                           | 0221-NYL36     | 1   |
| 11       | Nyloc Nut M12                           | 0221-NYL12     | 1   |

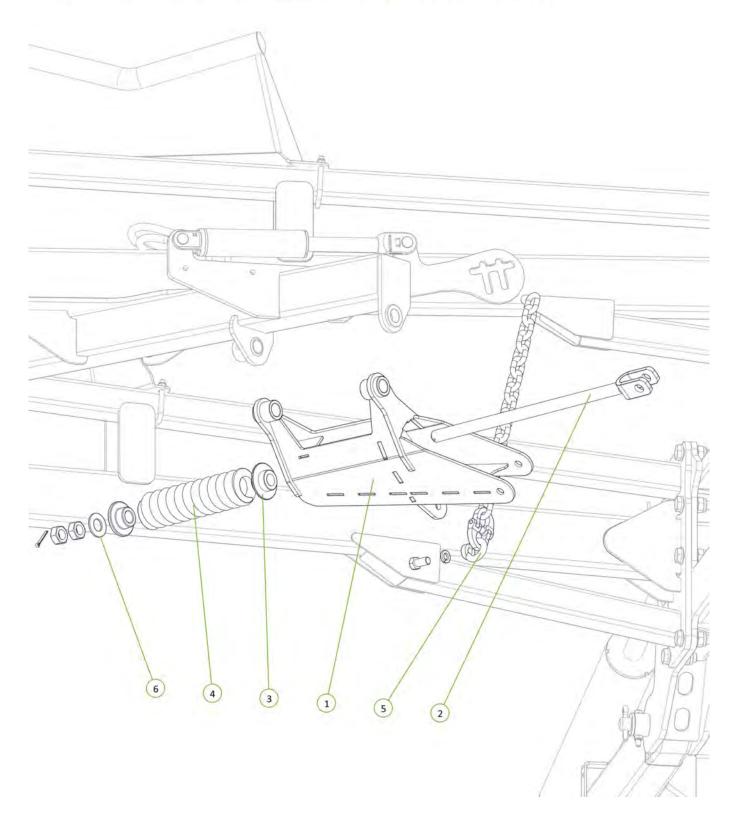




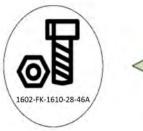
| Item No. | Description                             | Number        | Qty |
|----------|---|---------------|-----|
| 1        | Tension Box                             | 0810-57       | 1   |
| 2        | Module Tension Rod Assembly             | 0810-105A     | 1   |
| 3        | Rigid Spring Locator                    | 0801-10-S2L   | 1   |
| 4        | Heavy Duty Coil Spring 24mm             | 0801-K2455350 | 1   |
| 5        | Height Adjusting Chain Assembly 17 Link | 0801-20MCA-17 | 1   |
| 6        | Washer High Tensile 1 1/4"              | 0232-HT11-4   | 1   |

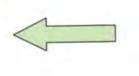


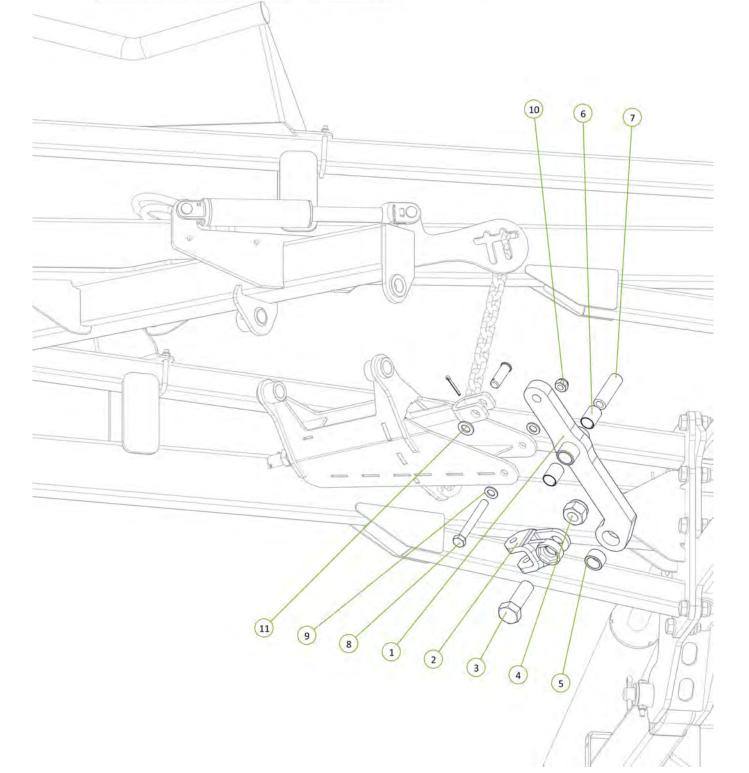




| Item No. | Description                  | Number         | Qty |
|----------|------------------------------|----------------|-----|
| 1        | Module Tension Arm No Clevis | 0810-104F      | 1   |
| 2        | Forged Clevis 21mm Bolt Hole | 0801-FC21      | 1   |
| 3        | M36 x 105 Class 8.8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

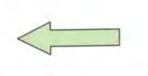


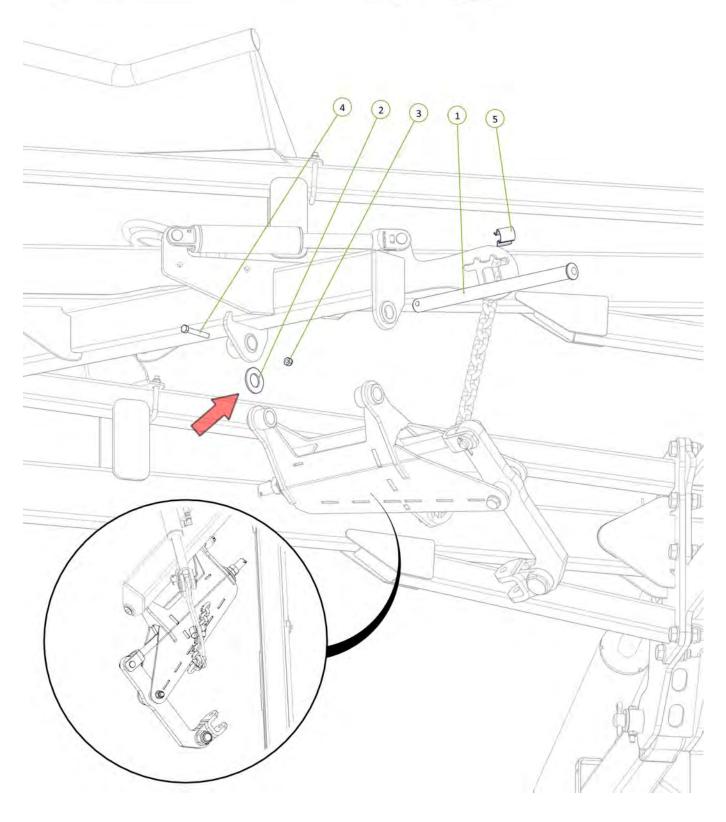


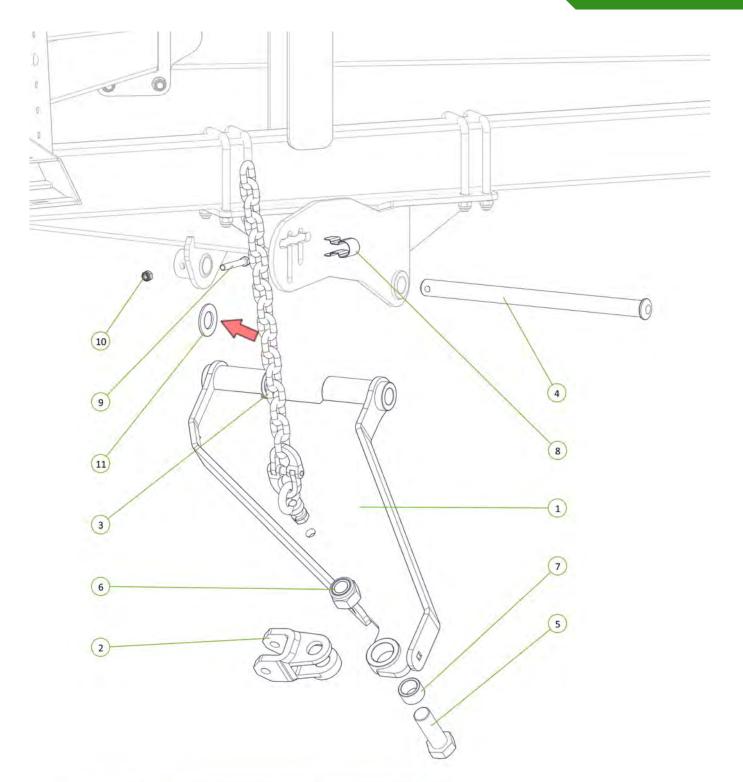


| Item No. | Description                    | Number      | Qty |
|----------|--------------------------------|-------------|-----|
| 1        | Chain Mount Pivot Pin          | 0801-10-51  | 1   |
| 2        | Washer High Tensile 1 3/8"     | 0232-HT13-8 | 1   |
| 3        | Nyloc Nut M12                  | 0221-NYL12  | 1   |
| 4        | M12 x 90 Class 8.8 ZP Bolt     | 0211-1290   | 1   |
| 5        | Height Adjustor Retaining Clip | 0801-KE014  | 1   |



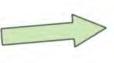


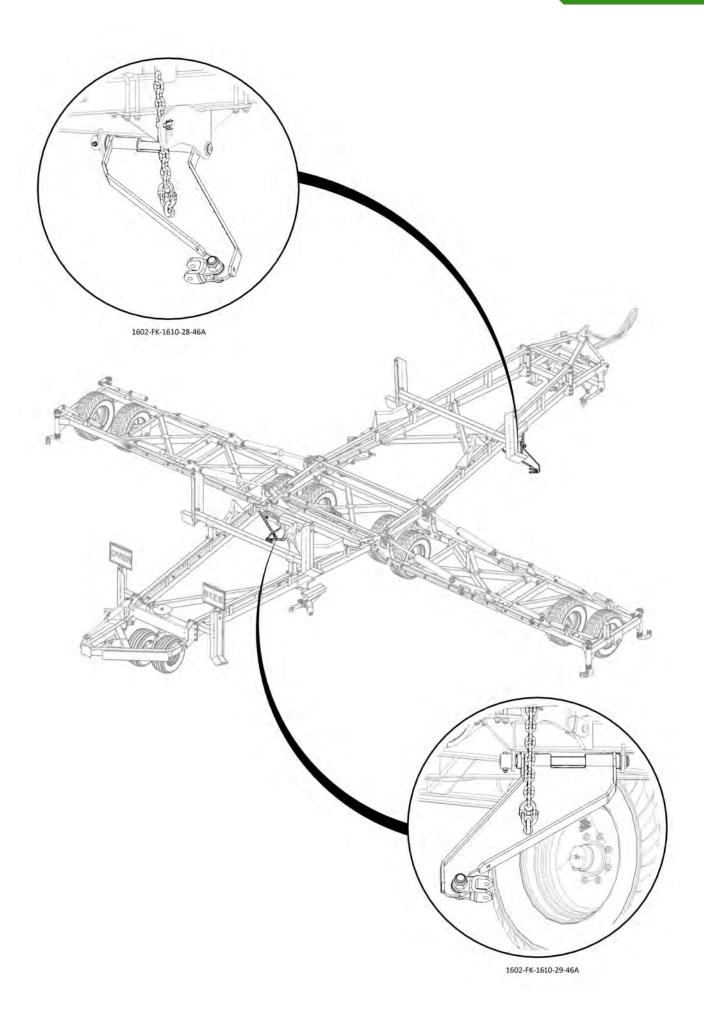


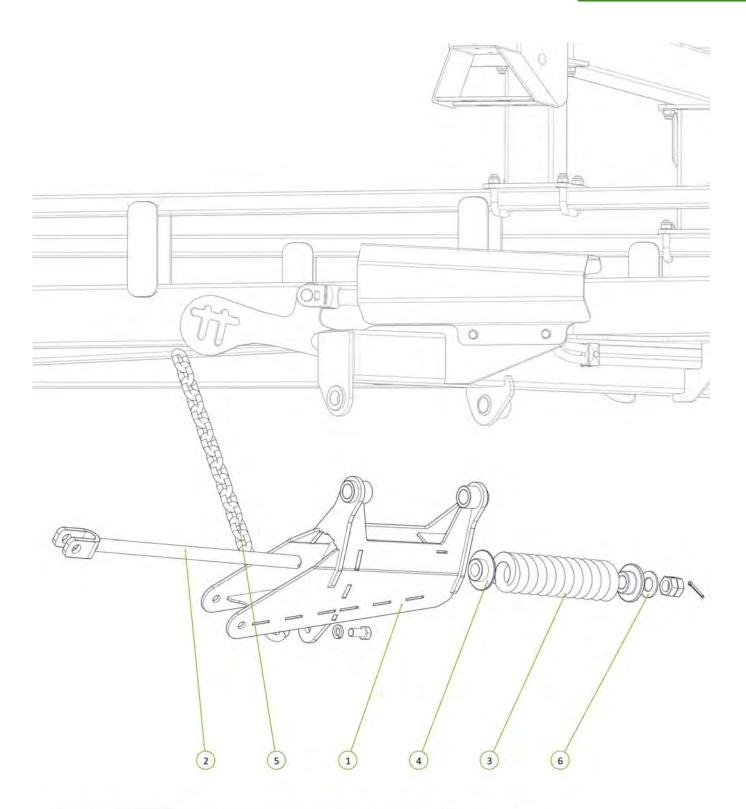


| Item No. | Description                             | Number         | Qty |
|----------|---|----------------|-----|
| 1        | Extended Chain Mount Plate              | 1610-21        | 1   |
| 2        | Forged Clevis 21mm Bolt Hole            | 0801-FC21      | 1   |
| 3        | Height Adjusting Chain Assembly 17 Link | 0801-20MCA-17  | 1   |
| 4        | Chain Mount Pivot Pin                   | 0801-10-51     | 1   |
| 5        | M36 x 105 Class 8.8 ZP Bolt             | 0211-36105     | 1   |
| 6        | Nyloc Nut M36                           | 0221-NYL36     | 1   |
| 7        | Wear Bush                               | 1501-365033-SS | 1   |
| 8        | Height Adjustor Retaining Clip          | 0801-KE014     | 1   |
| 9        | M12 x 90 Class 8.8 ZP Bolt              | 0211-1290      | 1   |
| 10       | Nyloc Nut M12                           | 0221-NYL12     | 1   |
| 11       | Washer High Tensile 1 3/8"              | 0232-HT13-8    | 1   |

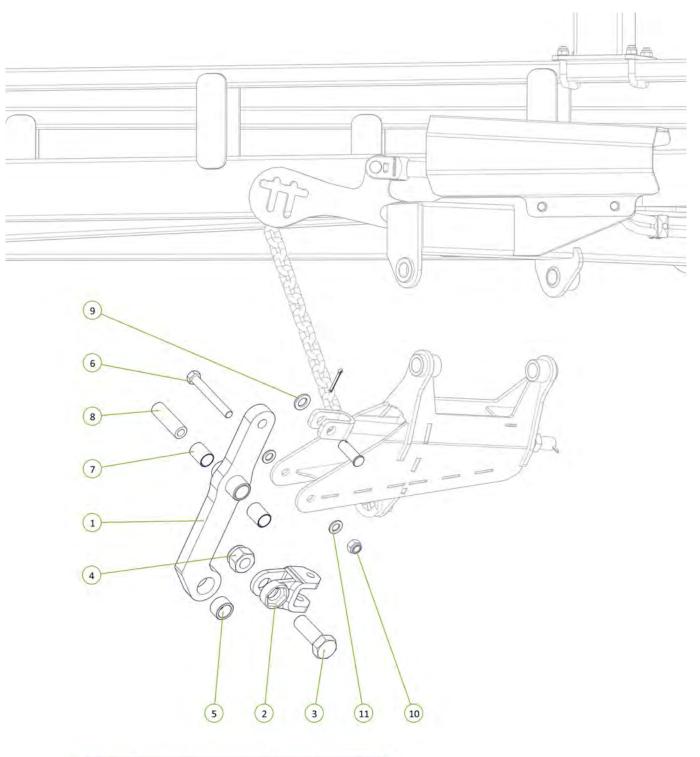




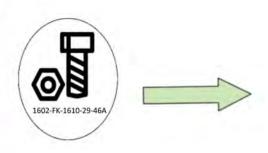




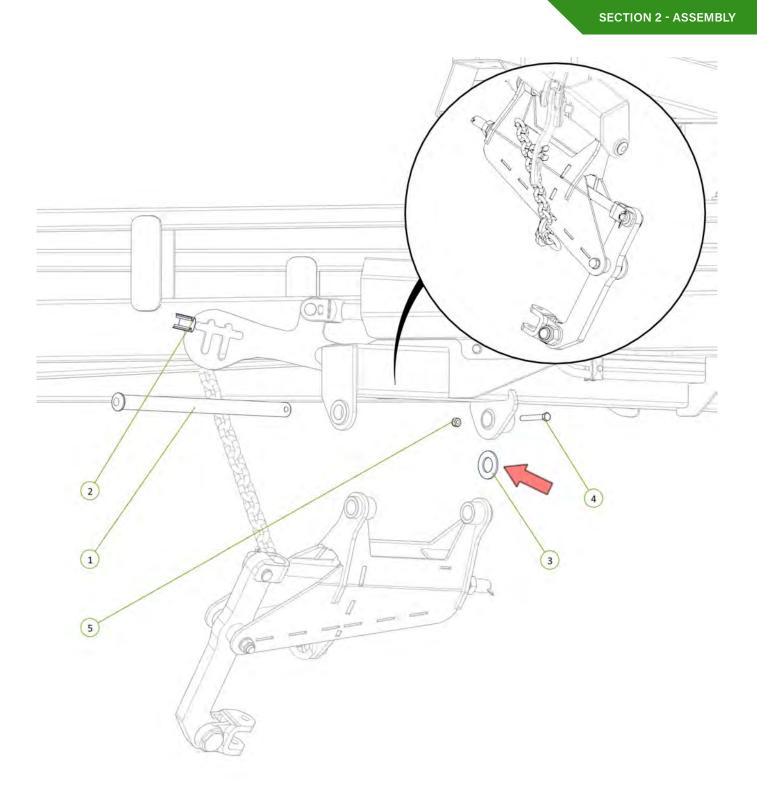
| tem No. | Description                             | Number        | Qty |
|---------|---|---------------|-----|
| 1       | Tension Box                             | 0810-57       | 1   |
| 2       | Module Tension Rod Assembly             | 0810-105A     | 1   |
| 3       | Heavy Duty Coil Spring 24mm             | 0801-K2455350 | 1   |
| 4       | Rigid Spring Locator                    | 0801-10-S2L   | 1   |
| 5       | Height Adjusting Chain Assembly 17 Link | 0801-20MCA-17 | 1   |
| 6       | Washer High Tensile 1 1/4"              | 0232-HT11-4   | 1   |



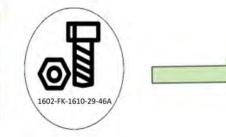
| Item No. | Description                  | Number         | Qty |
|----------|------------------------------|----------------|-----|
| 1        | Module Tension Arm No Clevis | 0810-104F      | 1   |
| 2        | Forged Clevis 21mm Bolt Hole | 0801-FC21      | 1   |
| 3        | M36 x 105 Class 8.8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

