

**BoSS® Climalite®**  
Camera and lighting tower

Aluminium tower with  
climbing frames

Safety First	2
Quantity Schedules	9
Assembly Procedure	13
Toeboard	33

INTRODUCTION

**Please read this guide carefully.**  
**Please note that diagrams are for illustrative purposes only.**  
**User guides are also available to download from our website at [youngmangroup.com](http://youngmangroup.com)**

The BoSS® Climalite® Camera and Lighting Tower is purpose designed to provide a stable, solid platform ideal for use in demanding production environments. The tower can be erected quickly and safely as a control platform, camera or a lighting tower.  
A range of accessories are available for the product.

This User Guide provides you with step by step instructions to ensure your system is erected easily and safely, using the 3T (Through The Trap) method.

The law requires that personnel erecting, dismantling or altering towers must be competent. Any person erecting a Youngman BoSS® tower must have a copy of this guide. For further information on the use of access and working towers consult the PASMA operators code of practice.

In addition to holding a standard PASMA Certificate, Youngman Group recommend Product Awareness Training in the safe erection, use and dismantling of the BoSS® Climalite® Tower from Youngman Group.

For further information on this training, design guidance, additional guides or any other help with this product please contact Youngman Events on +44 (0) 1621 745900 or email [events@youngmangroup.com](mailto:events@youngmangroup.com)

COMPLIANCES

The BoSS® Climalite® aluminium tower has been tested in accordance with EN 1004:2004 Class 3

PREPARATION AND INSPECTION

Inspect the equipment before use to ensure that it is not damaged and that it functions properly. Damaged or incorrect components shall not be used.

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Patent Pending 1003952.7

# Safety First

## SAFE USE

- Check that all components are on site, undamaged and that they are functioning correctly – (refer to Checklist and Quantity Schedules). Damaged or incorrect components shall not be used.
- Check if the ground on which the BoSS® Climalite® is to be erected and moved is capable of supporting the tower.
- The safe working load is 340 kgs (750lbs), per platform level, uniformly distributed up to a maximum of 950kgs (2100lbs), per tower (including self weight).
- Towers must be climbed from the inside using the rungs directly below the trap door during assembly and use
- It is recommended that towers should be tied to a solid structure when left unattended.
- Adjustable legs should only be used for levelling, not to gain extra height.

## LIFTING OF EQUIPMENT

- The BoSS® Climalite® tower is fitted with a lifting beam, which is located approximately 2.0m above the top fully hinged platform on the tower. The lifting beam is rated at 100Kg. The underside of the beam has a plate welded to it with a diameter 17mm hole, to allow a suitably rated “D” type shackle to be fitted. The shackle and the lifting equipment (hoist, etc) are not supplied with the tower.
- Assembled towers should not be lifted with a crane or other lifting device.

# Safety First

- The components listed below, which form the lifting arrangement for the BoSS® Climalite® tower meet the requirements of LOLER (Lifting Operations and Lifting Equipment Regulations 1998).

Description	Quantity	Part number
Lifting frame	2	219106
2.7m Diagonal Brace (Blue claw latch)	2	314513
Lifting Beam (Red claw hatch)	1	222514

- Both the equipment listed above and any additional components not supplied with the tower, which are used for lifting operations, must meet the requirements of LOLER.

## STABILISERS

- Stabilisers shall always be fitted when specified.
- The Quantity Schedules show the recommended stabilisation. In circumstances where there is restricted ground clearance for stabilisers, contact your supplier for advice.
- Steel Base – for use without stabilisers- is also available, refer to separate user guide for details.
- Refer to the website [www.boss-climalite.info](http://www.boss-climalite.info) for comprehensive information on safe product use.

# Safety First

## DURING USE

- Beware of high winds. where wind speeds will rise to in excess of 17 metres per second (38mph or Beaufort 7). The tower should be dismantled, before this limit is reached.

Wind Description	Beaufort Scale	Beaufort No.	Speed m.p.h	Speed m/sec
Moderate wind	Raises dust and loose paper, small twigs in constant motion	4	13-18	5-8
Fresh wind	Small trees sway	5	19-24	8-11
Strong wind	Large branches in motion, telegraph wires whistle, difficult to use umbrellas	6	25-31	11-14
Very strong wind/Near Gale	Whole trees in motion	7	32-38	14-17
Gale Force	Twigs break off, difficult to walk	8	39-46	17-21

- Beware of open ended buildings, which can cause funnelling effect.
- Do not abuse equipment. Damaged or incorrect components shall not be used.
- Raising and lowering of tools and/or materials should be conducted within the lower base using the lifting beam provided. Ensure that the safe working load of the supporting decks and the tower structure is not exceeded.
- The assembled tower is a working platform and should not be used as a means of access or egress to other structures.
- Beware of horizontal forces which could generate instability. **Maximum horizontal force 20 kg.**
- Mobile towers are not designed to be suspended - please refer to your supplier for advice.
- Do not use boxes or stepladders or other objects on the platform to gain extra height.

# Safety First

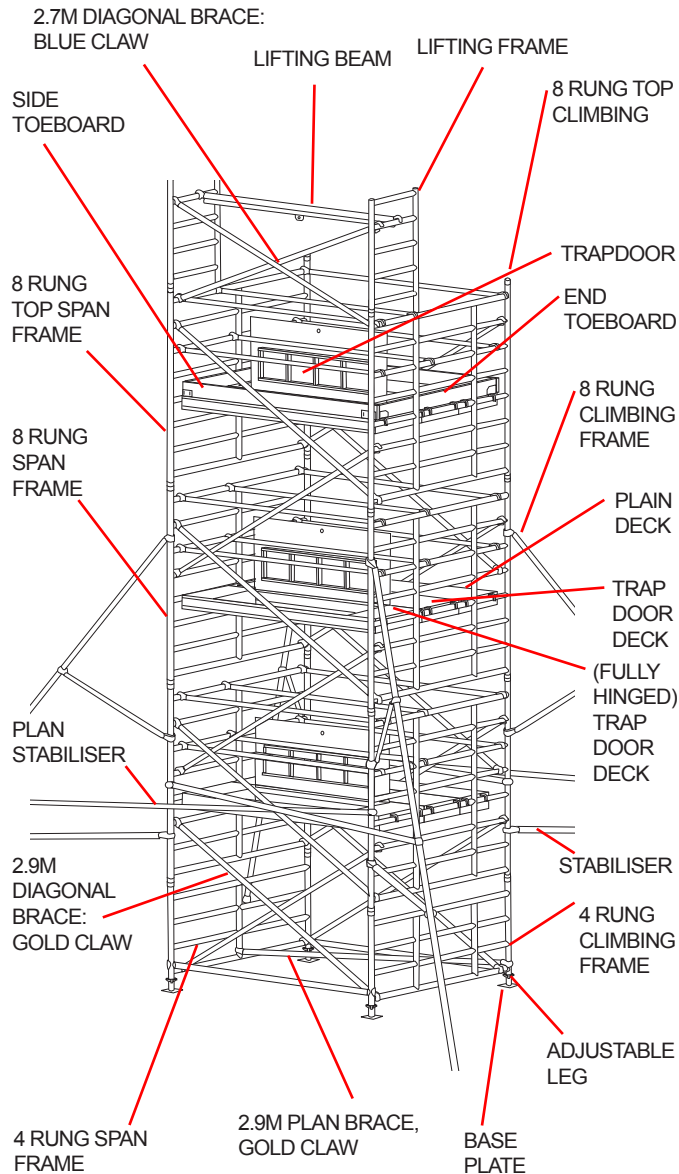
## TIES

- For information on tying-in a tower please contact your supplier or Youngman.

