LYTEHILYTEUSERGUIDE

Lyte Ladders and Towers Limited

LYTE
LADDERS | TOWERS

LYTE HILYTE AGR TOWER

The maximum safe working load for the tower is 950kg. This is to include the tower self weight and ballast.
The maximum capacity of each working level is 275kg, regardless of the number of decks.
The individual decks have a maximum capacity of 275kg.

All our user guides are compiled in order to give the user step by step instructions to ensure the product is assembled correctly and to the latest safety standard for use when working at height.

The law requires that anyone assembling and using a tower be competent to do so and should also have a copy of the correct manufacturer's instructions.

*If you require further information on this please see the PASMA Operators Code of Practice or call us on **01792 796666**.*

www.lyteladders.co.uk

'Have you been trained to use this product?' We offer **Ladder Association** and **PASMA** courses.
For more information please contact us at ***training@lyteladders.co.uk*** or ***01792 765968.***

PLEASE READ THIS CAREFULLY

The Hilyte 500 AGR towers are light-weight mobile scaffold towers for use indoor and outdoor. All of the Lyte Industrial Towers are made and tested in accordance with BS EN 1004-1:2020 by The British Standards Institute. These instructions take into account the latest regulations, guidance and all product standards and is intended to give guidance on the best practice for the assembly and dismantling of access towers.
These instructions must always be used in conjunction with a suitable and sufficient Risk Assessment relative to the project. Current regulations require that any person assembling and using towers must be competent and qualified to do so. For full information on the correct assembly and use of mobile access towers, consult the PASMA Operators Code of Practice (Revision 12.6). Contact PASMA at: PASMA, PO Box 26929, Glasgow, G3 9DR.

Safety Notes

Before assembly

1. Ensure that the instruction guide has been read and understood by anyone using the equipment. If in doubt contact your supplier.
2. Lyte Ladders & Towers recommend two competent persons are used to build the range of Lyte Towers. On towers above 4mtrs it is an ESSENTIAL requirement that at least two persons are used.
3. Always ensure that the necessary components are available and inspected for damage and wear prior to assembly. DAMAGED OR INCORRECT COMPONENTS SHALL NOT BE USED.
4. Ensure the ground level is suitably firm and clear of obstruction.
5. All tower frames must be lifted and lowered from the inside of the tower footprint. It is acceptable to lift frames with the aid of a rope, secured with a reliable knot.
6. The life of tower components will be increased if proper care is taken of them during handling, assembling, transportation and storage. All components should be inspected after storage and transport.
7. Stabilisers shall always be fitted when specified.
8. Mobile access towers are not designed to be lifted or suspended.
9. The location of the mobile access tower shall be checked to prevent hazards during assembly, dismantling, moving and safe working with respect to:
   a) Ground conditions;
   b) Level and slope;
   c) Obstructions;
   d) Wind conditions.
10. All parts, auxiliary tools and safety equipment (ropes, etc.), for assembling the mobile access tower should be checked and available on site.

Whilst assembling a tower

1. Outdoor freestanding towers must not exceed a platform height of 8.2m, for indoor use the maximum platform height is 12.2m. To ensure maximum stability is achieved, stabilisers or outriggers must be fitted at the first available opportunity, usually after the first module is complete. The quantity schedule overleaf illustrates the correct stabiliser units required for each platform height.
2. Always take into account the ground conditions i.e. are they capable of withstanding the loads imposed by the scaffolding.
3. Ensure the tower is level and vertical.
4. Ensure that the tower is not overloaded and that working loads are adhered to.
5. The Work at Height Regulations 2005 state that all platforms – from which a person is possible to fall a distance liable to cause personal injury – must be fitted with guardrails at a minimum height of 950mm above the platform itself. In addition to this, current regulations require intermediate guardrails be fitted to leave a gap no more than 470mm.
6. Toe boards are mandatory at all places of work from which it is possible that tools, equipment or other material may fall and is liable to cause personal injury. Their use on intermediate or rest platforms is not compulsory unless a risk assessment identifies a risk.

Whilst using the tower

1. Do not exceed the safe working load of the tower.
2. Ensure that castors are locked and that the Tower is both level and vertical.
3. Ensure that environmental changes don't influence safe use of the mobile access tower
4. The platform height of the tower must not be extended using ladders, boxes or other devices.

