COMPONENT SCHEDULE

STAIRWELL TOWER ERECTION MANUAL

(IN ACCORDANCE WITH BSEN1004)

Using the 3T (Through the Trap) Assembly method

ALTO M.D. TOWERS

Distributed by:-

ALTO MD TOWERS

FRAME FOOT ASSEMBLY

3089

WALK THROUGH FRAME

3090

TOE BOARD SIDE

3087

TOE BOARD END

3088

3 RUNG MAIN FRAME

3092

TOEBOARDS & DOUBLE GUARDRAILS. THE MAXIMUM LOAD ON A 600 mm WIDE PLATFORM IS 2kN/m² WHICH IS:-

130 kgs EVENLY DISTRIBUTED ON A PLATFORM.

THE MAXIMUM LOAD ON A TOWER (INCLUDING THE SELF WEIGHT OF THE TOWER) SHOULD NOT EXCEED 750kgs (¾ TONNE). THE MAXIMUM HORIZONTAL FORCE WHEN USING HAND TOOLS ETC. SHOULD NOT EXCEED 30 kgs & STABILISERS MUST BE FITTED.

THE ABOVE SCHEDULE INCLUDES FOR:

(i) 1 WORKING LEVEL WITH DOUBLE TOEBOARDS & DOUBLE HANDRAILS AT 0.5m.

(ii) A SINGLE TRAP PLATFORM & HANDRAILS AT 0.5m INSIDE & OUT AS REST PLATFORMS EVERY 2 m.

TO CONVERT A REST PLATFORM TO A WORKING LEVEL: ADD 1 - TOEBOARD SET.

HORIZONTAL BRACE 3510

RED 1.20 m

DIAGONAL BRACE 3512

PINK 1.56 m

Frame Foot Assembly 3089

Walk Through Frame 3090

Toe Board Side 3087

Toe Board End 3088

TOTAL SELF WEIGHT OF TOWER KGs

56 76 96 102 109 111 119 121 143

MAXIMUM NUMBER OF WORKING LEVELS

1 1 1 1 2 2 2 3
INSTRUCTIONS FOR BUILDING BASIC 1/2m STAIRWELL TOWER

1. Before erecting check ground is level, unobstructed and can support tower weight. (Figs. A & B).
2. Do not extend frame foot jacks more than is necessary to level the tower.
3. Do not extend the walking platform more than necessary regardless of working height. Secure platform to scaffold using standard scaffolding tubes and fittings.
4. Always work from a guard-railed platform while building. Always work from a guard-railed platform while building.
5. Fit the first two horizontal braces to the vertical frame tube. This prevents the frame from falling over during erection and dismantling.
6. All diagonal braces are fitted as close as possible to the upright.
7. Secure all horizontal lights and fit stabilizers to increase the safe working height to the tower. Towers may also be tied to a suitable rigid structure using standard scaffolding tubes and fittings (see tying in). Fittings connected to the tower should not be exposed. If possible to the upright.
8. Observation at all times is essential to ensure maximum safe working height to the tower. Towers may also be tied to a suitable rigid structure using standard scaffolding tubes and fittings (see tying in). Fittings connected to the tower should not be exposed and may be secured at any level (see safety notes).
9. Use as a light level to check that the tower is upright.
10. The dismantling sequence is the reverse order of the erection process.
11. For special or unusual applications contact your supplier for further technical data sheets and expert advice.

SAFETY NOTES

1. Never work from, or build or dismantle the tower from, an unguarded platform.
2. If used externally beware of high winds. Tie in if necessary.
3. Ensure that the pegs on the frame faces outward (see construction notes).
4. Always work from, or build or dismantle the tower from, an unguarded platform.
5. The peg on the head fitting must always point inwards.
6. The peg on the head fitting must always point inwards.

CONSTRUCTION NOTES

1. Follow the erection manual to ensure that the correct erection procedure is used.
2. Ensure that sufficient equipment is available to construct the tower and is in working order.
3. Do not extend frame foot jack more than is necessary to level the tower.
4. Use a spirit level to check that the tower is upright.
5. The peg on the head fitting must always point inwards.

INSTRUCTIONS FOR BUILDING BASIC 1.5/2.5m STAIRWELL TOWER

To build towers higher than 2m/3m follow the same procedures as above using 3 rung and 3 rung ladder frames to gain height and then top off using frames as shown in the schematic diagrams overleaf. However please note the following: Always work from a guard-railed platform while building. When building, fit a trap platform above you and, working through the trapdoor of this platform, install guardrails at 0.5m and 1.0m above platforms. It may be necessary to relocate platforms during assembly to achieve this.

