

**Shipyard De Hoop deliver series of tugs  
to Kazakhstan based Caspian Offshore Construction**

PROJECT DESCRIPTION AND DELIVERIES

With the handover of yard number 481, named *Kabanbay Batyr*, Shipyard De Hoop commenced the delivery of six tugs to Kazakh leading marine fleet operator, Caspian Offshore Construction (COC), who, in consortium with Danish Blue Water Shipping, will operate this newbuilt fleet for Tengizchevroil Future Growth Project-Wellhead Pressure Management Project, in Kazakhstan.

This first vessel in the series was handed over on completion of very successful sea/river trials at the end of March and immediately began her maiden trip - sailing by sea in the direction of Kazakhstan. In succession to this, yard number 482: *Karasay Batyr*, 483, *Bogenbay Batyr*, 484, *Raiymbek Batyr*, and 485, *Nauryzbay Batyr*, were delivered following sea trials in April and May respectively.

At the time of this publication, all five vessels are en-route to Kazakhstan. The remaining tugboat, YN486 - to be named *Otegen Batyr* - will be delivered consecutively, with the handover scheduled for end May 2018. This milestone was celebrated on Monday the 21st of May, with a name giving ceremony for YN 484 & 485, which was attended by the Ambassador of the Republic of Kazakhstan as well as Kazakh Television.

The series of six are of two different De Hoop in-house custom designs. *Kabanbay Batyr*, *Karasay Batyr*, *Bogenbay Batyr* and *Raiymbek Batyr* are the four larger ice class tugs (29.15m x 10.73m), featuring Azimuth stern drive propulsion units and a bollard pull of 42 tonnes. Their primary task is to assist with the 'straight-line' transportation of barges and vessels with modular cargo, components and supporting equipment, along the CaTRo (Cargo Transportation Route) channel to the offloading facility in Prorva, in the North Caspian.

The two smaller vessels (24.80m x 10.73m), *Nauryzbay Batyr* and *Otegen Batyr*, also accommodate Azimuth stern drives, but have the additional provision of a bow thruster and feature a bollard pull of 30 tonnes. They will be assigned harbour duties and will predominantly be assisting during precise manoeuvring actions at Cargo Offloading Facility in Prorva, to ensure all cargo is delivered in a safe and efficient way.

Both designs are characterised by a special hull, with a shallow draught and large diameter propellers.

The four larger ships are being built at the headquarters in Lobith, whilst the smaller two are erected at the Foxhol facilities.

BACKGROUND AND TUGS' DESIGN

The order was granted to De Hoop last year, after which the design, engineering and construction had to start immediately, due to the very short lead-time.

Shipyard De Hoop's relationship with COC already dates back to 2006, when they built their first shallow-draught tugs, *Iskander* and *Alpamys* - also intended for the Caspian Sea and Kazakhstan.

As an extremely satisfied client, COC came back to De Hoop seeking their knowledge and expertise in implementing yet another newbuild program based on a custom-made design.

With these designs, Shipyard De Hoop has focused on developing reliable and economic vessels, with a high level of comfort for the crew, yet low in operating expenses. While *Kabanbay Batyr* and her sisters each provide night accommodation for a total of nine crewmembers, the harbour tugs can accommodate ten people.

In this series, De Hoop's knowledge and experience of luxury cruise vessels is reflected in the high standard of accommodation, including low noise and vibration levels to enhance the comfort of the crew. As a result of the design of the vessel and its propulsion configuration, in combination with a sophisticated insulation (floating interior!) and climate control system, pleasantly low sound levels are achieved.

Design Brief includes the following features:

- Powerful bollard pull
- Highly manoeuvrable
- Reliable
- Pleasantly comfortable for crew
- Low OPEX
- Shallow draught
- Ice-class

## ASD TUGS

Using two Mitsubishi S16R-MPTAW-2 main engines, rated at 1650rpm and providing 1380kW, the ship can achieve a service speed of 12,8 knots. The economical speed lies just above ten knots, greatly exceeding the six or seven knots maximum on competing ships. The engines directly drive two Schottel SRp 360FP rudder propellers with 'nozzled' propellers. These main thrusters are slightly recessed, limiting the minimum operational draught to only 2.80 metres.

The auxiliary equipment consists of two Veth 116kW (at 1500rpm) generator sets, with Sisu 49 CTAG (C0201) diesel engines.