## MAINTENANCE - STORAGE - TRANSPORT

- All components and their parts should be regularly inspected to identify damage, particularly to joints. Lost or broken parts should be replaced, and any tubing with indentation greater than 5mm should not be used and put to one side for manufacture repair. Adjustable leg threads should be cleaned and lightly lubricated to keep them free running.
- Brace claws, frame interlock clips, trapdoor latches and platform windlocks should be regularly checked to ensure they lock correctly.
- Refer to the BoSS® Inspection Manual for detailed inspection and maintenance advice
- Components should be stored with due care to prevent damage.
- Ensure components are not damaged by excessive strapping forces when transported.

# Safety First

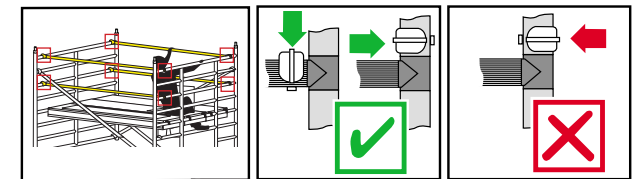


# Safety Checklist

BoSS® Climalite®

## CHECKLIST

Ensure all brace claws operate and lock correctly prior to erection	✓
Inspect components prior to erection	✓
Inspect tower prior to use	✓
Tower upright and level	✓
Legs correctly adjusted	✓
Diagonal braces fitted	✓
Stabilisers fitted as specified	✓
Platforms located and windlocks on	✓
Toeboards located	✓



Ensure horizontal braces are fitted correctly. Always fit as shown.

**Refer to this checklist before using each time.**

BoSS® Climalite® 2.23m wide x 2.5m long (3T build)		Internal or external use									
Product Code	Component	Tower/unit product code	250120	250125	250130	250135	250140	250145	250150	250155	250160
		Working height (m)	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
		Platform height (m)	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
330413	Base plates		4	4	4	4	4	4	4	4	4
335513	Adjustable leg		4	4	4	4	4	4	4	4	4
219103	4 rung Ladder Frame (1.0m high x 2.234m wide)		1	0	0	1	1	0	0	1	1
219100	4 rung Span Frame (1.0m high x 2.234m wide)		1	0	0	1	1	0	0	1	1
219104	6 rung Ladder Frame (1.5m high x 2.234m wide)		0	1	0	1	0	1	0	1	0
219101	6 rung Span Frame (1.5m high x 2.234m wide)		0	1	0	1	0	1	0	1	0
219105	8 rung Ladder Frame (2.0m high x 2.234m wide)		0	0	1	0	1	1	2	1	2
219102	8 rung Span Frame (2.0m high x 2.234m wide)		0	0	1	0	1	1	2	1	2
219108	Top Ladder Frame (2.0m high x 2.234m wide)		1	1	1	1	1	1	1	1	1
219107	Top Span Frame (2.0m high x 2.234m wide)		1	1	1	1	1	1	1	1	1
219106	Lifting Frame		2	2	2	2	2	2	2	2	2
222514	2.5m Lifting Beam		1	1	1	1	1	1	1	1	1
219110	2.5m Trap Door Deck		1	1 (2)*	1 (2)*	2	2	2	2	3	3
219112	2.5m Plain Deck		1	1 (2)*	1 (2)*	2	2	2	2	3	3
219111	2.5m Fully Hinged Trap Door Deck		1	1 (2)*	1 (2)*	2	2	2	2	3	3
348513	2.5m Horizontal Brace		8	8	8	14	14	14	14	20	20
219109	2.74m Plan Brace		1	1	1	1	1	1	1	1	1
222513	2.915m Diagonal Brace		6	6	8	8	10	10	12	12	14
305509	2.5m Side Toe Board		2	2	2	2	2	2	2	2	2
325416	1.969m End Toe Board		2	2	2	2	2	2	2	2	2
301509	Toe Board Holder		4	4	4	4	4	4	4	4	4
314513	2.7m Diagonal Brace		2	2	2	2	2	2	2	2	2
219113	Plan stabiliser		0	0	0	0	4	4	4	4	4
004257	M10 x no Long Hexagon Head Steel bolt - grade 8.8		8	8	8	16	16	16	16	24	24
007717	M10 Steel full nut		8	8	8	16	16	16	16	24	24
031789	M10 Form C Washer		16	16	16	32	32	32	32	48	48
045212	M10 Spring Washer		8	8	8	16	16	16	16	24	24
317513	SP7 Stabiliser		4	0	0	0	0	0	0	0	0
318513	SP10 Stabiliser		0	4	4	4	0	0	0	0	0
329413	SP17 Stabiliser		0	0	0	0	4	4	4	4	4
Ballast Required (Kg)			0	0	0	0	0	0	0	0	0
Total Self Weight of Tower (Kg)			250	271	285	398	455	463	476	590	603

\* QUANTITIES SHOWN IN BRACKETS ARE THE NUMBER OF COMPONENTS REQUIRED TO BUILD THE TOWER. THESE COMPONENTS MUST BE REMOVED FROM THE TOWER AFTER THE BUILD IS COMPLETE. NOTE: THESE COMPONENTS SHOULD REMAIN WITH THE ERECTED TOWER TO ENABLE IT TO BE DISMANTLED SAFELY.

# Quantity Schedule

## NUMBER OF WORKING PLATFORMS ALLOWED

The MAXIMUM SAFE WORKING LOAD (the combined weight of the users, tools and materials) that may be placed on the tower is the total weight less the self weight of the tower. The total weight for the towers shown in the schedule is 950kg.

### Example 1:

A BoSS® Climalite® tower built using the 3T method with a 4.0m platform height has a self weight of 451.

950kg — 451kg = 499kg maximum safe working load total weight self weight (users, tools and materials)

### Example 2:

A BoSS® Climalite® tower built using the 3T method with a 6.0m platform height has a self weight of 589kg.

950kg — 603kg = 347kg maximum safe working load total weight self weight (users, tools and materials)

For greater heights and loads, consult Youngman for guidance.

## PLATFORM LOADING

On a BoSS® Climalite® tower a platform is defined as a single deck or two/three decks placed side by side. The maximum safe working load (the combined weight of the users, tools and materials) that may be placed on a platform is 350kg. This must be evenly distributed over the platform area.

The quantities on pages 9 and 10 will enable climalite® towers to be built safely and therefore comply with the requirements of the Work at Height Regulations.