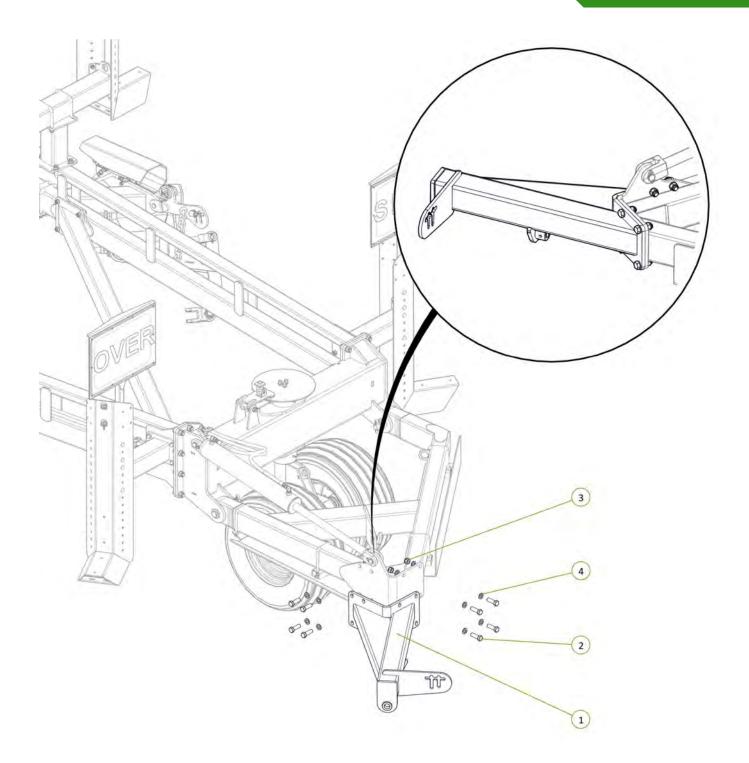


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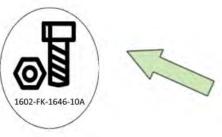


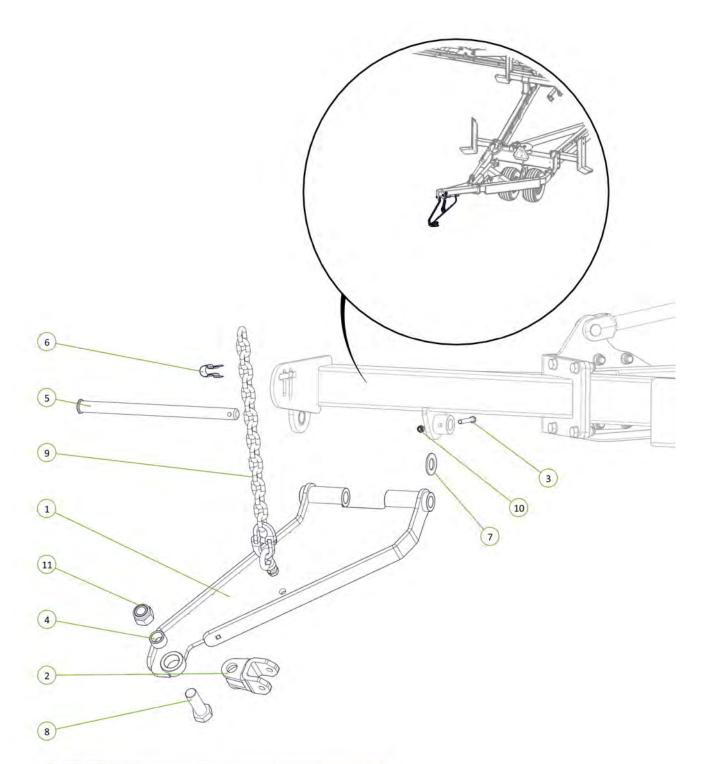
| Item No. | Description                    | Number      | Qty |
|----------|--------------------------------|-------------|-----|
| 1        | Chain Mount Pivot Pin          | 0801-10-51  | 1   |
| 2        | Height Adjustor Retaining Clip | 0801-KE014  | 1   |
| 3        | Washer High Tensile 1 3/8"     | 0232-HT13-8 | 1   |
| 4        | M12 x 90 Class 8.8 ZP Bolt     | 0211-1290   | 1   |
| 5        | Nyloc Nut M12                  | 0221-NYL12  | 1   |



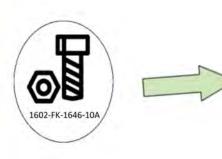


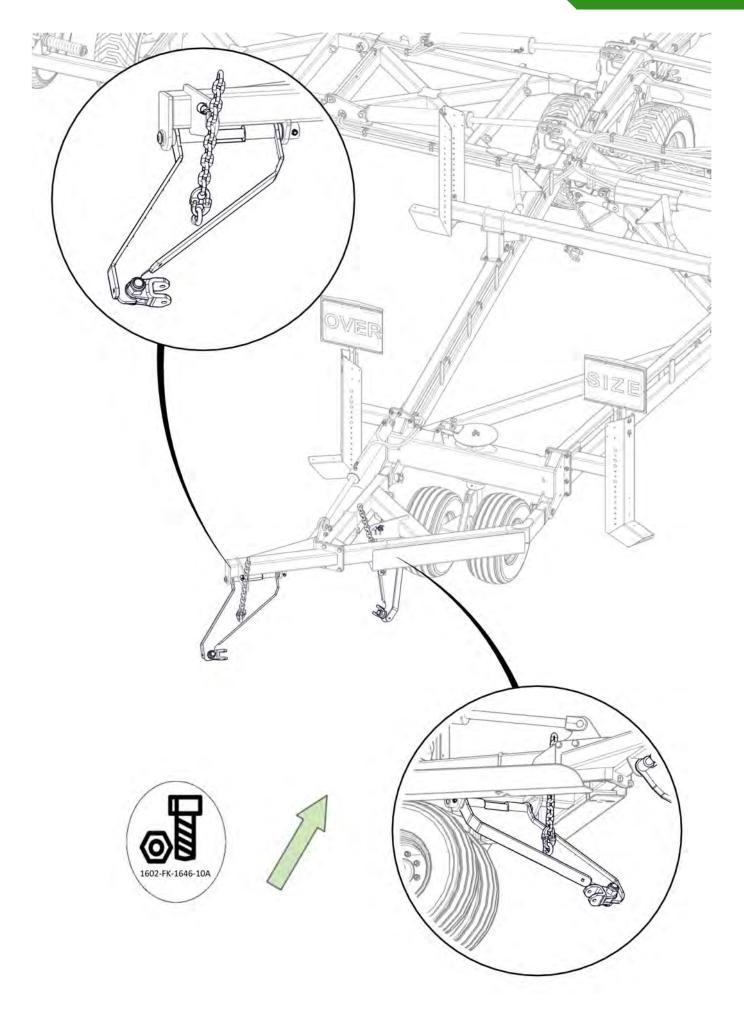
| Item No. | Description                | Number       | Qty |
|----------|----------------------------|--------------|-----|
| 1        | Tail Extension             | KE-1510-40ST | 1   |
| 2        | M20 x 65 Class 8.8 ZP Bolt | 0211-20      | 8   |
| 3        | Nyloc Nut M20              | 0221-NYL20   | 8   |
| 4        | Washer Flat M20            | 0231-F20     | 16  |





| Item No. | Description                             | Number         | Qty |
|----------|---|----------------|-----|
| 1        | Extended Chain Mount Plate              | 1610-21        | 1   |
| 2        | Forged Clevis 21mm Bolt Hole            | 0801-FC21      | 1   |
| 3        | M12 x 90 Class 8.8 ZP Bolt              | 0211-1290      | 1   |
| 4        | Stainless Steel Wear Bush               | 1501-365033-SS | 1   |
| 5        | Chain Mount Pivot Pin                   | 0801-10-51     | 1   |
| 6        | Height Adjustor Retaining Clip          | 0801-KE014     | 1   |
| 7        | Washer High Tensile 1 3/8"              | 0232-HT13-8    | 1   |
| 8        | M36 x 105 grade 8.8 zp Bolt             | 0211-36105     | 1   |
| 9        | Height Adjusting Chain Assembly 17 Link | 0801-20MCA-17  | 1   |
| 10       | Nyloc Nut M12                           | 0221-NYL12     | 1   |
| 11       | Nyloc Nut M36                           | 0221-NYL36     | 1   |

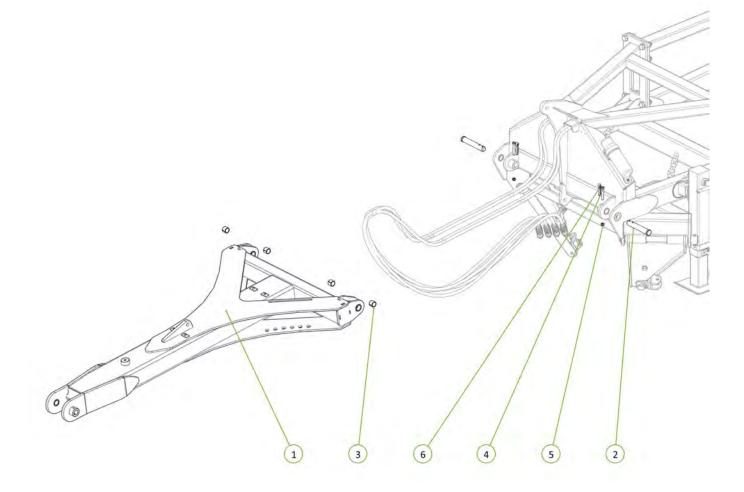


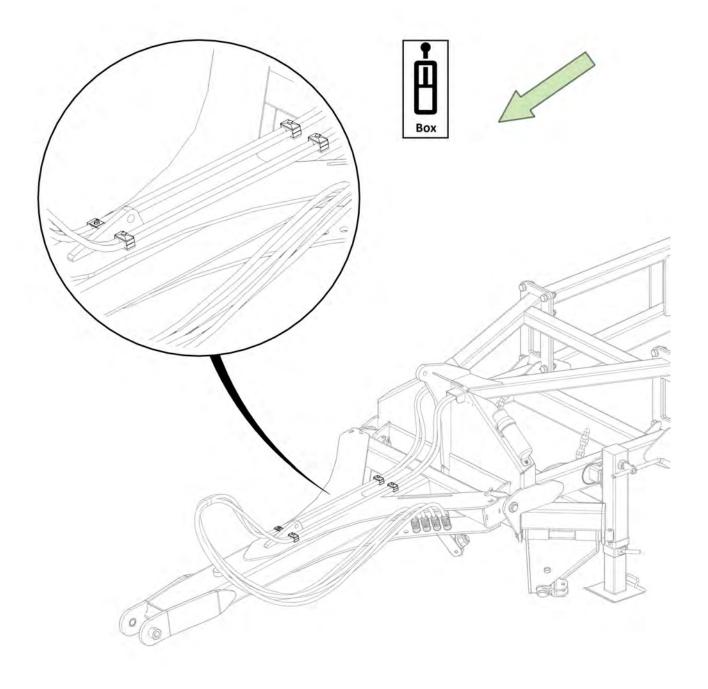


| Item No. | Description                | Number         | Qty |
|----------|----------------------------|----------------|-----|
| 1        | Drawbar                    | 1610-08        | 1   |
| 2        | PCH Wing Pivot Pin         | 0801-10-08-235 | 2   |
| 3        | 35 ID x 30mm DU Bush       | 0113-MB3530DU  | 4   |
| 4        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290      | 2   |
| 5        | Nyloc Nut M12              | 0221-NYL12     | 2   |
| 6        | Cotter Pin M13 x 63        | 0261-PINC1363  | 2   |

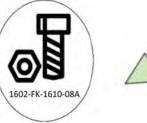


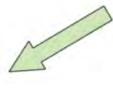


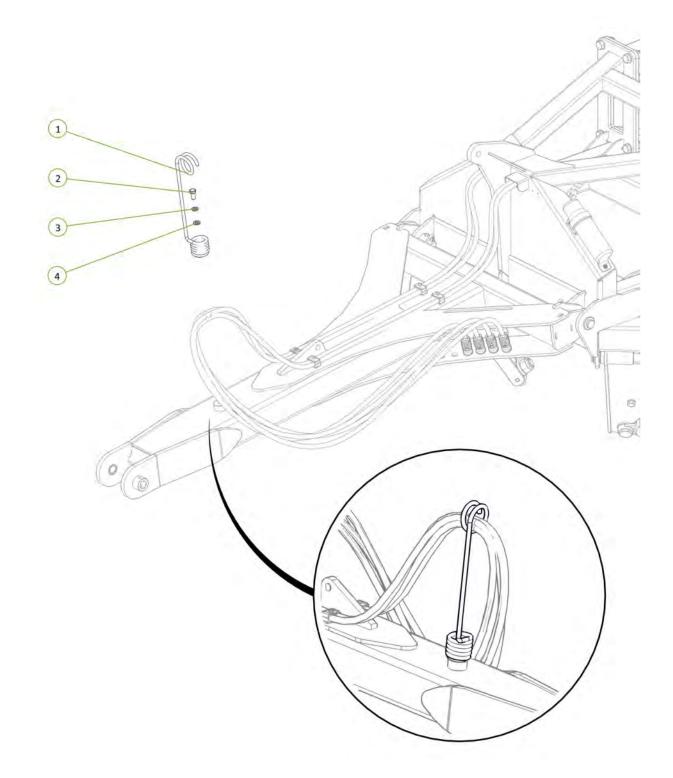


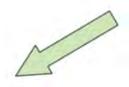


| Item No. | Description                | Number           | Qty |
|----------|----------------------------|------------------|-----|
| 1        | Hose Post Spring           | 1601-CDB-00-0012 | 1   |
| 2        | M16 x 35 grade 8.8 zp Bolt | 0211-1635        | 1   |
| 3        | Washer Spring M16  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

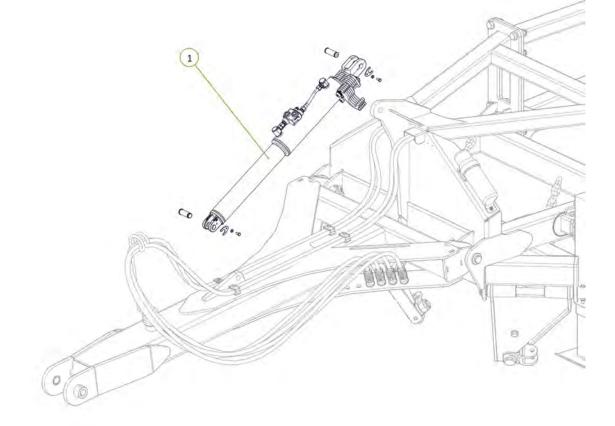


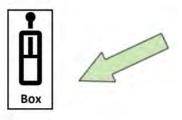




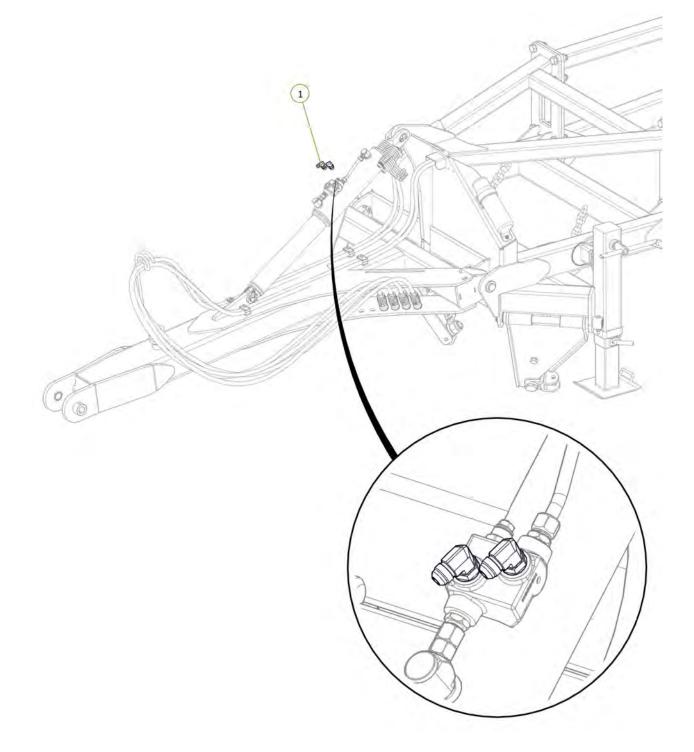


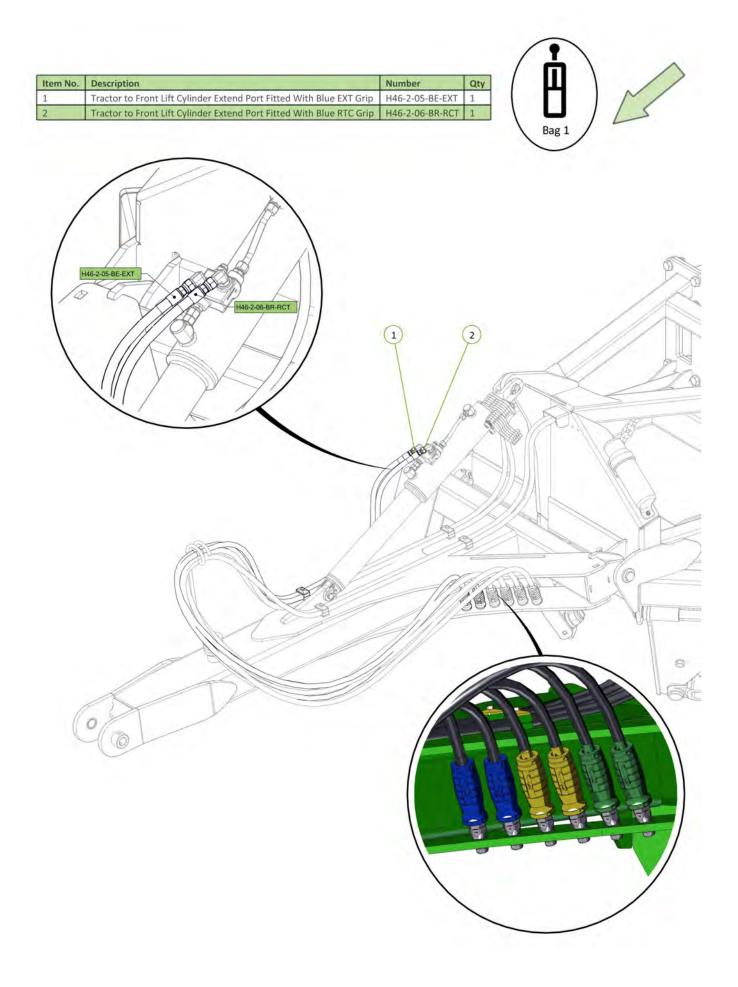
| Item No. | Description   | Number        | Qty |
|----------|---|---------------|-----|
| 1        | 4" Bore 12" Stroke 2" Rod Extended Hydraulic Cylinder | 0311-412EXT-2 | 1   |



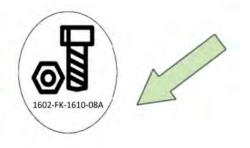


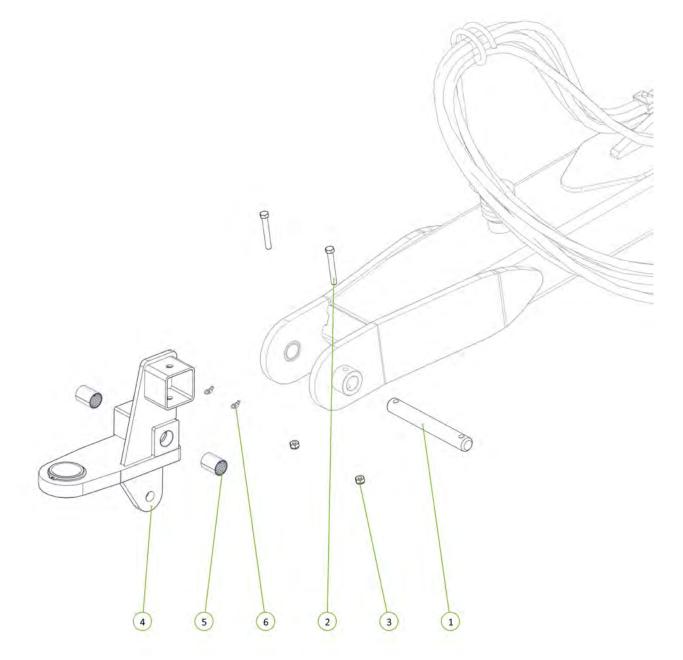
| Item No. | Description                                 | Number        | Qty |
|----------|---|---------------|-----|
| 1        | 3/4" JIC Male 3/4" UN O Ring Male 90° Elbow | 0323-S91-1212 | 2   |