The Beaufort Scale

Beaufort Scale	Description	Air Speed	Action
0	Calm, smoke rises easily	1mph	None required
<3	Leaves & small twigs in constant motion, wind extends light flag	12mph	No immediate action required
4	Moderate breeze, small branches move	17mph	Cease work
5	Strong breeze, large Branches bend	25mph	Tie tower to a rigid structure
>6	Walking progress impeded	40mph	Dismantle tower if such conditions are expected

Whilst using the tower continued

5. If a tower is left unattended, it must be secured against unauthorised usage or adverse weather conditions.
6. Adjustable legs are intended only to level the tower and never to gain additional tower height.
7. For linking towers or special applications, always consult your supplier.
8. Care must be taken when working on the tower as there can be many factors that can contribute to overturning of the mobile access tower, such as:
   - Using power tools, jet washers or other tools that impose side loads.
   - Horizontal loads caused by use; for example, as a result of work on an adjacent structure;
   - Additional wind loads (tunnelling effect of open-ended buildings, uncladded buildings and on building corners).

The maximum side load on a freestanding tower with stabilisers is 20Kgs.

9. It is not permissible to attach bridging between a tower and a building.
10. Never jump onto platforms.
11. Towers used outdoors can be secured to a building or other structure.

Before moving a tower

1. Towers should only be moved with the utmost caution. Before moving, ensure the route is clear of any obstructions, both at ground level and overhead (particularly overhead cables).
2. Never attempt to move a tower with people or materials still on it.
3. Ensure the tower height is reduced to 4m when stabilisers are in the correct position. Reduce tower to 2m when stabilisers are in the incorrect position before moving.
4. Stabilisers should be left fitted in position, though raised no more than 25mm from the ground.
5. Move the tower only by applying manual effort, pushing at the base of the tower.
6. NEVER MOVE A TOWER IF WIND LEVELS ARE ABOVE 3 ON THE BEAUFORT SCALE.

After moving the tower

1. Always inspect the tower after moving and before use.
2. Always check that the tower is square and level with the use of a spirit level
3. Always refer to the instructions in this guide.
4. Never throw equipment from the tower, either lower it with a rope or by hand.

Stabilisers

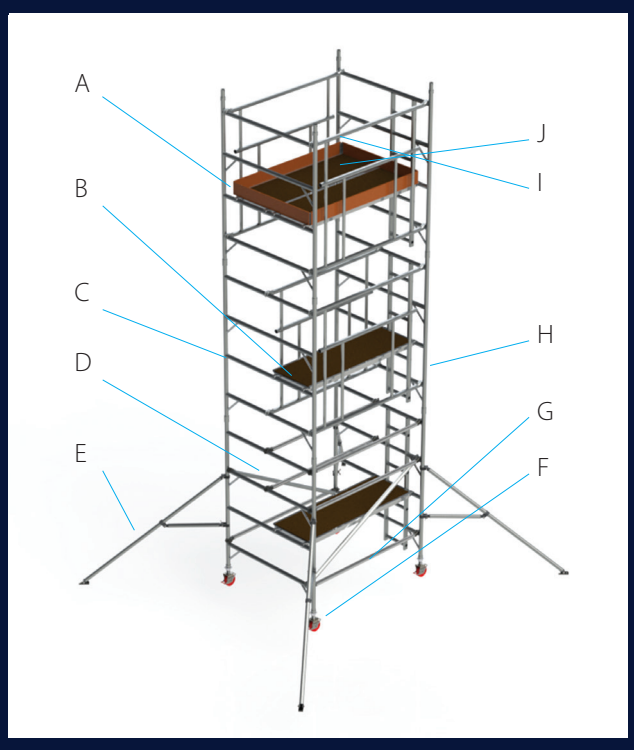
STABILISERS OR OUTRIGGERS SHALL ALWAYS BE FITTED WHEN SPECIFIED.

