



Double Width Tower Assembly Guide

Double Width Tower Assembly Guide

This document will provide all users of Lewis Access Towers with a complete guide to the erection of the Lewis SW (Double Width) Aluminium Tower, employing the 3T (Through the Trap) method.

The user should read the entire contents of this document before commencing assembly and pay particular attention to all of the safety instructions. If the equipment is passed onto another party a copy of these instructions should accompany the handover.

Two persons are necessary to carry out the erection of the equipment detailed in this document. It is strongly recommended that the following items of personal protection equipment be worn at all times: safety boots (EN345 or BS1870 / 4972); safety helmet (EN397 or BS5240); gloves. The SWL (Safe Working Load) for each platform is 275kg, evenly dispersed.

Additional items, such as steps or conventional ladders, must never be used to gain further height from the platform. The tower must be climbed from within the structure, on no occasions should the tower be scaled from the outside. Inspect all the tower components before each use. Pay particular attention to;

- Castings - check for cracks
- Welds - free from cracks
- Tubes/Braces/Rungs - Straight and with indents less than 5mm deep
- Platforms - no damage, free from debris
- Castors - moves freely, threads free from damage, brake working
- Outriggers - straight, feet flat
- Inspect the equipment for damage regularly, at least daily.

The Lewis Tower is a Class 3 Industrial Tower System

The tower should be manoeuvred into position by hand by pushing it from the base frame. Never attempt to use any mechanical equipment (i.e. a forklift etc.) to move the tower.

If it is necessary to lift individual components whilst assembling the tower, a dependable knot should fasten each item.

Be aware of overhead obstructions – pay particular attention to any live electrical cables. Ensure that no persons, materials or tools are on the tower when it is being moved.

Additional care should be taken when moving the tower on uneven or inclining ground. The use of the castor locks should be deployed when the tower is in position. When moving the tower the stabilisers should only be lifted 35mm from ground level.

Towers under 4m in height are the only towers that should be moved.

- Check all components (see component list) are available and in usable condition.
- Damaged or incorrect components should not be used.

- If damage should occur whilst in use, stop work immediately and isolate the damaged items from the rest of the tower and contact your supplier.
- Check the ground on which the tower is to be used is relatively flat, smooth and capable of supporting the tower.
- The SWL (Safe Working Load) of the tower is 275kg per platform, inc the weight of the tower - evenly distributed, up to a maximum of 950kgs per tower.
- Do not exceed the SWL.
- Never attach safety harnesses or similar safety equipment to the tower whilst erecting or dismantling the tower.
- During assembly, the tower should only be climbed from inside of the frame dimensions, do not scale the tower from the outside.
- Tools and equipment must be loaded onto the platform within the confines of the tower dimensions.
- Adjustable legs are to be used for levelling.
- Outriggers should always be deployed when required.

If the area of operation means that the outriggers cannot be deployed in the recommended position – contact Lewis Towers or your supplier for advice.

Working on the Tower - The Beaufort Windscale

Scale 4. 13 - 18 mph **OK TO WORK ON TOWER**

Moderate Breeze: Raises dust, loose paper; moves small branches

Scale 5. 19 - 24 mph **STOP WORKING ON TOWER**

Fresh Breeze: Small trees in leaf begin to sway; white crested wavelets form on inland waters

Scale 6. 25 - 31 mph **DISMANTLE TOWER**

Strong Breeze: Large branches in motion; umbrellas used with difficulty; telephone wires "whistle".

Be aware that wind conditions are a very important consideration when using a tower. Attention must be paid to individual situations where wind conditions can increase - i.e. when working between buildings, or close to the corner of a building and at open ends.

Never use tarpaulins or similar covers without seeking the correct advice.