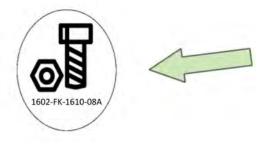


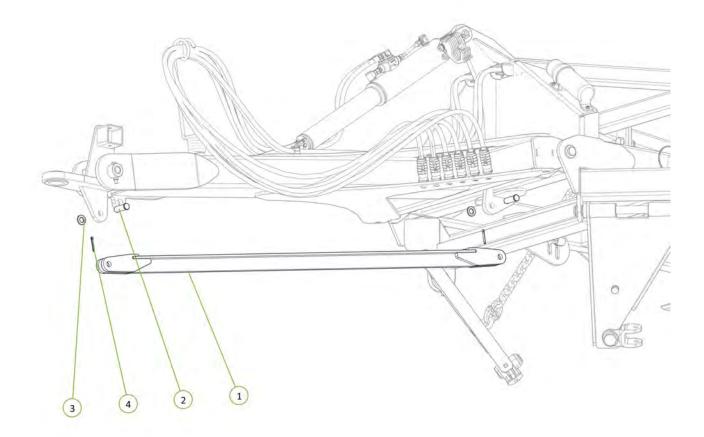
| Item No. | Description                | Number        | Qty |
|----------|----------------------------|---------------|-----|
| 1        | Tow Hitch Pivot Pin        | 0801-10-14    | 1   |
| 2        | M12 x 90 Class 8.8 ZP Bolt | 0211-1290     | 2   |
| 3        | Nyloc Nut M12              | 0221-NYL12    | 2   |
| 4        | Tow Hitch                  | 0810-09       | 1   |
| 5        | 35 ID x 50mm DX Bush       | 0113-MB3550DX | 2   |
| 6        | Grease Nipple 1/4" UNF 45° | 0181-GN1/445  | 2   |

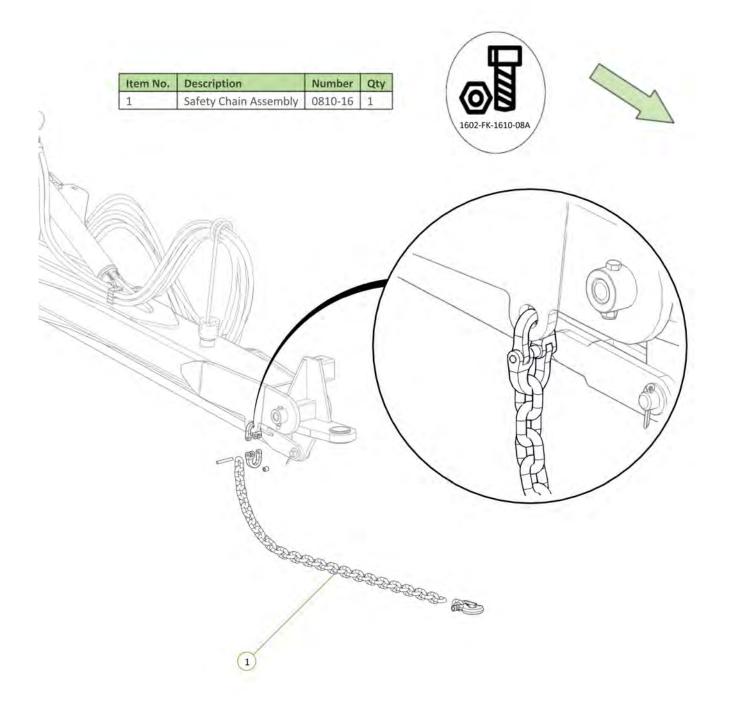




| Item No. | Description            | Number        | Qty |
|----------|------------------------|---------------|-----|
| 1        | 46' Parallel Arm       | 0810-64       | 1   |
| 2        | Clevis Pin 25mm x 75mm | 0801-KE0307-1 | 2   |
| 3        | Washer Flat M24        | 0231-F24      | 2   |
| 4        | Cotter Pin M6 x 50mm   | 0261-PINC650  | 2   |

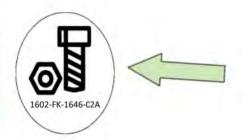


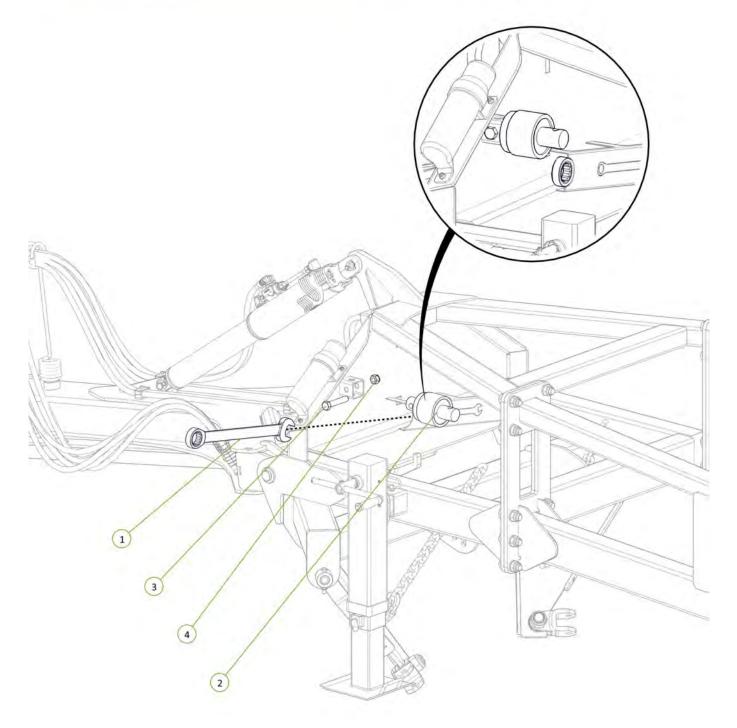


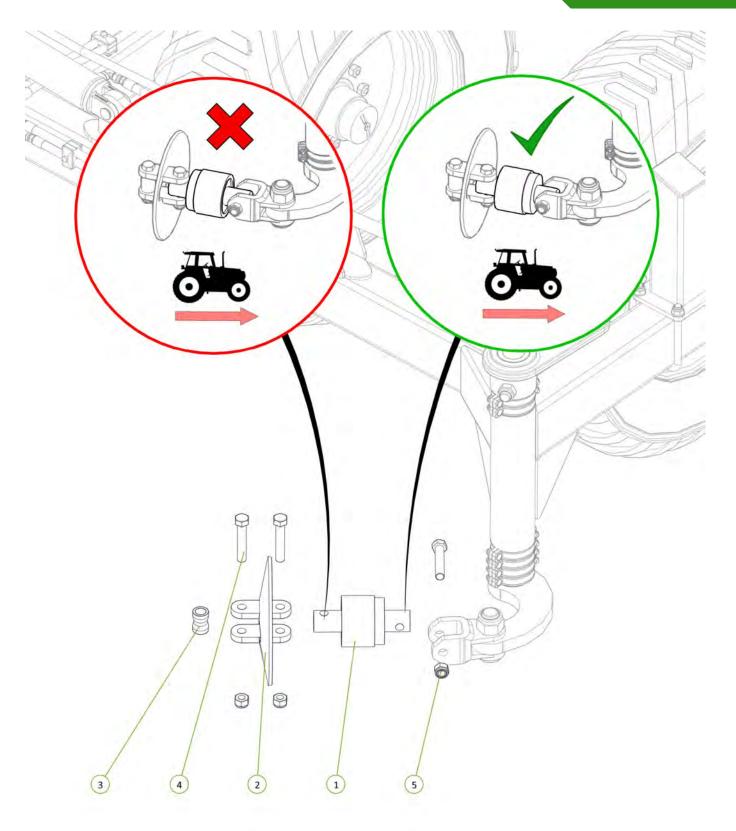


|          |                              |                     |         |                  | -   |
|----------|------------------------------|---------------------|---------|------------------|-----|
| Item No. | Description                  | Number              | Qty     |                  | //  |
| 1        | Cylinder Safety Stop         | 0800-688            | 1       |                  | /   |
| 2        | Square Loop Pin 5/16" x 3 1/ | 4" 0511-PINLOOPSQ51 | 6x314 1 | 1602-FK-1610-08A | 2   |
| 1        |                              |                     |         |                  |     |
|          |                              |                     |         |                  | ]   |
|          | A A A                        |                     | ARCENS. | R S S            |     |
|          |                              |                     |         |                  | X   |
|          |                              |                     |         | BUUDE -          | C.C |
|          |                              |                     |         |                  |     |
| 0        | CO A                         |                     |         |                  |     |
| E BBB    | S.S.S.                       |                     | 2       | 1                |     |

| Item No. | Description                               | Number        | Qty |
|----------|---|---------------|-----|
| 1        | Ratcheting Gear Wrench 1 3/4"             | 0802-GW1 3-4  | 1   |
| 2        | 20mm Bolt Swivel Unit                     | 0802-PCHB55   | 1   |
| 3        | M20 x 110 grade 10.9 ZP Short Thread Bolt | 0211-20110 ST | 1   |
| 4        | Nyloc Nut M20                             | 0221-NYL20    | 1   |

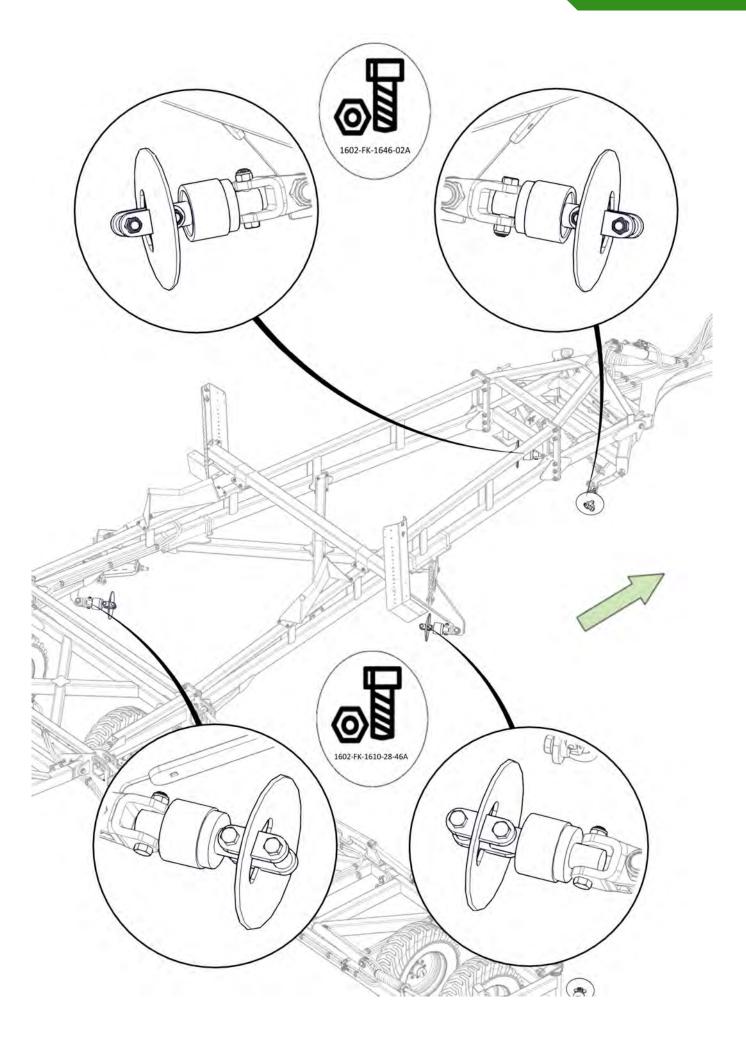


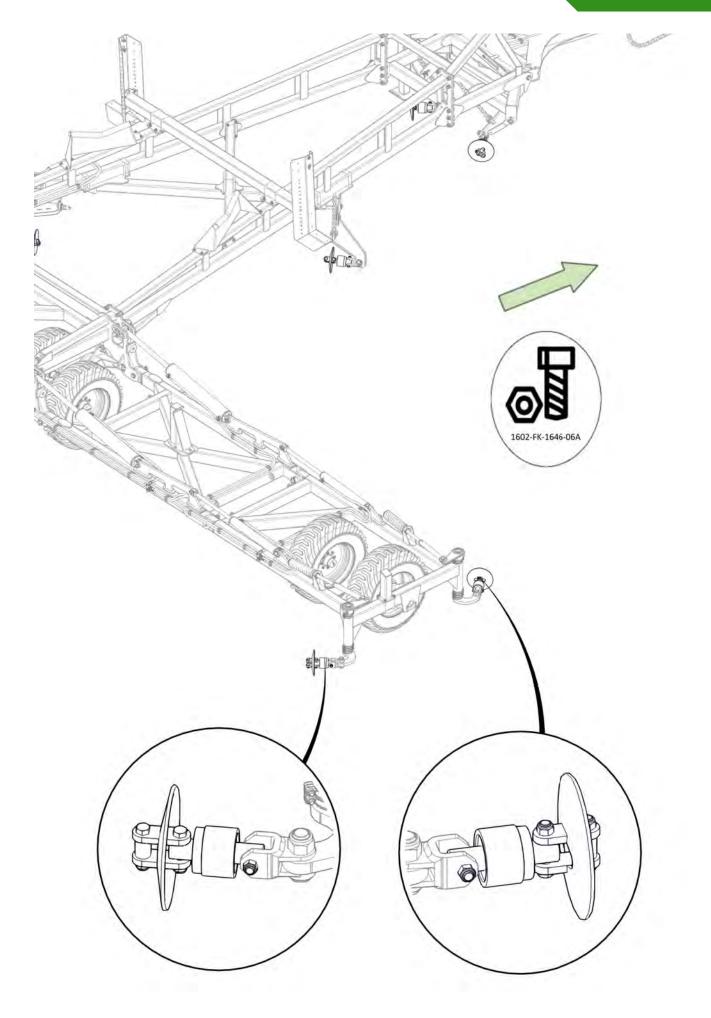


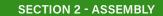


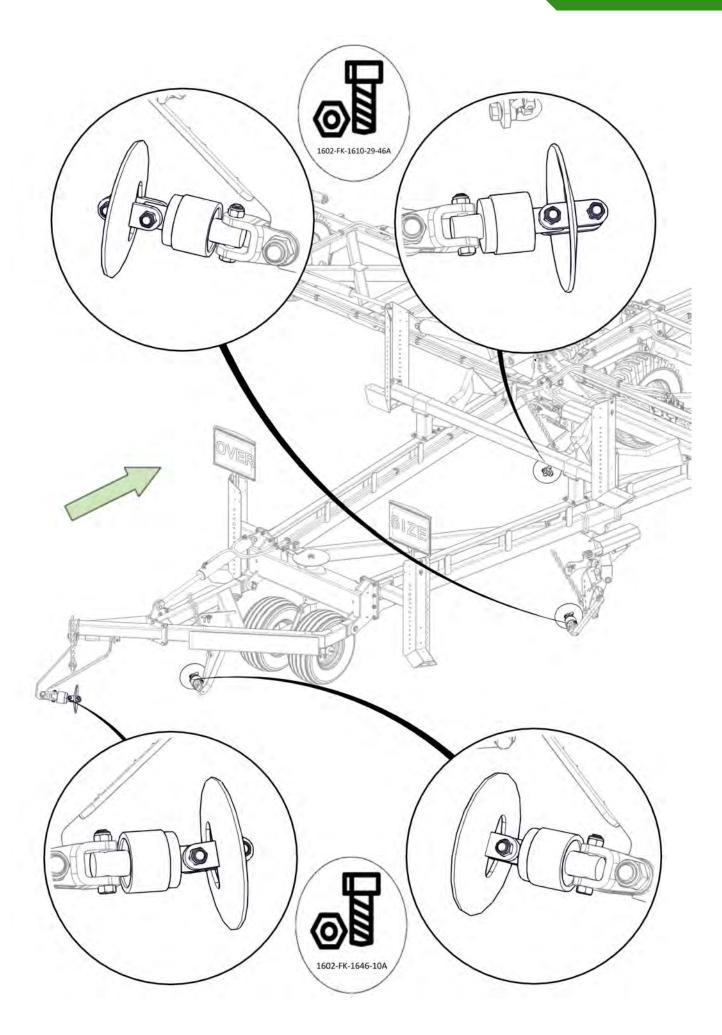
| Item No. | Description                               | Number        | Qty |
|----------|---|---------------|-----|
| 1        | 20mm Bolt Swivel Unit                     | 0802-PCHB55   | 1   |
| 2        | Disc Chain Tie Plate Link 20mm            | 0802-DCTP-20  | 1   |
| 3        | Disc Chain Spacer                         | 0801-253755   | 1   |
| 4        | M20 x 110 grade 10.9 ZP Short Thread Bolt | 0211-20110 ST | 3   |
| 5        | Nyloc Nut M20                             | 0221-NYL20    | 3   |

