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Stair Tower Erection Procedure

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7.0 Metre Stair Tower



Erection Procedure

Must be erected in 2.5metre long configuration only.

1. Measure height of work area to be accessed by stairs. Calculate the number of stairs required - there is 465mm between each transom and the stairs are available in 2 rung and 3 rung designs. If the measurements of the required height are accurate the number of stairs can therefore be calculated.

NB: It should be noted that the bottom stair starts at approximately 465mm from ground level.

2. One person holds an upright frame, the other attaches a horizontal brace to the standard of the upright frame, then attaches another one to the standard on the other side of the upright frame (do not attach horizontals to transoms).

Note: First horizontal brace above the bottom transom. Second horizontal brace goes below.

Photo 2A



3. Attach the other end of the horizontal brace to the standards on another upright frame.
4. Attach plan diagonally from near the bottom of the standard on one frame to the standard on the other frame.

Photo 4A



Erection Procedure

Must be erected in 2.5metre long configuration only.

5. Attach diagonal braces across the back of the base. These diagonals are to be attached onto the transoms at each end. (Refer Photo No. 5A below).

Photo 5A



6. Attach hop-ups to side where stairs are to be accessed (the bottom of the tube should be level with the bottom of the cup nut).

Photo 6A

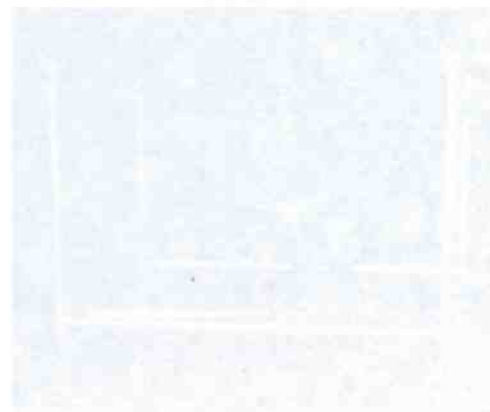
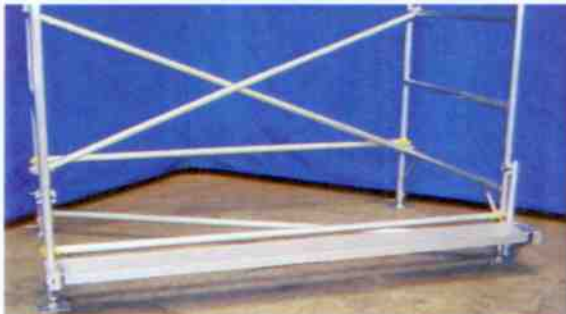


Photo 6B



7. Attach plank across hop-ups.

Photo 7A



Erection Procedure

Must be erected in 2.5metre long configuration only.

- Two people carry 1st set of stairs and attach to appropriate transoms.

Photo 8A



- Attach second level upright frame on top of first level.

Photo 9A



- Repeat the above process for the other side. Access is gained via first set of stairs.

Photo 10A



Photo 10B



Erection Procedure

Must be erected in 2.5metre long configuration only.

11. Attach three horizontal braces:

- a) across the back of the frame, one transom above the top of the first set of stairs
- b) across the front of the frame, two transoms above the top of the first set of stairs
- c) across the back of the frame directly above the first one.

Photo 11A



Photo 11B



Photo 11A & 11B



Photo 11C



12. Two people carry the second set of stairs and attach to appropriate transoms (the bottom of each set should be adjacent to the top of the previous set). The recommended technique for attaching the stairs is to attach them at each end to an easily accessible transom, then person with the top end of stairs climbs up the upright frame until in a secure position. The stairs are then lifted one transom at a time until they are in the correct position. (See Photos below).

Photo 12A



Photo 12B



Erection Procedure

Must be erected in 2.5metre long configuration only.

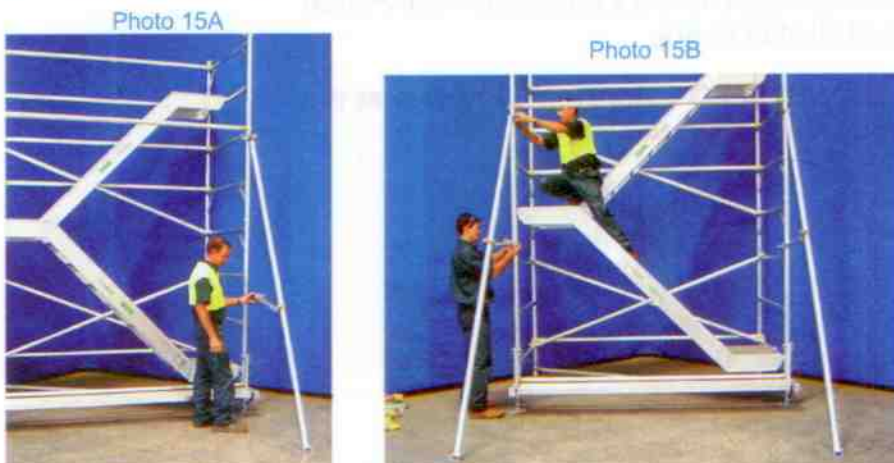
13. Attach horizontal braces as per photos below.