- When fitting stabilisers ensure they're as low as possible while providing the largest available footprint.
- Fit top boom to the frame, tighten enough so it won't detach but can still be adjusted. Loosely attach the bottom boom.
- Adjust top and bottom booms ensuring the stabiliser foot is in firm contact with the ground. Once these are in the correct position, fully tighten. **(If you need to reposition the stabilisers always loosen top and bottom clamps).**
- **Please ensure that clamps are loosened and repositioned before tower is moved. Failure to do so could result in damage.**
- For telescopic stabilisers, remove locking pin and extend the inner tube to desired length then secure the locking pin in place.
- It can now be fitted in the same manner as the standard stabiliser.

Maximum Safe Working Load

The maximum safe working load for the tower is 950kg. This is to include the tower self weight and ballast.
The maximum capacity of each working level is 275kg, regardless of the number of decks. The individual decks have a maximum capacity of 275kg.

A - Toe Board Set
B - Hatch Deck
C - 2, 3 ,4 Rung Span Frames
D - Diagonal Brace
E - Stabiliser
F - Castor
G - Horizontal Brace
H - 2, 3, 4 Rung Ladder Frame
I - AGR Frame
J - Standard Deck



Components for

LYTE INDUSTRIAL TOWER	WEIGHT
150mm Locking Castor	3.54Kg
Adjustable Leg	0.98Kg
2 Rung Span Frame DW	4.55Kg
2 Rung Span Frame SW	3.45Kg
2 Rung Ladder Frame DW	4.59Kg
2 Rung Ladder Frame SW	4.20Kg
3 Rung Ladder Frame DW	8.80Kg
3 Rung Ladder Frame SW	8.95Kg
3 Rung Span Frame DW	6.79Kg
3 Rung Span Frame SW	5.10Kg
4 Rung Ladder Frame DW	11.93Kg
4 Rung Ladder Frame SW	9.90Kg
4 Rung Span Frame DW	9.05Kg
4 Rung Span Frame SW	7.40Kg
1.8 AGR Frame	10Kg
2.5 AGR Frame	12.50Kg

LYTE INDUSTRIAL TOWER	WEIGHT
1.8m Standard Deck	12.62Kg
2.5m Standard Deck	17.22Kg
1.8m Hatch Deck	13.40Kg
2.5m Hatch Deck	17.71Kg
1.8m Horizontal Brace	2.05Kg
2.5m Horizontal Brace	2.50Kg
2.1m Diagonal Brace	2.20Kg
2.7m Diagonal Brace	2.70Kg
1.8m Side Toeboard	2.90Kg
2.5m Side Toeboard	3.54Kg
1.2m End Toeboard	1.94Kg
0.85m End Toeboard	1.15Kg
Standard Stabiliser	3.80Kg
Telescopic Stabiliser	8.20Kg
Large Telescopic Stabiliser	8.40Kg

Assembly Checklist

These checks must be completed directly after the Tower has been built and before each consecutive use.

- ☐ Always inspect components before assembling the tower. Any damaged components should not be used, refer to supplier or scrap depending on the damage.
- ☐ Always inspect the tower before using.
- ☐ Ensure that the tower is upright and square.
- ☐ Ensure castors are locked.
- ☐ Ensure legs are correctly adjusted.
- ☐ Ensure all AGR Frames and platforms are level.
- ☐ Ensure stabilisers are fitted as specified in the instruction manual.
- ☐ Ensure platforms are correctly located and anti-lift locks are on.
- ☐ Ensure Toeboards are correctly fitted as illustrated in the instruction manual.
- ☐ Always check whether the structure assembly is still correct and complete.
- ☐ Check that no environmental changes have influenced the safe use of the mobile tower.
- ☐ At no time is it acceptable to extend the height of the platform by use of ladders, boxes or other devices.

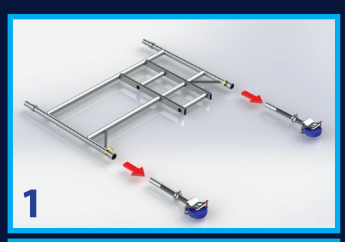
Always refer to this checklist before and after assembly of the tower.

If in doubt about any application consult your supplier for advice.