# Quantity Schedule

## BALLAST: Internal/External Use

Steel Base option also available, refer to Steel Base User Guide for details

There is no requirement for ballast on BoSS® Climalite® towers if using stabilisers as detailed in the table on pages 9 and 10.

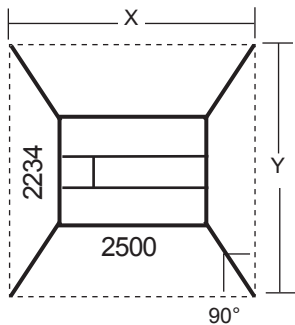
## FITTING STABILISERS

Attach one stabiliser to each corner of the tower as shown. SP10 and SP17 telescopic stabilisers must always be fully extended. Position the lower clamp so that the lower arm is as close to the horizontal as possible. Adjust the position of the top clamp to ensure the stabiliser foot is in firm contact with the ground. Ensure clamps are secure.

## STABILISERS

SP10 and SP17 Stabiliser must be fully extended when fitted to the tower.

### Angle of Stabiliser



SP7	X= 4160	Y= 4144
SP10	X= 5254	Y= 5734
SP17	X= 7560	Y= 7094

# Assembly Procedure

3T Method

## ASSEMBLY AND DISMANTLING PROCEDURES

### When building a BoSS® Climalite® :

- To comply with the Work at Height Regulations we show assembly procedures with platforms every 2 metres in height, and, the locating of guardrails in advance of climbing onto a platform to reduce the risk of a fall.
- All platforms feature double guardrails on both faces of either individual platforms or fully decked levels.
- All guardrails should be 2 and 4 rungs (0.5m and 1.0m) above platforms.
- Never stand on an unguarded platform positioned above the first rung of a tower. If your risk assessment shows it necessary, you may also need to guardrail platforms at this level.
- Always start building with the smallest height frames at the base of the tower:**

Platform Height in Metres	Frame at Base
2.0, 3.5, 4.0, 5.5, 6.0	4 Rung
2.5, 4.5	6 Rung
3.0, 5.0	8 Rung

Where all 3 frame heights are used in a tower, start with a 4 rung frame at the base, with the 6 rung frame next and the 8 rung frames on the top. Refer to the Quantity Schedules for detail.

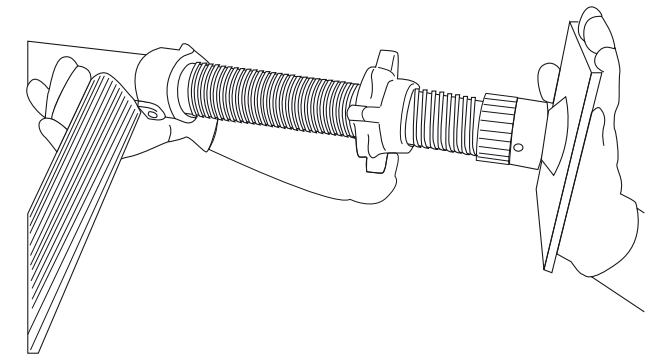
# Assembly Procedure

3T Method

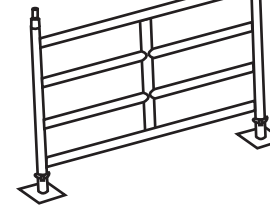
## TOWER BUILD METHOD FOR 6.0 PLATFORM HEIGHT

SEE PAGE 35 FOR COMPONENT CONFIGURATIONS FOR OTHER PLATFORM HEIGHTS.

- Fit adjustable leg and base plate to each corner of the two base frames. Then position the frames in the approximate area where the tower is to be erected. Ensure that the frames are correctly orientated so that the camera side is correctly located. Note the frame for the climbing side of the tower is the one with the 4 vertical members. The narrower aperture between the verticals on the frame should be positioned at the camera face of the tower (Front side).

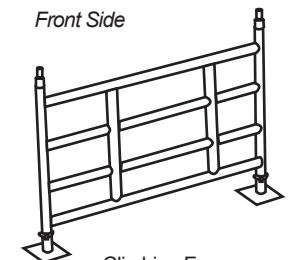


Span Frame



Rear Side

Front Side



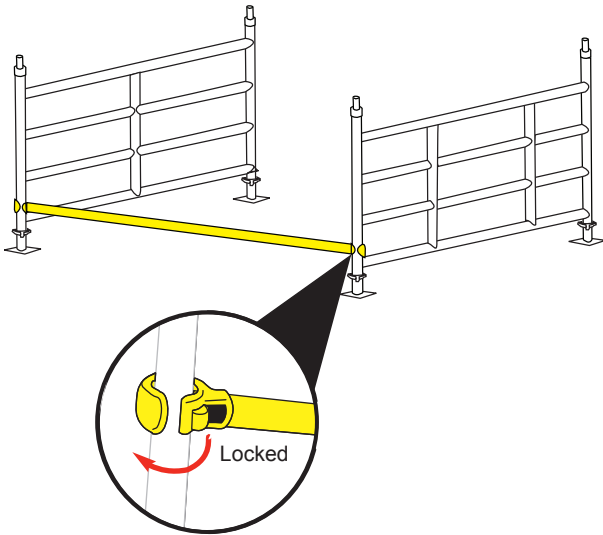
Climbing Frame



## Assembly Procedure

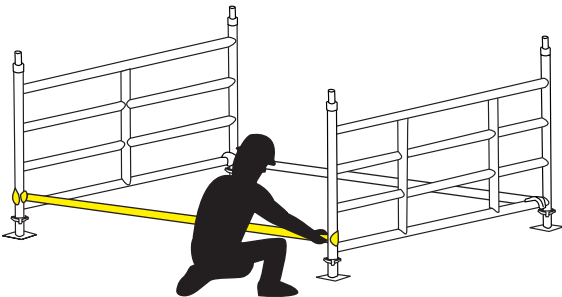
- 2** Fit a horizontal brace (Red) to the vertical members of the two base frames, just above the 1st rung, on the side of the tower where the Fully Hinged Trap Door Deck will be positioned. Note:- The camera will be located on this side of the tower (Front side).

**Note: All locking claws must be opened before fitting.**



- 3** Fit a horizontal brace (Red) to the 1st rung of the base frames, at the opposite side of the tower.