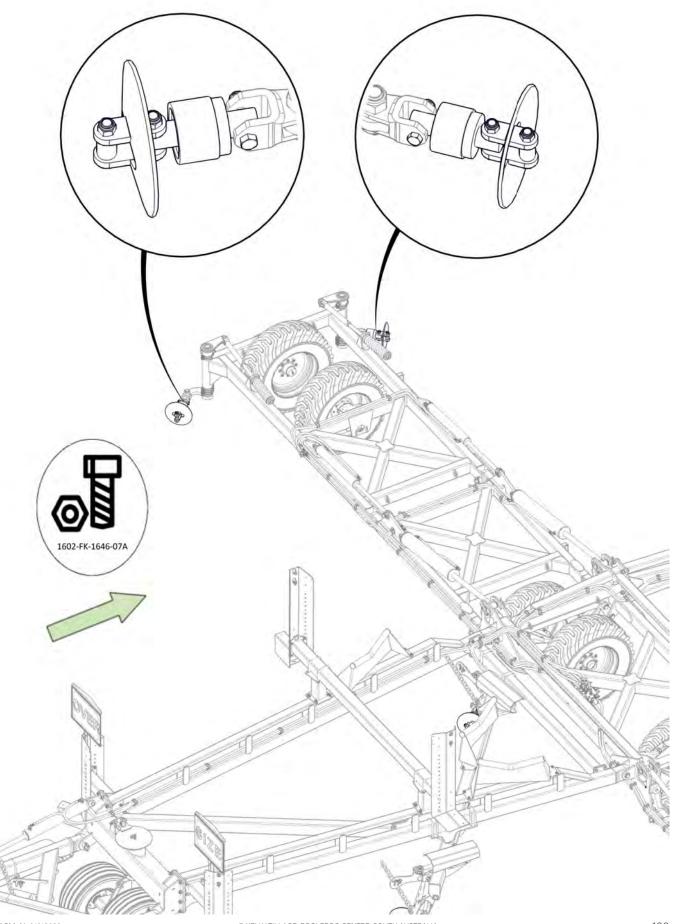


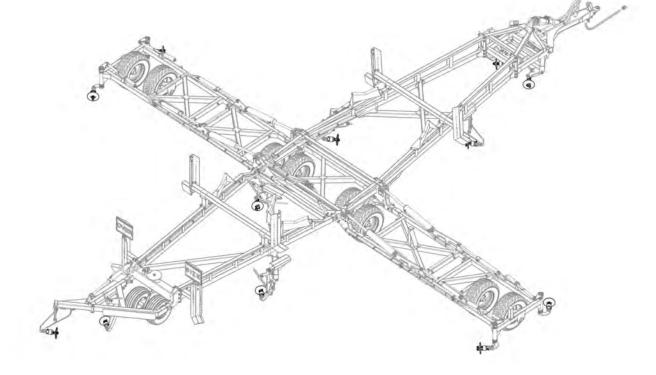




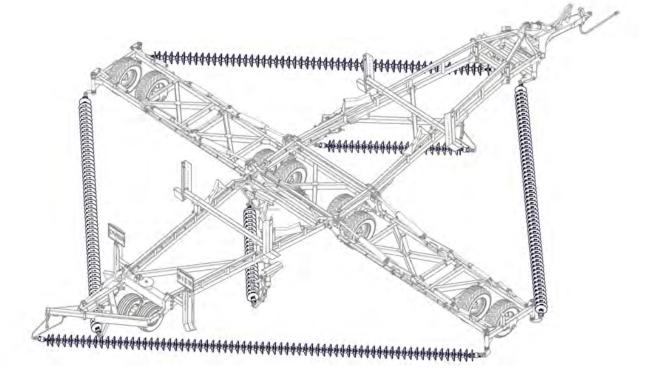






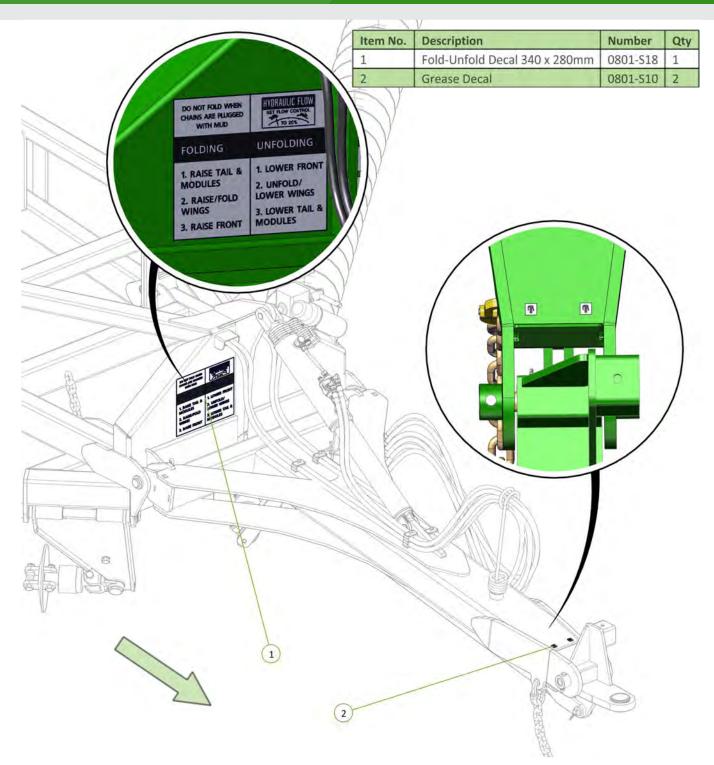


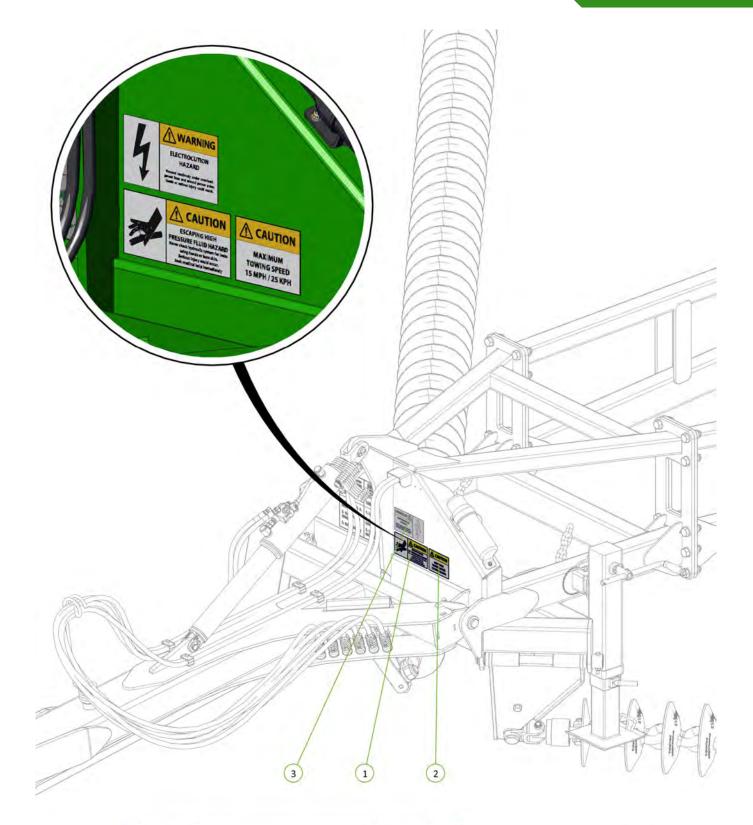
Ensure all bearings are correctly orientated with seal facing rear of machine



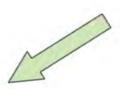


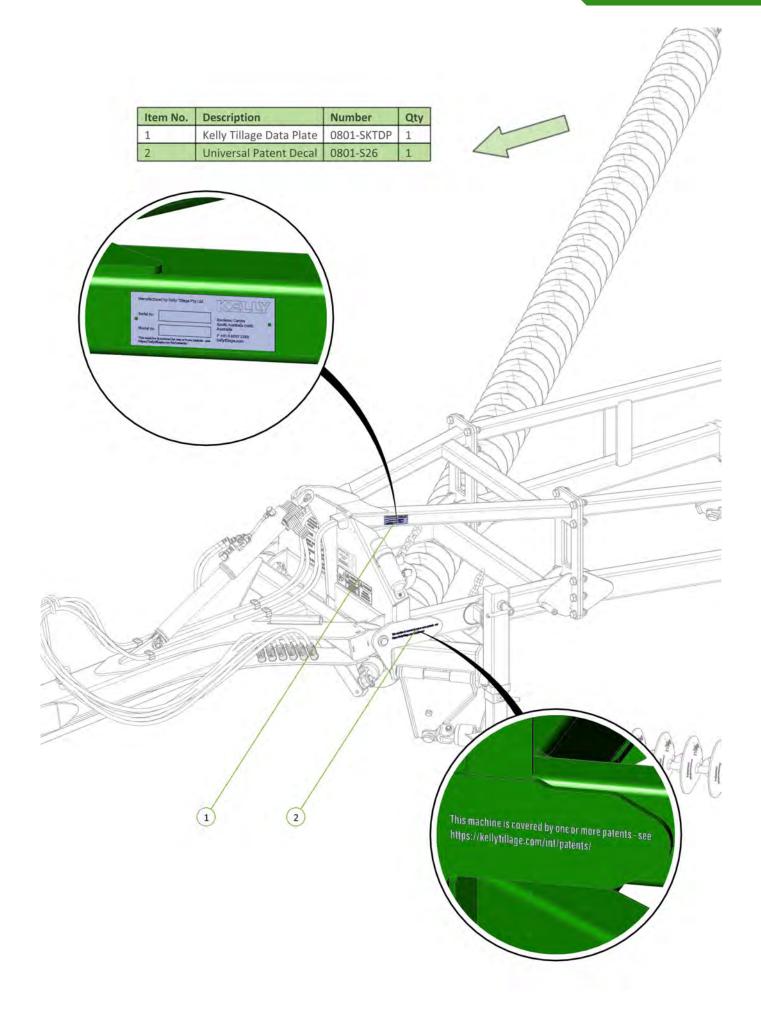
## Section 3 - Decal Application

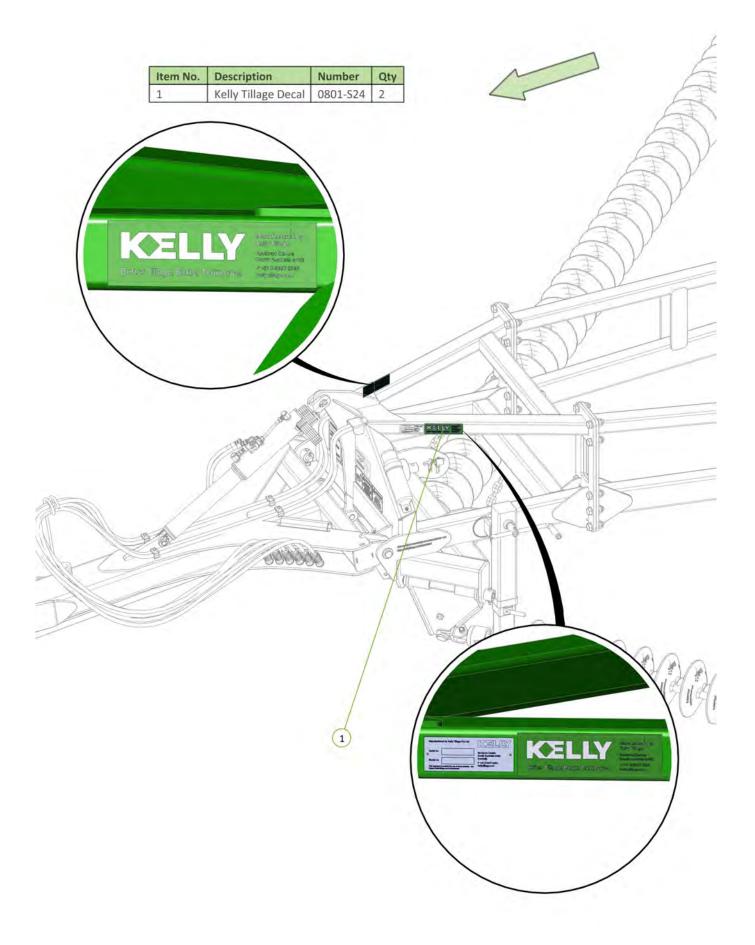


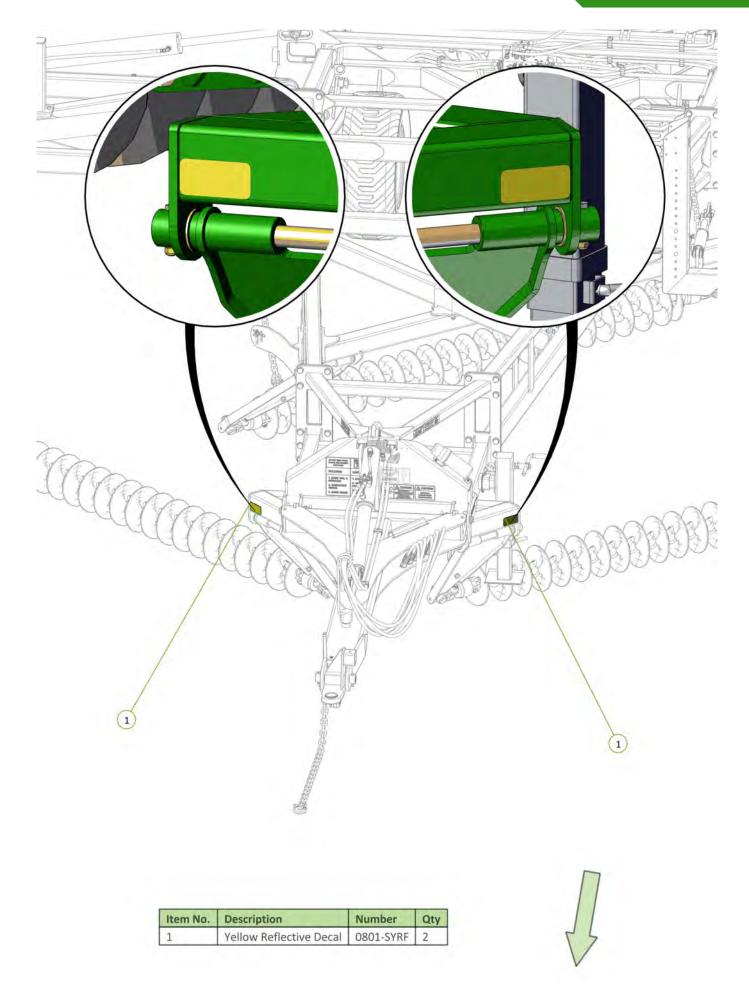


| Item No. | Description                      | Number  | Qty |
|----------|----------------------------------|---------|-----|
| 1        | Hydraulic Pressure Caution Decal | 0801-S4 | 1   |
| 2        | Towing Speed Decal               | 0801-55 | 1   |
| 3        | Electrocution Hazard Decal       | 0801-S6 | 1   |

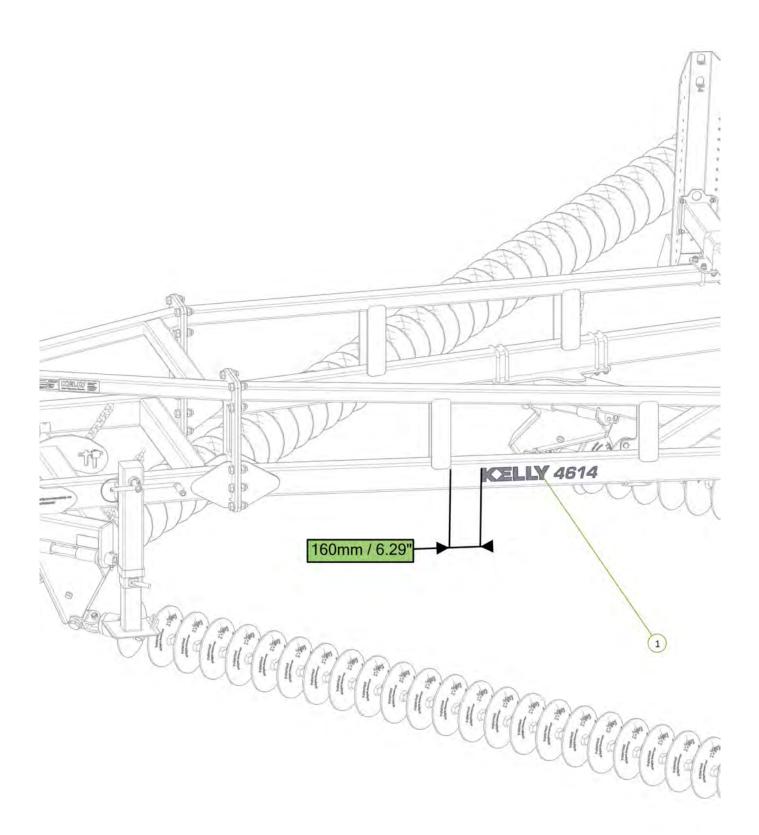






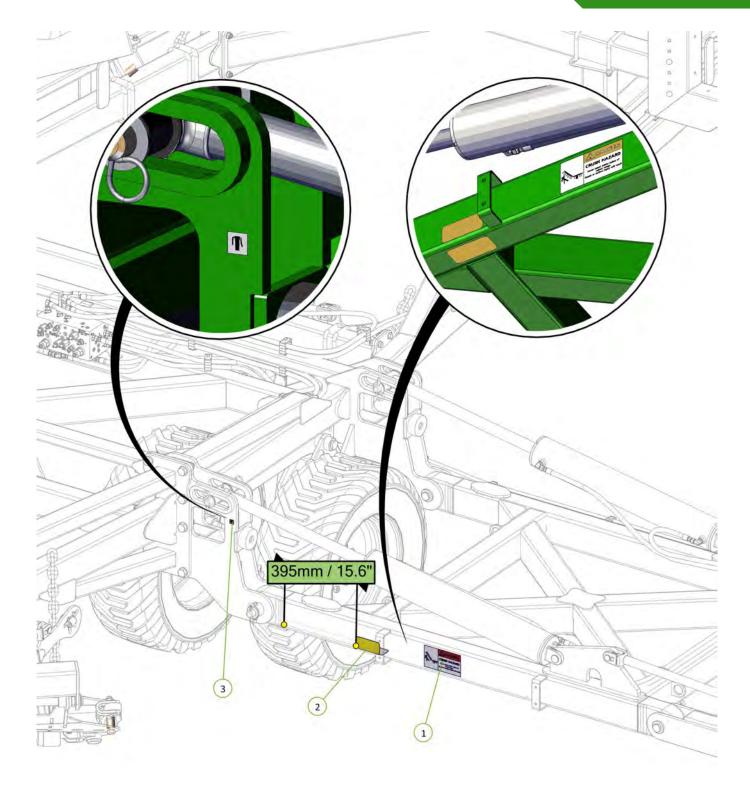


| Item No. | Description              | Number       | Qty |
|----------|--------------------------|--------------|-----|
| 1        | Kelly Tillage 4614 Decal | 0801-SKT4614 | 1   |



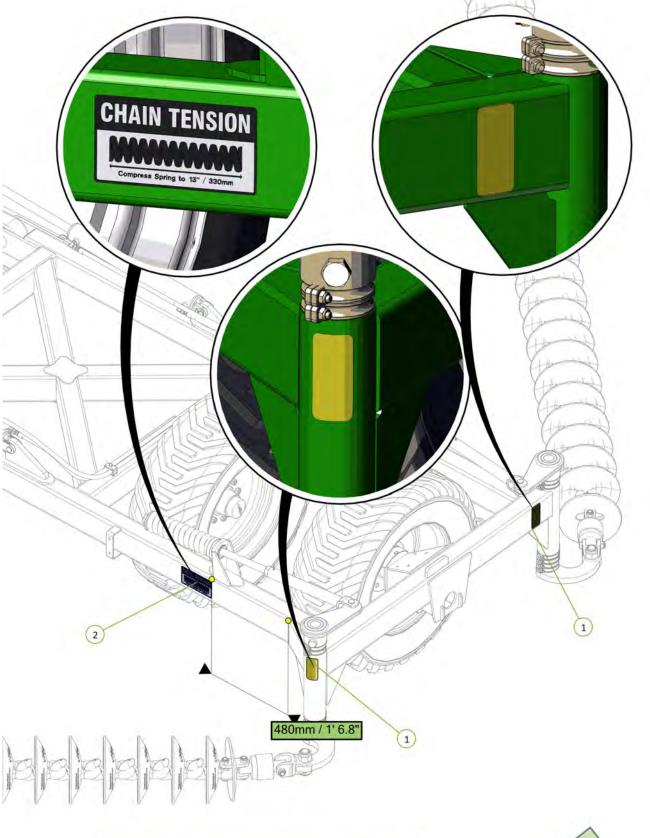
| Item No.  | Description                           | Number        | Qty               |         |        |    |
|-----------|---------------------------------------|---------------|-------------------|---------|--------|----|
| 1         | Kelly Tillage 4614 Decal              | 0801-SKT4614  | 1                 |         |        | >  |
|           |                                       |               |                   |         |        |    |
| 2         |                                       |               |                   |         |        |    |
| A         |                                       |               |                   |         |        |    |
| VAR       | 2                                     |               |                   |         |        |    |
| Y: P      | A                                     |               |                   |         |        |    |
|           | The                                   |               |                   |         |        |    |
|           | WAA                                   |               |                   |         |        |    |
| 0         | VA                                    | 5             |                   |         |        |    |
| LA        | X(C)                                  | A             |                   |         |        |    |
| TAN       | ) V                                   | (PA)          |                   |         |        |    |
|           |                                       | VA            | 1                 |         |        |    |
|           |                                       | VIT           |                   |         |        |    |
|           | 6 9 100                               | 114 50        |                   | 1       |        | _  |
|           | 420m                                  | nm / 1' 4.53" |                   | A       | 11-    | 6  |
|           |                                       |               |                   | do      | 1/B    | -  |
| 17        |                                       |               |                   | Vear    | AV/    | -  |
|           | A A A A A A A A A A A A A A A A A A A |               |                   |         | 0/200  | r  |
|           | KELLY                                 | 4614          |                   |         | LICA - | 1  |
| (F        | 0                                     |               |                   |         | Reall  | 5  |
| 1 m       | 7                                     | $\backslash$  |                   |         | YE     | 1  |
|           | /                                     | 7             |                   |         | Ŷ      | L  |
| (A)       |                                       | (1)           |                   |         | and    | 0  |
| Chilles - |                                       |               | ~                 | and the |        | S) |
|           |                                       |               | Kathe Kathe Kathe | 6:Pill  | KUU V  |    |
|           | - Alle Colles                         | 66.6.0        | RICC              | 100-    |        |    |
| -         |                                       | REER          |                   |         |        |    |
| Color P:  | FRUUN                                 |               |                   |         |        |    |
| FILL      |                                       |               |                   |         |        |    |
| 300       |                                       |               |                   |         |        |    |

