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Description:

Modulift Spreader Beam - Assembly Procedure

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Modulift Spreader Beams – Assembly Procedure

1 SCOPE / PURPOSE

This procedure is specifically covering Modulift's range of Modular Spreader Beams. The list of Mod Sizes covered are detailed in the **Type Approval Certificate TAS0000050 Rev 4**.

Modular Spreader Beams are by nature made up of several bolted components, and tend to be transported/shipped unassembled for ease of transport. The beams can also be easily reassembled at different spans by adding or removing Struts. The purpose of this Procedure is to provide the end user with clear instructions on how they should assemble the modular spreader beam correctly, and **must be read in conjunction with the User Instructions** for the particular spreader beam Mod size to ensure a safe lift. **It is the end user's responsibility/liability to ensure Modular Spreader Beams are assembled according to this assembly procedure prior to use**, and assemblies must be checked by a suitably competent and experienced person according to end user's quality system/procedure and applicable local regulations prior to undertaking any lift.

2 ASSEMBLY PROCEDURE

The assembly procedure is included on the back page of all User Instructions, however, the below procedure provides greater detail.

Initial setup:

1. Check the ID plates on each Modulift component to ensure the correct size and component is being used.
2. Visually inspect spreader beam components (struts, end units and drop links) in line with Modulift's Inspection Guide (MOD-TG02). Components must not be used if damage is found. Please consult Modulift if unsure about the damage. It is the responsibility of the end user to also ensure that shackles are visually inspected prior to use, and are suitable for use in line with the shackle manufacturer's recommendations.
3. Lay out the Struts and End Units on the ground in the correct configuration (see Table 2 of the User Instructions for the recommended configuration for that particular span), laid on flats to prevent rolling.
4. Check that the number of struts in the configuration has not exceeded the maximum allowable as indicated on the User Instructions, and that longer Struts are assembled in the middle of the configuration.
5. Check that all pairs of flanges are clear from debris, sand etc. before connection.

2 ASSEMBLY PROCEDURE - continued

Bolting the Struts and End Units together:

6. Use the appropriate size & grade of bolts/setscrews, nuts & washers that are listed on the User Instructions that are specific to that Mod size. All bolts must be high tensile (HT) and a grade as detailed in the User Instructions. We recommend bright zinc plated. We also recommend that the condition of the bolts is checked prior to each use, and any damaged bolts are discarded and replaced with new. Fixings should be able to be reused time and time again if inspected before each use and found to be in good condition. Typical examples of damage might be damaged threads, cracks, etc.
7. The number of bolts/setscrews required per bolted flange interface are detailed on the User Instructions. For a particular flange interface, insert all bolts into the holes, using a diagonally opposite sequence until all the bolts are located. The use of a podger bar can aid hole alignment.
8. Put a washer and nut on to each of the bolts/setscrews. If any are not accessible particularly for the bigger Mod Sizes, it may be necessary that these bolts/setscrews are put in last of all, by lifting the components off the ground to allow easier access.
9. Using a ring spanner and torque wrench of the appropriate size, tighten the bolts/setscrews in a diagonally opposite sequence until all the bolts are tightened. The User Instructions detail the required tightening torque value. We recommend use of an industrial ratchet torque wrench for the Mod 24 and larger Mod sizes. It is the end user's responsibility to ensure that only calibrated torque wrenches are used, and that the torque wrench is calibrated according to the end user's quality system/procedure. It is prudent to recheck bolt tightness daily if used over a period of more than a day at a time.
10. Repeat steps 5 to 8 for other bolted flanges as required.

Attaching Drop Links, Shackles & Slings:

11. Please ensure the shackles to be used are as per the recommended shackle sizes detailed in the appropriate User Instructions for the particular size of spreader beam.
12. Place drop link inside the jaw of an end unit, with the larger hole of drop link lined up with the End Unit hole.
13. Place a top sling onto the body of a top shackle, and put jaw of top shackle over the end unit jaw.
14. Put top shackle pin through shackle, end unit jaw and drop link, and repeat for other spreader beam end. Secure the shackle pins using the shackle nut and cotterpin as per the shackle manufacturer's instructions.
15. Attach free ends of top slings to crane hook.
16. Attach bottom slings and shackles to lower holes of drop links, and attach them to the load to be lifted.

2 **ASSEMBLY PROCEDURE - continued**

Final checks:

17. The assembled spreader beam and lifting rig must be thoroughly checked by a competent person prior to lifting according to end user's quality system/procedure. Logging of assembly/disassembly operations and final certificate for use shall be according to end user's internal quality procedures and applicable local regulations.

