

### ALTO HEAVY DUTY SINGLE WIDTH HIGH LEVEL TIED-IN TOWER Aluminium Access Tower



### Instruction Manual BS EN 1004-2:2021 The ALTO HD Ladderspan Tower is certified to BS 1139-6:2022

### **3T - Through The Trapdoor Method**



Height Range: 12.9m - 20.4m

#### Lakeside Industries Ltd

www.altoaccess.com sales@altoaccess.com



## Introduction

Please read these instructions carefully and ensure that you fully understand all of the information contained herein. All of the information in this document is vital for the safe utilisation of your Alto Heavy Duty Tower in single width tied-in high level tower applications.

These instructions only cover the assembly of this configuration of equipment, which is designed primarily for construction and maintenance tasks in a fixed position over a large area at platform heights of between 12.9m and 20.4m. All Alto Access products are professional quality engineered equipment designed primarily with safety in mind and meet or exceed all standards, recommendations and guidelines. Used properly, Alto access equipment will keep you safe when working at height.

This manual contains all of the information necessary to correctly assemble your Alto Heavy Duty mobile access tower equipment for this application in accordance with BS 1139-6:2022 and incorporates all of the requirements of the PASMA 3T method of assembly as endorsed by the HSE.

This manual should be used in conjunction with your Risk Assessment and Method Statement and in line with the Work at Height Regulations 2005 which place an obligation on employers to eliminate or minimise risks. This manual must be made available to the user/assembler at all pertinent times.

A Risk Assessment and Method Statement must be undertaken before installation commences and should include the relevant stabilisation to be applied to the specific structure being built in line with the guidance contained in this manual.

Only competent and qualified personnel should undertake erection, dismantling or alteration, organisation, planning or supervision of mobile access towers. In the case of any doubt, sufficient relevant additional training must be given beforehand to ensure safe use. For further information on the use of mobile access towers consult PASMA (www.pasma.co.uk; Tel +44 (0) 345 2 30 4041).

For any additional technical information or specific advice please contact the manufacturer Lakeside Industries Limited Tel: +44 1527 500577 or Email: sales@altoaccess.com.

## Certifications

The Alto Heavy Duty Tower is a mobile access tower certified to BS EN 1004-1:2020 Class 3. These instructions cover applications outside the scope of BS EN 1004-1:2020, within the scope of BS 1139-6:2022 to ensure that the configuration of the equipment meets the relevant requirements. This tower is manufactured in our ISO 9001 accredited facility. This manual complies with BS EN 1004-2:2021

## Maximum Safe Working Loads

The safe working load of the tower is 3,000 kg including its own weight as it is to be assembled on base jacks. The maximum leg load imposed by the tower on its supporting surface is 750 kg when loaded to its maximum safe working load. This tower is a Class 3 tower.

The maximum safe working load of any individual platform within the tower is 324 kg evenly distributed.

The maximum safe uniformly distributed working load which may be placed on the working platform of the tower is 324 kg.

The maximum number of working platforms allowed in this configuration is set out in the table below:

LOADING CLASS	PLATFORM LENGTH	No. OF WORKING PLATFORMS
3 (2.0 kN/m2)	1.8m long	3
2 (1.5 kN/m2)	1.8m long	3
3 (2.0 kN/m2)	2.7m long	2
2 (1.5 kN/m2)	2.7m long	3

The maximum number of operatives permitted on the tower during use is 8.

The maximum number of operatives permitted on the tower during assembly and dismantling is 8.

The maximum number of operatives permitted on any one platform unit is 2.

The maximum number of people on a working platform level permitted to simultaneously exert a horizontal load of 0.3 kN is 1.

If higher loadings are required, contact your supplier or the manufacturer - Lakeside Industries Limited, for advice. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

### **Inspection Care & Maintenance**

Alto Access equipment is designed and manufactured to the highest standards in the industry and is stronger, more robust and safer than any comparable competitor product. Properly cared for, it will give a long and productive service life.