## **SECTION 3 - DECALS**



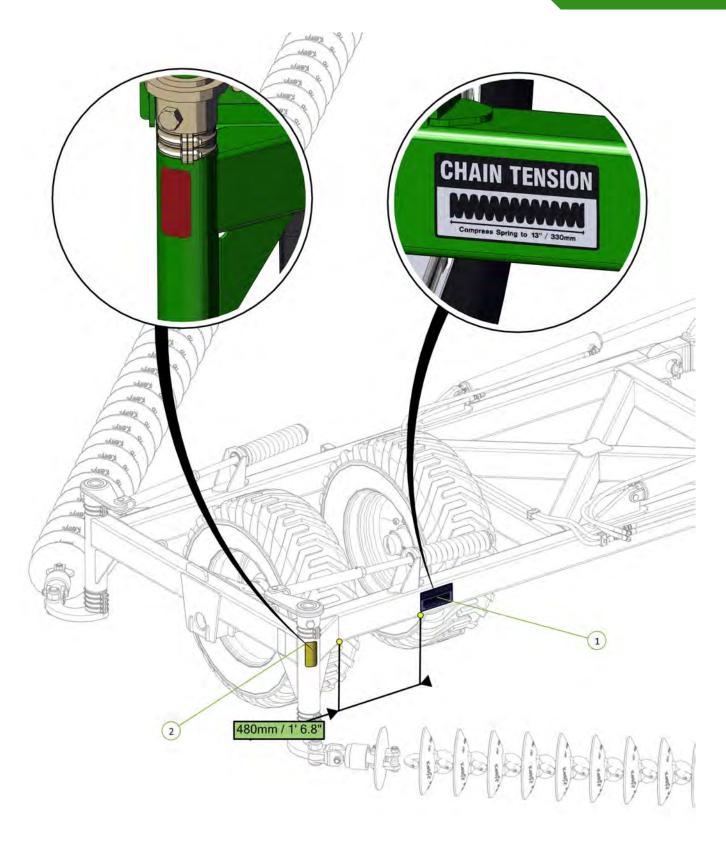
| Item No. | Description               | Number    | Qty |
|----------|---------------------------|-----------|-----|
| 1        | Danger Crush Hazard Decal | 0801-S3   | 1   |
| 2        | Yellow Reflective Decal   | 0801-SYRF | 2   |
| 3        | Grease Decal              | 0801-S10  | 1   |





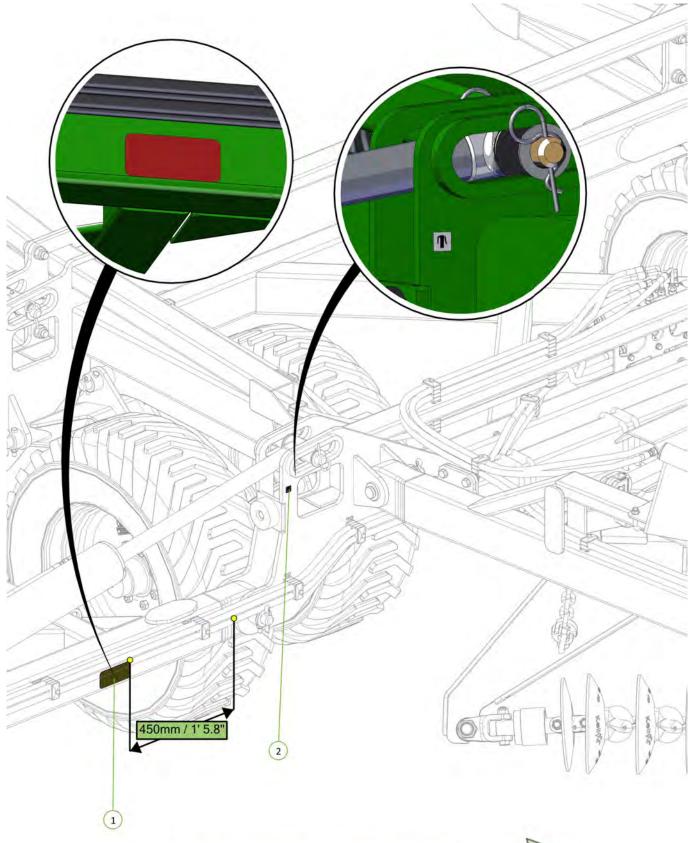
| Item No. | Description               | Number    | Qty |
|----------|---------------------------|-----------|-----|
| 1        | Yellow Reflective Decal   | 0801-SYRF | 2   |
| 2        | Chain Tension 330mm Decal | 0801-515  | 1   |





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

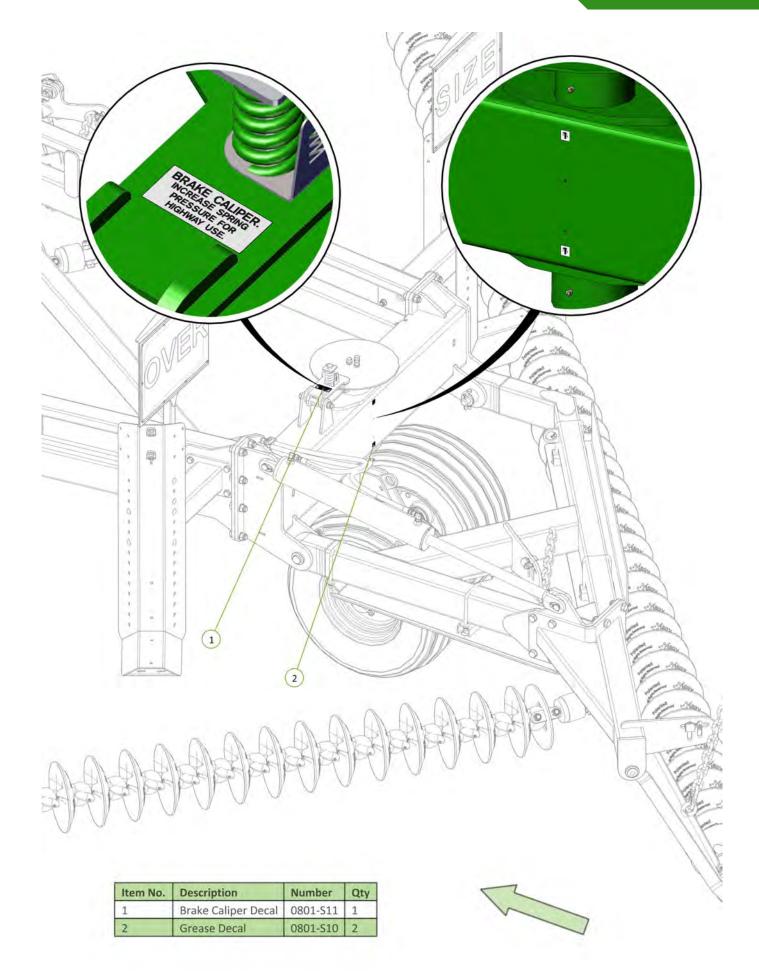




| Item No. | Description          | Number    | Qty |
|----------|----------------------|-----------|-----|
| 1        | Red Reflective Decal | 0801-SRRF | 1   |
| 2        | Grease Decal         | 0801-S10  | 1   |

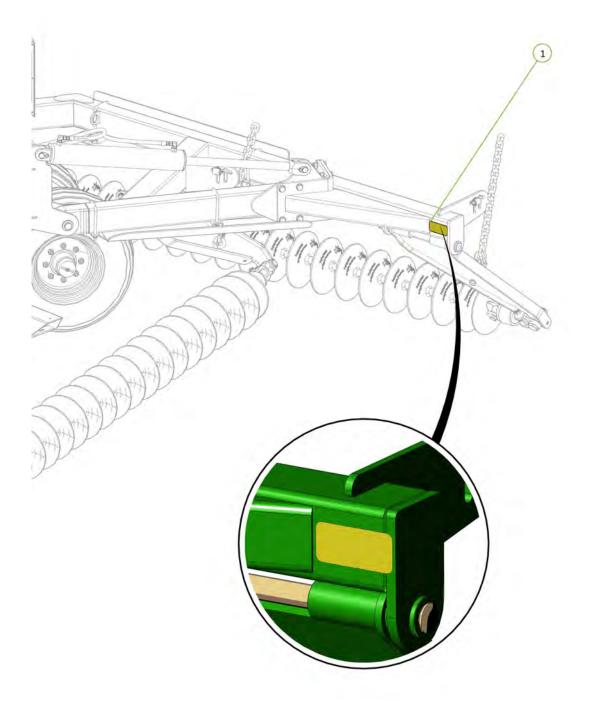


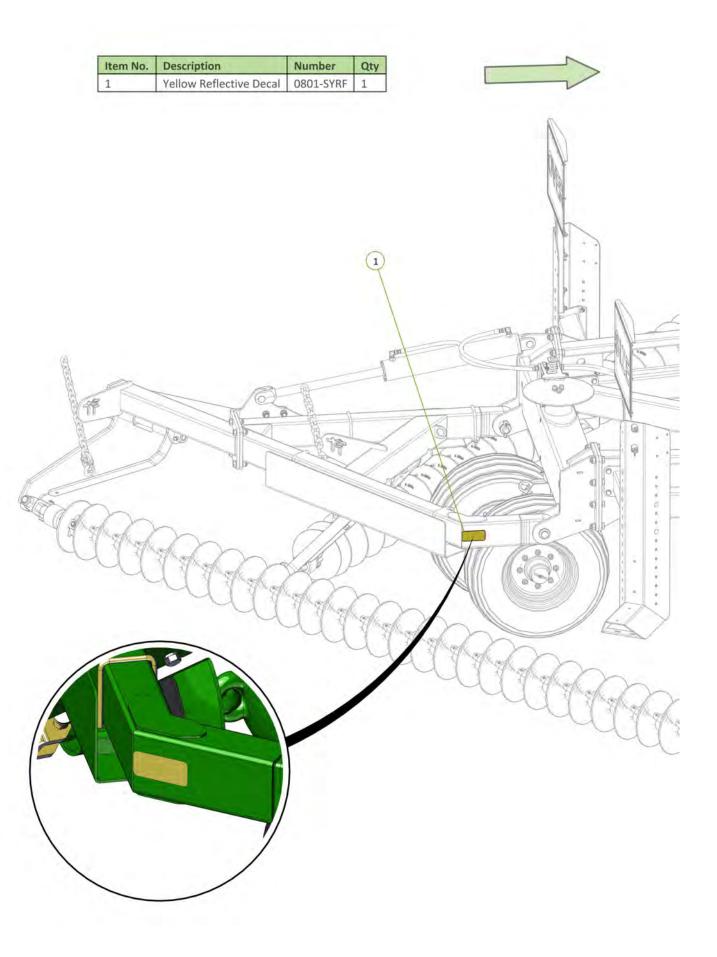
**SECTION 3 - DECALS** 

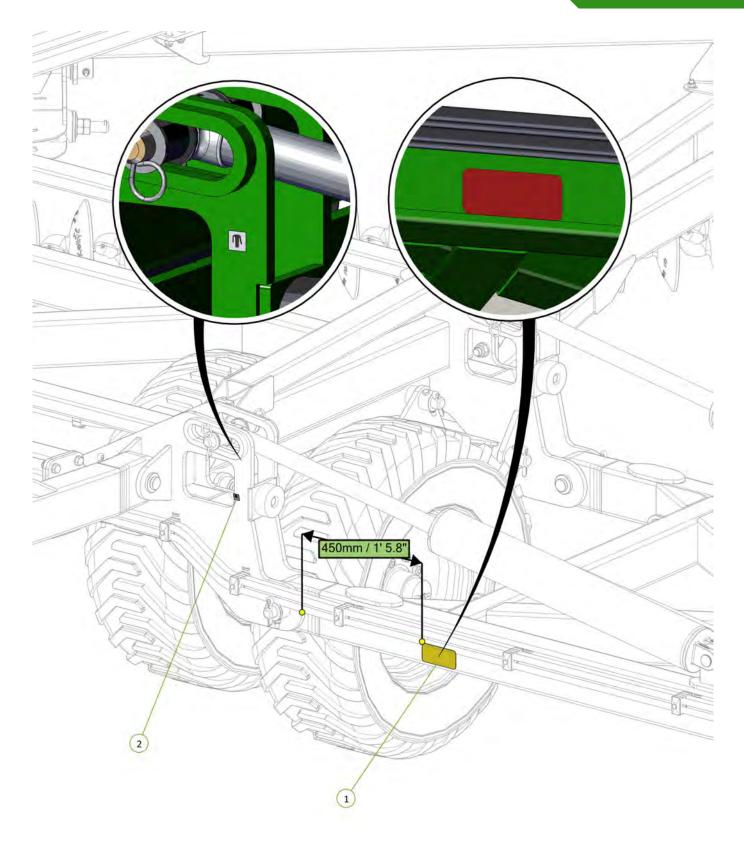


| Item No. | Description             | Number Qt |   |
|----------|-------------------------|-----------|---|
| 1        | Yellow Reflective Decal | 0801-SYRF | 1 |





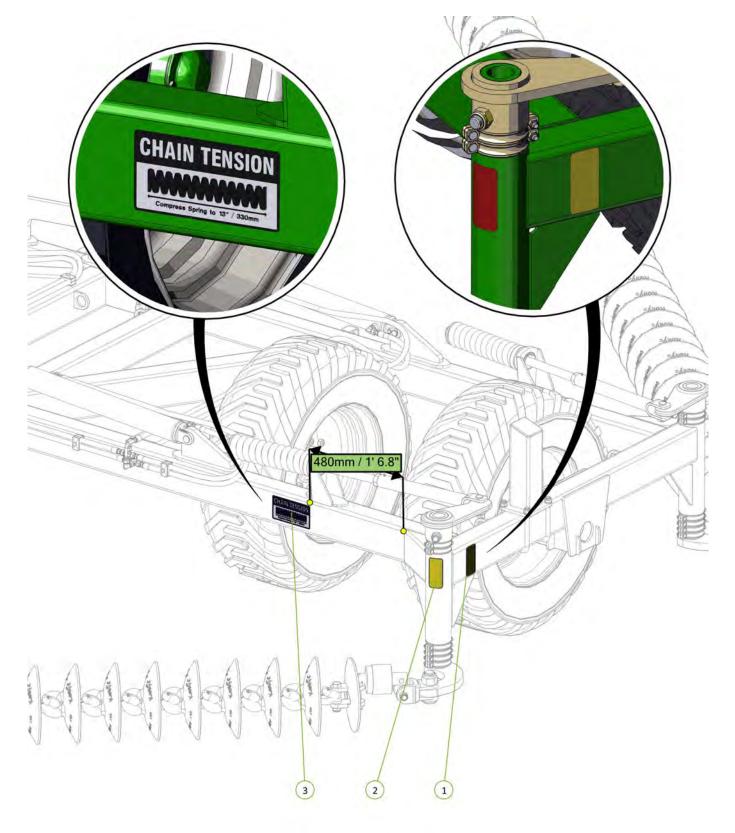




| Item No. | Description          | Number    | Qty |
|----------|----------------------|-----------|-----|
| 1        | Red Reflective Decal | 0801-SRRF | 1   |
| 2        | Grease Decal         | 0801-S10  | 1   |

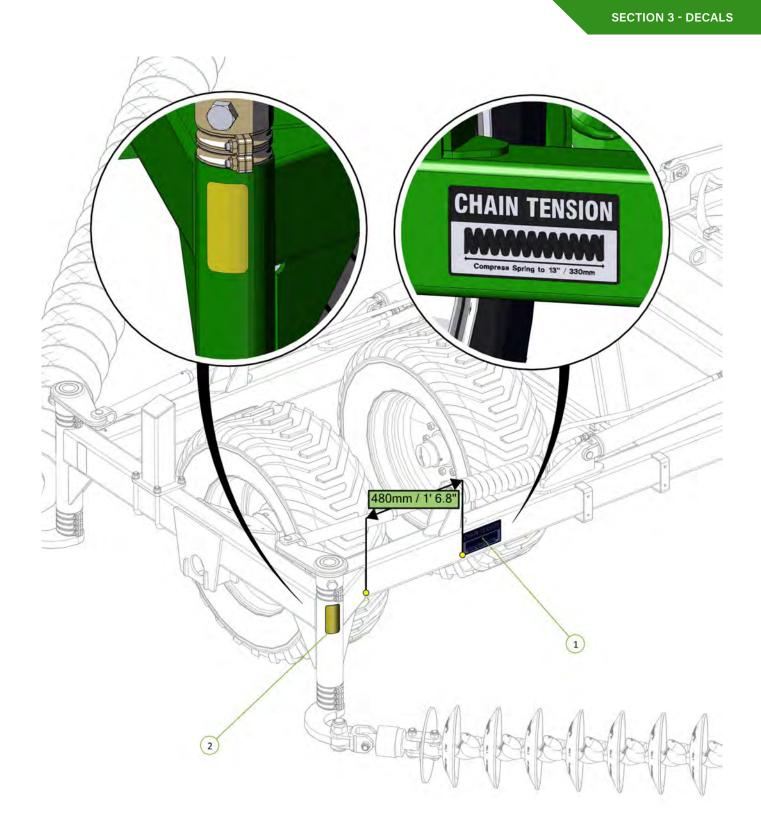


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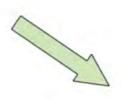


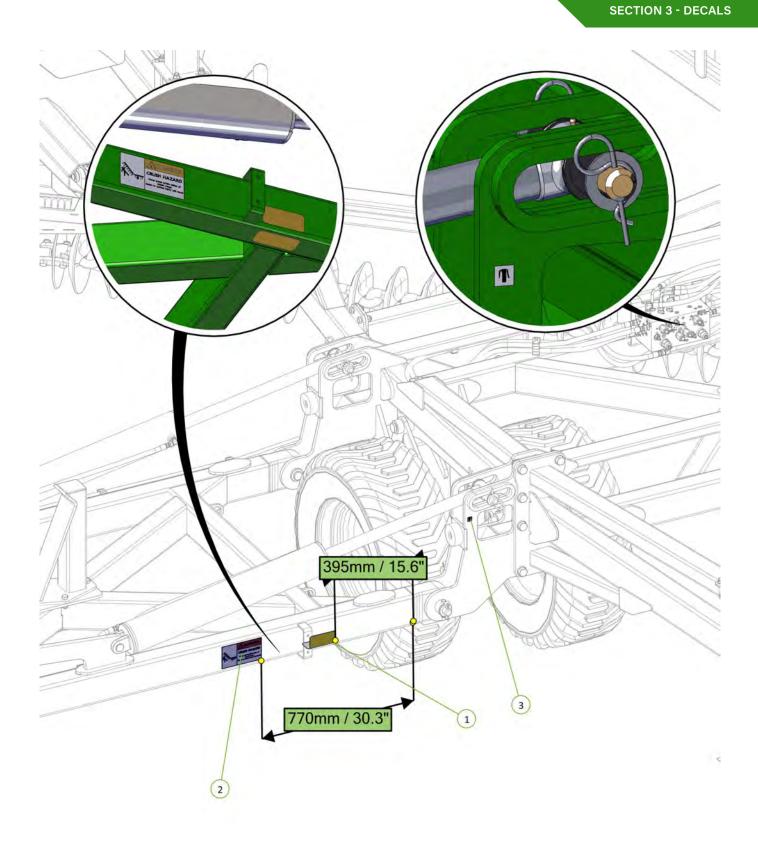
| Item No. | Description               | Number    | Qty |
|----------|---------------------------|-----------|-----|
| 1        | Yellow Reflective Decal   | 0801-SYRF | 1   |
| 2        | Red Reflective Decal      | 0801-SRRF | 1   |
| 3        | Chain Tension 330mm Decal | 0801-S15  | 1   |