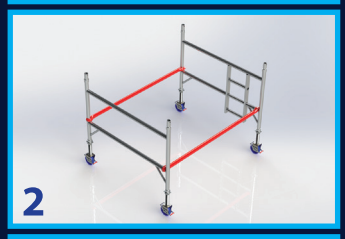
PLEASE REMEMBER: A thorough risk assessment must be carried out prior to any work being carried out at height.

2.2m Base Out

1: Fit leg and caster assembly in the 2 rung ladder and span frames.

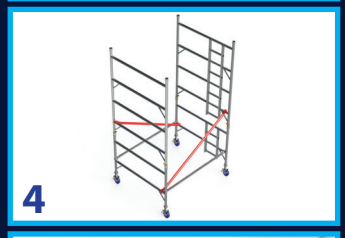


2: Attach horizontal bracing to the first rung on the ladder side to the horizontal and the second on the upright of the frame as shown in the illustration.



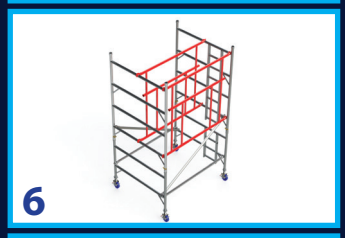
3: Fit 4 rung span and ladder frames on top of the 2 rung frames ensuring circlips are correctly inserted.

4: Attach first diagonal brace to the ladder side from first rung to the 3rd rung on the opposing frame. Ensure 50mm space is left between the brace hook and the upright to allow placement of the AGR. Attach second diagonal brace diagonally opposed from the first, from the first rung to the third as shown in the illustration.

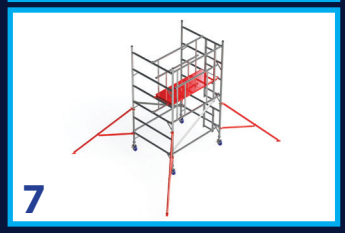


5: Ensure top hook pins are unlocked

6: Fit first AGR into the middle of the frame leaving enough room to position a platform on the 4th rung. Fit the second AGR up against the upright of the frame as shown in the illustration.

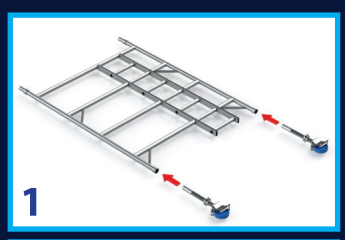


7: At this point fit stabilisers - Fit trap door platform on the 4th rung of the frame ensuring wind locks are secure and trap door opens towards the ladder side. Climb through trap door platform and lock top AGR hooks in position.

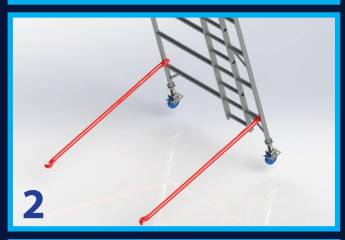


1.2m Base Out

1: Fit leg and caster assembly in the 4 rung ladder and span frames.

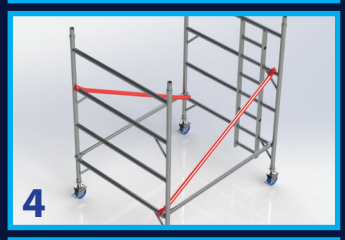


2: Attach horizontal bracing to the first rung on the ladder side to the horizontal and the second on the upright of the frame as shown in the illustration.

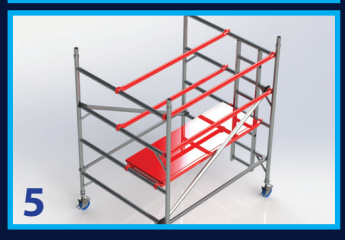


3: Attach horizontal bracing to the 4 rung span frame as shown in the illustration

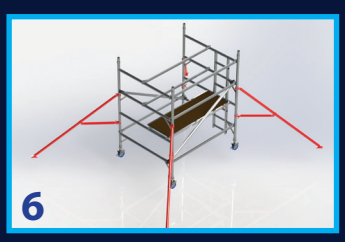
4: Attach first diagonal brace to the ladder side from first rung to the 3rd rung on the opposing frame. Ensure 50mm space is left between the brace hook and the upright to allow placement of the AGR. Attach second diagonal brace diagonally opposed from the first, from the first rung to the third as shown in the illustration.



