

## CHOOSING CORRECT TRUSS

Choose the type of truss that you would like to use for the job. Check the load requirements carefully to determine the exact load on any truss run. Make sure that you include the whole weight of the rig suspended below the truss, including any hoists, multicore cables, and the self-weight of any suspended framework. Determine how much of this load will be applied at each position on the truss, as this could have an effect on the capacity of the truss. Refer to the structural engineers report for the permissible loading information for your truss. Make sure that you have the loading figures. These are in the back of the structural report book. If you do not have this information, contact James Thomas Engineering Ltd immediately. Make sure that you fully understand the loading figures. Check that your truss is capable of supporting the required loads. If in any doubt, ASK!

## HANDLING AND TRANSPORTATION

Supertruss is generally a reliable mainly maintenance free product, when used within its designed loading parameters and handled with care, it will give a long operating life.

Do not drop truss as this will cause damage to connecting forks, thus the truss will not operate correctly. Each section is designed to transfer load through the top tubes. Therefore it is imperative that the connecting forks are in good working order.

Do not drag the truss as this will cause the tubes to pit and aluminium to be shaved off.

When possible store truss horizontally, it is advisable to stack with pieces of wood in between each section.

When loading or unloading ensure you have enough people to load the truss so that any of the above doesn't happen. Additionally there are recommendations for the weights that an individual should carry without harm. Stick to those limits. Do not drag truss over other trusses as this will cause damage to tubes and diagonals.

## GENERAL INSPECTION OF TRUSS BEFORE EACH USE

Do not use truss if

- i. Any welds have cracks in them.
- ii. Connecting forks are bent or damaged.
- iii. Connecting pins are bent or damaged.
- iv. Connecting pins or "R" clips are missing.
- v. High tensile M16 nuts & bolts are worn.  
( Every time any nut & bolt is used some thread is lost )
- vi. There are any dents in the main tubes and diagonals.
- vii. Truss is badly chewed by wing bolts.  
( Exercise care when using Hook clamps )

### ACTION

Refer to JTE  
Refer to JTE  
Replace as necessary  
Replace as necessary  
Replace as necessary

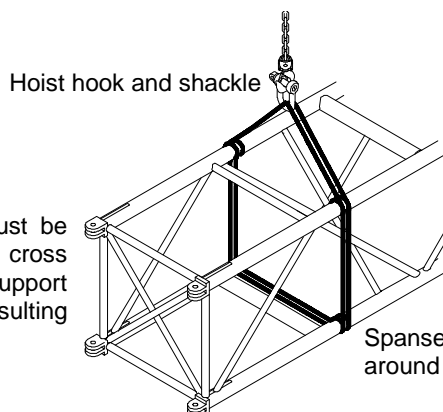
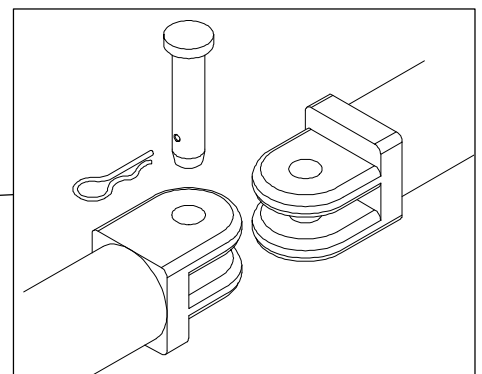
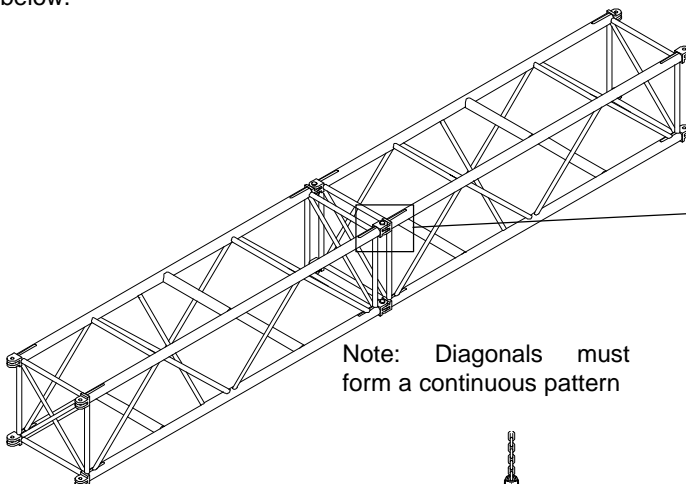
Refer to JTE  
Refer to JTE

## RIGGING

Assembly of truss should be done by competent personnel who are familiar with the use and assembly of aluminium truss.