Inspection and maintenance guidance is published by the manufacturer for Alto HD equipment. This may be found here: www.altoaccess.com/assets/inspection\_hd.pdf

ALTO HD Tower System equipment should not be modified in any way and should only be repaired by the manufacturer - Lakeside Industries Ltd - or by authorised agents. If it is suspected that equipment

has been damaged, modified or repaired by any other provider, the equipment should be quarantined and returned to Lakeside Industries Ltd for free inspection. No liability will be accepted in relation to equipment that has been subjected to unauthorised modification or repair.

ALTO HD Tower System equipment is a robust product designed to operate in the construction industry environment. However, misuse or mishandling (including dropping or overloading or otherwise incorrectly using components) risks impairing the structural integrity of the components.

Components should be handled with care and stacked and secured safely whilst in transit.

Never use any equipment which is damaged, has parts missing or is improperly assembled.

## Safety

- This information shall be available at the location of use of the prefabricated tower scaffold.
- This prefabricated tower scaffold shall only be used according to this information.
- A risk assessment and method statement must be prepared sufficient to ensure the safe assembly, use and dismantling of a single width tied-in high level tower structure and the elimination or minimisation of all consequent risks.
- Check that all of the necessary components, tools and equipment for the particular tower configuration to be built are on site, undamaged and functioning correctly. Damaged/incorrect components must not be used.
- BS 1139-6:2022 tower applications may only be used with 3T Alto towers. BS 1139-6:2022 tower applications may not be created using Advance Guard Rail (AGR) towers.
- This is a static tower. These instructions only cover the assembly of this specific structure on base jacks. If a mobile tower structure is required, contact the manufacturer Lakeside Industries Limited for advice Tel: +44 1527 500577 or Email: sales@altoaccess.com. This tower is not to be moved when built.
- Check that the surface on which the tower is to be located is capable of supporting the tower and its payload. Check that the level and slope of the ground do not render the location unsafe for the purposes of assembling, using and dismantling the tower.
- Beware obstructions when assembling, altering and dismantling the tower.
- When working outdoors, the weather forecast shall be taken into account before assembly, use and dismantling.
- Platforms must be installed with vertical distances between them not exceeding 2.1m when assembling and dismantling.

- Towers must always be climbed from the inside using the built in ladders (or Alto stair units if applicable). If the work carried out from the tower requires frequent carrying of equipment and materials up or down the tower, an Alto stair tower should be used in preference to a ladderspan tower.
- The tower must be levelled when erected using the adjustable jack legs.
- Four or more persons are required for the safe erection and dismantling of this tower.
- Always comply with the Work at Height Regulations 2005 when erecting, dismantling & using the tower.
- When lifting components, tools or materials, always use reliable lifting equipment and fastening methods and always lift from within the footprint of the tower structure to prevent risk of the tower overturning.
- Users must be aware of the effects of horizontal and vertical loads on the structure when using the tower which may impair the stability of the tower. Examples would be loads resulting from work on an adjacent structure or wind loads which may be increased by tunnelling effects around adjacent buildings.
- Beware live electrical installations, cables, moving machinery or other obstructions when erecting, dismantling or using the tower. The tower is a conductive metallic structure.
- Do not use boxes, ladders or other items to gain additional height.
- Do not stand on guard rails for any reason.
- If the tower is to be used in connection with hoisting arrangements, this requires specific advice from the manufacturer to ensure safety. Contact the manufacturer Lakeside Industries Limited for advice on loadings Tel: +44 1527 500577 or Email: sales@altoaccess.com.
- Prefabricated tower scaffolds in accordance with this standard are not designed to be lifted or suspended.
- When fitting platforms always engage wind latches.
- Fit guard rails to all Platforms.
- Fit toe boards to all Working Platforms.
- Every erected tower must be inspected at least every seven days and any tower which has been left unattended should be inspected before use to ensure that:
  - 1. No components have been removed or relocated incorrectly;
  - 2. The tower is still vertical; and
  - 3. No environmental or other factors have arisen which will influence safe use of the tower.