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

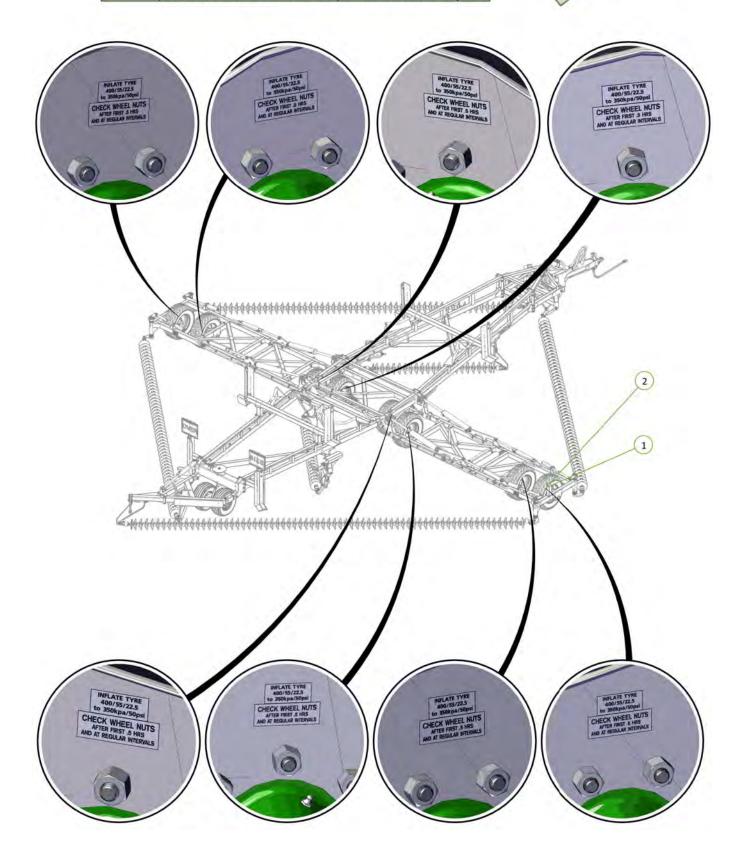




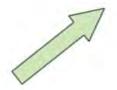
| Item No. | Description               | Number    | Qty |
|----------|---------------------------|-----------|-----|
| 1        | Yellow Reflective Decal   | 0801-SYRF | 2   |
| 2        | Danger Crush Hazard Decal | 0801-S3   | 1   |
| 3        | Grease Decal              | 0801-S10  | 1   |

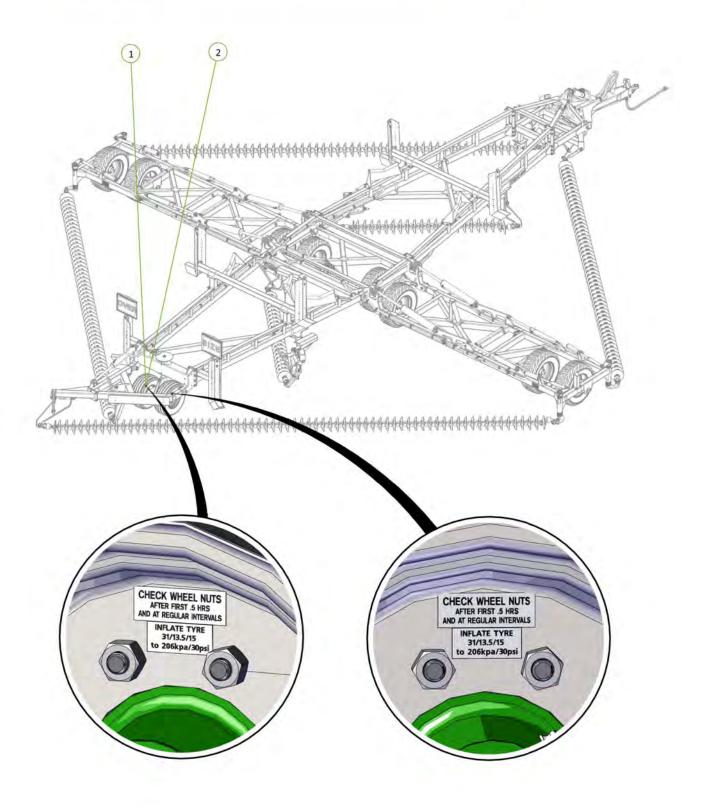


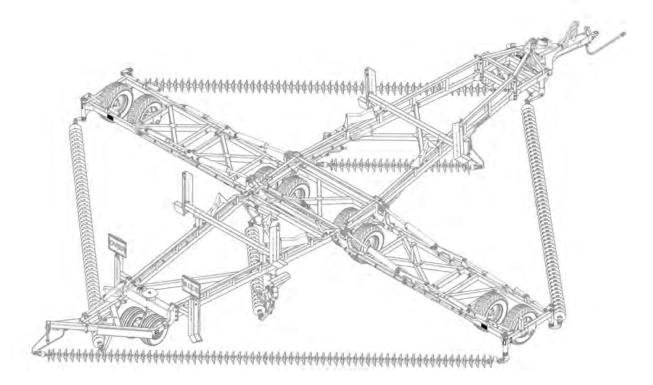
| Item No. | Description                      | Number              | Qty |
|----------|----------------------------------|---------------------|-----|
| 1        | Wheel Nut Decal                  | 0801-59             | 8   |
| 2        | 400/55/22.5 Tyre Inflation Decal | 0801-58-400-55-22.5 | 8   |



| Item No. | Description                      | Number             | Qty |
|----------|----------------------------------|--------------------|-----|
| 1        | Decal, 31/13.5/15 Tyre Inflation | 0801-58-31-13.5-15 | 2   |
| 2        | Wheel Nut Decal                  | 0801-59            | 2   |

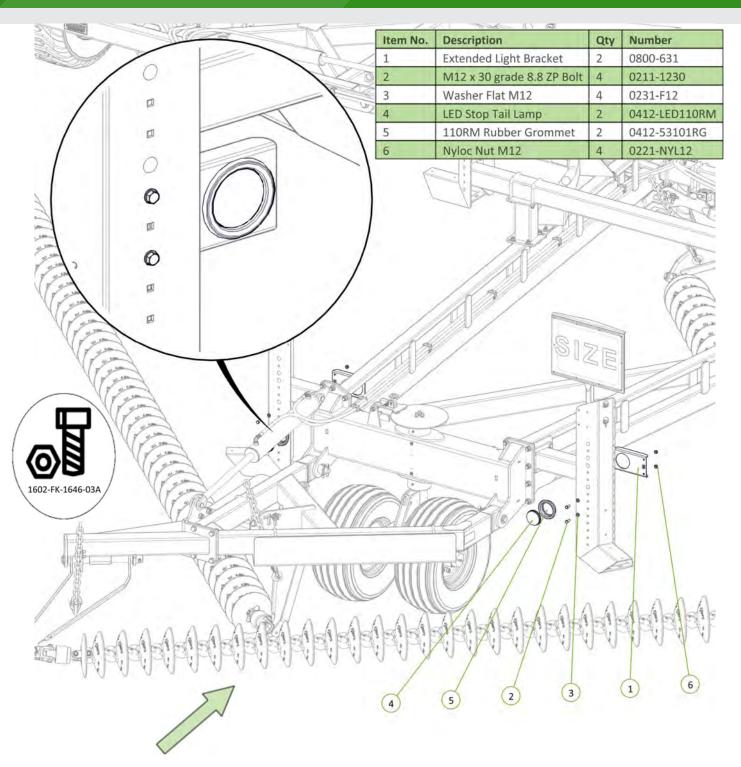


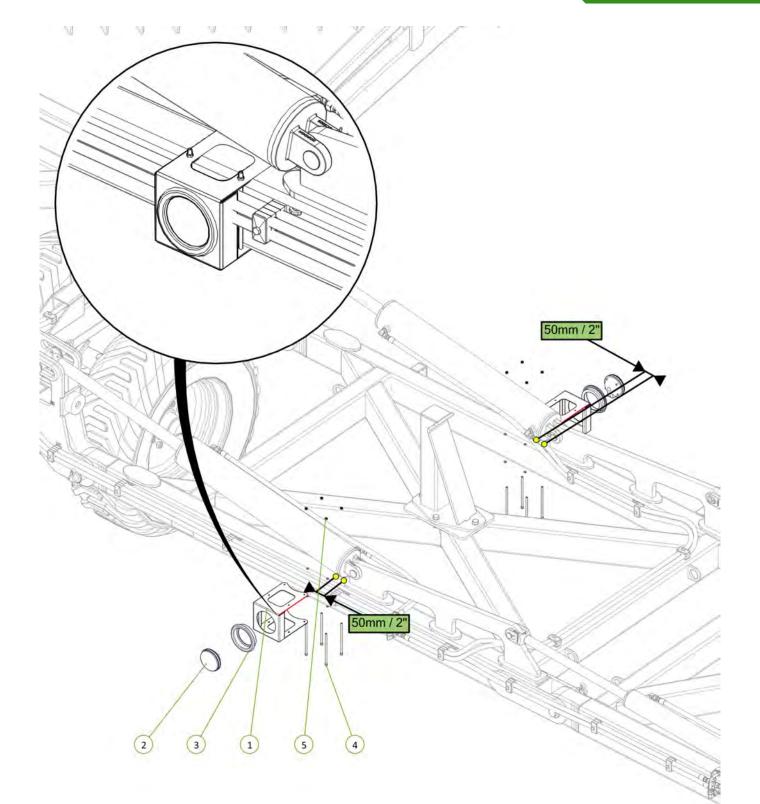




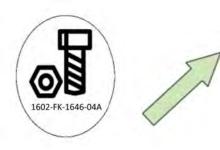


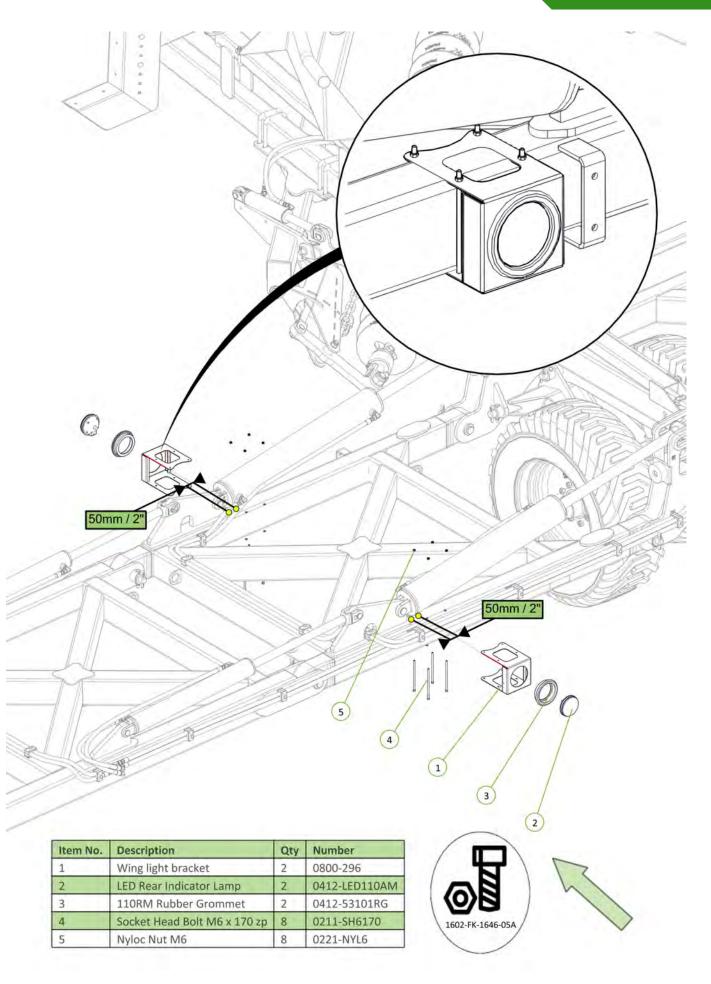
# Section 4 - Light Kit

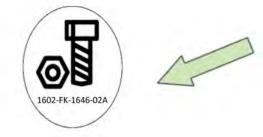




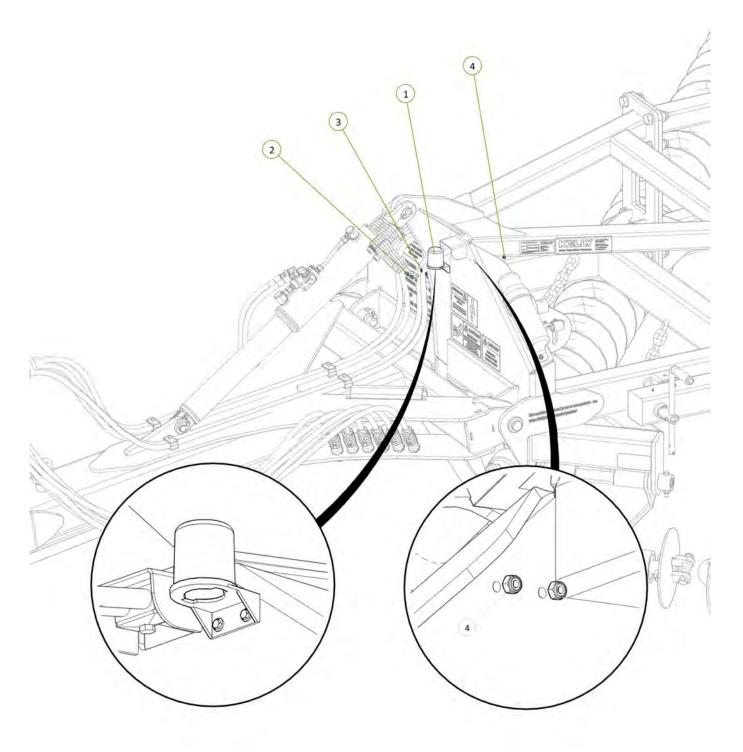
| Item No. | Description                  | Qty | Number        |
|----------|------------------------------|-----|---------------|
| 1        | Wing light bracket           | 2   | 0800-296      |
| 2        | LED Rear Indicator Lamp      | 2   | 0412-LED110AM |
| 3        | 110RM Rubber Grommet         | 2   | 0412-53101RG  |
| 4        | Socket Head Bolt M6 x 170 zp | 8   | 0211-SH6170   |
| 5        | Nyloc Nut M6                 | 8   | 0221-NYL6     |

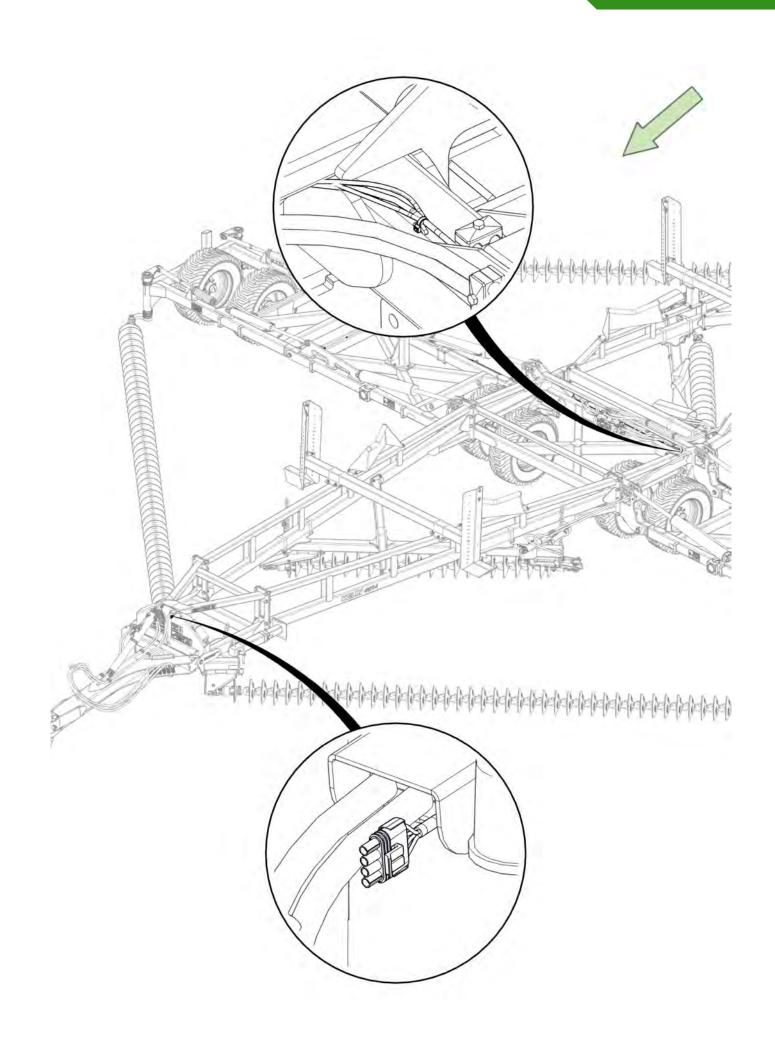


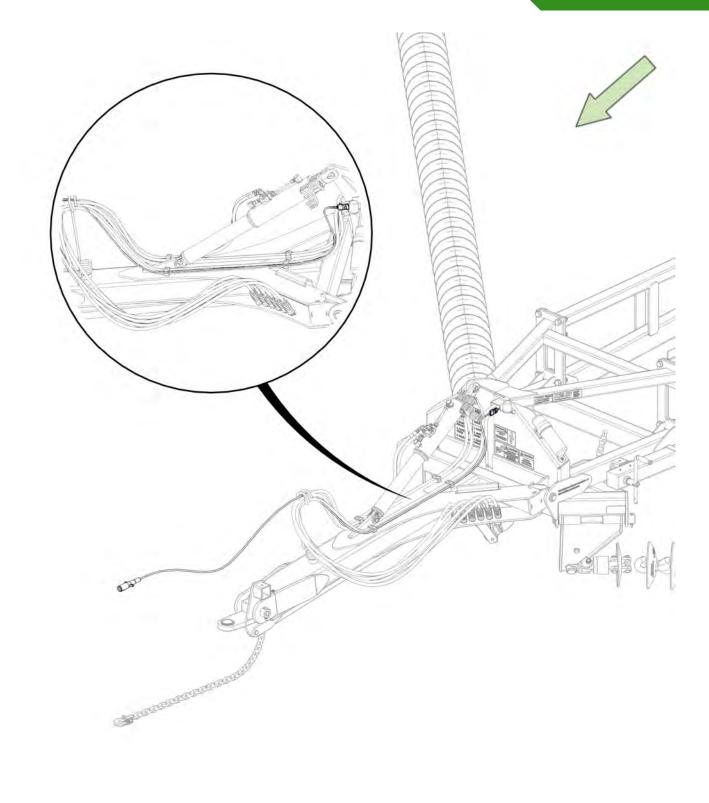




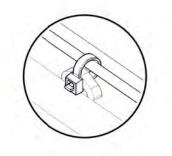
| Item No. | Description               | Qty | Number      |
|----------|---------------------------|-----|-------------|
| 1        | Electrical Plug Keeper    | 1   | 0416-11750B |
| 2        | M6 x 25 Class 8.8 ZP Bolt | 2   | 0211-625    |
| 3        | Washer Flat M6            | 2   | 0231-F6     |
| 4        | Nyloc Nut M6              | 2   | 0221-NYL6   |