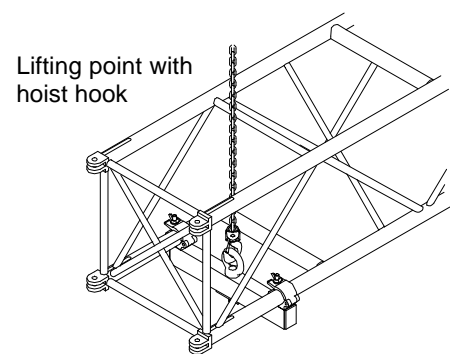
Ensure that one person is responsible for checking that all the Connecting pins and "R" clips are fitted, and that nuts and bolts are tightened correctly. Ensure that this person is responsible for rigging the span sets and flying points so as not to put the truss in any danger of being overloaded. One individual should be responsible for the entire rig.

Truss must run with the diagonals visible at the sides. Where sections are joined the diagonals **must form a continuous pattern** see figure below.



Note: The spanset must be next to a horizontal cross member which can support the compression resulting from the spanset

Spanset is wrapped around all 4 tubes



Never mix different makes or types of truss.

Truss should be rigged to the underside tubes with suitable spansets which will not damage tubes. Alternatively truss lifting points can be used to allow safe rigging of truss. See figures on previous page. Refer to operating instructions for safe rigging of spansets or lifting points.

**WARNING - SINGLE RUNS OF TRUSS MUST BE SUPPORTED BY SPANSETS, NOT LIFTING POINTS. ONLY USE LIFTING POINTS FOR CORNERED CONFIGURATIONS.**

Ensure that all the hoists used to lift the rigged truss operate simultaneously before lifting. If they do not, the truss must not be lifted. When rigging the light fixtures to the truss ensure that they are safely supported using the correct fixing medium. Do not screw the wing bolts so tight as to damage the tubes. Always undo the wing bolt before adjusting the fixture, then retighten. With heavier equipment, it would be advisable to use half couplers in place of the hook clamps. Safety chains are recommended.

**CONSTRUCTION OF CORNERS / SLEEVES**

**90°/120°/135° CORNER ASSEMBLY**

Connect inner forks together using 16mm pins and "R" clips. Fit gate to outer connecting forks ensuring that it is aligned correctly, then fit pins and "R" clips.

**4 WAY CORNER / SLEEVE CONNECTION**

Connect the trusses together over a square support plate, align and bolt through loosely. Then repeat the operation at the top of the truss with the square support plate on top, then bolt through and tighten. Tighten lower bolts.

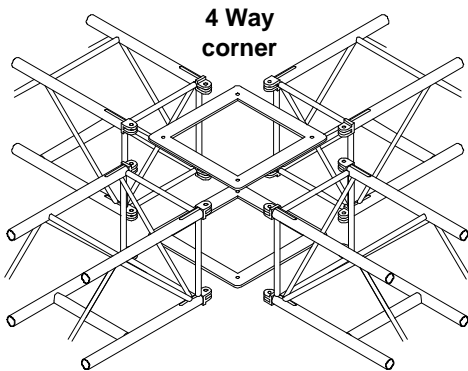
**3 WAY CORNER / SLEEVE CONNECTION**

Fit the inner connecting forks together over a support plate and loosely bolt. Fit the 3 way gate making sure it is aligned correctly and loosely bolted through the support plate. Fit the top support plate, bolt through and tighten. Then tighten lower bolts. You may find it easier to raise the whole truss off the ground and support on blocks of wood.