4. The applied stabilisation methods and devices are still correctly positioned and operating effectively.

- This tower is not to be sheeted.
- Alterations to the prefabricated tower are only permitted where they are shown in these instructions.
- User training courses cannot be a substitute for instruction manuals and assembly, use and dismantling plans but can only complement them.
- Only the components specified in this information shall be used.
- Damaged or incorrect components shall not be used.
- Prefabricated tower scaffolds designed in accordance with this standard are not anchor points for personal fall arrest equipment.
- Working is only permitted on a platform with a complete side protection including guardrails and toeboards.
- In the event that an alteration to the prefabricated tower scaffold design is required, approval from the supplier and/or designer shall be obtained and a revised instruction manual or assembly, user and dismantling plan created.
- When a prefabricated scaffold tower is used as a means of access to another place it shall:
  - » Be built on base plates
  - » Be tied in to the adjacent structure with ties of sufficient number and capacity to cope with a horizontal load of 10% of the maximum UDL of the working platform i.e. 0.4 kN.
  - » Be positioned so that any horizontal gap between the platform of the prefabricated scaffold tower and the place being accessed is no greater than 25 mm; and
  - » Be positioned so that the upper surface of the platform and surface which is being accessed are vertically aligned within a tolerance of ± 25 mm.
  - » Means of protection shall be removed only for the time and to the extent necessary to gain access or egress or for the performance of a particular task and shall be replaced as soon as practicable.
  - » Attention is drawn to the Work at Height Regulations 2005 Schedule 1, Schedule 2 Regulation 5 and Schedule 3 Part 1 Regulation 5.
  - » Provision shall be made to prevent falls not only from the prefabricated tower scaffold, but also from the adjacent structure.
  - » The safety of persons once they have transferred to the adjacent place shall be taken into account as this now becomes a place of work at height.
  - The strength of the adjacent place shall be assessed to verify that it is safe to step on to (e.g. not a fragile surface) and is a suitable and a safe place for work with adequate collective protection or other fall prevention measures.

- » A prefabricated tower scaffold shall not be used as an anchor point for personal fall protection or work positioning equipment. They are not designed for this purpose even when tied to a supporting structure.
- » A prefabricated tower scaffold shall not be used as a means or element of edge protection. They are not designed or suitable for this purpose even when tied to a supporting structure. Edge protection shall be designed and installed in accordance with BS EN 13374.

### Wind Speeds

The weather forecast must be taken into account before assembly, use and dismantling. Persons using or responsible for towers must beware of the effect of wind on the structure. Wherever possible, as a precaution, it is advisable to tie the tower in to a rigid structure if it is to be used where it is exposed to potential windy conditions. Users should beware the potential tunnelling effect of open ended or unclad buildings and narrow openings between buildings. We recommend that the use of the tower is discontinued in conditions where the wind speed is above 17 mph (force 4).

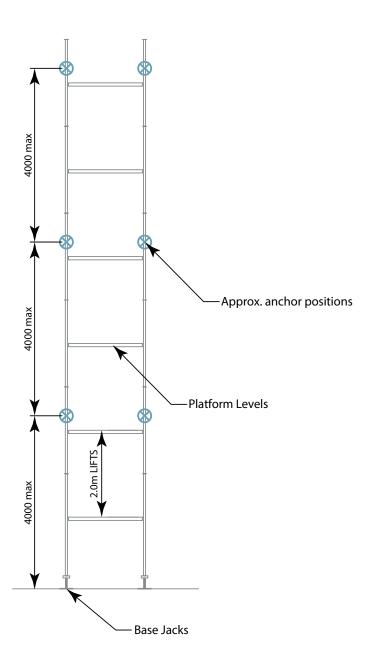
WIND DESCRIPTION	BEAUFORT SCALE	AVERAGE SPEED	INFORMATION
Medium Breeze	4	13-17 mph	Safe to work on tower.
Strong Breeze	6	25-31 mph	Tie the tower to a solid structure. Do not work on tower.
Gale Force	8	39-46 mph	Towers must be dismantled. Towers must not be assembled.

### **Stabilisation**

Alto HD towers covered by this instruction manual must never be built as free-standing structures. Suitable stability solutions must be used. The following points must be observed:

- Never build towers without having adopted and correctly installed the permitted stability solution.
- The permitted stability solution is to securely tie the tower into an adjacent rigid structure capable of withstanding the forces that will be imposed upon it by the attachment of the tower.
- A Risk Assessment and Method Statement must be undertaken before installation commences and should include the relevant tying-in method and tying-in locations to be applied to the specific structure being built in line with the guidance contained in this manual.
- The tying in pattern should ensure that the uprights of the tower are tied in a minimum of every 4m.

