

CHECKLIST

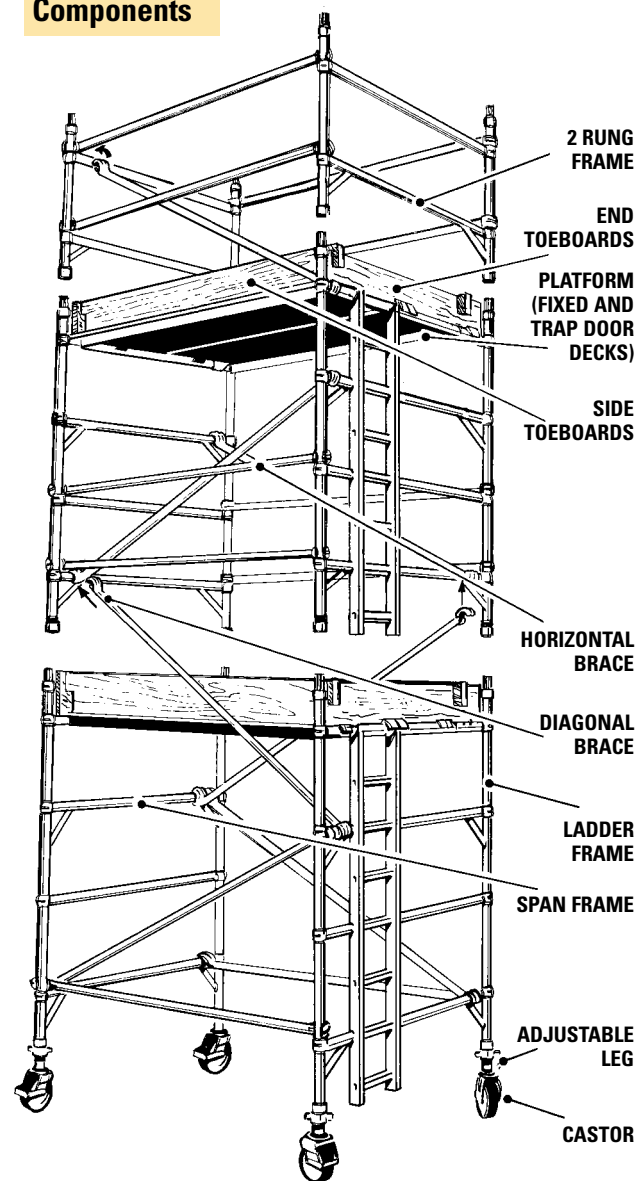
- INSPECT COMPONENTS PRIOR TO ERECTION
- INSPECT TOWER PRIOR TO USE
- TOWER UPRIGHT
- CASTORS LOCKED/LEGS CORRECTLY ADJUSTED
- BRACES & PLATFORM LEVEL
- STABILISERS FITTED AS SPECIFIED
- PLATFORMS LOCATED
- HANDRAILS IN PLACE
- TOEBOARDS LOCATED

REFER TO THIS CHECKLIST BEFORE USING EACH TIME

BOSS™

1450/850 GRP ZONE 1 TOWER

Components



STABILISERS: ZONE 1

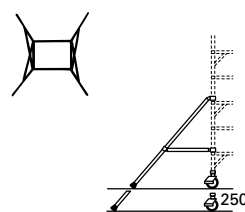
Attach one stabiliser to each corner of tower at approx. 45 degrees. Ensure top clamp is positioned immediately under rung casting and tighten using the handle just enough to hold clamp in position. The bottom clamp should be positioned as low down as possible (see diagram). With Zone 1 large stabiliser position mid clamp and lightly tighten.

Extend telescopic legs until rubber foot is in contact with ground. Lock telescopic leg with interlock clip. Ensure rubber feet are in firm contact with the ground by sliding lower clamp downwards and tighten securely.

