



Figure 1: Kelly Levee Smoother

The purpose of this document is to describe the replacement of the axle box assembly on the Kelly Levee Smoother (see above).

The upgrade involves removal of the current axle beam assemblies, and replacement with a set of components which have been supplied as part of kit 1410-AXLE KIT.

Removal of the current axle assemblies should be carried out as follows:

1. Ensure that the smoother frame is supported securely on appropriate trestles or stands
2. Remove both wheels and stub axles, and put aside for later use
3. Disconnect hydraulic hoses from lift cylinders, remove cylinders and put aside for later use
4. Unbolt and remove all components highlighted in Figure 2 (repeat for LH axle assembly). These components are no longer required (CAUTION – Heavy components. Ensure that safe lifting practices are employed)
5. Ensure that stub axle retaining bolt is kept for re-assembly

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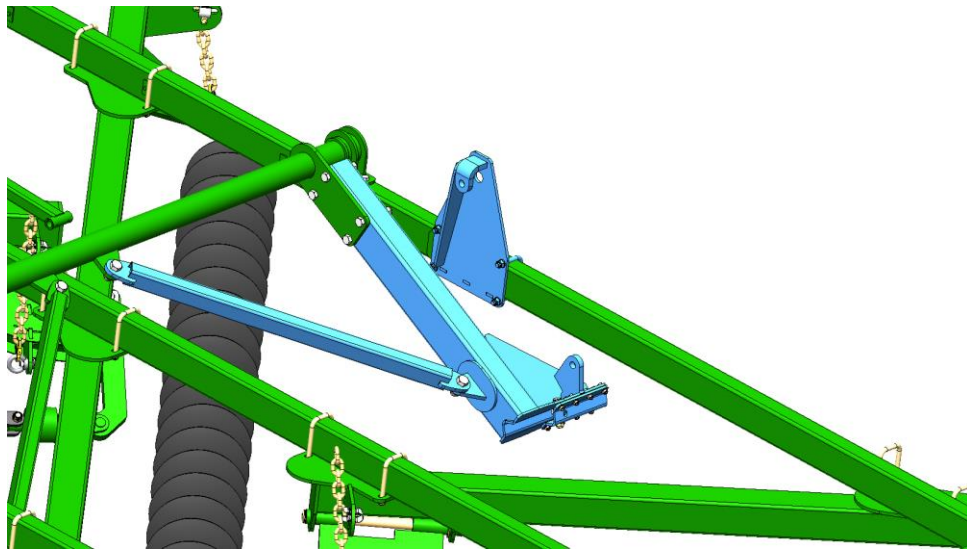


Figure 2: Components to be removed – RH axle assembly

The upgrade kit contains the following items:

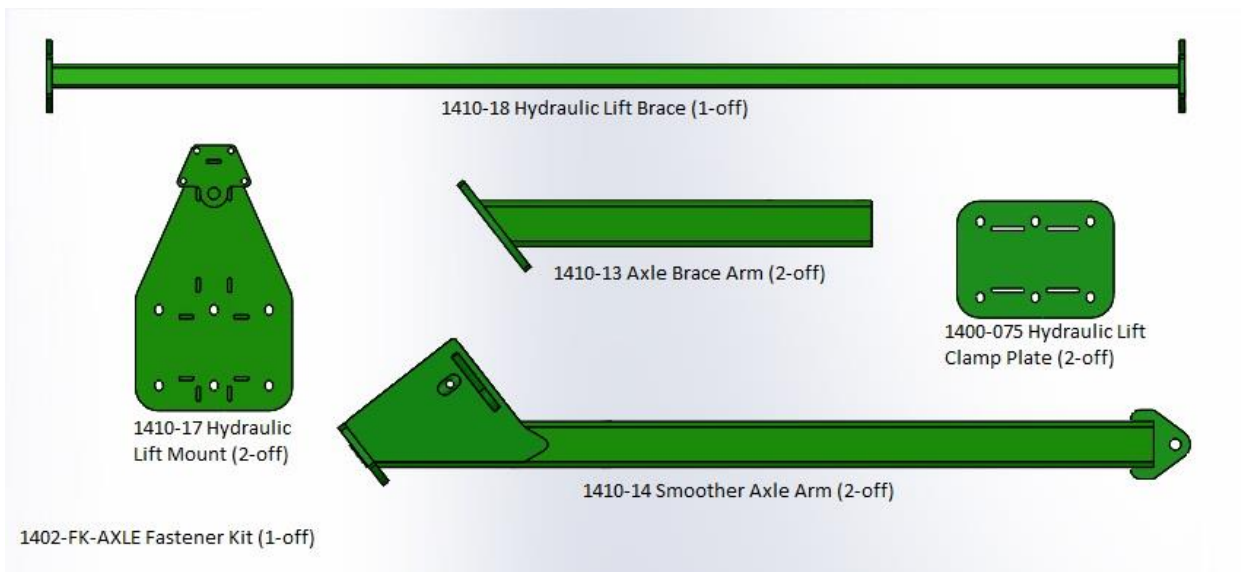


Figure 3: Contents of 1410-AXLE KIT

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1. Attach the Smoother Axle Arms (1410-14) to the main Smoother Axle Beam as shown in Figure 3, using 2-off M24x65mm bolts – hand-tighten bolts only to allow for addition of further components.

