



# WAVEWALKER 1

**WaveWalker 1 is an innovative jack-up which can be operated in conventional 4-legged mode or as an 8-legged, self-contained walking jack-up barge, capable of safely operating bi-directional movement whilst elevated allowing the jack-up to move and relocate without floating.**

This versatile jack-up can move and operate in rough seas, strong currents, on beaches and in other intertidal locations. This considerably boosts the productivity of a variety of traditional jack-up operations, such as geotechnical site investigation, drilling and blasting, trenching, pipeline and cable laying, marine construction and pile installation, offshore windfarm operations and maintenance and other marine and underwater work.

These are all areas where floating equipment or conventional jack-ups would experience extensive delays due to weather downtime, as well as the obvious safety implications of operating floating equipment in nearshore, large swell locations. The jack-up is also of sufficient size to support

live aboard applications, thus dramatically increasing operational productivity and reducing crew change downtime periods.

### The Walking Jack-up Concept

WaveWalker 1 has 8 independently jackable legs. Each of these is carried in a leg bearing unit, which slides on bull rails built into the hull structure. Once on location, 4 legs on two opposite hull sides are lowered to seabed and the rig is jacked up in the conventional manner.

The other 4 legs in raised position are then slid to the end of the walking stroke by the walking cylinders. These legs are then lowered to the seabed and weight transferred to them. The initial 4 jacklegs are then retracted clear of the seabed and

the walking cylinders driven to the extent of their stroke, causing the hull to slide 4 m in the required direction. The raised legs are then lowered to the seabed and weight transferred to them.

Finally, the unloaded legs are jacked up clear of the seabed and reset to the start position. In this way, a 4 m “walk” is completed and the cycle can be repeated if required – overall walking speeds of up to 40 m per hour are achievable (bi-directionally) subject to favourable seabed conditions.



# SPECIFICATIONS

## WaveWalker 1 Jack-up Barge

|                                       |  |
|---------------------------------------|--|
| Hull dimensions:                      | 32 m x 32 m x 4.5 m  |
| Max. displacement:                    | 2400 t (includes payload)  |
| Payload (8 leg walking mode):         | 400 t  |
| Payload (4 leg conventional jack-up): | 850 t  |
| Deck Load:                            | 8 t/m <sub>2</sub>   |
| Number of legs:                       | 8  |
| Dimensions of legs:                   | 1.8 m diameter x 40 m long   |
| Max. separation:                      | 29.5 m   |
| Jacking system:                       | De Long / Fugro GeoServices hydraulic system with pneumatic grippers |
| Walking stroke:                       | 4 m  |

|                           |   |
|---------------------------|---|
| Moonpool:                 | 17 m x 9 m (covered if required)  |
| Craneage:                 | - Lagendijk LWC900 offshore wire crane<br>- 92.9 t @ 8 m operating radius<br>- Lagendijk LKB 13.0/20.0-10.0 knuckle boom crane<br>- 10 t @ 4 m operating radius<br>- Both cranes suitable for manriding |
| Accommodation (optional): | 32 POB  |
| Classification:           | Germanischer Lloyd  |
| Built:                    | 2012  |
| Flag:                     | The Netherlands   |