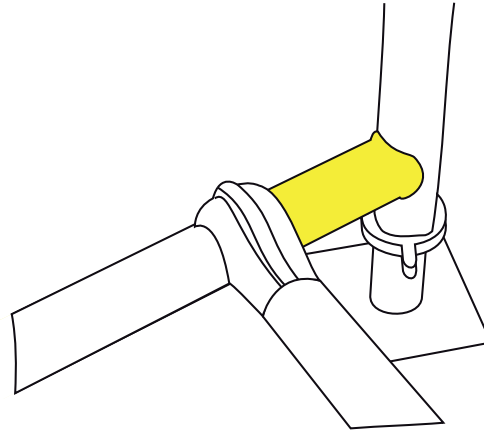
**Note: This side of the tower is where the lifting beam will be positioned (Rear side).**



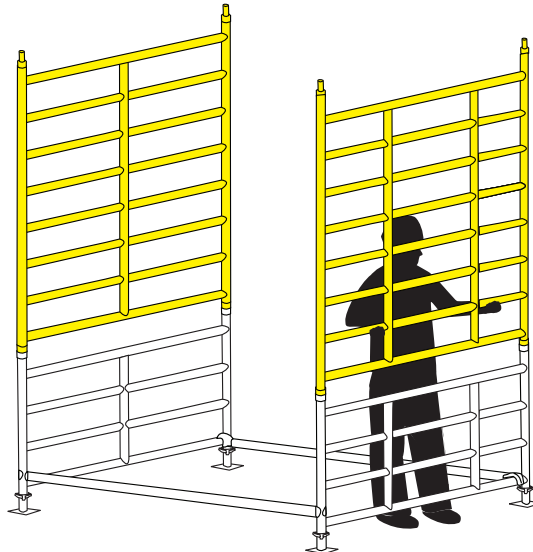
15

## Assembly Procedure

- 4** Ensure that the horizontal brace in step 3 is positioned far enough inboard so that there is one clear claw width between the brace claw and the vertical of the frame.



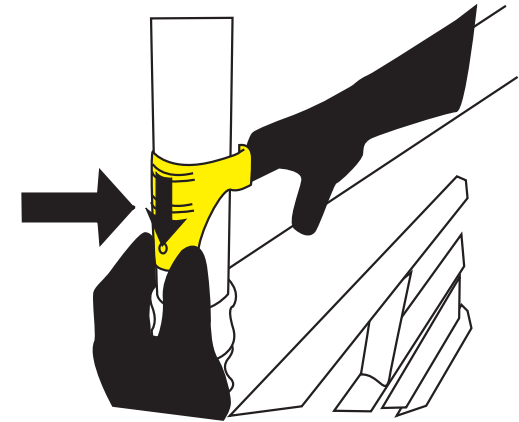
- 5** Fit two additional 8 rung frames. Ensure that the frames are correctly orientated so that the vertical members of the frame match those of the base frame.



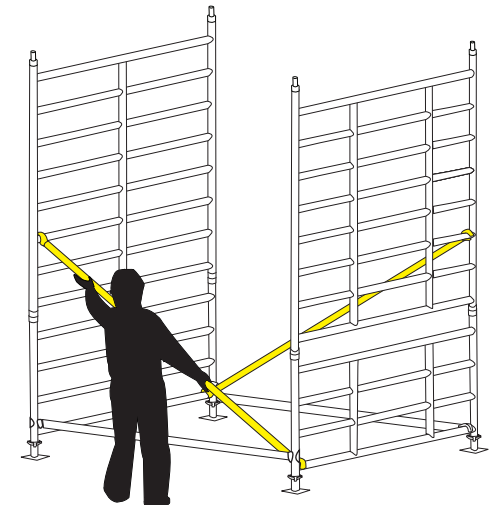
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## Assembly Procedure

- 6** Ensure the interlock clips are fully engaged (4 positions).



- 7** Fit a diagonal brace (Gold) to the front face of the tower from the 1st rung of the span frame to the 7th rung of the climbing frame. Fit a second diagonal brace (Gold) to the rear of the tower on the 1st rung of the climbing frame to the 7th rung of the span frame. Make sure the braces are positioned adjacent to the outside verticals of the frames.



16

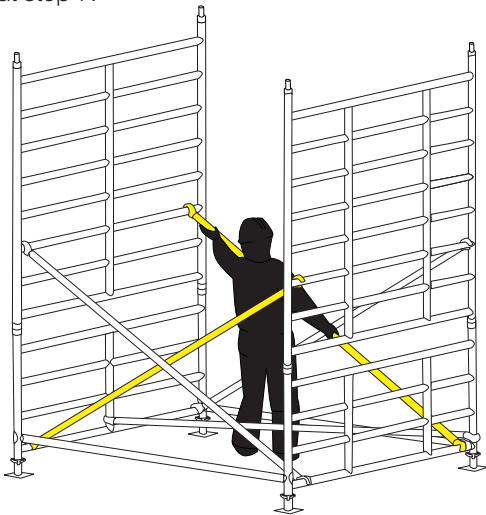
17

## Assembly Procedure

- 8** Fit a plan brace (self colour) from the front vertical member of the climbing frame to the centre vertical of the span frame, just above the first horizontal rung.

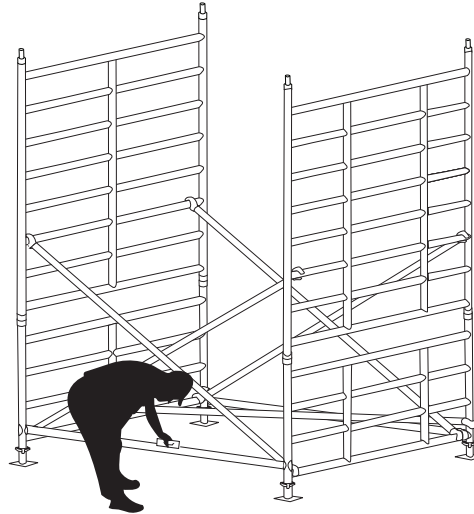


- 9** Fit a diagonal brace (Gold) to the front and rear face of the tower, from the 1st rung to the 7th rung. Fit the braces inside of and in the opposite direction to those fitted at step 7.

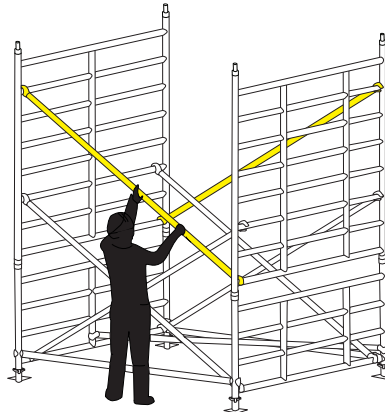


## Assembly Procedure

- 10** Level the tower by adjusting the nuts on the adjustable legs. Note: the legs are for levelling the tower only. They must not be used to gain additional height.

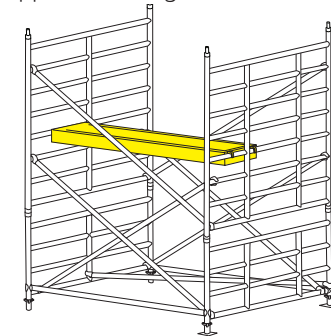


- 11** Fit a diagonal brace (Gold) to the front and rear face of the tower, from the 5th rung to the 11<sup>th</sup> as shown. Ensure the braces are positioned adjacent to the outer verticals of the frames. Before fitting any more components ensure the layout of the tower is as shown in the picture and the tower is correctly orientated in relation to the lifting beam and camera positions on the tower.