Ballast for Towers up to 12.2m in height, ballast is not necessary

DOUBLE WIDTH INTERNAL AND EXTERNAL USE

| WH | 3.2m | 3.7m | 4.2m | 4.7m | 5.2m | 5.7m | 6.2m | 6.7m | 7.2m | 7.7m | 8.2m | 8.7m | 9.2m | 9.7m | 10.2m |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PH | 1.2m | 1.7m | 2.2m | 2.7m | 3.2m | 3.7m | 4.2m | 4.7m | 5.2m | 5.7m | 6.2m | 6.7m | 7.2m | 7.7m | 8.2m |
| Castor | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Adjustable Leg | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 2 Rung Ladder Frame | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 2 Rung End Frame | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 3 Rung Ladder Frame | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 3 Rung End Frame | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 4 Rung Ladder Frame | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 4 | 3 | 4 |
| 4 Rung End Frame | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 4 | 3 | 4 |
| Standard Platform | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Trapdoor Platform | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Horizontal Brace | 6 | 6 | 6 | 6 | 10 | 10 | 10 | 14 | 14 | 14 | 14 | 18 | 18 | 18 | 18 |
| Diagonal Brace | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Toeboard Set | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Fixed Stabiliser | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 0 |
| Adjustable Stabiliser | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 |
| Total Tower Weight 1.8m | 92kg | 97kg | 105kg | 128kg | 159kg | 161kg | 174kg | 181kg | 189kg | 201kg | 207kg | 237kg | 250kg | 260kg | 264kg |
| Total Tower Weight 2.5m | 105kg | 110kg | 119kg | 142kg | 179kg | 190kg | 195kg | 203kg | 211kg | 224kg | 230kg | 266kg | 279kg | 290kg | 295kg |

DOUBLE WIDTH INTERNAL USE ONLY

| WH | 10.7m | 11.2m | 11.7m | 12.2m | 12.7m | 13.2m | 13.7m | 14.2m |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| PH | 8.7m | 9.2m | 9.7m | 10.2m | 10.7m | 11.2m | 11.7m | 12.2m |
| Castor | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Adjustable Leg | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 2 Rung Ladder Frame | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 2 Rung End Frame | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 3 Rung Ladder Frame | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 3 Rung End Frame | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 4 Rung Ladder Frame | 4 | 5 | 4 | 5 | 5 | 6 | 5 | 6 |
| 4 Rung End Frame | 4 | 5 | 4 | 5 | 5 | 6 | 5 | 6 |
| Standard Platform | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Trapdoor Platform | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |
| Horizontal Brace | 22 | 22 | 22 | 22 | 26 | 26 | 26 | 26 |
| Diagonal Brace | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| Toeboard Set | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Fixed Stabiliser | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Adjustable Stabiliser | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Total Tower Weight 1.8m | 290kg | 298kg | 308kg | 313kg | 344kg | 351kg | 359kg | 366kg |
| Total Tower Weight 2.5m | 237kg | 335kg | 346kg | 351kg | 388kg | 396kg | 404kg | 412kg |

Double Width Tower Assembly Instructions

1.1 Prepare ladder frame for assembly



1.2 Insert a leg and castor assembly into the bottom end of a ladder frame



1.3 Prepare span frame for assembly



1.4 Insert a leg and castor assembly into the bottom end of a span frame.



1.5 Clip horizontal brace onto span frame. Connect the brace directly above the casting at the first horizontal rung position. And then attach to ladder frame.



- 1.6** Clip the second brace in the same position. Make sure the base is level using a spirit level. If alterations are required do so by adjusting legs.



- 1.7** Make sure that the trigger is facing to outside of frame.



- 1.8** Insert 4 rung frame.



1.9 Clip diagonal braces onto the lowest rungs.



1.10 Insert 4 rung frame.



1.11 Clip diagonal braces onto the lowest rungs.



1.12 When fitting the stabilisers, position each one in opposing directions. Adjust all four castors to ensure the tower is square and level. Use a spirit level.



1.13



1.14



1.15



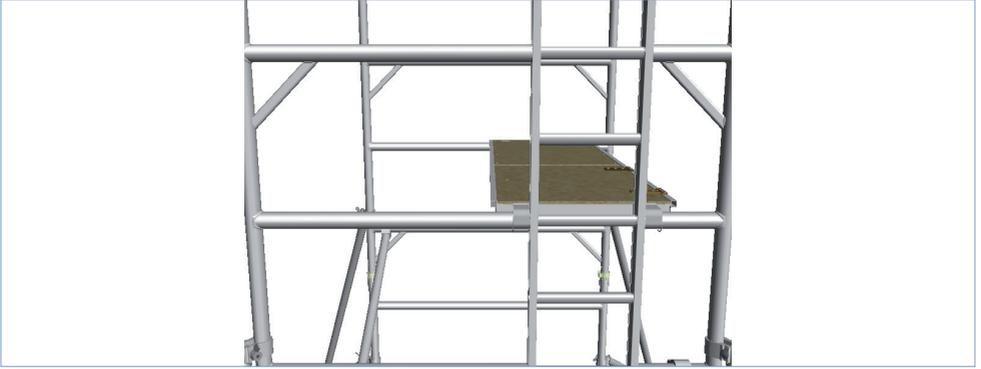
1.16 Stabilisers must be in opposing directions to ensure full stability of tower.



