



June 2020



**MARINE
CONTRACTORS**

Balder

HMC equipment

A HEEREMA COMPANY

Balder is a Semi Submersible Crane Vessel (SSCV) and is capable to execute a tandem lift of 6,300 T.

The cranes provide for a depth reach lowering capability as well as a heavy lift capacity to install topsides.

This multi-functional dynamic positioned DCV is tailored for the installation of foundations, moorings, SPARs, TLPs, and integrated topsides.

Accommodation / helicopter deck

The living quarters can accommodate 394 men.
The helicopter deck is suitable for a Sikorsky S-92.

Life-saving / fire-fighting

Life-saving and fire-fighting equipment according to the latest Class and IMO requirements.

Ballast system

Static and dynamic ballast system both fully computer supported. Ballast pump capacity 8,000 m³ per hour.
Dynamic ballast water handling 250 t per second.

Deck load

- up to 10 t / m²
- Total capacity 8,000 t

Dynamic positioning system

The Balder is equipped with a full Class III Dynamic Positioning system with the following characteristics:

Thrusters

- 7 x 3,500 kW - 360 degrees azimuth

Propulsion

- 2 x 4,400 kW - controllable pitch

Modes of operation

- Manual
- Joy-stick
- Auto-pilot
- Full DP mode
- Full anchor mode

Special DP functions

- Track follow
- Heavy lift
- Follow floating
- External force compensation

Position reference systems

- 2 x Satellite DGPS with anti-masking system
- 1 x Mechanical taut wire (500m)
- 1 x Artemis
- 2 x Acoustic SSBL/LBL
- 1 x Fan-beam laser
- Radius

Tool box feature

Typical deepwater installation activity	Dynamic positioning	Starboard crane with traction winches	Portside crane with fly-jib	Moorings line Deployment Winch	A&R Winch	Underwater hammers with girdle power pack
Moorings line deployment	+	+		+		
Deepwater pile installation	+	+				+
Deepwater structures lowering	+	+	(+)	(+)	(+)	
Facilities and topsides installation	+	+	+			

Dimensions

Length overall	154 m	505 ft
Length of vessel	137 m	450 ft
Width overall	106 m	346 ft
Width vessel	86 m	282 ft
Depth to work deck	42 m	138 ft
Draft	11 to 25 m	36 to 104 ft
GRT	75,374 t	-
NRT	22,612 t	-

Portside crane

	Load	Outreach (m)	Outreach (ft)
Main hoist guyed	2,721 t	23 – 65 m	75 – 213 ft
Main hoist revolving	1,995 t	23 – 90 m	75 – 295 ft
Auxiliary hoist	997 t	29 – 123 m	95 – 404 ft
Whip hoist	72 / 226 t	31 – 127 m	102 – 417 ft

Starboard crane

	Load	Outreach (m)	Outreach (ft)
Main hoist guyed	3,628 t	24 – 52 m	79 – 171 ft
Main hoist revolving	2,993 t	24 – 80 m	79 – 262 ft
1st Auxiliary hoist	907 t	28 – 91 m	92 – 299 ft
2nd Auxiliary hoist	598 t	31 – 100 m	102 – 328 ft
Whip hoist	72 / 226 t	36 – 114 m	118 – 374 ft

Mooring Line Deployment Winch

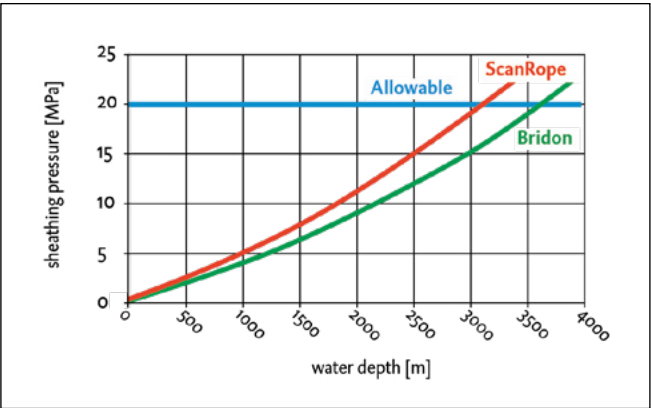
The Mooring Line Deployment Winch has been designed specifically for the deployment of sensitive sheathed spiral strand wire or fibre rope moorings in deepwater.

Features

- Control from the bridge, in close co-operation with DP operator
- Constant tension facility
- Load monitoring
- Length monitoring
- Winch can be tilted to facilitate correct spooling

Sheathing pressure

Due to its large diameter, sheathing pressures are extremely low. Even with the heaviest mooring lines and the most conservative rules, safe installation down to 3,000 m and more is possible.



Drum dimensions

Drum diameter	10.5 m
Drum length	10.0 m
Storage capacity	1,800 m of 6" sheathed spiral strand wire 2,400 m 4.5" sheathed spiral strand wire
Safe working load	2,75
Lowering/hoisting speed	20 m/min

Lowering & Pick-up wire

Length	3800 m
Diameter	102 mm (4")
MBL	775 t



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