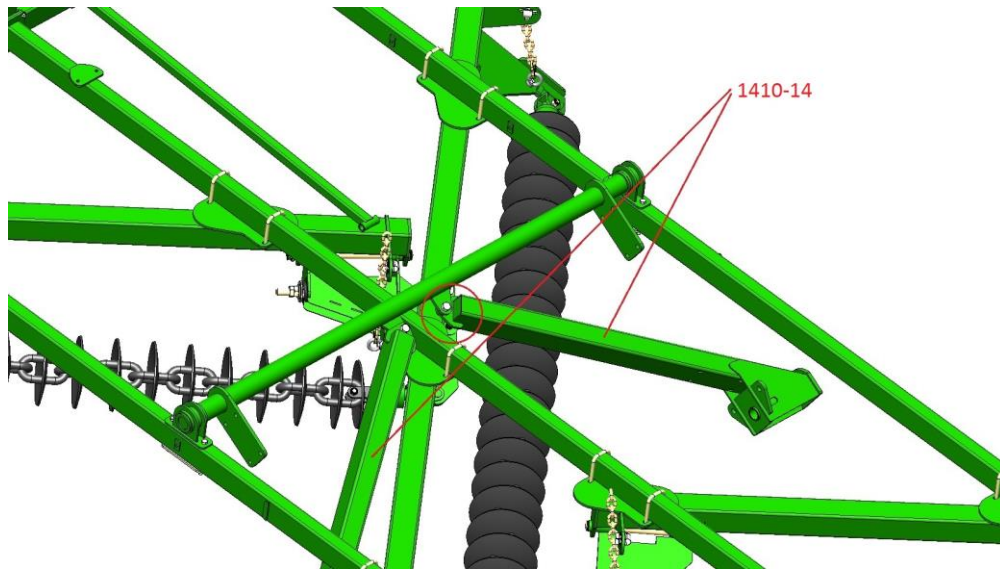


Figure 4: Addition of 1410-14 Smoother Axle Arms

NOTE: Left and Right Axle Arms are identical, but are mounted with lug above (LH) and below (RH) as shown in Figure 5.

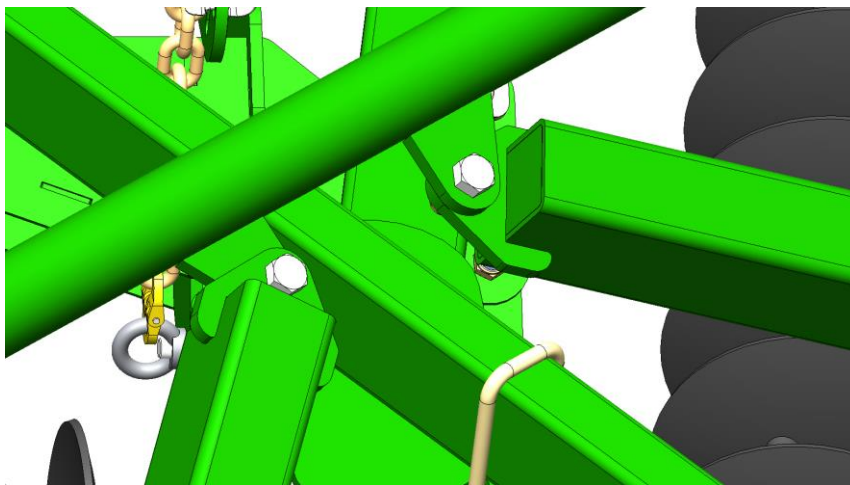


Figure 5: Detail showing lug position for LH/RH axle arm mounting of 1410-14

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2. Attach Smoother Axle Brace (1410-13) to the Smoother Axle Beam and Smoother Axle Arm using 8-off M20x150 bolts. Repeat for left hand – attachment method is identical. Hand tighten only to allow for addition of further components.