The deck equipment on the 80 square metre deck area includes a Sormec FB series fully hydraulic foldable knuckle boom marine crane, with a telescopically extendable boom for three metrical tons at an outreach of ten metres. Aft deck accommodates a Kraaijeveld towing winch and a crucifix bollard for 45 ton pulling force, combined with a Mampaey quick-release towing hook. Foredeck features a 15-ton crucifix, as well as two Kraaijeveld barge coupling winches and a Kraaijeveld anchor winch.

Besides the crew cabins, the accommodation consists of a changing room with separate sanitary spaces, laundry, galley, mess room and cooled/dry storages.

## HARBOUR TUGS

Using two Mitsubishi S12R-MPTAW-2 main engines, rated at 1650 rpm and providing 1040kW, the ship had to achieve a speed of 12 knots, according to contract. The engines directly drive two Schottel SRP 340 FP rudder propellers with ‘nozzled’ propellers. These main thrusters are also slightly recessed, limiting the minimum operational draught to only 2.80 metres. Beside reduced fuel consumption, the shallow draft design of the smaller harbour tug had some additional benefits - resulting in a service speed of 13.7 knots, which is 1.7 knots more than contractual. So, even though the harbour tug is shorter and has less power than the ASD tug, it still is faster.

The auxiliary equipment consists of two Veth 116kW (at 1500rpm) generator sets, with SisuDiesel 49 CTAG C0201 diesel engines.

The deck equipment on the 70 square metres deck area includes a Sormec FB series fully hydraulic foldable knuckle boom marine crane, suitable for three metrical tons at an outreach of ten metres. Aft deck accommodates a Mampaey quick release towing hook and a crucifix bollard for 45 ton pulling force. Foredeck features a 30-ton combined Kraaijeveld anchor/towing winch.

As well as the crew cabins, the accommodation consists of a changing room with separate sanitary spaces, laundry, galley, mess room and cooled/dry storages.

## FUN FACTS

'Batyr' is an honorific term meaning 'brave warrior' in the Kazakh language. Like Kabanbay Batyr, Karasay Batyr and Bogenbay Batyr, all six vessels are named after famous Kazakh warriors.

Kabanbay was one of the Kazakh warrior commanders who participated in the fight against Jungar invaders. Karasay was also a famous "Batyr" leader who contributed in the wars with Jungars in the XVII century and participated in the Orbulak battle.

Yard number 485 and 486 are the smallest vessels ever built at Shipyard De Hoop.

DATA SUMMARY

<b>Principal particulars</b>	<b>Harbour tugs</b>	<b>ASD tugs</b>
Length, over all	24.80m	29.15m
Length, moulded	22.60m	26.86m
Length, between perpendiculars	23.20m	27.42m
Beam, over all	10.73m	10.73m
Beam, moulded	10.00m	10.00m
Depth	4.60m	4.60m
Draught, design	2.80m	2.80m
Propulsion power	2x 1040kW	2x 1380kW
Bow thruster power	1x 70kW	N.A.
Bollard pull	30t	42t
Speed, max	13.7kts	12.8kts
GT	269gt	336gt
<b>Compliment</b>		
Twin-berth cabins	5x	3x
Single-berth cabins	N.A.	3x
<b>Tank Capacities</b>		
Fuel oil	50t	80t
Fresh water	22t	25t
Sewage	20t	25t
<b>Yard numbers / IMO / Names</b>		
481 - 9841031		Kabanbay Batyr
482 - 9841043		Karasay Batyr
483 - 9841055		Bogenbay Batyr
484 - 9841067		Raiymbek Batyr
485 - 9841079	Nauryzbay Batyr	
486 - 9841081	Otegen Batyr	

ABOUT SHIPYARD DE HOOP

Shipyard De Hoop is a successful Dutch designer, engineer and builder of custom-built vessels. Over the years we have built unique seagoing vessels and inland vessels, including river cruise vessels and passenger vessels, as well as high-end work and accommodation vessels for the offshore industry and renewables markets.

Having in-house design and engineering capabilities, together with all other disciplines including hull building, prefabrication, carpentry, interior manufacturing, installation, piping, etc. allows us to build a complete 'turn-key' ship.

We are also very proud to be known for our flexibility and quality, whilst being able to achieve fast delivery dates.

Shipyard De Hoop is a medium-sized shipyard headquartered in Lobith, in the east of the country, with 250 to 500 employees depending on the workload. The yard offers slipway facilities for vessels up to 200 metres in length and has a combined quay length of 450 metres locally - and a further 200m in the Rotterdam harbour area - available for outfitting.

Shipyard De Hoop will celebrate its 130th anniversary with the turn of the year from 2018 to 2019.

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