Braces and guardrails have been omitted for clarity only.



- Ties should be located close to a node. A node is a point where a frame upright, rung, horizontal and diagonal brace meet.
- If it is impracticable to tie the tower in to a suitable adjacent rigid structure, users must contact the manufacturer Lakeside Industries Limited for advice on possible alternative solutions. Tel: +44 1527 500577 or Email: sales@altoaccess.com.
- When used, select and install anchors in concrete and masonry must be selected and installed in accordance with BS 8539.
- This prefabricated tower scaffold has been designed to be properly secured to a suitable adjacent supporting structure capable of withstanding the forces that will be imposed upon it by the attachment of the tower. Devices for securing the tower must be simultaneously rigid in both tension and compression and capable of withstanding and transmitting the loads imposed by the tower to the supporting structure.

- Scaffold couplers and tubes used for tying in must comply with BS EN 74-1:2005 and BS EN 12811-2:2004 respectively.
- Alto HD towers which are properly tied into an adjacent rigid structure should be able to withstand all but the most extreme UK weather conditions.
- If ballast is necessary, it must be secured in position and made of rigid materials such as steel or concrete, but excluding liquids or granular materials.
- If users consider that ballast may be necessary, contact the manufacturer Lakeside Industries Limited for advice on quantities and locations. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

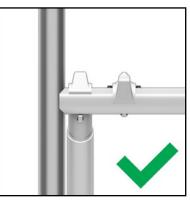
### **Erecting & Dismantling the Tower**

All BS 1139-6:2022 tower structures using Alto HD equipment must be built and dismantled in accordance with the step by step instructions set out below and having regard to the working at height regulations and Health & Safety legislation.

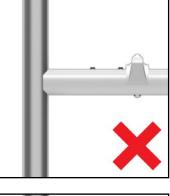
### Braces

All braces are fitted with spring loaded pins that automatically lock the brace into position when attached to a tower. Brace hooks **must** be located either over the rung screw heads, between 2 screw heads or between the frame upright and a screw head to prevent lateral movement.

Diagonal braces **must** always be located with the claw opening facing down. Horizontal braces must be located with the claw facing either down (on the rung) or outwards (if on the upright).



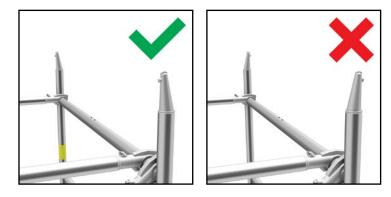






### Frames

Frames **must** always be assembled with the offset conical head fitting pointing inwards towards the centre of the tower.

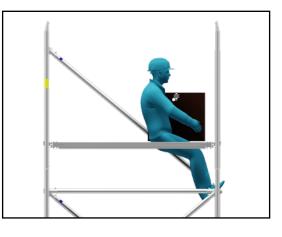


### **3T Method Explained**

The "3T" or "through the trapdoor" method is one of the two permitted ways of assembling a tower without the assembler being at risk of falling. This tower is a 3T tower.

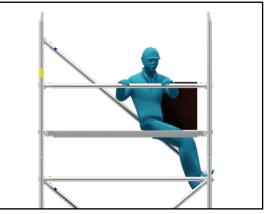
#### Step 1:

As each new level of platform is installed, the operative takes up a working position in the trap door of the platform, standing on the ladder and leaning back against the edge of the trapdoor aperture.



#### Step 2:

From this position the operative fits the horizontal braces 500mm and 1000mm above the platform level (i.e. on the first and second available rungs). If the far end of the guardrail braces don't fully engage when they are put in place, the operative fully engages it when first climbing up onto the platform. This process ensures that operatives never have to stand on an unguarded platform.



## **Unattended Towers**

To prevent use by unauthorised persons of complete or incomplete towers when unattended, steps should be taken to prevent unauthorised access. Appropriate steps may include some or all of the following:

- Use of scaffold alarms.
- Suitable physical means such as barriers or site fencing to prevent access to the area immediately around the tower.
- Warning signs identifying the areas where access is not permitted should be displayed at the access points to area occupied by the tower.
- Attaching a well designed and correctly fitted ladder guard to the lowest levels of the tower.
- Appropriate site security.
- Towers which have been left unattended should be inspected before use as outlined on page 5 above.

