



Salvage Assistance

Belgian trailing suction hopper dredger 'CRISTOFORO COLOMBO'



Introduction

During the typhoon 'Songda' on September 8, 2004, the 7.000 m³ trailing suction hopper dredger 'Cristoforo Colombo' was thrown onto a stony shoal stretch 50 meters away from the shore between Kholmsk commercial sea port and Sakhalin Zapadny sea port. The dredger was on standby anchored at the roads, awaiting remobilization to the Lunskeye area to undertake further work on the offshore pipelines installation, while chartered by the Italian offshore contractor Saipem. The vessel was blown aground by the severe winds, which were gusting up to 60 knots. The next day the Owner signed a Lloyd's Open Form salvage agreement with Smit Singapore Pte Ltd. / Sakhalin Salvage Co., which mobilized the tug 'Smit Sakhalin' to the grounding site.

The salvor's first concern was the heavy fuel oil and diesel oil, which flowed out three damaged tanks into the sea and onto the coast. For this oil pollution the master of the dredger was put into prison.

The operations to refloat the dredger began on the 1st November. To diminish the vessel's weight the salvors removed all heavy equipment, materials and remaining oil products from the vessel. Jan de Nul's heavy cutter suction dredger 'J.F.J. De Nul' arrived at the scene to construct dams around the 'Cristoforo Colombo' to set up a kind of dock. By dredging a channel towards the vessel, constructing a bund with the dredged materials and raising the water level in the created basin the TSHD will be refloated by its own buoyancy. Then it will be shifted into the dredged channel, the water level will be lowered again, the bund will be opened and finally it will be towed to deeper water and further on to dry dock facilities for repairs. It was estimated that creation of the basin should take between 2 and 3 weeks with completion just before the storm season starts. However, just a few days before completion, a heavy storm destroyed a part of the dams and at the same time the salvage plan. Further investigations showed that salvage of the vessel had become impossible, resulting in February 2005 in the decision to break up the vessel at site.



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VER scope of work

After the initial salvage plan was destroyed by strong winds and heavy seas, Vuyk Engineering Rotterdam was asked by insurance consultant Van Woerkom, Nobels & Ten Veen to review the salvage plan and to propose alternative plans to refloat the vessel. Unfortunately all proposals and calculations showed that salvage of the 'Christoforo Colombo' was not feasible anymore under the prevailing circumstances.



Principal characteristics of the casualty

Owner	N.V. Ondernemingen Jan de Nul S.A.
Flag state	Belgium
Built by	Fulton Marine Belgian Shipbuilders Corporation, Belgium
Built	1994
Gross tonnage	8 123 GT
Net tonnage	2 436 NT
Deadweight	10 252 ton
Hopper capacity	7 000 m ³
Length overall	119.55 m
Length between perpendiculars	105.24 m
Breadth moulded	22.20 m
Depth moulded	9.30 m
Draft loaded	8.29 m
Main engines	2x MAN-B&W, type 6L 40/54
Output, running at 514 r.p.m.	2x 3 990 kW = 7 980 kW
Propeller	2x Lips controllable pitch
Diameter	3 400 mm
Propeller speed.	165 r.p.m.
Bow thruster	1x 700 kW
Suction pipe	2x 1 000 mm
Dredging depth	27.00 / 35.50 m
Two IHC dredge pumps, each	driven by a main engine
Output dredge pump	2x kW
Shore discharge	kW
Totally installed	kW
Class	Bureau Veritas I 3/3 +100 E Hopper Dredger Deep Sea AUT-MS
Travelling deck crane	1x NMF crane, SWL 20 ton @ 20,5 m
Accommodation	38 persons
Suitable for operate in minus	20° and + 45° Celsius temperatures

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