TYING IN

8. Fit appropriate stabilizers (see schedule on back page) to each corner of the tower to increase the effective base dimensions A & B. They must be fitted so that when viewed from above the greatest span is formed. Ensure that the wing nuts are tight so that it is not possible to move the stabilizers without slackening the wing nuts. Do not ever tighten them at this stage they distort the tube. If it is impossible to fit stabilizers due to working in a confined area then the tower must be securely held using scaffold tube and couplers (see safety notes).

NOTE: Arrangement shown in fig. D is considered to be a friction device and should not exceed the total number of scaffold ties in any area. When friction devices are used the connection to the scaffold must be made onto both vertical uprights. Ties should be at no more than 4m intervals.

REST PLATFORMS

WARNING

WARRNING: never work from or build or dismantle the tower from an unguarded platform.

When tower is left unattended remove clip in ladder and toeboard to allow emergency access through the tower. This can be further assisted by opening the trap door on the platform.
INSTRUCTIONS FOR BUILDING BASIC 1/2m STAIRWELL TOWER

Follow steps 1-4 of the basic stairwell assembly instructions opposite

1. These towers should be erected by at least 2 competent persons. Fit an adjustable foot assembly into a walk through base frame ensuring that the spring loaded pins engage in the holes provided (1A).

2. Position the frame with the foot assembly on the higher location on the staircase making sure that the frame head fitting always points toward the middle of the tower (see detail 2B). Fit two short horizontal braces to vertical tubes of the frame just above lowest rung ensuring spring loaded pin faces outward (see detail 2A).

3. Fit the opposite ends of the braces to the other walk through base frame with foot assembly fitted. The braces would normally attach just above the frame top rung. Ensure that the pegs on the frame head fittings point towards the middle of the tower.

4. Fit two long braces diagonally between the bottom rungs of each frame. At this stage level the tower by adjusting the collars on the foot assemblies (see construction notes).

5. Do not overload the tower. Maximum platform loadings (revision 4) for further details.

6. Never remove components from a tower whilst it is loaded pins engage in holes provided. Repeat the process at the other end using a 1 rung guardrail frame.

7. Do not extend frame foot jacks more than is necessary to level the tower.

8. Do not use damaged components. Check all components to aid safe raising and lowering.

9. Never work from, or build or dismantle the tower from an unguarded platform.

10. If used internally beware of high winds. Tie in if working in a confined area then the tower must be securely tied in using scaffold tube and couplers (see safety notes).

11. For special or unusual applications contact your supplier for further technical data sheets and expert advice.

SAFETY NOTES

1. Before erecting check ground is level, unobstructed and is suitable for the purpose. Also ensure area is clear of overhead obstructions, particularly power cables.
2. Check that the tower is stable before use.
3. Do not attempt to move a loaded tower.
4. Always climb the tower from the inside.
5. Do not exceed the maximum platform loadings 130 kg (2kN/m²). Maximum horizontal force at overhead obstructions, particularly power cables.
6. Remove components from a tower whilst it is erected. Disassembling must always be performed from the top. Failure to observe this rule will seriously reduce the strength and safety of the tower.
7. All diagonal braces are fitted as close as possible to the upright.
8. Ensure that the wings nuts are tight so that it is possible to move the stairwell without slackening the wing nuts. Do not overtighten them as this may distort the tube. It is impossible to fit stairwell braces due to working in a confined area. The tower must be securely tied in using scaffold tube and couplers.
9. Rest platforms must be fitted every 2m and consist of a trap platform and guardrail at 0.5m and 1m as shown. Remember to always close trapdoor immediately after climbing through. Lib, see safety note on back page.

CONSTRUCTION NOTES

1. Follow the erection manual to ensure that the correct erection procedure is used.
2. Ensure that sufficient equipment is available to construct the tower and is in working order.
3. Do not extend frame foot jacks more than is necessary to level the tower.
4. Use a spirit level to check that the tower is upright.
5. The peg on the head fitting must always point upwards.
6. Fit the first two horizontal braces to the vertical frame tube. This prevents the frame from falling over during erection and dismantling.
7. All diagonal braces are fitted as close as possible to the upright.
8. Examine all hinge bolts and fit stairwell braces to increase the safe working height to the tower. Towers may also be used to a suitable rigid structure using standard scaffold tubing and fittings (see tying in). Fittings connected to the tower should not be over tightened as this could distort the aluminium tube.
9. Fit toedrills to all working platforms and ensure that all platforms are adequately guarded.
10. The dismantling sequence is the reverse order of the erection process.