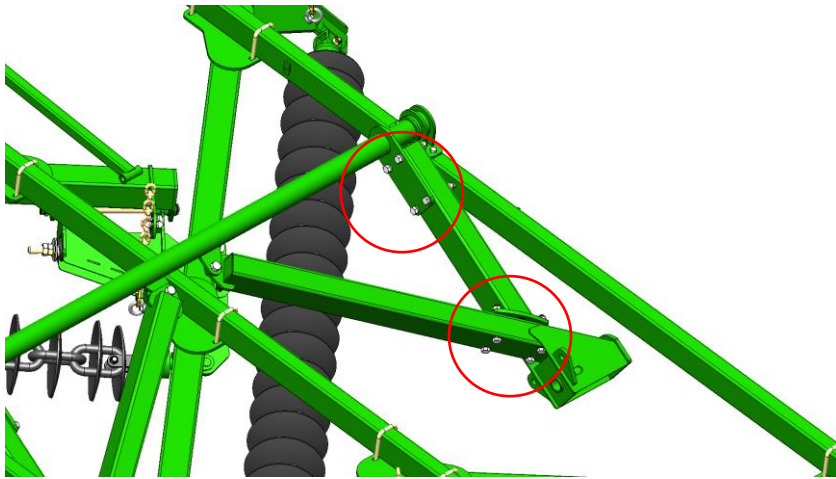


Figure 6: Attachment of Smoother Axle Brace 1410-13

3. Mount Hydraulic Lift Mount (1410-17), with the brace mount lugs facing inboard as shown in Figure 7. Using Hydraulic Lift Mount Clamp Plate 1400-075, bolt through with 6-off M16x20 bolts.

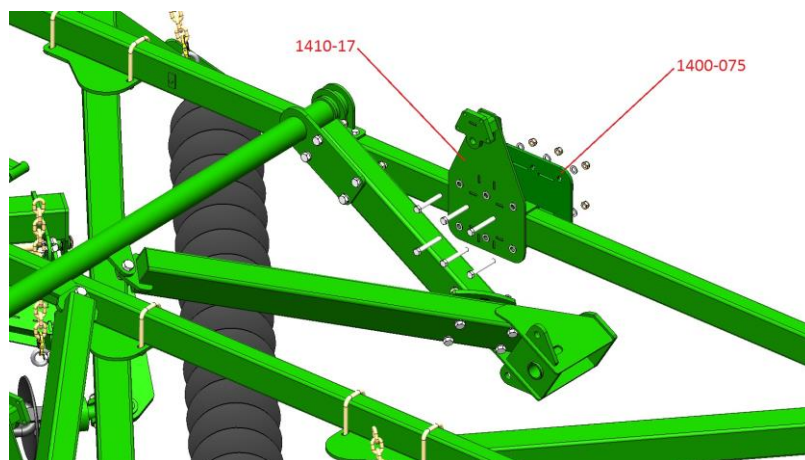


Figure 7: Attachment of Hydraulic Lift Mount 1410-17

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Ensure that edge of Clamp Plate 1400-075 sits up against register plate on main beam, as shown in Figure 8. If this plate is not present, use the reference dimension shown for location purposes. Repeat for LH Hydraulic Lift assembly.

