

# Cantilever System

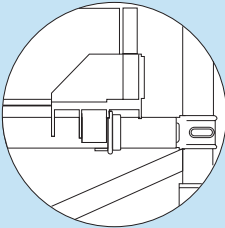
Additional Boss Tower components to provide access up to 1.25mtr outside the Tower to overcome obstacles



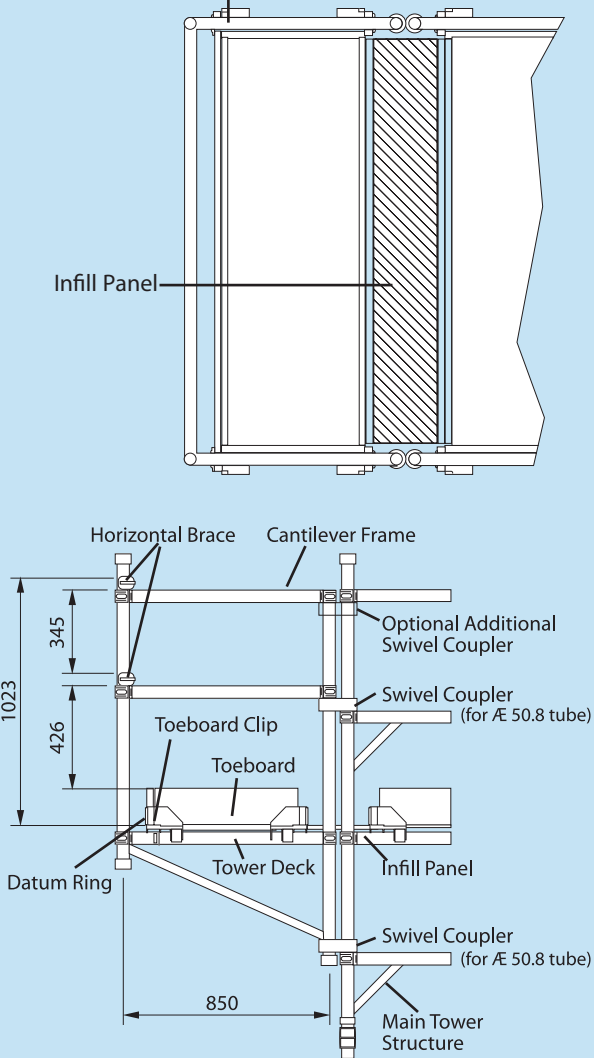
## ASSEMBLY DETAILS

VIEW A

Shows datum ring for positioning deck and preventing outward movement



VIEW A

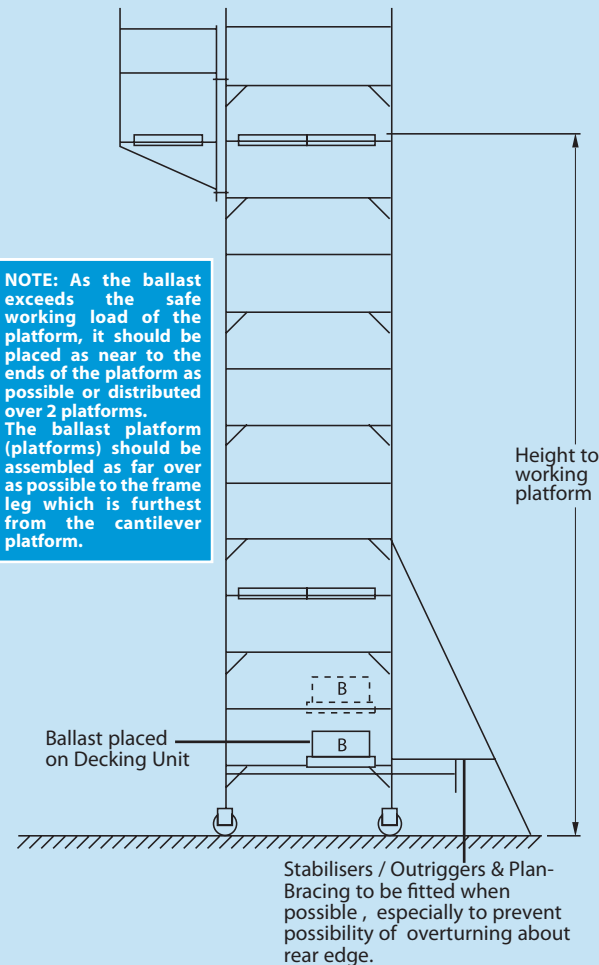


## FRAME LOADING & SAFETY REQUIREMENTS

Maximum permissible heights & ballast requirements for 1450 Wide Tower only.

Deck Size	Ballast	Max Height
1.8 m	415 kg	8.2 m
2.5 m	360 kg	7.2 m

NOTE: Cantilever must not be used on 850 Wide Tower



### GUIDANCE NOTICE

1. Care must be taken to ensure the amount and positioning of ballast is accurate to prevent instability or overloading of the legs
2. The amount of ballast stated is based upon the requirement: Right moment / Overturning moment<sup>3</sup> 1.5
3. Maximum load on cantilever Deck is 150 kg.
4. Maximum leg load is 300 kg.

## QUANTITY SCHEDULE

Deck width	1.8	2.5
Cantilever Frame	2	2
Swivel Coupler Per Frame Joint	2	2
300mm Long 50.8mm Dia Tube With End Caps Per Frame Joint	1	1
1.8m Fixed Deck	1	
2.5m Fixed Deck		1
1.7m Infill Deck	1	
2.4m Infill Deck		1
0.6m Toeboard	2	2
Toeboard Clips	4	4

## SAFETY CHECKLIST

- ENSURE ALL BRACE CLAWS OPERATE CORRECTLY ☐
  - INSPECT COMPONENTS PRIOR TO ERECTION ☐
  - INSPECT TOWER PRIOR TO USE AND AFTER MOVEMENT ☐
  - TOWER UPRIGHT AND LEVEL ☐
  - CASTORS LOCKED AND LEGS CORRECTLY ADJUSTED ☐
  - DIAGONAL BRACES FITTED ☐
  - STABILISERS FITTED AS SPECIFIED ☐
  - PLATFORMS LOCATED CORRECTLY ☐
  - TOEBOARDS LOCATED ☐