## Signage

After assembly or alteration, the following minimum information shall be displayed on the prefabricated tower scaffold and be clearly visible from the ground (e.g. on a tag):

- The name and contact details of the responsible person.
- If the tower is ready for application or not.
- The load class and the uniformly distributed load.
- If the prefabricated tower scaffold is intended for indoors use only.
- The date of assembly.
- The maximum number of simultaneous working platforms permitted.
- The maximum number of persons permitted on the working platform(s) during use.
- The maximum number of persons permitted on the tower during assembly and dismantling.
- The maximum number of persons permitted on any one platform.
- The maximum safe working load on working platforms.
- The maximum safe working load on the prefabricated tower scaffold.
- The load class of the prefabricated tower scaffold.
- The maximum horizontal force permitted at the working platform(s).
- The maximum wind limits for working on the prefabricated tower scaffold.
- The maximum wind limits for the prefabricated tower scaffold.

## **COMPONENT SCHEDULE**

**1.8m Long** x 0.8m Wide (Single Width) HD Ladderspan Tower Using *5 Rung* Starter Frames

		<b>۱</b> ــــــــــ						- BLA	TFORM	WORK		PLATFORM WORKING HEIGHT (m)	Ê					
CODE	PART DESCRIPTION	Wt	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	16.9	17.4	17.9	18.4	18.9	19.4	19.9	20.4
2233	HD Adj. Swivel Base Jack	1.5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2065	HD 1.8m S/W Toeboard	8.0	~~~	~	~			~	~	~		~		~	~	~	~	~
2015	HD 0.8m Base Frame	9.6	~~~	~	~				~	~		~~		~	~		~	~
2222	HD 0.8m 5 Rung Ladder Frame	12.7	~~~	~	~			······	······	~	······	~~	······	~	~	······	······	~
2016	HD 0.8m Main Frame	8.3	ъ.	9	ъ	9	9	~	9	~	7	œ	7	∞	œ	6	∞	6
2223	HD 0.8m 4 Rung Ladder Frame	11.5		9	ۍ. ک	9	9	~	9	~	7	∞	7	∞	∞	6	∞	6
2018	HD 0.8m 3/4 Frame	6.3	~	•••••	~	•••••		•••••		•••••		•••••		•••••	~	•••••		
2224	HD 0.8m 3 Rung Ladder Frame	00. 00.	~	•••••	~	•••••	~	••••		•••••		••••		•••••	~	••••	~	
2019	HD 0.8m 1/2 Frame	4.3	•••••	•••••	~		•••••	•••••		~~~	•••••	•••••		~	•••••	•••••	~	~
2225	HD 0.8m 2 Rung Ladder Frame	6.1			~				······	~	•••••			~	•••••		~	~
2040	HD 1.8m Brace	2.6	28	30	30	30	32	34	34	34	36	38	38	38	40	42	42	42
2041	HD 2.7m Brace	3.6	~	œ	~	∞	œ	б	∞	6	6	10	6	10	10		10	~
2080	HD 1.8m x 3 Rung Brace (Blue)	3.2	~		2				2				7		~		7	
2201	HD 1.8m Trap Platform	15.0	9	~	~	~		∞	∞	œ	∞	6	6	6	6	10	10	10
2057	HD Large Stabiliser	7.8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	TOTAL SELF WEIGHT OF TOWER (kg)	k (kg)	375	400	408	410	423	449	457	459	472	498	506	508	521	546	555	557
	BUILD METHOD	ПОР	4	<u> </u>	υ	0	4	<u> </u>	U		4	<u> </u>	υ	٥	A	<u> </u>	υ	A
		1	1	1	1	1	1	1	1	1	1	1	1			1		]