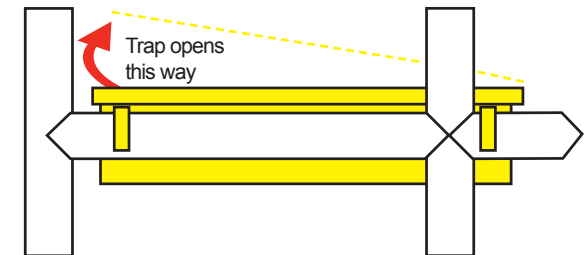


## Assembly Procedure

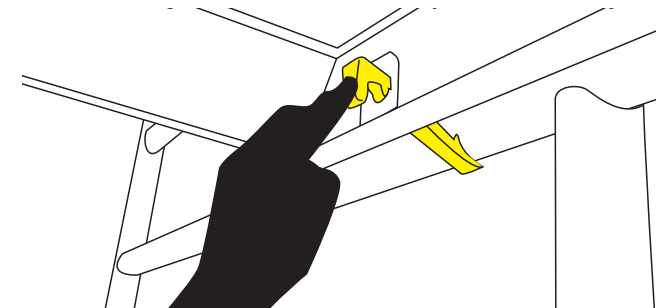
- 12** Steps from this point require the assistance of another person. Fit a fully hinged trap deck (one with 1.8m opening) on the 8th rungs at the rear of the tower. Ensure that the deck is oriented so that the trap deck opens towards the inside of the tower. Note: All diagonal braces which run past the decks should be positioned adjacent to the outside verticals of the frame. This applies to all heights of tower.



- 13** Fully hinged trap deck in position. Note position of deck claws and trap door opening towards the inside of the tower.

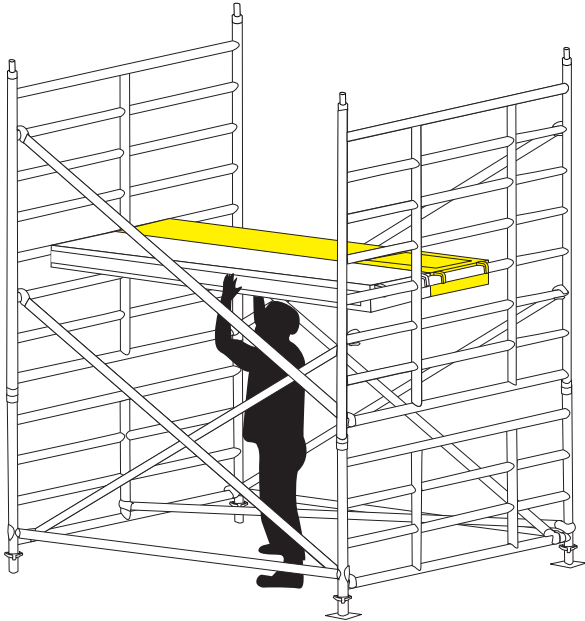


- 14** Ensure both deck wind locks are fully engaged

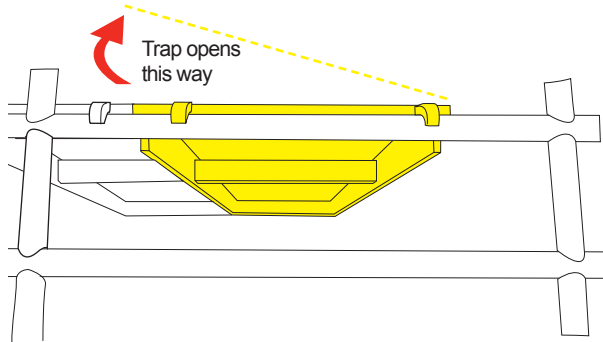


## Assembly Procedure

- 15** Fit a trap deck on the 8th rungs in the centre of the tower. Ensure that the deck is orientated so that the trap deck is adjacent to the climbing side of the tower. Ensure both windlocks are fully engaged.

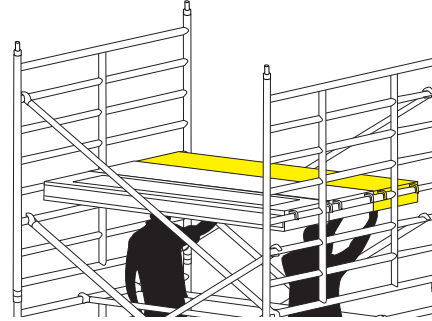


- 16** Trap deck positioned centrally between the two vertical intermediate members at the climbing side of the tower. Locate bolts so the bolt head is on the trapdoor stile. Note the directions that the trap door opens.

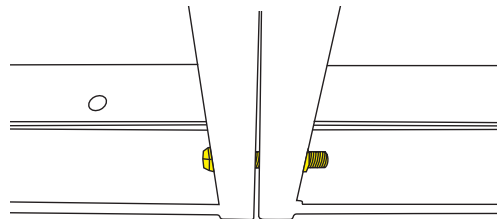


## Assembly Procedure

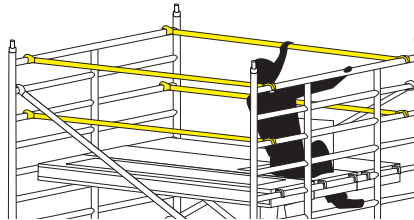
- 17** Fit a fixed deck on the 8th rungs at the front of the tower. Ensure both deck wind locks are fully engaged.



- 18** Bolt decks together using M10 bolts, nuts, spring washer and washer supplied. 8 positions. Ensure that a minimum of one full thread of the bolt protrudes through the nut.

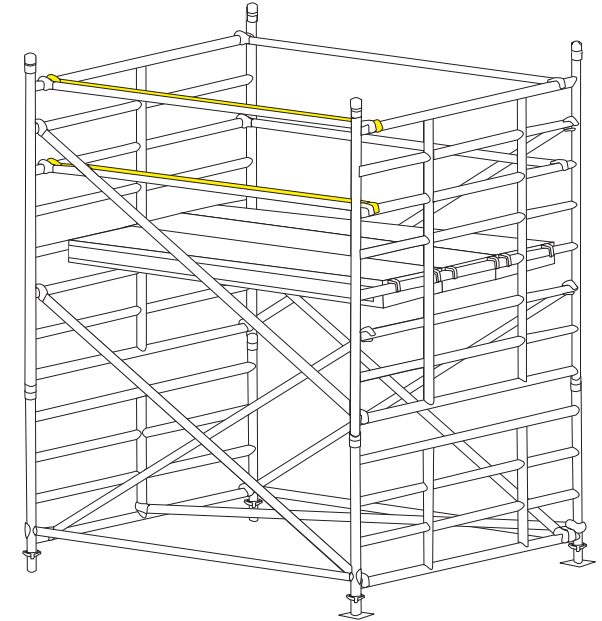


- 19** From the protected position of the trap door fit 4 horizontal braces (red) on the 10th and 12th rungs (2 and 4 rungs above platform) either side of the deck area.