1.17 Ensure spring clips are located in the locked position.



1.18 Attach trap door platform on the 4th rung, approx 2.2m above ground level.



1.19 Align platform alongside the ladder.



1.20



- 1.21 Climb ladder and open trapdoor. Sit with feet through the platform with both feet on the ladder. Fit four guardrail braces on the 4th & 6th rungs directly above the sides of the platform.



- 1.22



- 1.23



1.24



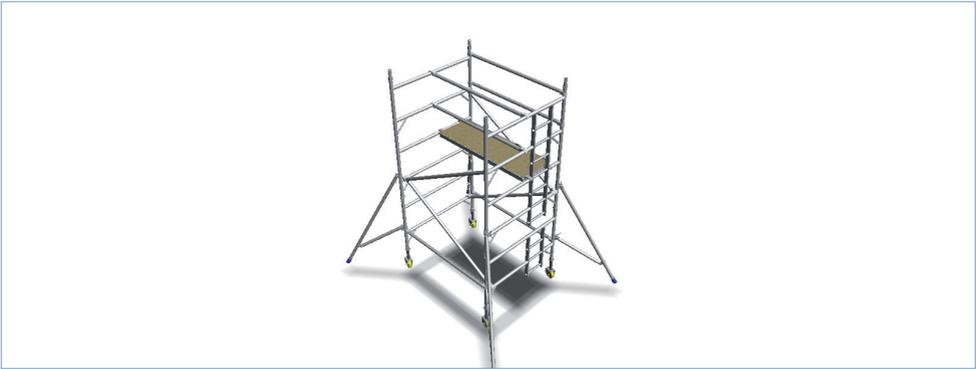
1.25



1.26 **Clip diagonal braces into position.**



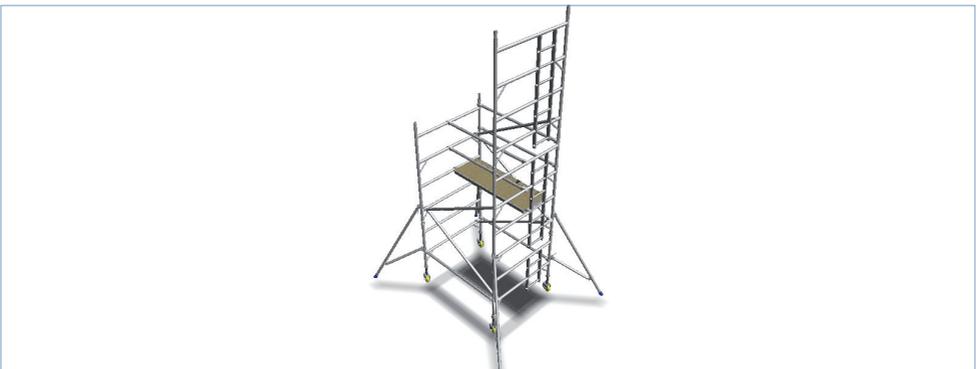
1.27 Clip diagonal braces into position.



1.28 Stand on platform and ensure the guardrails are securely in place at the opposite end of the tower.



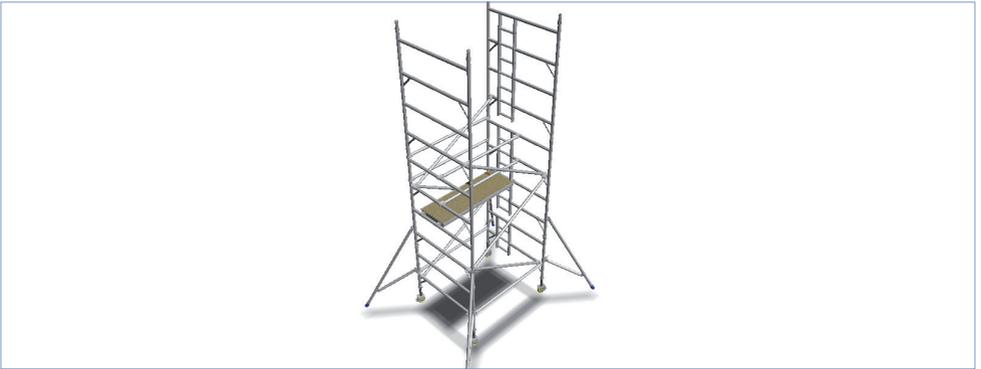
1.29 AT THIS STAGE A 2.2m TOWER HAS BEEN FULLY ERECTED.