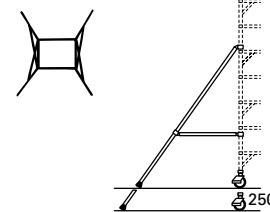
Securely tighten top clamp (and mid clamp on Zone 1 large stabiliser) to provide a rigid base structure.

When moving tower lock each telescopic leg just clear of the ground, unlock castors ensuring area is firm and clear of all obstructions both on the ground and above. After moving check all castors are firmly on the ground and locked, and that the tower is vertical. Re-position stabilisers as above.

Standard Telescopic



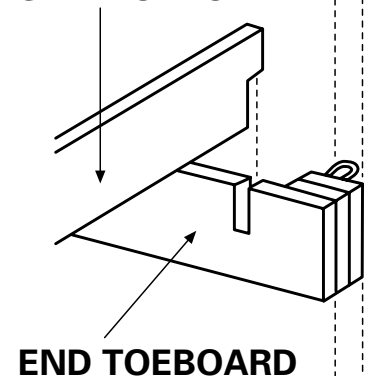
Large Telescopic



Fitting Toeboards

Locate end toeboards engaging clip around tower upright. Slot in side toeboards as shown.

SIDE TOEBOARD



END TOEBOARD

Usage Advice

ERECTION

- Check that all components are on site and that they function correctly – See Quantity Schedule.
 - Check if the ground on which the mobile access tower is to be erected and moved, is capable of supporting the tower.
 - During the erection of a tower it is recommended that a temporary guardrail brace be employed.
 - The safe working load is 225 kgs (500 lbs) uniformly distributed – maximum concentrated load 150 kgs (330 lbs) per deck up to a maximum of 720 kgs (1580 lbs) per tower (including self weight).
- This must not be exceeded.***
- Towers must always be climbed from the inside during assembly and using the built-in ladder provided during use.
 - Do not use boxes or step ladders on the platform to gain additional height.

LIFTING OF EQUIPMENT

- Tower components should be firmly secured by a reliable lifting material (eg rope), employing a reliable Knot (eg clove hitch), to ensure safe fastening.

STABILISERS/BALLAST

- Stabilisers and ballast weights shall always be fitted when specified.
- Ballast is used at the base to stabilise towers against overturning. The QUANTITY SCHEDULE shows the recommended stabilisation. In circumstances where there is restricted ground clearance for stabilisers, contact your supplier for advice. It must be of solid materials (i.e. not water or loose sand) and should not be positioned to overload individual legs. Ballast should be secured against accidental removal, and be supported on the lowest rung of the bottom frame.

MOVEMENT

- The tower should only be moved by manual effort, and only from the base.
- When moving the tower, beware of live electrical apparatus, particularly overhead, plus wires or moving parts of machinery.
- No personnel 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 sufficiently above the ground to clear ground obstructions. The height of the tower, when being moved, should not exceed 2.5 times the minimum base dimensions, or 6 metres overall height.

DURING USE

- Beware of high winds in exposed, gusty or medium breeze conditions. We recommend that in wind speeds over 7.7 metres per second (17 m.p.h.), cease working on the tower. If the wind becomes a strong breeze, expected to reach 11.3 metres per second (25 m.p.h.), tie the tower to a rigid structure. If the wind is likely to reach gale force, over 18 metres per second (40 m.p.h.), the tower should be dismantled.

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

Beware of open ended buildings which can cause a funneling effect.

- Do not abuse equipment. Damaged or incorrect components should never be used.
- Raising and lowering components, tools, and/or materials by rope should be conducted within the tower base. 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 to other structures.
- Beware of horizontal forces (eg power tools) which could generate instability. Maximum horizontal force 20 kg.
- Mobile towers are not designed to be suspended - please refer to your supplier.

TIES

- Ties should be used when the tower goes above its safe height beyond the limits of the stabilisers or there is a danger of instability. They should be rigid, two way ties fastened to both uprights of the frame with load-bearing right angled or swivel couplers. Only couplers suitable for the 50.8mm dia. tube of the tower should be used. Ideally ties should secure to either face of a solid structure or by means of anchorages.
- The tie frequency may vary depending on the application, but they should, at a minimum, be at every 4 metres height.

