

Modular Floating Pontoon System

Technical Data	
Length (A)	5272 mm
Width (B)	2428 mm
Height (C)	1230 mm
Approx Weight	3.5 tonnes



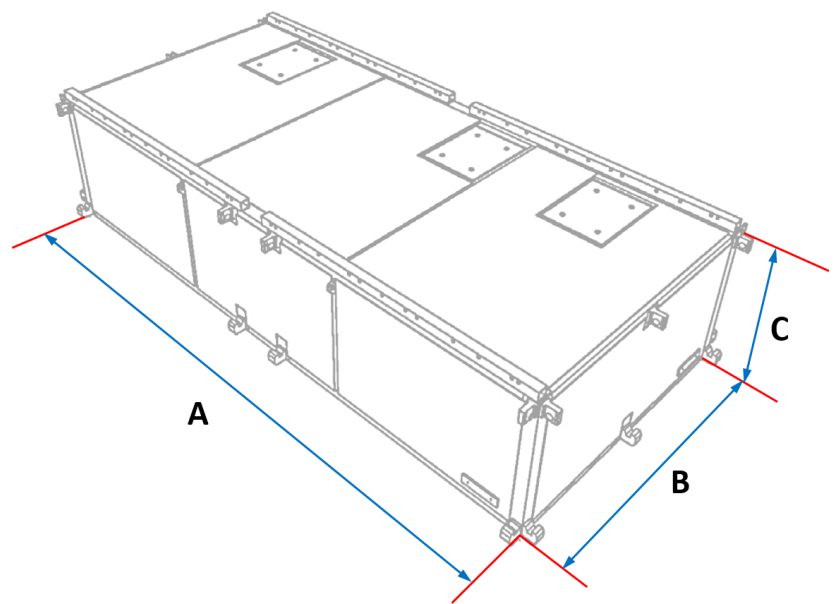
Access and work out on water whilst carrying heavy construction plant

Our floating pontoons are ideal for survey and repair of bridges, harbour walls, locks, river banks and other hard to reach places, or anywhere a safe working platform walkway, jetty, ramp or slipway is required.

The pontoons are road transportable, capable of supporting a uniformly distributed load of 20kN/m² per float, and can be assembled to create a wide variety of different platforms. Using location lugs and a close tolerance coupling system, our units can be combined to form almost any pontoon shape or configuration.

Pontoons are lifted into the water via use of a crane, then propelled into the working location using our towboats as necessary. 'Spud legs' (metal poles) are forced downwards into the bed of the waterway as a means of anchoring pontoons to prevent general movement and drifting of the floating work platforms.

This versatile modular system can be configured to carry plant such as excavators, MEWPS and piling rigs when used in conjunction with our timber mats.



Pontoon set-up: Lifting operations (Assumptions)

1. Pontoon operations are undertaken in inland or protected waters.
2. Heavy machinery is positioned centrally over the pontoon's centre of gravity.
3. Maximum deck inclination during lifting of rated loads does not exceed **3 degrees**.
4. Machine weight is distributed over suitable timber mats to ensure effective load spread.
5. The machine is loosely secured to the pontoon using adequate restraint/tackle to prevent movement during operations.

Recommended Minimum Pontoon Configurations (for Crawler Crane / Excavator Lifting)

Machine weight	Pontoon configuration	Approx. deck size
< 5 t	2 wide × 1 long	4.9 m × 5.3 m
< 10 t	3 wide × 2 long	7.3 m × 10.5 m
< 30 t	4 wide × 3 long	9.7 m × 15.8 m
< 50 t	5 wide × 3 long	12.1 m × 15.8 m
< 70 t	5 wide × 4 long	12.1 m × 21.1 m
< 80 t	6 wide × 5 long	14.6 m × 26.3 m

Note: Unless restricted by available space, for machines weights of between 30 t and 70 t, the recommended minimum working platform configuration is 5 pontoons wide by 4 pontoons long, providing:

- Adequate deck space
- Capacity for a 4-point mooring system
- A suitable lay-down area within the crane's operating range and radius



Key Considerations When Determining Platform Size

1. **Crane Weight and Duties:** Refer to the manufacturer's specifications for allowable inclination and lift duties during floating operations. Note that crane capacity may require derating when operating on a pontoon
2. **Lifting Radius and Reach:** Ensure that all lifting requirements from the pontoon deck fall within the crane's minimum and maximum operating radius and reach
3. **Mooring System Requirements:** Determine the type and capacity of the mooring system required, and ensure sufficient deck space is available to accommodate it
4. **Additional Equipment and Storage:** Identify any additional equipment, tools, or materials required on board and ensure adequate deck space for safe storage and access
5. **Crush and Slew Hazard Zones:** Identify and manage crush zones created by the excavator or crane tail swing to prevent personnel exposure and equipment conflicts.

Stability Calculations

In all cases, the hirer must ensure by calculation that the selected configuration complies with:

- BS 6349-6:1989 – *Code of practice for maritime structures: Design of inshore moorings and floating structures*
- Bailey and Uniflote Handbook, 3rd Edition (Hathrell, 1968)

All imposed loadings must remain within the structural capacity of the floating pontoon system. Stability checks must also confirm compliance with the crane or excavator manufacturer's criteria.