  - CHECK GUARDRAIL BRACES ARE FITTED CORRECTLY (SEE ILLUSTRATION BELOW) ☐
  - CHECK FRAME INTERLOCK CLIPS ARE LOCKED (SEE ILLUSTRATION BELOW) ☐
  - ENSURE HORIZONTAL BRACES AND GUARDRAILS ARE FITTED CORRECTLY ☐
- REFER TO THIS CHECKLIST BEFORE USING EACH TIME

## WIND DESCRIPTION

Wind Description	Beaufort Scale	Beaufort No.	Speed in m.p.h	Speed in m/sec
Medium Breeze	Raises dust and loose paper, twigs snap off	4	8-12	4-6
Strong Breeze	Large branches in motion, telegraph wires whistle	6	25-31	11-14
Gale Force	Walking is difficult	8	39-46	17-21

## EQUIPMENT CARE

Keep the equipment clean, you will find this less of a chore if you clean it regularly, rather than wait until the end of the hire period.

Components should be stored with due care to prevent damage. Frames and decks should be stored in the vertical position.

When not in use, store the equipment somewhere clean, dry and safe from thieves and unauthorised users.



### ... have you been trained

The law requires that personnel using work equipment have received adequate training and must be competent when using the equipment within the workplace. Training is available at HSS Training Solutions 0845 766 7799

### ...any comments?

If you have any suggestions to enable us to improve the information within this guide please e-mail your comments or write to the Safety Guide Manager at the address below e-mail: safety@hss.com

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## INTRODUCTION

**This Cantilever User Guide must be used in conjunction with HSS BoSS Tower guide.** Before assembly, please read the Safety Notes carefully.