## **COMPONENT SCHEDULE**

# **2.7m Long** x 0.8m Wide (Single Width) HD Ladderspan Tower Using *5 Rung* Starter Frames

		L						PLA	TFORM	WORK		PLATFORM WORKING HEIGHT (m)	Ê					
CODE	PART DESCRIPTION	Wt	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	16.9	17.4	17.9	18.4	18.9	19.4	19.9	20.4
2233	HD Adj. Swivel Base Jack	1.5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2067	HD 2.7m S/W Toeboard	11.3	~		~	~~		~	~	~	······		~	~				~
2015	HD 0.8m Base Frame	9.6	~	~	~				~	~		~	~~					~
2222	HD 0.8m 5 Rung Ladder Frame	12.7	······		~~~	······	 ~	······	 ~	~~	······	~~~	~~	~~~	~		~	~
2016	HD 0.8m Main Frame	8.3	 С	9	Ъ	9	9	7	9	7	7	œ	~	œ	œ	6	œ	6
2223	HD 0.8m 4 Rung Ladder Frame	11.5	 ک	9		9	9	~	9	~	~	∞	~	∞	∞	6	∞	6
2018	HD 0.8m 3/4 Frame	6.3	~	•••••	~	•••••	~	•••••		•••••	~	•••••	~	•••••		•••••	~	
2224	HD 0.8m 3 Rung Ladder Frame	8. 8.	~	•••••	~	••••		••••		•••••	~	•••••	~	•••••	~	••••		
2019	HD 0.8m 1/2 Frame	4.3	•••••	•••••	~					~		•••••						~
2225	HD 0.8m 2 Rung Ladder Frame	6.1	••••	•••••	~	······		••••		~	•••••	•••••	~~		•••••	•••••	~	<del>, -</del>
2041	HD 2.7m Brace	3.6	28	30	30	30	32	34	34	34	36	38	38	38	40	42	42	42
2042	HD 3.3m Brace	4.4	∞	6	∞	6	10		10		12	<u>1</u> %	12	13	14	15	14 4	15
2083	HD 2.7m x 3 Rung Brace (Black)	4.1	~	•••••	5				2			•••••	7				7	
2202	HD 2.7m Trap Platform	20.4	9	~	~	7	7	∞	∞	Ø	∞	6	6	6	6	10	10	10
2057	HD Large Stabiliser	7.8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	TOTAL SELF WEIGHT OF TOWER (kg)	2 (kg)	449	482	491	492	513	545	555	556	576	609	618	619	640	673	682	683
	BUILD METHOD	DOH.	4	 Ф	υ υ	۵	4	 Ф	υ	Δ	4	 B	υ	۵	A	8	υ	٨
							1		1								1	

### **ASSEMBLY INSTRUCTIONS - All Platform Working Heights**

#### Step 1

Insert the base jack into the bottom of the 5 Rung Base Frame. When fully inserted, ensure the spring loaded pin is engaged into the hole in the side of the frames.

#### Step 2

Connect 2 horizontal braces to the uprights of the first frame in the area just above the bottom rung. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

#### Step 3

Repeat step 1 with the 5 rung ladder frame. Connect the ladder frame to the horizontal braces in the same position that they are located on the first frames. Make sure that the frame head fittings are pointing inwards into the tower.





#### Step 4

Connect 2 standard diagonal braces to the frames as shown. Keep the diagonal braces as close to the frame uprights as possible. Ensure that they run in opposite directions to each other.

#### Step 5

Install a trap platform on the 3rd rung up and 4 horizontal braces as guard rails. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the floor plate to adjust up & down.

#### Step 6

Once the framework is in position and level, connect 4 stabilisers to the corners. Fix the shorter arm to the lowest part of the frame, then connect the longer arm to the upper part, ensuring the foot is firmly placed on the ground. Small vertical adjustments can be made to either arm to guarantee a sturdy placement. **Once the tower is fully assembled & suitably tied-in the stabilisers may be removed.** 