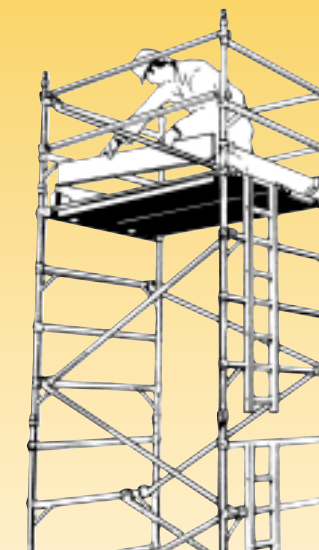
MAINTENANCE

- All components and their parts should be regularly inspected to identify damage. Lost or broken parts should be replaced. Adjustable leg threads should be cleaned and lightly lubricated to keep them free running.

SAFETY GUIDE

Mobile Towers

BOSS 1450/850 GRP ZONE 1 TOWER



Introduction

This BOSS Zone 1 Assembly Guide is designed to provide you with step by step instructions to ensure that your system is erected with the maximum of ease and safety. Before assembly, please read the safety notes carefully. Operatives must be qualified or competent to erect the tower. If the tower is passed on to another person they should also receive these instructions. Erect the tower in the position required. For full information on the application and use of a Mobile Access and Working Tower consult the PASMA Guide or prEN 1298.

QUANTITY SCHEDULE

BOSS 1450 ZONE 1 TOWER TO HD1004: AVAILABLE IN 2 LENGTHS – 1.8m & 2.5m

DESCRIPTION	INTERNAL USE ONLY																					
	4.2m 2.2m	4.7m 2.7m	5.2m 3.2m	5.7m 3.7m	6.2m 4.2m	6.7m 4.7m	7.2m 5.2m	7.7m 5.7m	8.2m 6.2m	8.7m 6.7m	9.2m 7.2m	9.7m 7.7m	10.2m 8.2m	10.7m 8.7m	11.2m 9.2m	11.7m 9.7m	12.2m 10.2m	12.7m 10.7m	13.2m 11.2m	13.7m 11.7m	14.2m 12.2m	
125/150/200mm CASTOR	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
250mm ADJUSTABLE LEG	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
1450 2 RUNG SPAN FRAME	2		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1450 3 RUNG LADDER FRAME	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1450 3 RUNG SPAN FRAME	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1450 4 RUNG LADDER FRAME	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1450 4 RUNG SPAN FRAME	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.8/2.5/ FIXED DECK	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.8/2.5/ TRAP DOOR DECK	3	6	8	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2.1/2.7/ HORIZONTAL BRACE (RED)	6	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	23
2.1/2.7/ DIAGONAL BRACE (BLUE)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.8/2.5/ SIDE TOEBOARD	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.2m END TOEBOARD	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

DESCRIPTION	INTERNAL USE ONLY																					
	4.2m 2.2m	4.7m 2.7m	5.2m 3.2m	5.7m 3.7m	6.2m 4.2m	6.7m 4.7m	7.2m 5.2m	7.7m 5.7m	8.2m 6.2m	8.7m 6.7m	9.2m 7.2m	9.7m 7.7m	10.2m 8.2m	10.7m 8.7m	11.2m 9.2m	11.7m 9.7m	12.2m 10.2m	12.7m 10.7m	13.2m 11.2m	13.7m 11.7m	14.2m 12.2m	
STANDARD TELESCOPIC STABILISER	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
LARGE TELESCOPIC STABILISER																						
TOTAL TOWER SELF-WEIGHT (KGS) 1.8m	128	153	183	196	202	231	237	251	257	270	276	289	317	324	330	344	350	357	363	376	382	392
TOTAL TOWER SELF-WEIGHT (KGS) 2.5m	139	165	198	213	219	258	273	279	293	299	314	345	353	359	374	380	388	394	409	409	415	415

NUMBER OF WORKING PLATFORMS ALLOWED

The number of working levels is based on fully loading each single deck to the maximum of 225kg. A deck is defined as a single unit, but a working platform can be either one or two decks. The 225kg limit applies to each such working level, regardless of the number of decks. In normal circumstances only two such working levels are permissible, as with the taller structures/lengths self-weight will be a limiting factor. Maximum Safe Working Load for the tower structure is 720kg.