The law requires that operatives must be competent and qualified to erect the tower. If another person is involved, please pass on these instructions.

For further information on the safe use of Mobile Access Towers consult the PASMA Guide or EN 1298.

For further information, design advice, additional guides or any other help with this product, please contact your local HSS Hire.

## GENERAL SAFETY

**For advice on the safety and suitability of this equipment contact your local HSS Hire.**

**There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.**




**The hirer has a responsibility to ensure that all necessary risk assessments have been completed prior to the use of this equipment.**

**This equipment should only be used by an operator who has been deemed competent to do so by his/her employer.**

**This equipment is designed to be used by an able bodied, competent adult** who has read and understood these instructions. Anyone with either a temporary or permanent disability should seek expert advice before using it.

**Keep children, animals and bystanders away from the work area. Cordon off a NO GO area using cones and either barriers or tape, available for hire from your local HSS Hire.**

  **Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.**

   **Wear practical, protective clothing, gloves, footwear and a protective hard hat.** Avoid loose garments and jewellery that could catch in moving parts, tie back long hair.

**Make sure that anyone in the immediate work area is warned of what you are doing.**

**Check the condition of the equipment before use.** If it shows signs of damage or excessive wear, return it to your local HSS Hire.

Check that all components are on site, undamaged and are functioning correctly (see Checklist and Quantity Schedules). **Damaged or incorrect components should not be used.**

**Check the ground** on which the mobile access tower is to be erected and moved is **capable of supporting the tower.**

**The safe working load on the cantilever platform is 150kg.**

Towers must always be **climbed from the inside** using the built in ladder 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 and not for gaining extra height.

Tower components should be lifted using a **reliable lifting material** (e.g. strong rope), employing a reliable knot (e.g. clove hitch), to ensure safe fastening and **always lift within the footprint of the tower.**

Assembled mobile towers **should not be lifted with a crane** or other lifting device.

The tower should only be **moved by manual effort**, and only **from the base.**

## Safety Warning

**Do not use boxes or stepladders or other objects on the platform to gain extra height.**

**The assembled tower is a working platform and should not be used as a means of access or egress to other structures.**

When moving the tower, beware of live electrical apparatus, particularly overhead, plus wires or moving parts of machinery.

**No person or materials** should be on the tower **during movement.**

Caution should be exercised when wheeling a tower over rough, uneven or sloping ground, taking care to unlock and lock castors. If stabilisers are fitted, they should only be lifted a maximum of 25mm above the ground to clear ground obstructions.

The overall height of the tower when being moved, **should not exceed 2.5 times** the minimum **base dimensions**, or **4 metres** overall **height.**

After every movement of the tower use a spirit level to check that it is vertical and level and set the adjustable legs as required.

**Beware of high winds in exposed, gusty or medium breeze conditions.** If the wind is likely to **reach gale force the tower should be dismantled** (see wind description).

**Mobile towers are not designed to be suspended.** For more information contact your local HSS Hire.

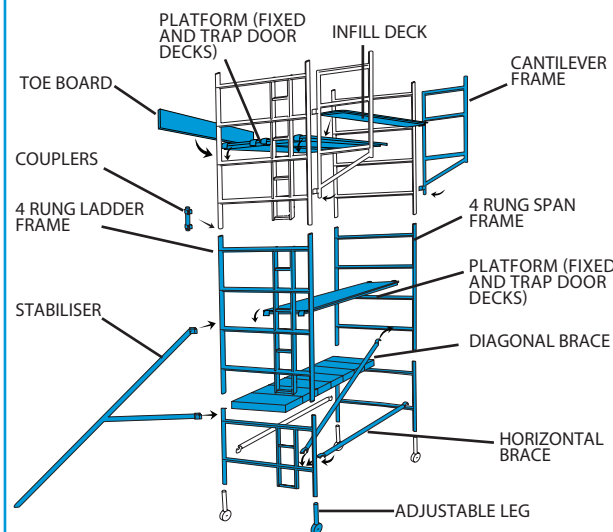
Stabilisers and ballast weights shall always be fitted when specified.