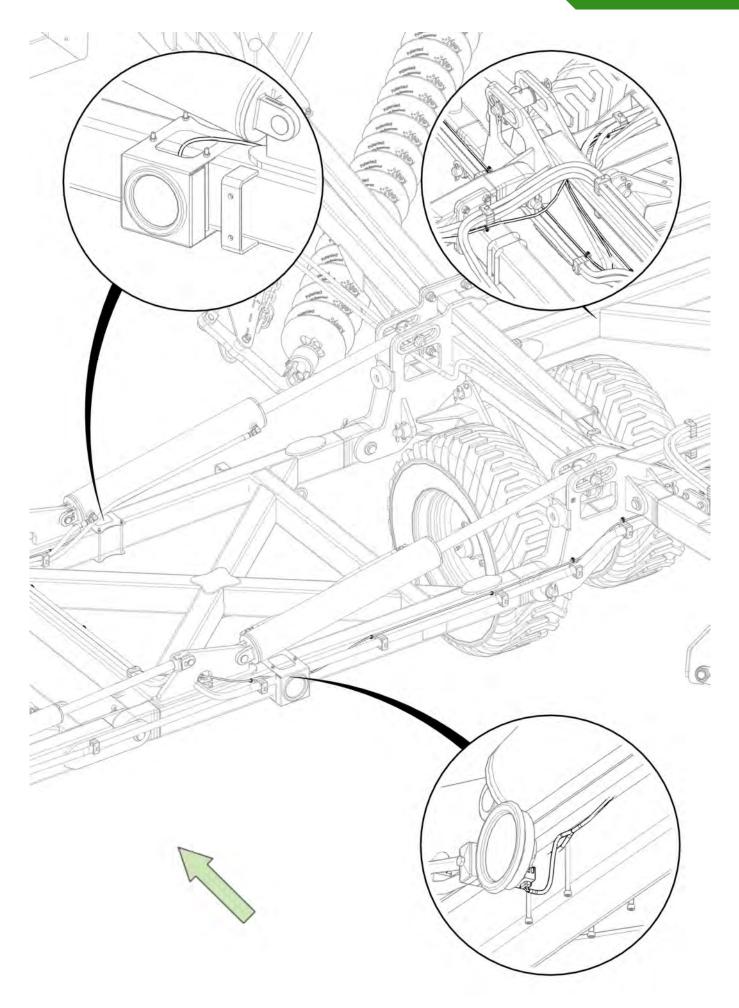


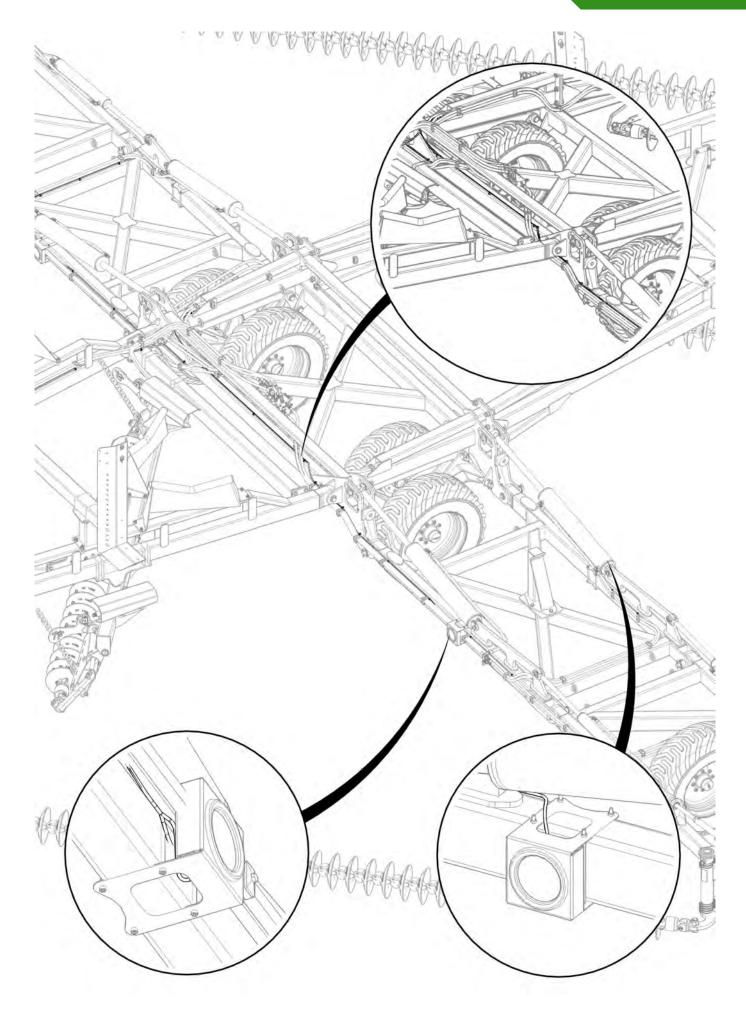


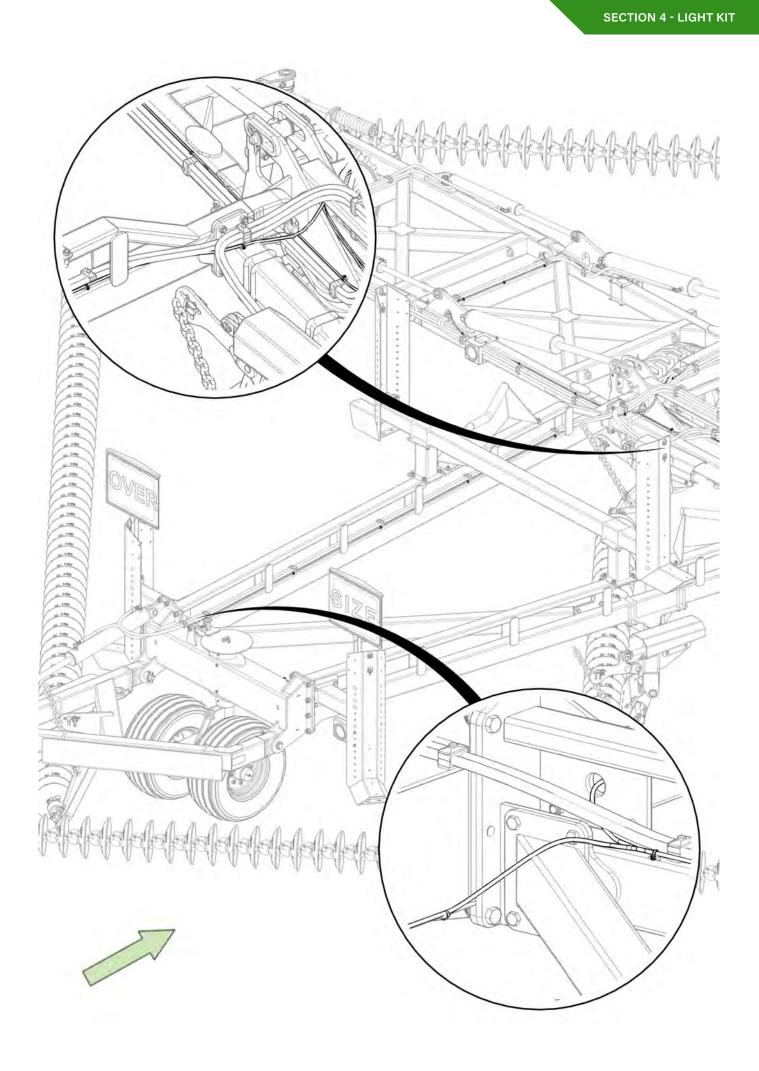


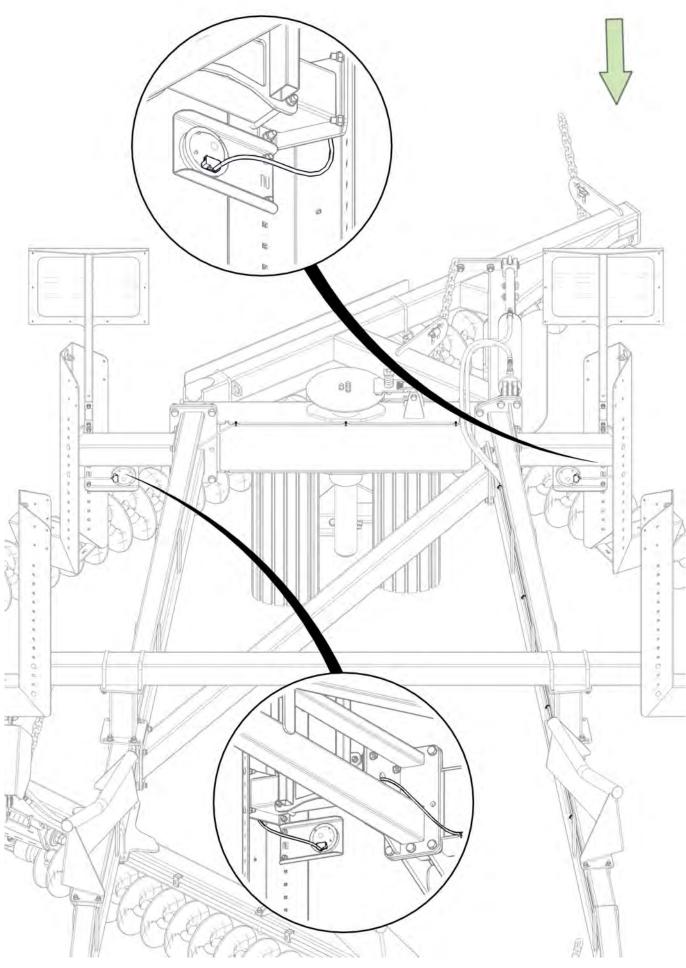
#### Where required secure loom to hydraulic hoses or tabs provided