1.30 Build next lift of four rung frames.



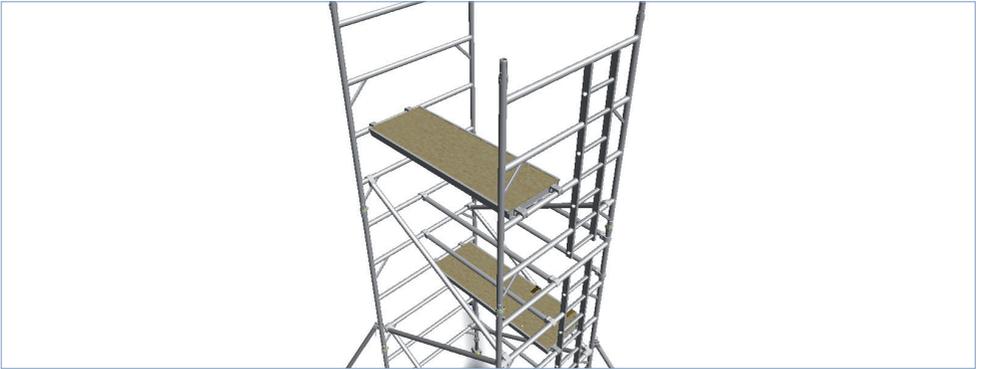
1.31 Clip diagonals into position.



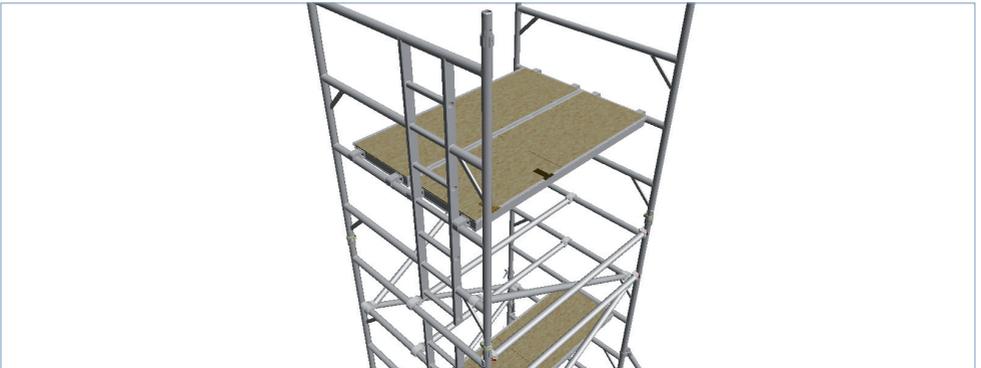
1.32



1.33



1.34 Ensure spring clips are located in the locked position.



1.35



1.36 Climb ladder and open trapdoor. Sit with feet through the platform with both feet on the ladder. Fit four guardrail braces on the 9th & 10th rungs directly above the sides of the platform.



1.37



1.38



1.39



1.40



1.41 **Clip diagonal braces into position.**



1.42 Clip diagonal braces into position.



1.43 Stand on platform and ensure that guardrails are securely in place at the opposite ends of the tower.



1.44 Fit toeboard set securely.



1.45 AT THIS STAGE A 4.2m TOWER HAS NOW BEEN FULLY ERECTED.



Dismantling

To dismantle the LEWIS Double Width tower, first remove the toeboard set and send safely down the tower. Remove the furthest of the four guardrails and diagonal brace. Go directly to the trapdoor platform next to the ladder frame to remove the braces completely. To fully dismantle the tower reverse the erection procedure detailed in this guide above.

Stability

Towers left unattended or unused for extended periods in exposed situations should be dismantled. Horizontal forces i.e. pressure exerted when drilling into a building face can yield instability in the tower. The tower must not be used to gain access to a neighbouring structure. Tower are not intended to be suspended.

Transport and Storage

Components should be transported and stored vertically. Damaged items must be repaired by a competent person. Contact your supplier for advice.



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