Should heavier loads than these be required for particular applications, your local Branch will be able to provide guidance.

The quantities above comply with the requirements of the Construction (Health, Safety & Welfare) Regulations 1996 and BS 1139 Part 3 (HD 1004). They include double handrails to the rest platform level, and toeboards will need to be added if this is used as a working platform.

Fixed platforms are provided every 4m (Per BS 1139 pt3), plus an additional platform to ease assembly. However this is not a Regulatory requirement. Should a fully decked rest platform be employed two additional handrails will be required.

STABILISERS

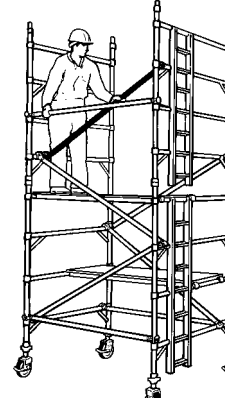
To improve rigidity, larger stabilisers can be used at a lower level than shown in the table.

BOSS 850 ZONE 1 TOWER TO HD1004: AVAILABLE IN 2 LENGTHS – 1.8m & 2.5m

DESCRIPTION	INTERNAL USE ONLY																					
	4.2m 2.2m	4.7m 2.7m	5.2m 3.2m	5.7m 3.7m	6.2m 4.2m	6.7m 4.7m	7.2m 5.2m	7.7m 5.7m	8.2m 6.2m	8.7m 6.7m	9.2m 7.2m	9.7m 7.7m	10.2m 8.2m	10.7m 8.7m	11.2m 9.2m	11.7m 9.7m	12.2m 10.2m	12.7m 10.7m	13.2m 11.2m	13.7m 11.7m	14.2m 12.2m	
125/150/200mm CASTOR	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
250mm ADJUSTABLE LEG	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
850 2 RUNG SPAN FRAME	2		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
850 3 RUNG LADDER FRAME	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
850 3 RUNG SPAN FRAME	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
850 4 RUNG LADDER FRAME	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
850 4 RUNG SPAN FRAME	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.8/2.5/ TRAP DOOR DECK	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1.8/2.5/ HORIZONTAL BRACE (RED)	6	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2.1/2.7/ DIAGONAL BRACE (BLUE)	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	23
1.8/2.5/ SIDE TOEBOARD	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
0.6m END TOEBOARD	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

DESCRIPTION	INTERNAL USE ONLY																					
	4.2m 2.2m	4.7m 2.7m	5.2m 3.2m	5.7m 3.7m	6.2m 4.2m	6.7m 4.7m	7.2m 5.2m	7.7m 5.7m	8.2m 6.2m	8.7m 6.7m	9.2m 7.2m	9.7m 7.7m	10.2m 8.2m	10.7m 8.7m	11.2m 9.2m	11.7m 9.7m	12.2m 10.2m	12.7m 10.7m	13.2m 11.2m	13.7m 11.7m	14.2m 12.2m	
STANDARD TELESCOPIC STABILISER	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
LARGE TELESCOPIC STABILISER																						
TOTAL TOWER SELF-WEIGHT (KGS) 1.8m	117	126	135	167	174	217	224	230	234	246	253	260	284	279	286	293	300	309	316	322	329	329
TOTAL TOWER SELF-WEIGHT (KGS) 2.5m	126	137	175	182	190	238	245	252	260	270	277	284	323	310	317	324	332	348	349	356	364	364


7 Clip on diagonal braces (blue) as shown. Ensure that separate frames are always braced together. Locate Trapdoor Deck on top of lower frame (4th rung) ensuring trap is positioned over ladder and opens to outside of tower.