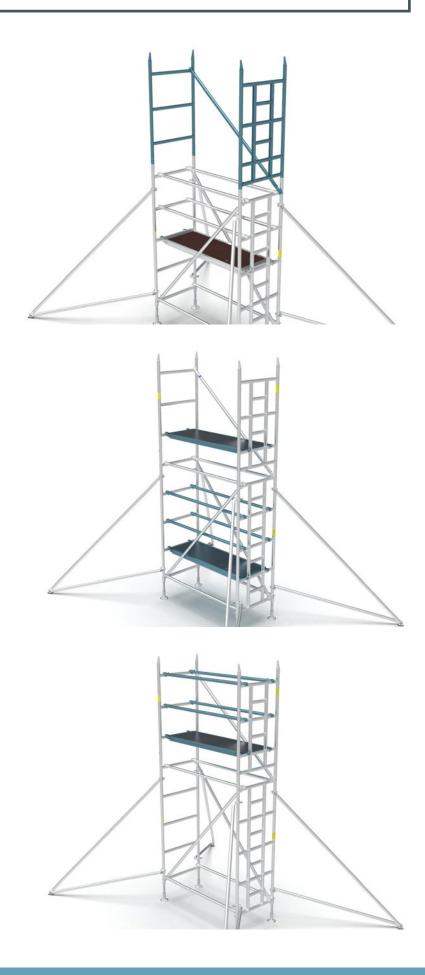
### Build Method A 12.9m, 14.9m, 16.9m, 18.9m

#### Step 7.1

Working from the temporary platform, install a 3 rung main frame & a 3 rung ladder frame onto the 5 rung frames. Then, clip onto the top rung of one frame a coloured diagonal brace (blue for the 1.8m platform tower or black for the 2.7m platform tower). The other end connects to the rung 3 below on the opposite face. Diagonal braces always run parallel to the braces below.

#### Step 7.2

Lower the platform down to the 2nd rung of the base frames and ensure that there are 4 guardrails installed above the platform plus an additional 2 horizontal braces above - on the top rung of the first frames. Now install a 2nd platform 4 rungs above the first one.



#### Step 7.3

Using the 3T method install 4 guardrails to the upper platform. The platform and guardrails at the bottom can now be removed. Make sure that there are still 2 horizontal braces at the base of the tower and the 5th rung up on the tower.

### Build Method B 13.4m, 15.4m, 17.4m, 19.4m



#### Step 7.1

Working from the platform, install a 4 rung main frame & a 4 rung ladder frame onto the first set of 5 rung frames. Then, clip onto the top rung of one frame a standard diagonal brace. The start position of the brace should be on the same rung height as the finishing position from the brace below - running in the same parallel direction.

#### Step 7.2

Install a 2nd platform 4 rungs above the first platform. Using the 3T method install 4 guardrails to the upper platform.

### Build Method C 13.9m, 15.9m, 17.9m, 19.9m

#### Step 7.1

From the platform, install a 2 rung frame & a 2 rung ladder frame onto the 5 rung frames. Then, clip onto the top rung a coloured diagonal brace (blue or black). The other end connects to the rung 3 below on the opposite face. Diagonal braces always run parallel to the braces below. Now install another 4 guardrails above the 4 already in place for when the platform is relocated.

#### Step 7.2

Remove the lower 4 guardrails by using the 3T method or uninstalling them from the ground. Then relocate the platform to the top rung of the first frames. A temporary platform can be placed on the bottom rung of the tower to help. Working off the new upper platform position, install a 3 rung main frame and a 3 rung ladder frame. Clip on one more coloured diagonal brace (blue or black).

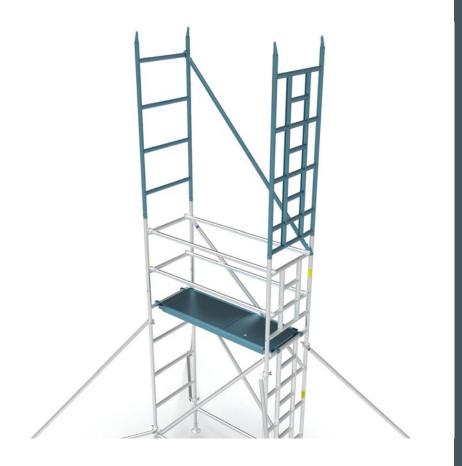
#### Step 7.3

Lower the uppermost platform down 1 rung and relocate the guardrails into the correct positions using the 3T method. Install another platform 4 rungs above and install 4 guardrails using the 3T method. Remove the temporary platform off the bottom rung of the tower if it was used in step 7.2.