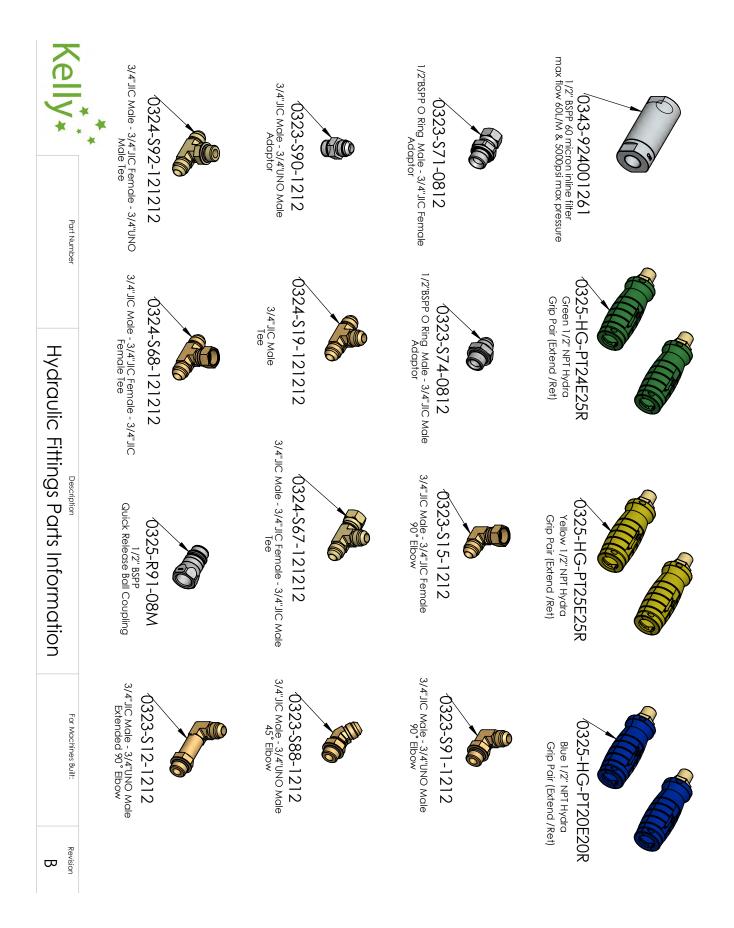






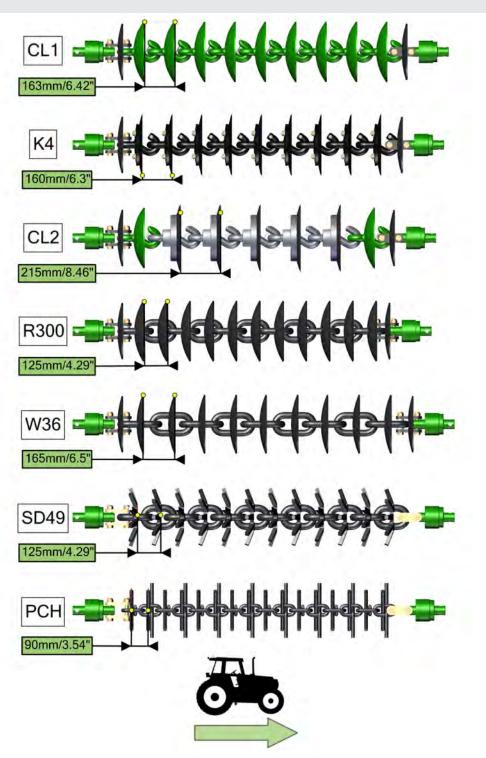


# **Hydraulic Fittings**



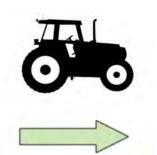


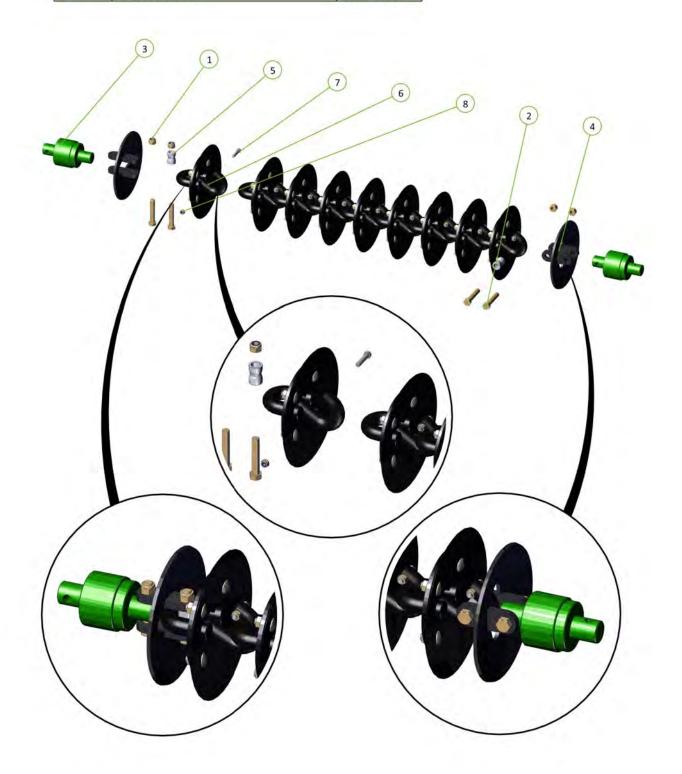
# Section 5 - Chain Assembly

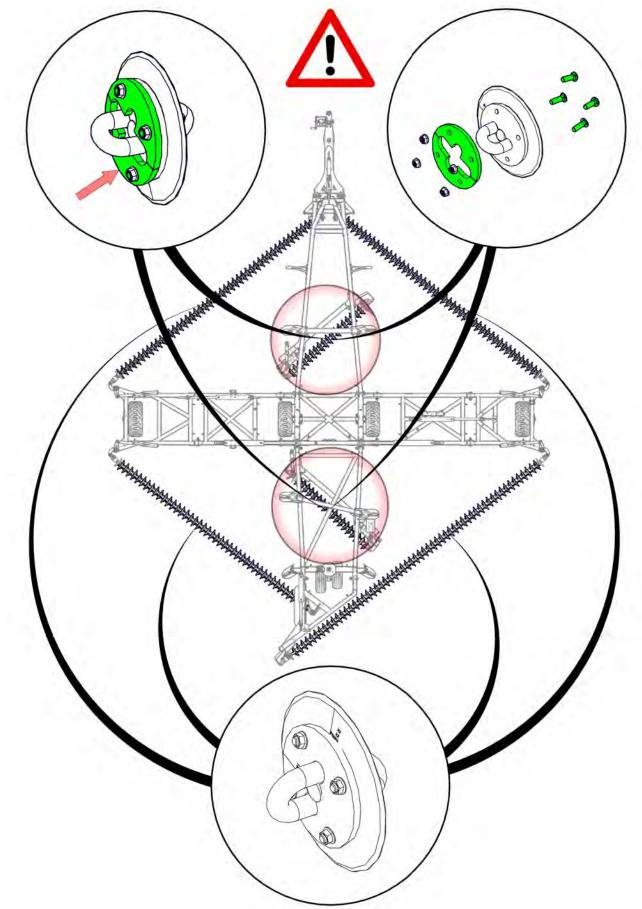


# K4 Disc Chain

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



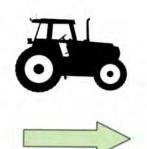


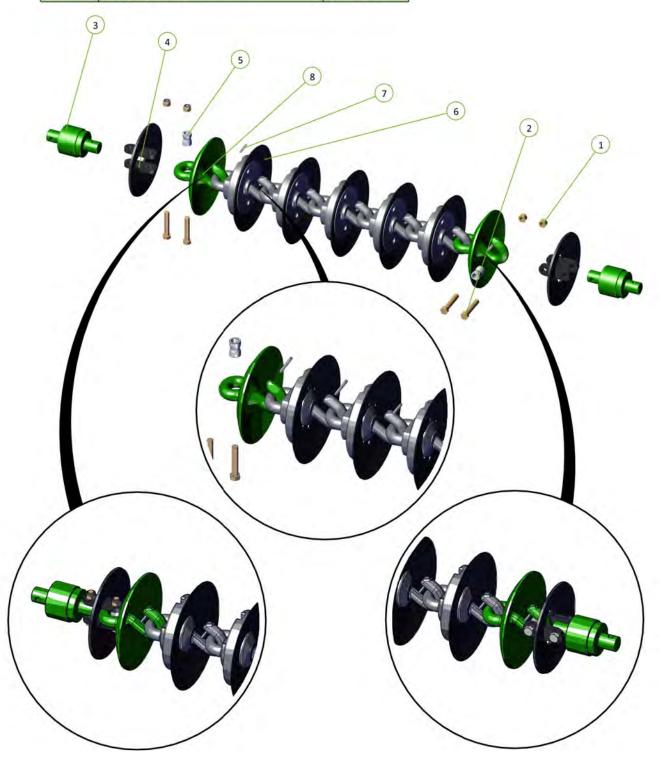


# K4 Weight Assembly on Modules

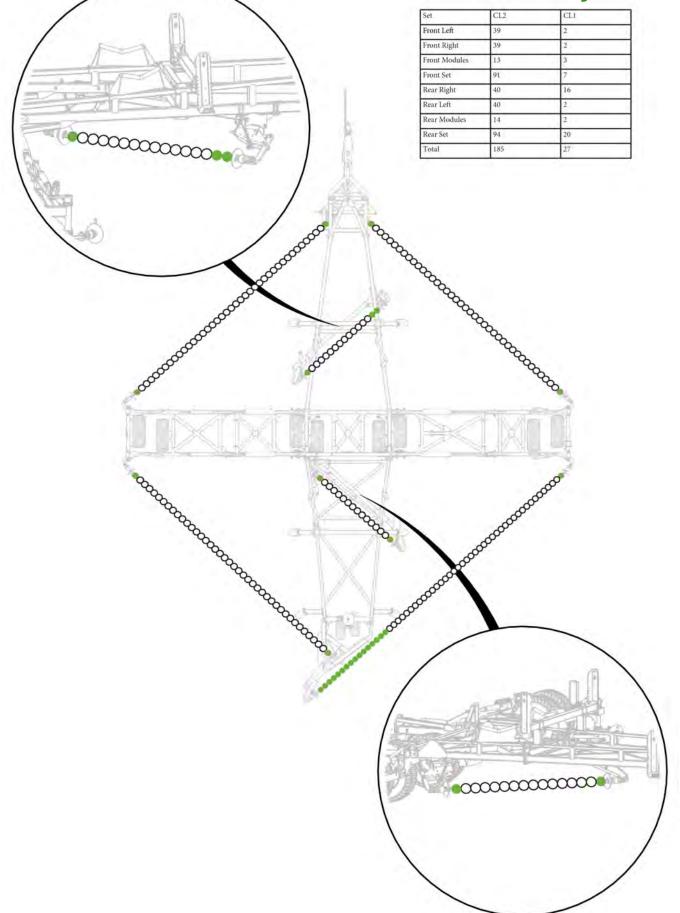
# **CL2 Disc Chain**

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



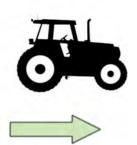


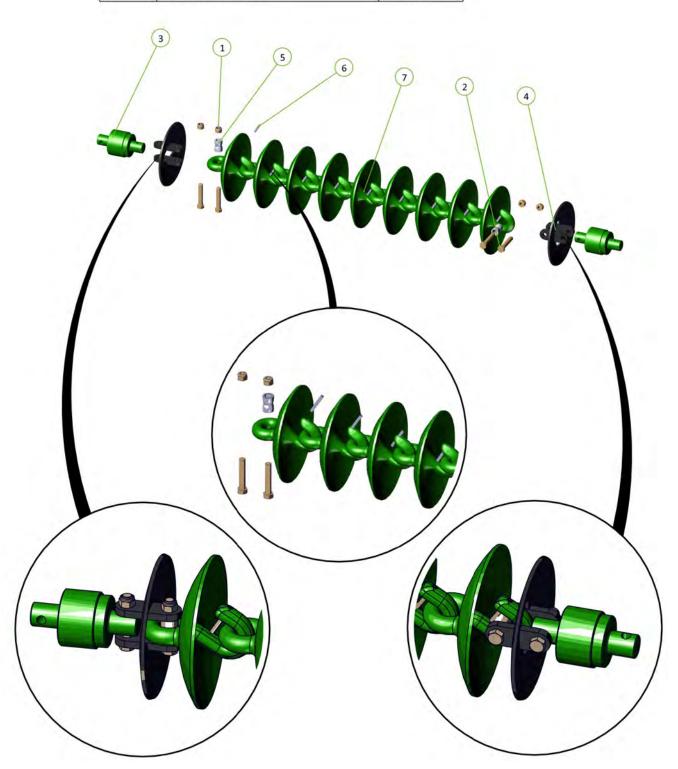
# **CL2 Chain Layout**



## **CL1 Disc Chain**

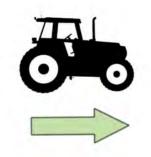
| Item No. | Description                               | Number       |
|----------|---|--------------|
| 1        | Nyloc Nut M20                             | 0221-NYL20   |
| 2        | M20 x 110 Class 10.9 ZP Short Thread Bolt | 0211-20110ST |
| 3        | 20mm Bolt Swivel Unit                  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

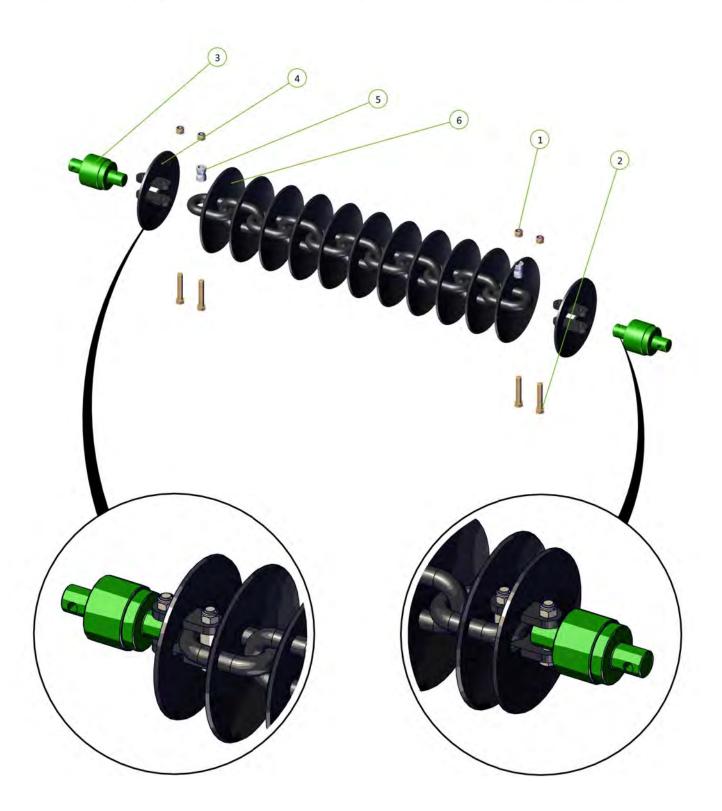




# **R300 Disc Chain**

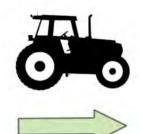
| Item No. | Description                               | Number       |
|----------|---|--------------|
| 1        | Nyloc Nut M20                             | 0221-NYL20   |
| 2        | M20 x 110 Class 10.9 ZP Short Thread Bolt | 0211-20110ST |
| 3        | 20mm Bolt Swivel Unit                  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

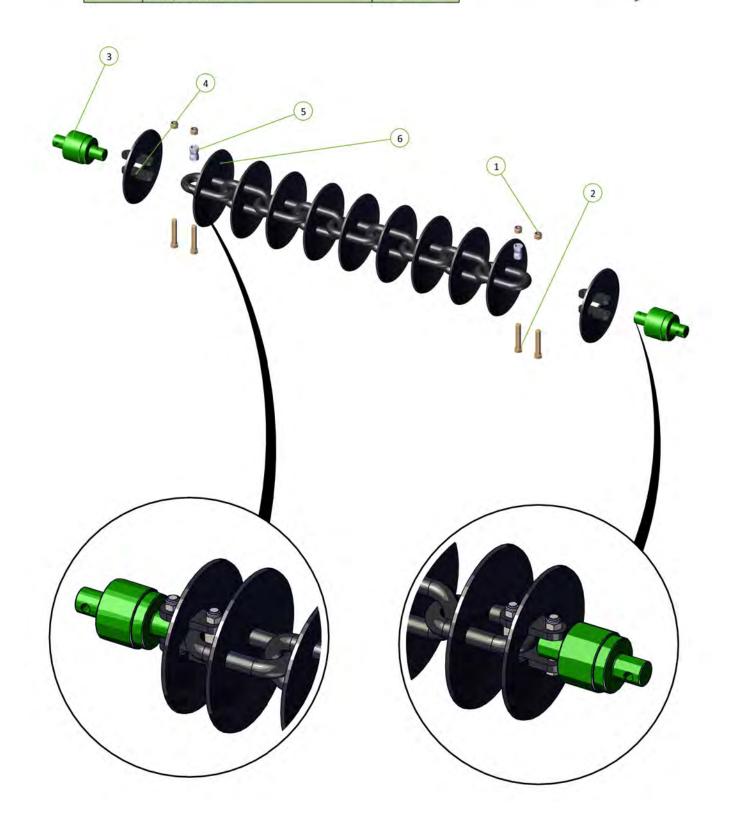




## W36 Disc Chain

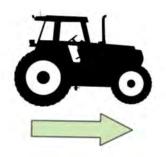
| Item No. | Description                               | Number       |
|----------|---|--------------|
| 1        | Nyloc Nut M20                             | 0221-NYL20   |
| 2        | M20 x 110 Class 10.9 ZP Short Thread Bolt | 0211-20110ST |
| 3        | 20mm Bolt Swivel Unit                  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

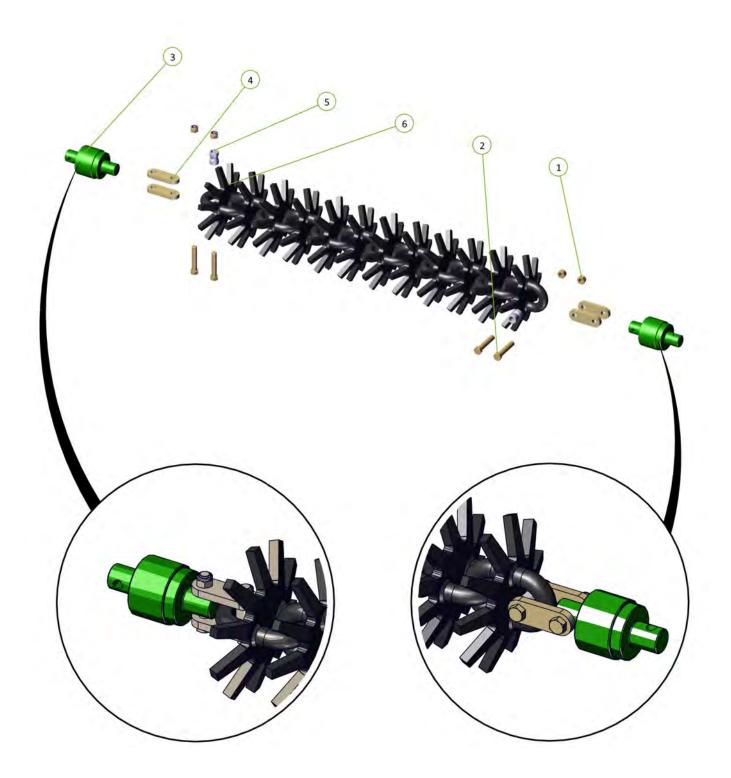




## **Spike Disc Chain**

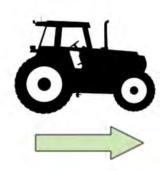
| Item No. | Description                               | Number       |
|----------|---|--------------|
| 1        | Nyloc Nut M20                             | 0221-NYL20   |
| 2        | M20 x 110 Class 10.9 ZP Short Thread Bolt | 0211-20110ST |
| 3        | 20mm Bolt Swivel Unit                  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

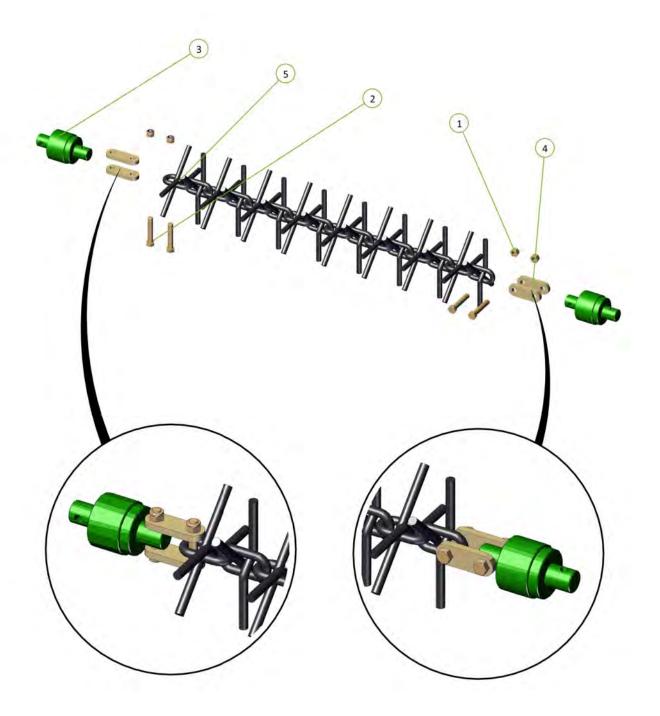




## **Prickle Chain**

| 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        | 0800-83.2                                 | 0800-83.2    |
| 5        | Prickle Chain                             | 0803-PCH     |

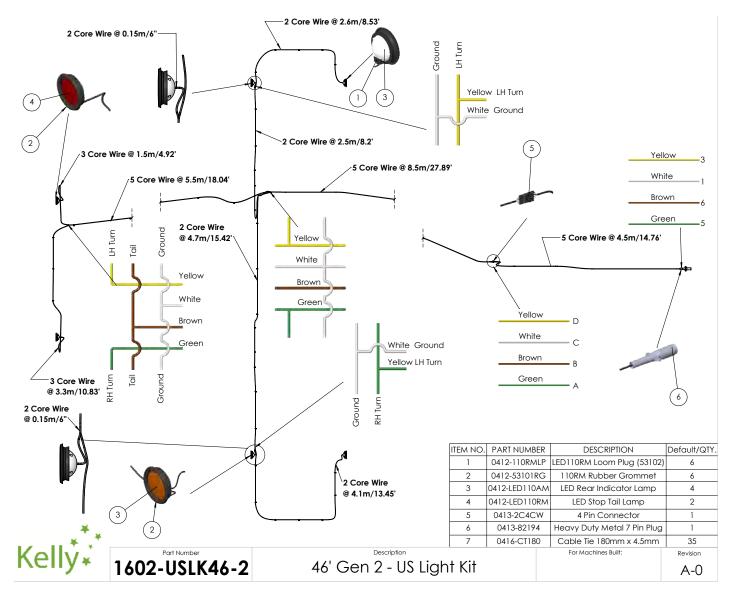






# Section 6 - Specifications

# Wiring Diagram



### **Operating speeds**

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

### **Tire pressure**

| Tire size     | Ply | PSI | КРА |
|---------------|-----|-----|-----|
| 16.5L x 16.1  | 14  | 36  | 250 |
| H40 x 14.5-19 | 26  | 60  | 410 |
| 11L - 15      | 10  | 44  | 300 |
| 15.5/80/24    | 16  | 58  | 400 |
| 16.5/85/24    | 16  | 55  | 380 |
| 550/60/22.5   | 16  | 40  | 280 |
| 400/60/22.5   | 16  | 50  | 350 |
| 12.5/80/18    | 14  | 85  | 590 |
| 15.0/70/18    | 14  | 71  | 490 |

### **Chain Harrow specifications**

| Model            | Model 4614  |  |  |
|------------------|-------------|--|--|
| Working width    | 45.7'/13.9m |  |  |
| Transport width  | 12.8'/3.9m  |  |  |
| Transport height | 13.0'/4.0m  |  |  |
| Transport length | 55.4'/16.9m |  |  |

#### **Disc Chain Lengths**

| Model |               | Length             | CL2   | CL1 | K4 | W36 | R300 | SD49 | Prickle<br>chain |
|-------|---------------|--------------------|---|-----|----|-----|------|------|------------------|
|       |               |                    | CL2 disc<br>chain also<br>requires<br>CL1 disc<br>chain |     |    |     |      |      |                  |
| 4614  | Front right   | 28' 1.95" / 8.58m  | CL2 - 38<br>CL1 - 2                                     | 53  | 54 | 50  | 69   | 69   | 95               |
|       | Front left    | 28' 1.95" / 8.58m  | CL2 - 38<br>CL1 - 2                                     | 53  | 54 | 50  | 69   | 69   | 95               |
|       | Rear right    | 36' 0.01" / 10.97m | CL2 - 40<br>CL1 - 15                                    | 67  | 69 | 64  | 88   | 88   | 122              |
|       | Rear left     | 29' 2.63" / 8.90m  | CL2 - 40<br>CL1 - 2                                     | 54  | 56 | 52  | 71   | 71   | 99               |
|       | Modules front | 11' 0.36" / 3.36m  | CL2 - 13<br>CL1 - 3                                     | 20  | 21 | 20  | 27   | 27   | 37               |
|       | Modules rear  | 11' 0.01" / 3.35m  | CL2 - 14<br>CL1 - 2                                     | 20  | 21 | 20  | 27   | 27   | 37               |

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

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



# Section 7 - Operation

### **Basic Operation**

#### **Unfolding:**

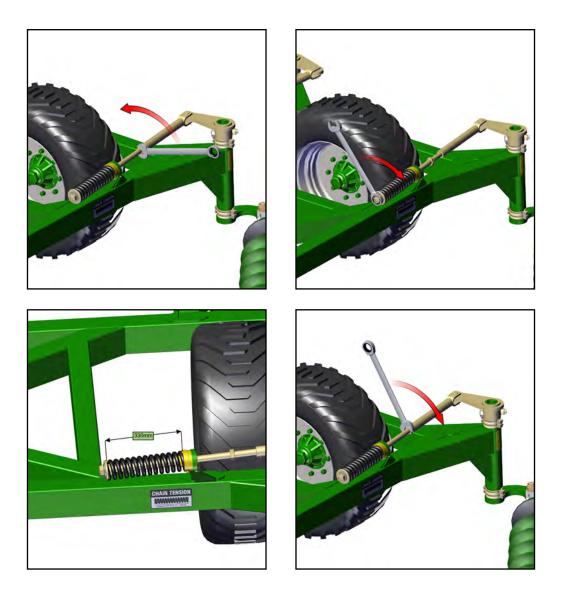
- 1. Walk around and inspect the machine.
  - a. Check that chains are not hooked on framework
  - b. Check swivel units are in place and not broken
  - c. Check that height adjusting chains have not fallen out of their slotted plates during transport.
  - d. Ensure front lift cylinder depth stops are fully engaged on cylinder shaft.
- 2. Lower front A frame to working height.
- 3. Unfold wings holding the hydraulic lever until both the main center cylinder pins have centered in their slots. (If chain pulls tight during unfold, stop and inspect if chain is hooked)
- 4. Lower rear tail by holding hydraulic lever until tail and modules are completely lowered to working position.
- 5. Walk around and check that all chain links are straight and that working height of all swivels is correct for field conditions. Adjust if neccessary.
- 6. Move off with all chains in working position. If neccessary it is acceptabe to raise front A frame 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 moving satisfactorily.

#### Folding:

- 1. Lower the front A frame at working height. (This is important to ensure that all chains locate correctly in their transport rests).
- 2. Raise the Rear Tail and modules by holding the hydraulic lever until they come to a complete stop.
- 3. Fold the wings. They should move as follows; main center cylinders will retract, one or both, until the wings stand vertically. The left outer wing then the right outer wing will fold down.
- 4. Raise front A frame to transport height.
- 5. Walk around and check that chains have located correctly in transport rests.

#### **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. Correct tension is acheived when spring retains its set length when operator rolls the chain fore and aft on the ground. Retighten the lock nut.



#### **Spring Compression Length**

Compress spring to 12.4" (330mm)

When less than 4" (100mm) of thread remains visible on the adjustor bolt then a link must be removed from the chain.

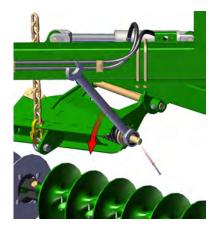
#### **Modules**

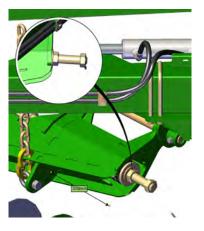
Loosen the lock nut on the draw bolt.

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

Retighten the lock nut.

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





#### Importance of chain tension

#### Operational

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

Loose chains lead to :

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

#### A correctly adjusted machine will not cause this phenomenon.

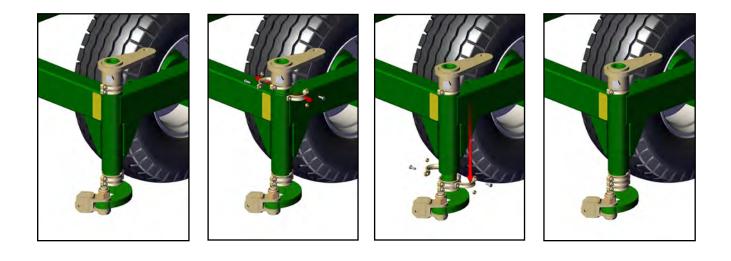
### **Settings for correct working height**

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

#### Adjustment

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

It is possible to install all spacers either above or below the mounting tube giving a maximum of 4" (100mm) of adjustment.





# Notes

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