8 Locate further Trapdoor Deck on 2nd Rung of upper Frame, (opposite side to ladder) and engage windlocks. Add temporary horizontal handrails.

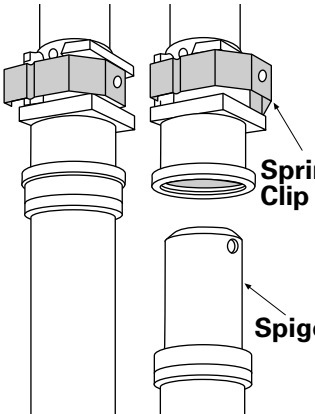
Note: Add Trapdoor Deck rest platform every 4m, with horizontal braces at 0.5m and 1.0m rung levels on the outside face. If it is a working level, add toeboards. For fully decked areas, add 2 horizontal braces to the other face.

Note: always climb inside the tower.

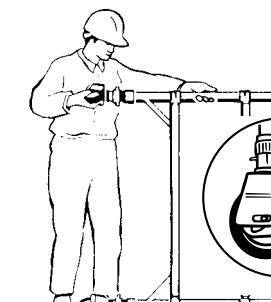


ASSEMBLY GUIDE

1 Check that interlock clips are disengaged on all frames.

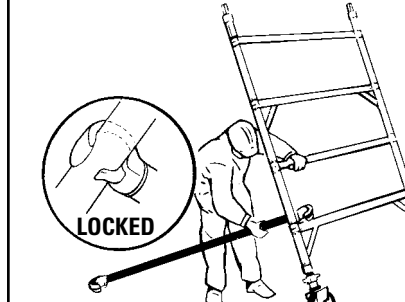


2 Insert two adjustable leg/castor assemblies into span frame. Lock castors. Repeat with ladder frame. Base plates can be fitted to adjustable leg if tower is static. We recommend that two persons are required, to ease the erection process. Push castor onto adjustable leg to secure.

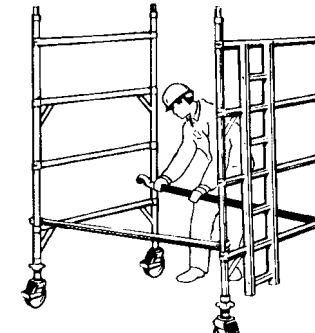


3 Clip horizontal brace (Red) onto side of span frame. Frame will now be self supporting.

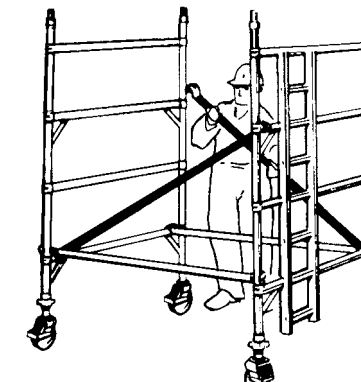
Note: When dismantling – ensure locking mechanism is released.



4 Clip other end of horizontal brace onto ladder frame ensuring ladder is on your left (from outside of frame – see sketch). Clip second horizontal brace onto other side of span & ladder base frames. Lock castors.

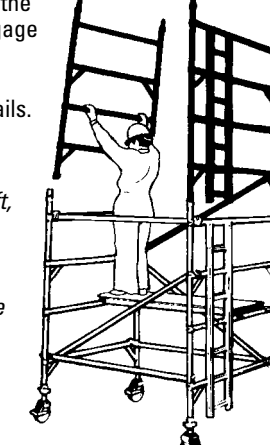


5 Clip diagonal braces (blue) in opposite directions as shown. Adjust legs to ensure tower is vertical and square and that horizontal braces are level, using a spirit level.