### Build Method D 14.4m, 16.4m, 18.4m, 20.4m





#### Step 7.1

Working from the temporary platform, install a 2 rung frame & a 2 rung ladder frame onto the 5 rung frames. Then, clip onto the top rung of one frame a coloured diagonal brace (blue for the 1.8m platform tower or black for the 2.7m platform tower). The other end connects to the rung 3 below on the opposite face. Diagonal braces always run parallel to the braces below.

Install another 4 guard rails above the 4 already in place for when the platform is relocated.

#### Step 7.2

Remove the lower 4 guardrails by either using the 3T method or uninstalling them from the ground. Then relocate the platform to the top rung of the first frames. Working off this new platform position, install a 4 rung frame and a 4 rung ladder frame. Clip on a standard diagonal brace on the same side as the previous coloured diagonal brace. The start position of the brace should be on the same rung height as the finishing position from the brace below - running in the same parallel direction.

### **All Platform Working Heights**

#### Step 8

Working from the top platform, install a 4 rung main frame & a 4 rung ladder frame. Then, clip 1 standard diagonal brace on. The start position of the brace should be on the same rung height as the finishing position from the brace below - running in the same parallel direction.



#### Step 9

Install a trap platform 4 rungs above the previous platform. Using the 3T method install 4 guardrails to the upper platform.

At this point, install the appropriate tying in method for this level, as specified in the method statement. Refer to the "Stabilisation" section for more information.





#### Step 10

Repeat steps 8-9 until the final working platform height is established.

Remember to install additional tying in as required by the specified tying in pattern as each relevant level is reached. The stabilisers may now be removed if required.

Finally, install the toeboards to all platforms on all working levels.

### **DISMANTLING INSTRUCTIONS - All Platform Working Heights**

#### Step 1

The dismantling procedure requires a minimum of 2 operatives to complete the task safely.

### To start, reinstall the 4 stabilisers if they were removed.

Now, remove the toeboard assembly from all working platform levels and disconnect tying in from the highest level only.

#### Step 2

Now, relocate the uppermost diagonal brace downwards so the top hook is located on the same rung as the uppermost platform. This can be done by either using one operative on the top platform and one operative on the platform underneath, or by disengaging the top hook then climbing down onto the platform below and disengage the 2nd hook.

#### Step 3

Next, remove the 4 guardrails. To remove braces or guardrails, first disconnect each brace at the end furthest away from the platform trap door. Then immediately take up the protected position detailed in the 3T method. Whilst standing through the trapdoor as per the 3T method, disconnect the braces completely.











#### Step 4

Now, working from the platform below, the upper platform can be removed. Once this is fully removed, the recently relocated diagonal brace can now be taken off. This can be done by one operative from the platform.

#### Step 5

Now remove the final 2 frames off the top of the tower.

Now repeat steps 2 to 5 until the tower is dismantled or the new platform height is achieved - only removing tying in when that level of the tower is reached.

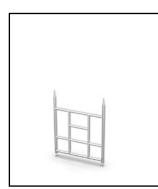
## Components



2233 Adj. Base Jack



2223 HD 0.8m 4 Rung Ladder Frame



2225 HD 0.8m 2 Rung Ladder Frame



2057 HD Large Stabiliser



2015 HD 0.8m Base Frame



2018 HD 0.8m 3/4 Frame



**2040** 1.8m Brace **2041** 2.7m Brace



2201 1.8m Trap Platform



2222 HD 0.8m 5 Rung Ladder Frame



2224 HD 0.8m 3 Rung Ladder Frame



2042 3.3m Brace



2202 2.7m Trap Platform



2016 HD 0.8m Main Frame



2019 HD 0.8m 1/2 Frame



**2080** 1.8 x 3 Brace (blue) **2083** 2.7 x 3 Brace (black)



**2065** 1.8m S/W Toeboard **2067** 2.7m S/W Toeboard



For more information regarding our range of access products and services, please get in touch with us:

#### Lakeside Industries Ltd

Unit 19 Howard Road, Park Farm Industrial Estate Redditch, Worcestershire. B98 7SE. UK

- t: +44(0)1527 500 577
- e: sales@altoaccess.com
- w: www.altoaccess.com



- @lakesideindust
- @altotowers
- - lakeside-industries-ltd

System













Manufacturing Member

#### Lakeside Industries Ltd

+44(0)1527 500577 | sales@altoaccess.com | www.altoaccess.com