5: Position platform on the second rung of the frames then fit horizontal bracing on the third and fourth rungs as shown in the illustration.

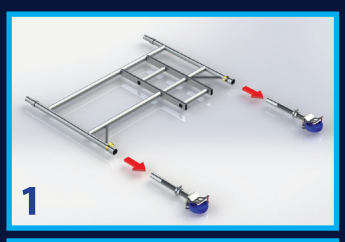


6: At this point fit stabilisers

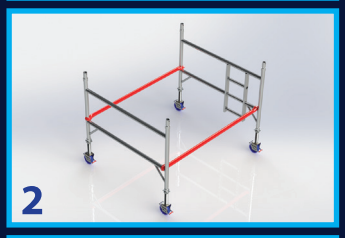


1.7m Base Out

1: Fit leg and caster assembly in the 2 rung ladder and span frames.



2: Attach horizontal bracing to the first rung on the ladder side to the horizontal and the second on the upright of the frame as shown in the illustration.



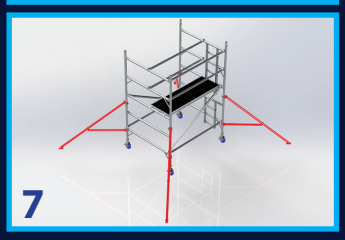
3: Fit 3 rung span and ladder frames on top of the 2 rung frames ensuring circlips are correctly inserted.

4: Attach first diagonal brace to the ladder side from first rung to the 3rd rung on the opposing frame. Ensure 50mm space is left between the brace hook and the upright to allow placement of the AGR. Attach second diagonal brace diagonally opposed from the first, from the first rung to the third as shown in the illustration.

5: Place platform on the third rung on the ladder side ensuring windlocks are secure.

6: Attach horizontal bracing to the fourth and fifth rungs as shown in the illustration.

7: At this point fit stabilisers

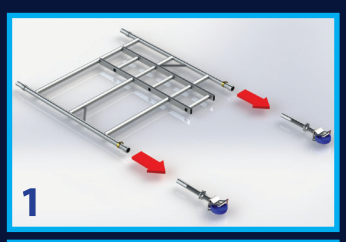


If you have any questions or need help assembling your tower please call us on ***01792 796666***

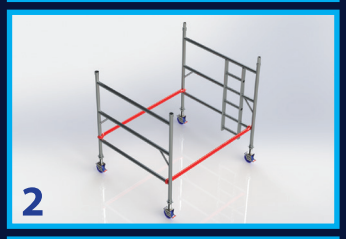
Hilyte AGR (ADVANCED GUARDRAIL) Aluminium Tower

2.7m Base Out

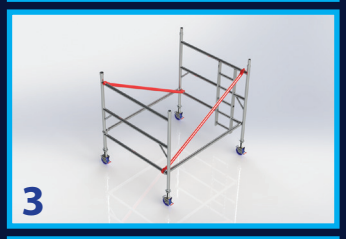
1: Fit leg and caster assembly in the 3 rung ladder and span frames.



2: Attach horizontal bracing to the first rung on the ladder side and the second on the upright of the frame as shown in the illustration. Attach both braces to the span frame.



3: Attach first diagonal brace to the ladder side from first rung to the 3rd rung on the opposing frame. Ensure 50mm space is left between the brace hook and the upright to allow placement of the AGR. Attach second diagonal brace diagonally opposed from the first rung to the third as shown in the illustration.

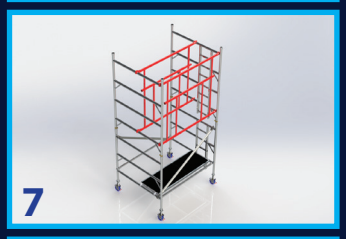


4: Fit 4 rung span and ladder frames on top of the 3 rung frames ensuring circlips are correctly inserted.

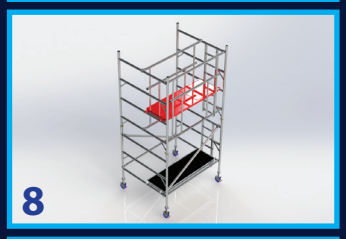
5: Ensure top hook pins are unlocked.