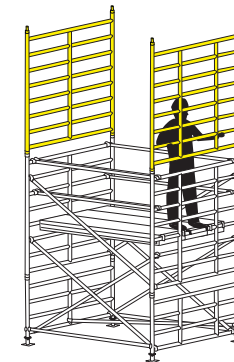


## Assembly Procedure

- 20** Fit two additional horizontal braces (Red) at the rear of the tower. One on the 10th rung and one on the 12th rung. These braces will be used later for operating the fully hinged trapdoor, during hoisting, operating.



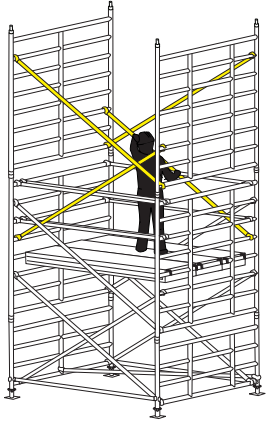
- 21** Fit two additional 8 rung frames. Ensure that the frames are correctly orientated so that the vertical members of the frame match those of the frames below. Ensure the interlock clips are fully engaged (4 positions).



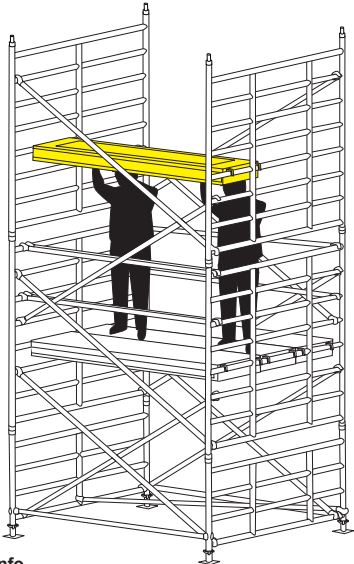


## Assembly Procedure

- 22** Fit two diagonal braces (Gold), one from the 9th rung to the 15th rung and one from the 13th rung to the 19th rung to the front and rear face of the tower. Ensure that the braces from the 13th rung to the 19th rung are adjacent to the vertical members of the frame as shown.

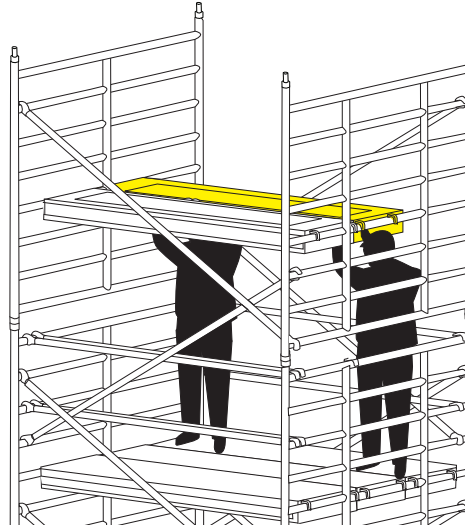


- 23** Fit a fully hinged trap deck (one with 1.8m opening) on the 16th rungs at the rear of the tower. Ensure that the deck is orientated so that the trap deck opens towards the inside of the tower. Ensure both wind locks are fully engaged.

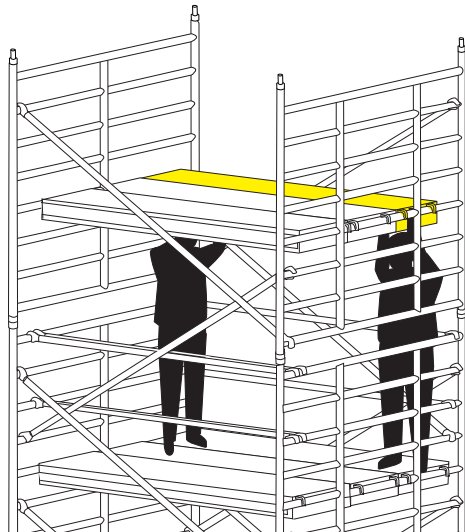


## Assembly Procedure

- 24** Fit a trap deck on the 16th rungs at the centre of the tower. Ensure that the deck is orientated so that the trap deck is adjacent to the climbing side of the tower. Ensure both wind locks are fully engaged.

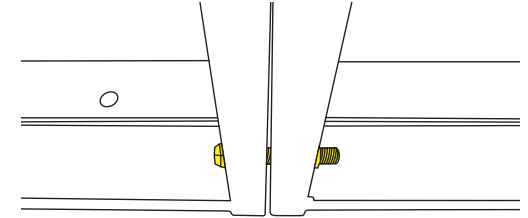


- 25** Fit a fixed deck on the 16th rungs at the front of the tower. Ensure both wind locks are fully engaged.

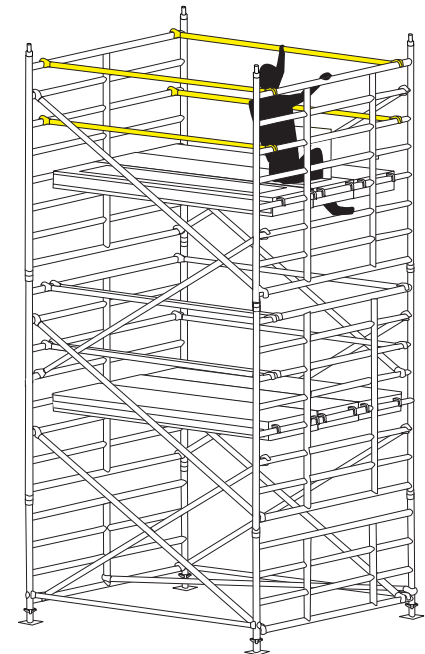


## Assembly Procedure

- 26** bolt decks together using M10 bolts, nuts, spring washer and washers supplied. 8 positions. Ensure that a minimum of one full thread of the bolt protrudes through the nut.

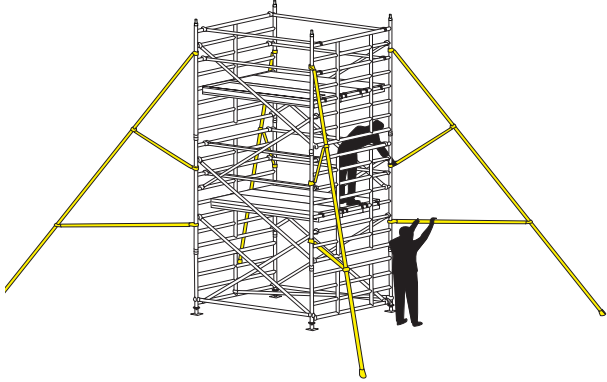


- 27** From the protected position of the trap door fit 4 horizontal braces (red) on the 18th and 20th rungs (2 and 4 rungs above platform) either side of the deck area.