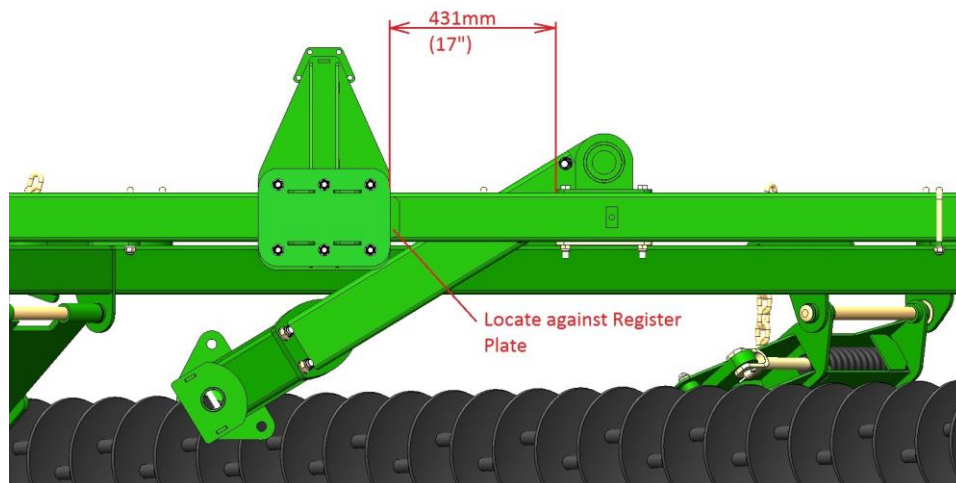


Figure 8: Register Plate and reference dimension for Hydraulic Lift location

4. Attach Hydraulic Lift Brace (1410-18) to LH and RH Hydraulic Lift Mounts using 8-off M12 x 45 bolts (see Figure 9).

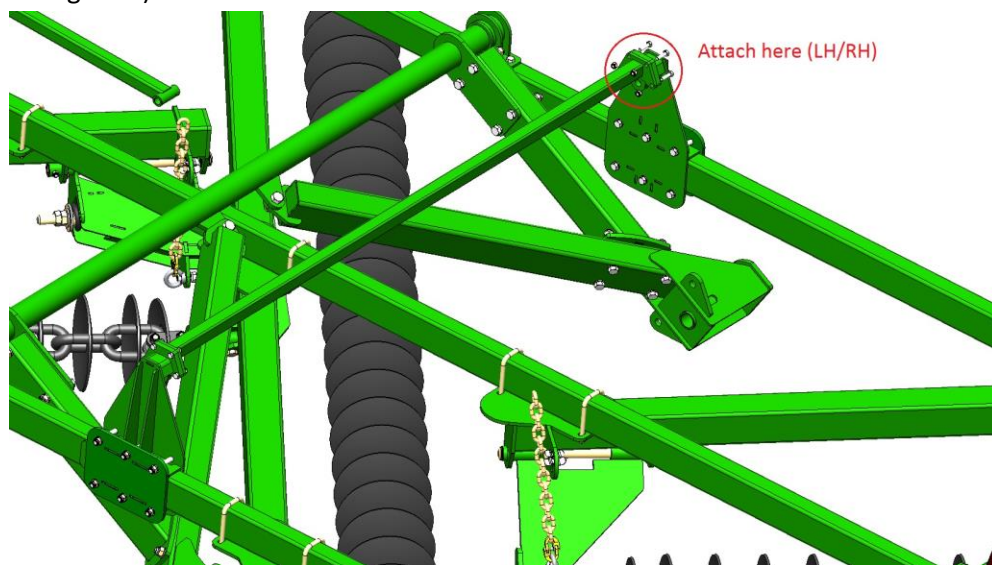


Figure 9: Mounting of Hydraulic Lift Brace (1410-18)

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5. Re-attach hydraulic cylinders as shown in Figure 10, then fully tighten all fasteners. Re-attach hydraulic hoses, and ensure that hydraulic cylinders function correctly. Finally, re-attach stub axles and wheels, ensuring that stub axle retaining bolt is re-attached.

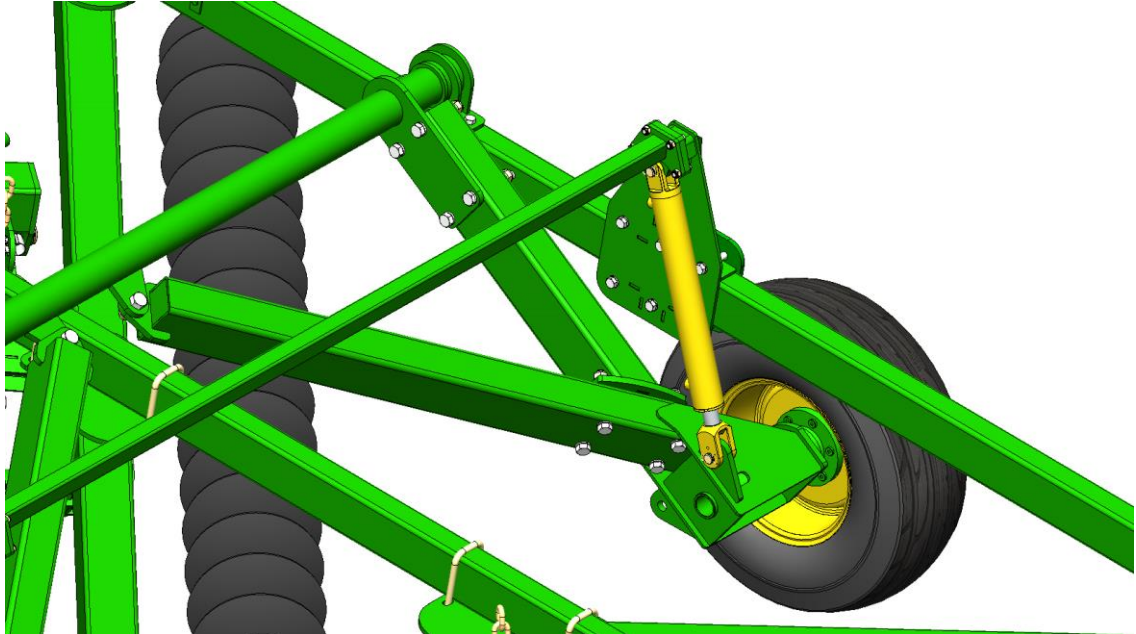


Figure 10: Attachment of cylinders, axles and wheels