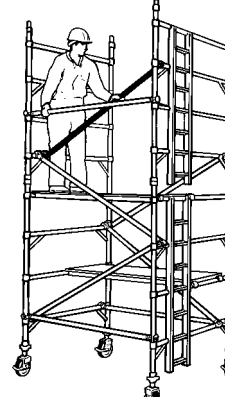


6 Position fixed deck on second rung of frames as shown. Position second lift of frames ensuring that the ladder in the frame is directly above the one below it. Engage interlock clips. Add temporary horizontal handrails.

Note: If erecting more than one lift, fit appropriate stabilisers or outriggers now. (See special note on stabilisers & outriggers).



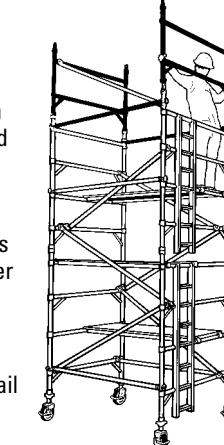
7 Clip on diagonal braces (blue) as shown. Ensure that separate frames are always braced together. Locate Trapdoor Deck on top of lower frame (4th rung) ensuring trap is positioned over ladder and opens to outside of tower.



9 Move temporary horizontal handrails to either side of Frame. Position 2 Rung Guardrail Frames. Engage interlock clips.

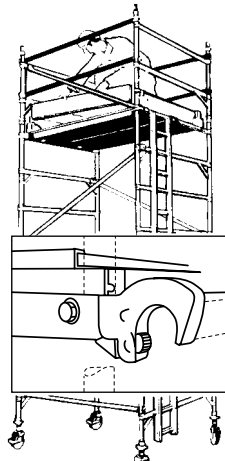
Clip two horizontal braces (red) to each side of the Guardrail Frame. Return to platform on 4th Rung (see 8) and move uppermost Trapdoor Deck to 8th rung (top of upper Frame). Ensure trap is positioned over ladder as before, and opens to outside of tower.

Clip diagonal braces (blue) to lock Guardrail Frames to Frame below.



10 Remove temporary horizontal handrail braces at platform level and place either side on second rung of top frame. Place a fixed deck on right side of tower on top rung of next lift of frames at platform level and re-position trapdoor deck along side ensuring trap is positioned over ladder and opens to outside of the tower. Fit toeboards now. (See instructions on reverse).

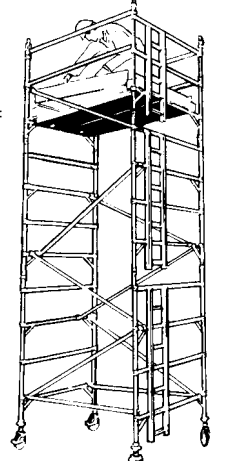
To dismantle the structure, reverse steps 10 – 2.



11 Tower finishing with 3 rung frames

Position 3 rung frames. Engage interlock clips. Clip 2 horizontal handrail braces (red) to each side of tower. (See note 10). Clip on diagonal braces (blue) as shown. Place fixed and trapdoor decks on bottom rungs of 3 rung span frame and ladder frame, ensuring that the trapdoor is positioned over ladder and opens to outside of tower.

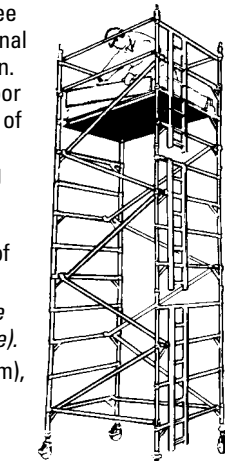
Fit toeboards now (see instructions on reverse). Rest Platform (every 4m), omitted for clarity.



12 Tower finishing with 4 rung frames

Position 4 rung frames. Engage interlock clips. Clip 2 horizontal handrail braces (red) to each side of tower. (See note 10). Clip on diagonal braces (blue) as shown. Place fixed and trapdoor decks on second rung of 4 rung span frame and ladder frame, ensuring that the trapdoor is positioned over ladder and opens to outside of tower.

Fit toeboards now (see instructions on reverse). Rest Platform (every 4m), omitted for clarity.



BOSS™

1450/850 ZONE 1 GRP TOWER