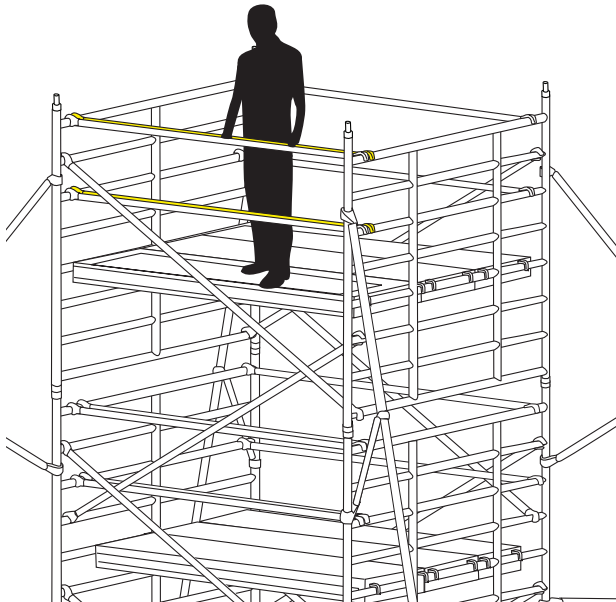


## Assembly Procedure

- 28** Fit 4 stabilisers, one at each corner of the tower. Ensure the stabilisers are the correct size for the height of tower being erected.

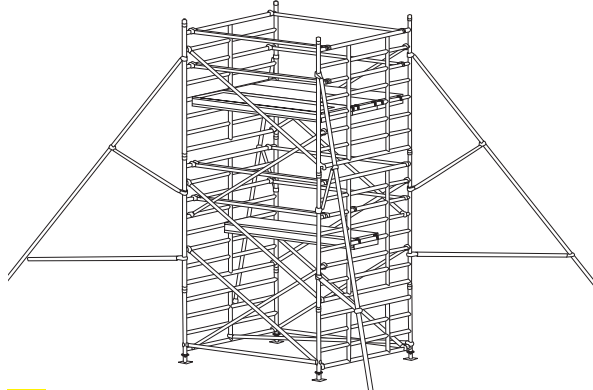


- 29** Fit two additional horizontal braces (Red) at the rear of the tower. One on the 18th rung and one on the 20th rung. These braces will be used later for operating the fully hinged trapdoor during hoisting operating.

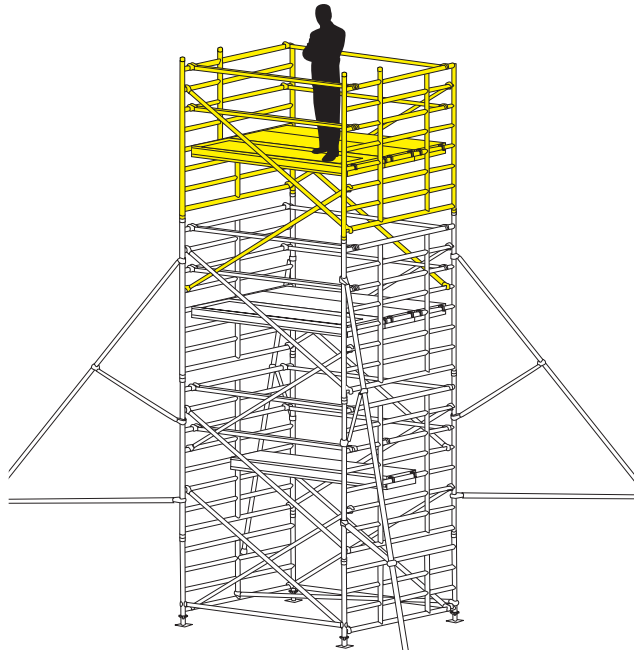


## Assembly Procedure

- 30** The platform height is now 4.0 metres

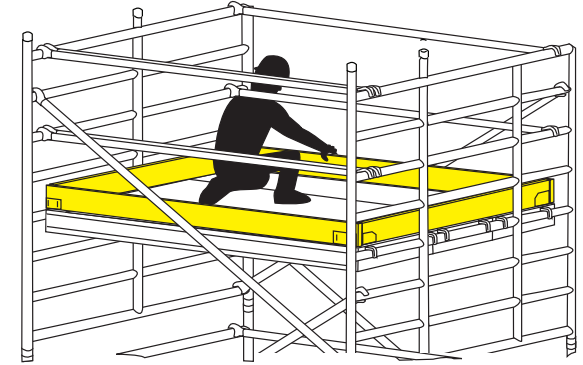


- 31** Repeat steps 21 to 29 but add two 8 rung top frames (instead of 8 rung frames), 4 diagonal braces, 3 decks and 6 horizontal braces. Note: all rungs referred to in steps 21 to 29 will need to have an additional 8 rungs added. e.g. what was rung 18, will now be rung 26.



## Assembly Procedure

- 32** Fit 2 side toe boards and 2 end toe boards. (See Page 33)



- 33** Fit the two hoist support frames at the rear of the tower. Then fit two diagonal braces (Blue) from the 28th rungs to the 32nd rungs at the rear of the tower. The diagonal braces must run in opposing directions.

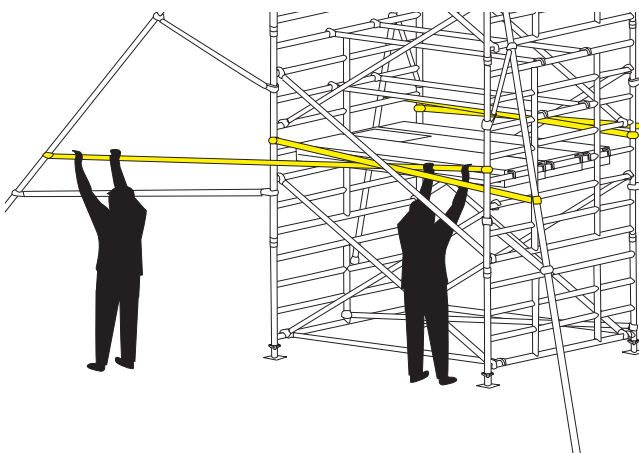


## Assembly Procedure

- 34** Fit the lifting brace on the 32nd rung so that the lifting eye is central about the large aperture in the fully hinged deck below it.



- 35** Fit 4 off plan stabiliser braces as shown. The end of the braces with the star wheel clamp should be fitted to the verticals of the tower between the 8th and 9th rungs and the other end with the coupler should be attached to the stabiliser. The plan brace should be set in a horizontal plane.



## Assembly Procedure

### OPENING THE TRAP DOOR FOR HOISTING

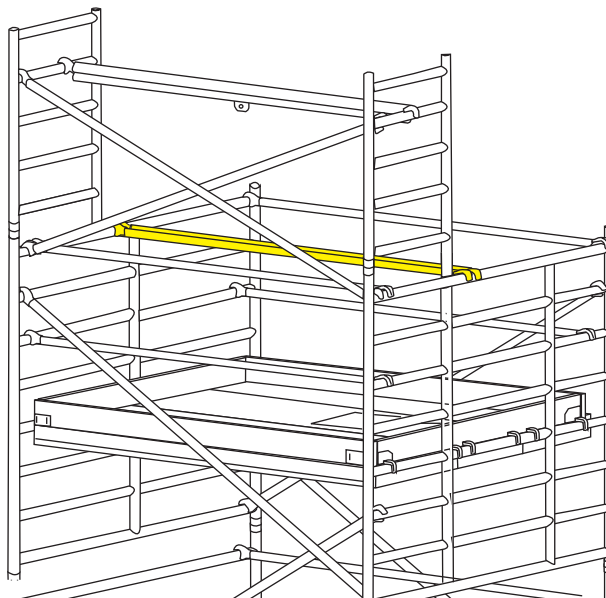
On all heights of the tower, always open the upper fully hinged trap door deck, before opening the one below.