**Assemble only as instructed.**

## Safety Warning

**Beware of horizontal forces which could generate instability. Maximum horizontal force 20kg.**

## IDENTIFIER



## ASSEMBLY

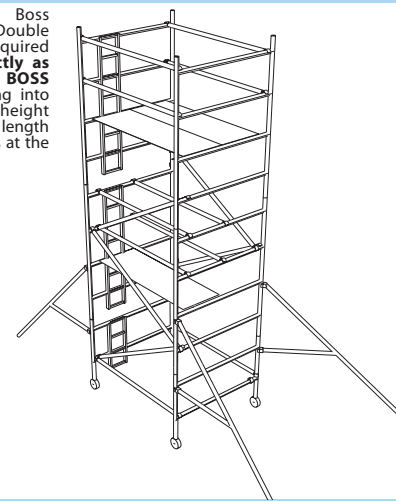
**THIS TYPE OF STRUCTURE MUST BE ERECTED BY OPERATIVES WITH A PASMA CERTIFICATE & PRODUCT SPECIFIC TRAINING**

**NEVER STAND OR WORK ON AN UNPROTECTED PLATFORM**

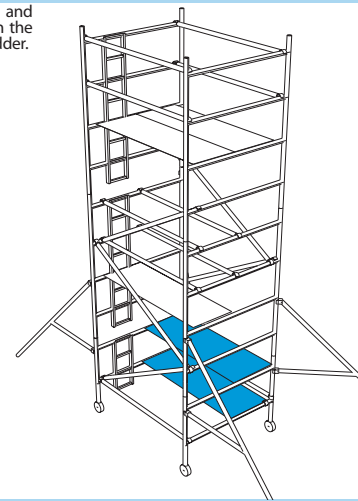
**DO NOT EXCEED THE SAFE WORKING LOAD OF 150KG OF ANY PLATFORM OR TOWER STRUCTURE AS A WHOLE**

**TO BE USED IN CONJUNCTION WITH HSS BOSS TOWER GUIDE. REFER TO HSS BOSS TOWER GUIDE FOR INSTRUCTIONS ON ERECTING THE TOWER.**

**1** Build a Standard Boss Ladderspan 1450 (Double width) tower to required platform height **exactly as described in the HSS BOSS TOWER user guide**, (taking into account maximum height permissible for each deck length as stated in the data details at the end of this guide).



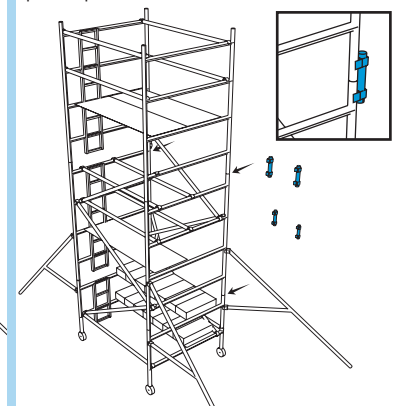
**2** Fit 2 Fixed decks to the first and second rungs of the tower on the opposite side to the access ladder.



**3** Next, evenly load both fixed decks as fitted in step 2 with the appropriate ballast weights as required in "Frame Loading & Safety Requirements" section.



