

CASE

STUDY

Mega Hopper Suction Dregger  
Cristobal Colón & Leiv Eiriksson



2017/04

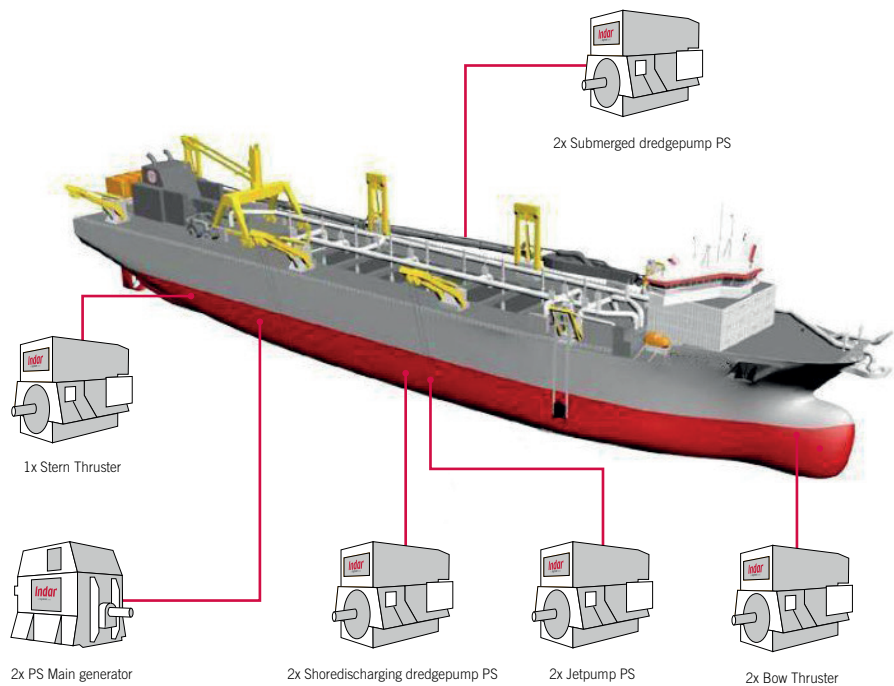


The largest ones of their type in the world: Cristobal Colón and Leiv Eiriksson, are identical “mega” trailing suction hopper dredgers (TSHD) with a hopper volume of 46,000m<sup>3</sup>, built in La Naval (Spain), for Jan de Nul. The fully loaded vessel is capable of cruising at a speed of 18kt.

46,000 m<sup>3</sup> Hopper Capacity

INDAR Marine Applications:

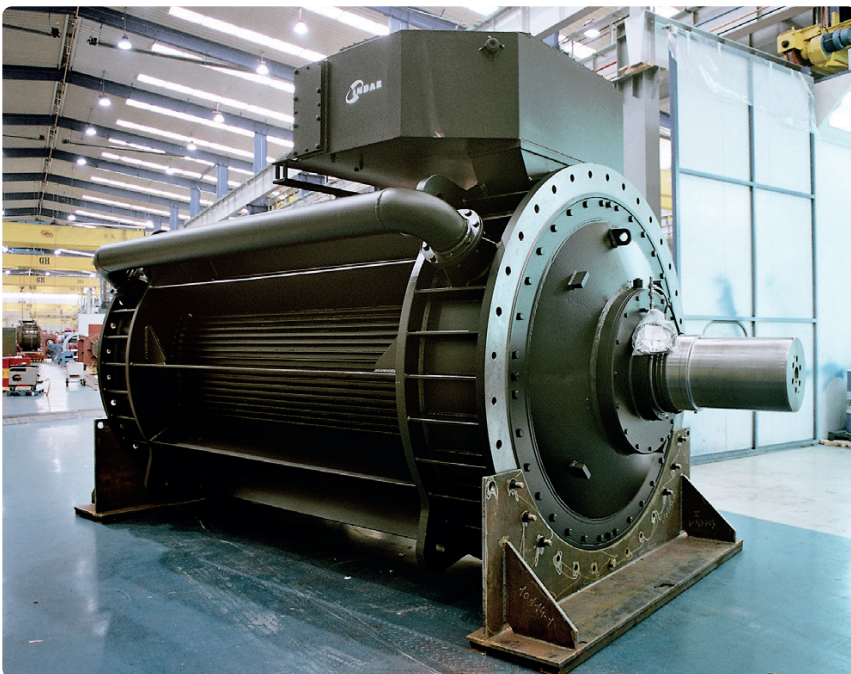
- Generation
- Propulsion and maneuver
- On-deck Machinery



## General Description

### INDAR Scope of Supply

Main Generators	<ul style="list-style-type: none"> <li>○ Output power: 18,500 kVA</li> <li>○ Voltage: 6,600 V</li> <li>○ Speed: 900 rpm</li> </ul>	
Bow Thruster <sub>11</sub>	<ul style="list-style-type: none"> <li><sup>11 21</sup> ○ Output power: 2,150 kW</li> <li>○ Voltage: 6,600 V</li> <li>○ Speed: 900 rpm</li> </ul>	
Stern Thruster <sub>21</sub>		
Jet Pump Motors <sub>31</sub>	<ul style="list-style-type: none"> <li><sup>31</sup> ○ Output power: 2,150 kW</li> <li>○ Voltage: 3,150 V</li> <li>○ Speed: 900 / 1,050 rpm</li> </ul>	<ul style="list-style-type: none"> <li><sup>41</sup> ○ Output power: 8,000 kW</li> <li>○ Voltage: 3,150 V</li> <li>○ Speed: 1,000 / 1,200 rpm</li> </ul>
Dredge & Shore discharging Pump Motors <sub>41</sub>		
Submersible Motors	<ul style="list-style-type: none"> <li>○ Output power: 6,500 kW</li> <li>○ Voltage: 3,100 V</li> <li>○ Speed: 253 / 325 rpm</li> </ul>	



### Vessel Main Characteristics

○ Owner:	Jan de Nul
○ Hopper capacity:	46,000 m <sup>3</sup>
○ Deadweight:	78,000 Tn
○ Length overall:	223 m
○ Breadth:	41 m
○ Pump Power (Trailing):	2 x 6,500 kW
○ Pump Power (Discharging):	16,000 kW
○ Maximum dredging depth:	155 m

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Indar Electric, S.L.  
Polígono Industrial Txara, s/n  
20200 BEASAIN - SPAIN  
Tel.: 34 943 02 82 00  
Fax.: 34 943 02 82 04  
marine@indar.ingeteam.com

Indar Electric, S.L.

www.indar.net