INSTRUCTIONS FOR BUILDING BASIC 1.5/2.5m STAIRWELL TOWER

To build towers higher than 2m/3m follow the same procedures as above using 3 rung and 3 rung ladder frames to gain height and then top off using frames as shown in the schematic diagrams overall. However please note the following. Always work from a guarded platform while building. When building, fit a trap platform above you and, working through the trapdoor of this platform, install guardrails at 0.5m and 1m above platforms. It may be necessary to relocate platforms during assembly to achieve this.

11. Never work from or build or dismantle the tower from an unguarded platform.

12. Use a spirit level to check that the tower is upright.

13. Legislation now calls for inspection and recording of assembled towers. See HSE guidance note 10 (revision 4) for further details.

INSTRUCTIONS FOR BUILDING STAIRWELL TOWERS 2m/3m IN HEIGHT AND ABOVE

1. Follow the erection manual to ensure that the correct erection procedure is used.
2. Ensure that sufficient equipment is available to construct the tower and is in working order.
3. Do not extend frame foot jacks more than is necessary to level the tower.
4. Use a spirit level to check that the tower is upright.
5. The peg on the head fitting must always point upwards.
6. Fit the first two horizontal braces to the vertical frame tube. This prevents the frame from falling over during erection and dismantling.
7. All diagonal braces are fitted as close as possible to the upright.
8. Examine all hinge bolts and fit stairwell braces to increase the safe working height to the tower. Towers may also be used to a suitable rigid structure using standard scaffold tubing and fittings (see tying in). Fittings connected to the tower should not be over tightened as this could distort the aluminium tube.
9. Fit toedrills to all working platforms and ensure that all platforms are adequately guarded.
10. The dismantling sequence is the reverse order of the erection process.
11. For special or unusual applications contact your supplier for further technical data sheets and expert advice.

REST PLATFORMS

Rest platforms must be fitted every 2m and consist of a trap platform, and guardrails at 0.5m and 1m as shown. Remember to always close trapdoor immediately after climbing through. Lib, see safety note on back page.

WARNING

When tower is left unattended remove clip in ladder and toeboard to allow emergency access through the tower. This can be further assisted by opening the trap door on the platform.
COMPONENT SCHEDULE

ALTO STAIRWELL TOWERS WITH PLATFORM HEIGHTS FROM 1m/2m TO 5m/6m
CONFORMING TO HD1004 WHERE RELEVANT

INTERNAL USE ONLY

NOTES:

- A WORKING LEVEL ON A TOWER IS A PLATFORM WITH TOEBOARDS & DOUBLE GUARDRAILS. THE MAXIMUM LOAD ON A 600 mm WIDE PLATFORM IS 2kN/m² WHICH IS:
  - 130 kgs EVENLY DISTRIBUTED ON A PLATFORM.
- THE MAXIMUM LOAD ON A TOWER (INCLUDING THE SELF WEIGHT OF THE TOWER) SHOULD NOT EXCEED 750kgs (3/4 TONNE). THE MAXIMUM HORIZONTAL FORCE WHEN USING HAND TOOLS ETC. SHOULD NOT EXCEED 30 kgs & STABILISERS MUST BE FITTED.
- THE ABOVE SCHEDULE INCLUDES FOR:
  1. (i) 1 WORKING LEVEL WITH DOUBLE TOEBOARDS & DOUBLE HANDRAILS AT 0.5m.
  2. (ii) A SINGLE TRAP PLATFORM & HANDRAILS AT 0.5m INSIDE & OUT AS REST PLATFORMS EVERY 2 m.
- TO CONVERT A REST PLATFORM TO A WORKING LEVEL: ADD 1 - TOEBOARD SET

ALTO STAIRWELL TOWER BRACE GUIDE

<table>
<thead>
<tr>
<th>BRACE TYPE</th>
<th>CODE</th>
<th>COLOUR I.D.</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Brace</td>
<td>3510</td>
<td>Red</td>
<td>1.20 m</td>
</tr>
<tr>
<td>Diagonal Brace</td>
<td>3512</td>
<td>Silver</td>
<td>1.56 m</td>
</tr>
</tbody>
</table>

SCHEMATIC DIAGRAM TOWERS 2/3m – 5.0/6.0m

KEY: WTF - Walk Through Frame
  - Horizontal Brace
  - Toebard
- Diagonal Brace
- Platform
  - 3RF - 3 Rung Frame
  - 2RF - 2 Rung Frame
  - 1RF - 1 Rung Frame
  - 3RLF - 3 Rung Ladder Frame

Distributed by:-