14. Attach diagonal brace for extra support. Diagonal brace must go in opposite direction to stairs.



15. If stairs are to be used as a free-standing system, outriggers must be attached at this stage. If the stairs are to be tied into a building this must be done once the scaffolding reaches 4 metres in height and every subsequent 4 metres.



Erection Procedure

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16. The person on the ground passes up the upright frame to the person who is in a secure position on the frame (see Photos 16A 16B)) Attach upright frame. Repeat the process for the other side.

Photo 16A



Photo 16B



17. Attach the horizontal braces as per photos 17A, 17B, 17C.

Photo 17A



Photo 17B



Photo 17C



Horizontal braces are attached above every transom position on the exposed side of all stair risers.

The only place you DON'T NEED a horizontal brace is at the bottom landing of your ascending stair.



Erection Procedure

Must be erected in 2.5metre long configuration only.

18. Two people carry the next set of stairs and attach to the appropriate transoms. The recommended technique is to position the stairs parallel to the first set of stairs and attach them to an easily accessible transom. The persons on each end then climb into a secure position and lift the stairs together and attach them one transom at a time until the stairs are in the appropriate position.

Photo 18A



Photo 18B



Photo 18C



Photo 18D



Photo 18E



Photo 18F



19. Attach diagonal braces as per photo 19A.

Photo 19A



Erection Procedure

Must be erected in 2.5metre long configuration only.

20. Attach horizontal braces as per photos 20A, 20B & 20C.

Photo 20A



Photo 20B



Photo 20C



21. Person on the ground attaches the rope using a clove hitch knot (Refer attached diagram) to the next upright frame. The person on the scaffolding attached the rope using a clove hitch knot to the appropriate transom. Person on the scaffolding then pulls the upright frame up using the rope. Once the person has a secure grip on the frame, remove the rope and attach the upright frame to the one below it. Repeat for the other side.

Photo 21A



Photo 21B



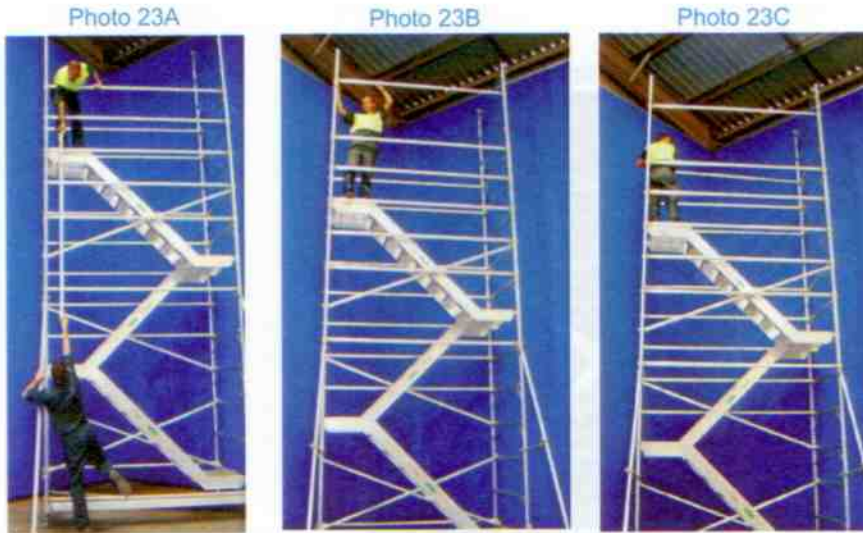
Photo 21C



Erection Procedure

Must be erected in 2.5metre long configuration only.

22. Attach horizontal braces as per Photos 23A, 23B & 23C.



23. Collect the next set of stairs. For the initial step, lift the stairs so they are vertical inside the frame (see Photo 23A below). The bottom person must ascend the first flight of stairs until the stairs can be attached to two accessible transoms, parallel to their final location. Once in this position the process of Steps 12 and 18 are repeated until the stairs are secured in the appropriate location.