For example.

On a 6.0m tower open the top fully hinged trap door deck at 6.0m first, followed by the one at 4.0m and finally the one at 2.0m.

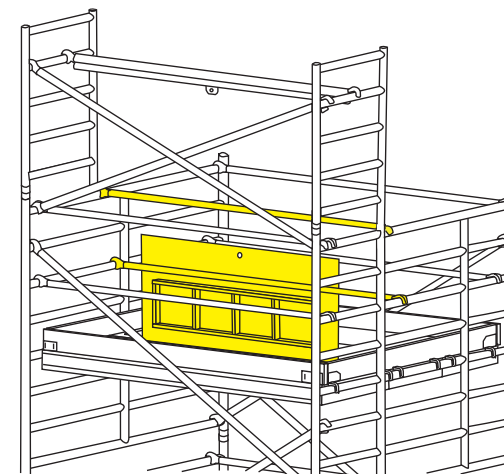
When closing the fully hinged trap doors start with the deck at 2.0m, followed by the one at 4.0m and finally the one at 6.0m.

- 36** Remove the two spare horizontal braces (Red) positioned at the 26th and 28th rung on the fully hinged trap door side of the tower and reposition them, adjacent to each other, on the 28th rung as shown in the diagram below.

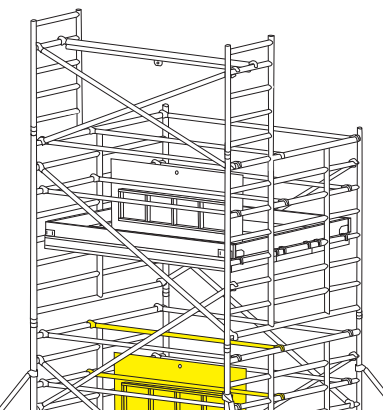


## Assembly Procedure

- 37** Kneel on the standard trap door deck (deck in the centre), with the two horizontal braces repositioned in step 36 in front of you. Lift the trap door of the fully hinge deck to the vertical position. The trap door of the fully hinged deck will act as a guardrail to prevent falling through the aperture in the fully hinged deck. Remove one of the horizontal braces directly in front of you from the 28th rung and reposition it on the 26th rung as shown below. The repositioned brace will hold the trap door open at the 90 degree position.



- 38** Repeat step 37 for the lower trap doors at 4.0m and 2.0m

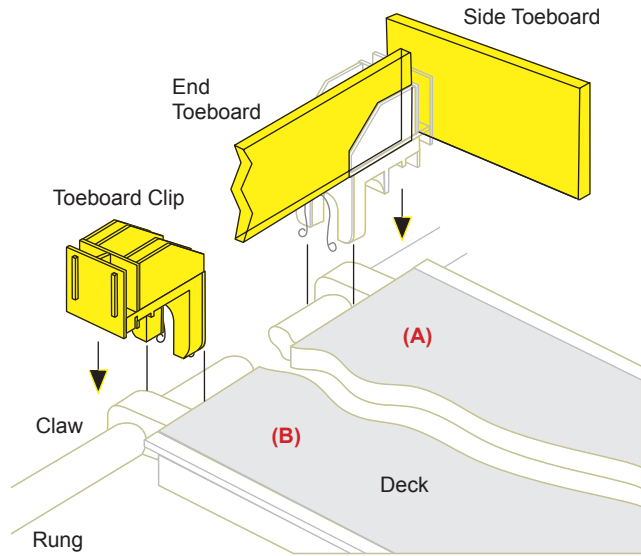


# Toeboards

## Mobile Towers

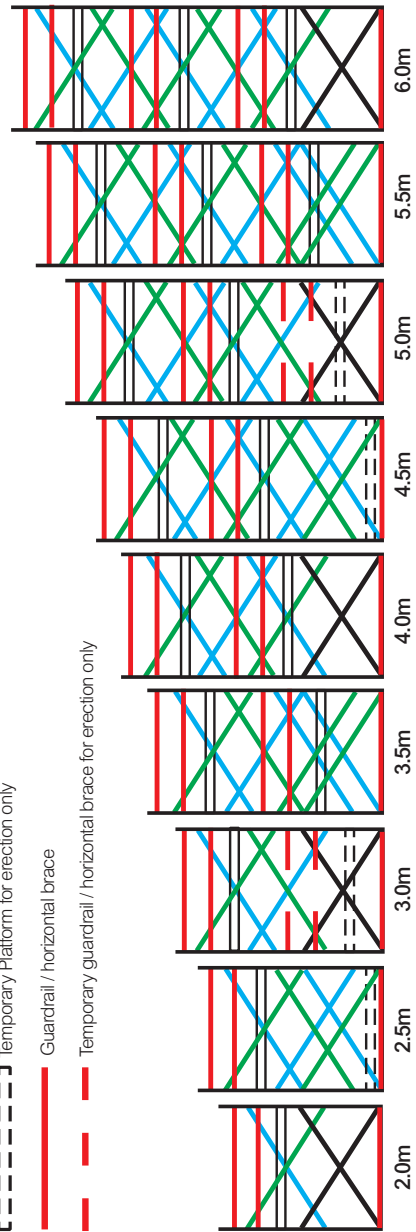
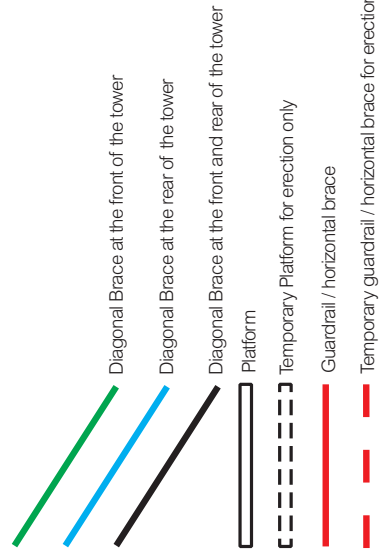
### FITTING TOEBOARDS

Lock yellow plastic toeboard clips over rung and deck claw as shown. Position as (A) on right hand deck claw. On other side of the working platform, position the clip as (B). Place 25mm thick toeboards into slots in toeboard clips as shown.



# Component Configuration

**NOTE:**  
 Diagrams show tower viewed from the front.  
 Hoist, hoist mounting frames and 2.7m diagonal braces have been removed for clarity.  
 All diagonal braces which pass the decks should be positioned adjacent to the outside verticals of the frames.  
 The inboard diagonal braces at the base of 3.0m and 5.0m towers will have to be fitted after the temporary deck has been removed.



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