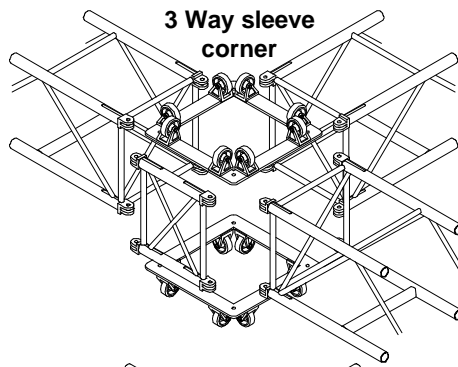
**2 WAY SLEEVE CONNECTION**

As 3 way corner / sleeve connection but with 1 - 3 way and 1 - 3 way gate with lifting point.

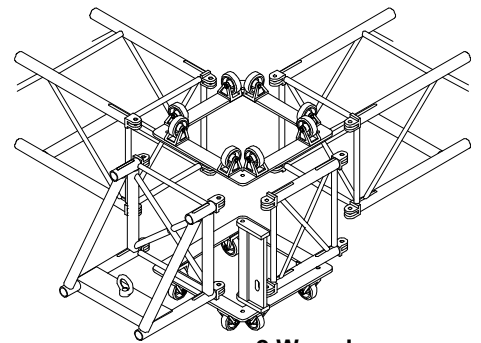
Note: Ensure that all M16 bolts & nuts are not over tightened.



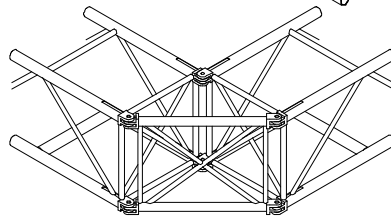
**4 Way corner**



**3 Way sleeve corner**



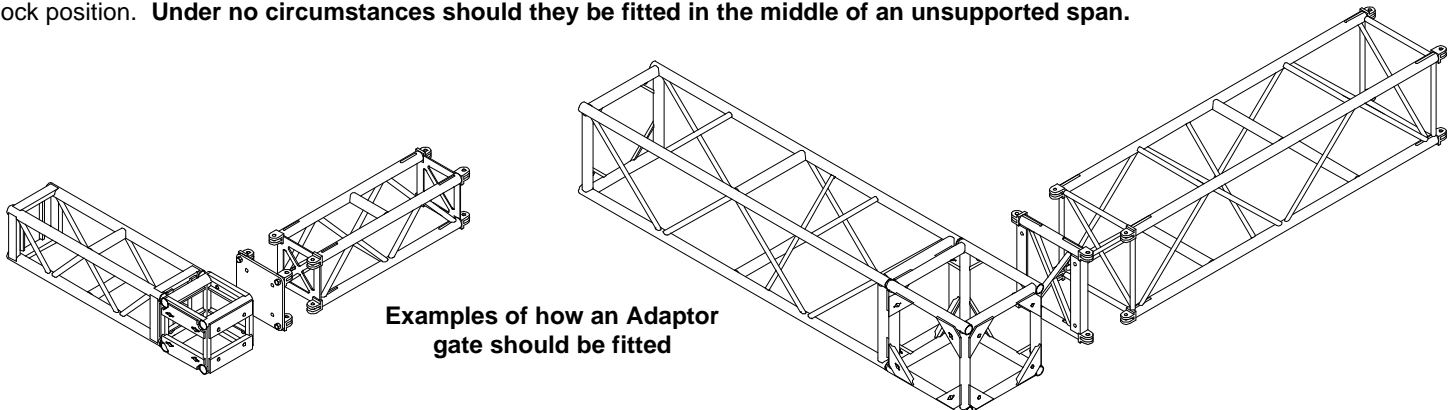
**2 Way sleeve corner including lifting gate**



**90° Corner assembly**

**ADAPTOR GATES**

Adaptor gates are used to allow **Supertruss** to be joined with **General Purpose truss**. Only use adaptor gates at a supported corner block position. **Under no circumstances should they be fitted in the middle of an unsupported span.**



**Examples of how an Adaptor gate should be fitted**

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