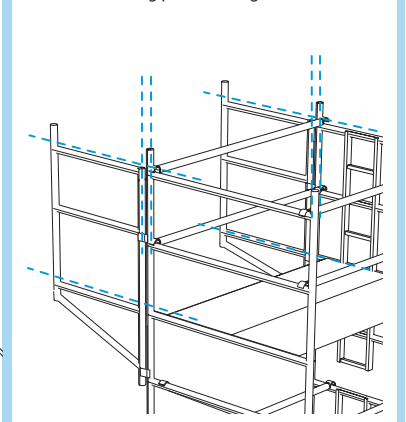
**4** At this stage, install tubing to the uprights on opposite side of the tower to the cantilever frames at each frame joint using frame joint tubes placed either side of the frame joints to prevent pull out.



**5** Attach 2 no Boss Cantilever frames to the uprights of the Boss tower using swivel couplers.



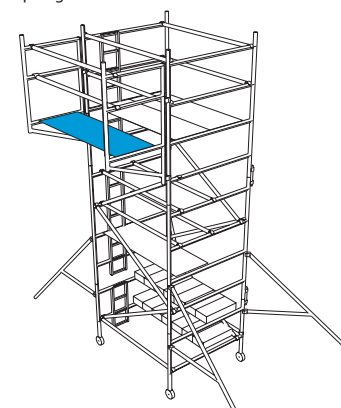
**6** Ensure both Cantilever frames are in line with the Boss Tower uprights and the bottom rung of the Cantilever frame is at the same level as the working platform rung on the tower.



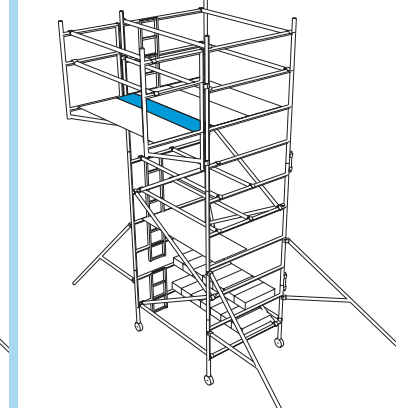
**7** Working from behind the existing tower guardrail, place additional handrail braces on the top rung and middle rung of the cantilever frame to provide handrails on cantilever deck.



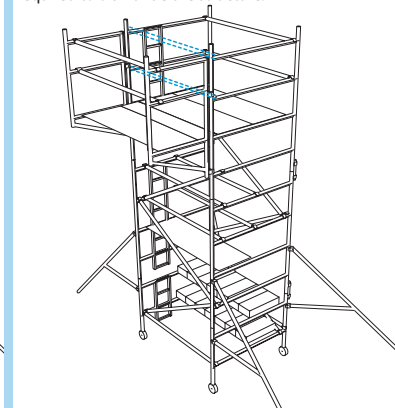
**8** It is now possible to locate a Boss fixed deck on the bottom rung of the cantilever frame by sliding the deck underneath the lower handrail on the tower, locate the deck against the "stop rings" on the cantilever frame.



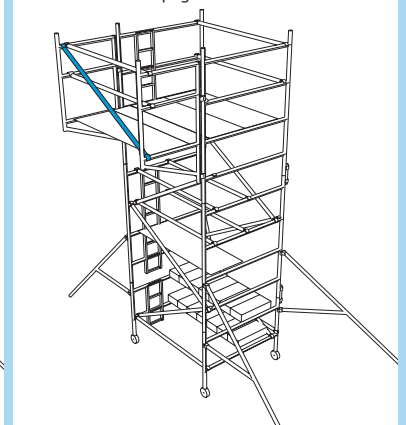
**9** Next, locate the Cantilever Infill deck between the tower deck and the cantilever deck, some repositioning of the existing decks may be necessary to ensure correct location of the infill deck.



**10** Remove the existing upper & lower handrail braces on cantilever side of tower and reposition on corresponding uprights of cantilever frame for temporary storage until required to dismantle the structure.



**11** Fit an additional diagonal brace from bottom rung of the left hand cantilever frame to top rung of the opposite cantilever frame close to the outside upright of the cantilever frames.



**12** Fit Toeboards to the cantilever deck & tower working platform.