6: At this point, you may need to use a temporary platform to aid fitting of the AGR frames.

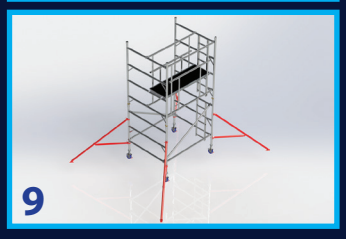
7: Fit first AGR into the middle of the frame leaving enough room to position a platform on the 5th rung. Fit the second AGR up against the upright of the frame as shown in the illustration.



8: Place platform on fifth rung of the frames ensuring windlocks are secure.



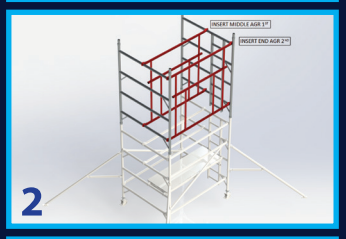
9: At this point fit stabilisers. Climb through trap door platform and lock top AGR hooks in position.



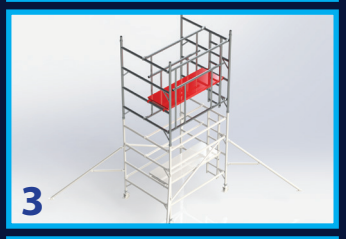
Intermediate

1: Place 4 rung span and ladder frames on top of existing frames. Ensuring circlips are correctly inserted.

2: Fit first AGR into the middle of the frame leaving enough room to position a platform. Fit the second AGR up against the upright of the frame as shown in the illustration.



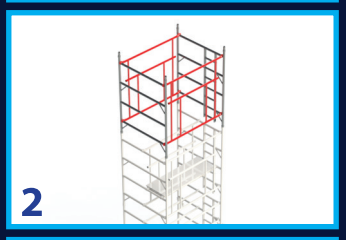
3: Place platform on the second rung up on the frames just fitted.



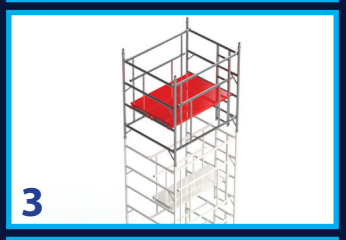
Top Out

1: Place 4 rung span and ladder frames on top of existing frames. Ensuring circlips are correctly inserted

2: Fit first AGR on the far side of the frame against the upright. Fit the second AGR up against the upright at the ladder side as shown in the illustration.



3: Position the fixed platform on the second rung up on the frames just fitted to the far side of the frame. Position hatch deck platform next to the fixed platform ensuring the hatch opens towards the ladder and ensure all windlocks are secure.



4: Ensure toe boards are fitted correctly.

5: Inspect tower thoroughly prior to use.

01792 796666
sales@lyteladders.co.uk
www.lyteladders.co.uk

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Component Schedule - based on 3T specification (Aluminium toeboard sets available)

Single Width	Internal or external work (m)															Internal work only (m)							
Platform Heights	1.2	1.7	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
150mm dual locking castor	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Adjustable leg	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2 Rung Span Frame	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
2 Rung Ladder Frame	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
3 Rung Span Frame	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-
3 Rung Ladder Frame	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-
4 Rung Span Frame	1	-	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
4 Rung Ladder Frame	1	-	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	5	6	5	6
1.8m-2.5m hatch deck	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
1.8m - 2.5m horizontal brace	6	6	2	2	6	6	2	2	6	6	2	2	6	6	2	2	6	6	2	2	6	6	2
2.1m - 2.7m diagonal brace	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
AGR Frames	0	0	2	2	2	2	4	4	4	4	6	6	6	6	8	8	8	8	10	10	10	10	12
1.8-2.5m side toeboard	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Single Width toeboard end	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Standard Stabiliser	-	-	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telescopic Stabiliser	-	-	-	-	-	-	-	4	4	4	4	-	-	-	-	4	4	4	-	-	-	-	-
Large telescopic stabiliser	-	-	-	-	-	-	-	-	-	-	-	4	4	4	4	-	-	-	4	4	4	4	4

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