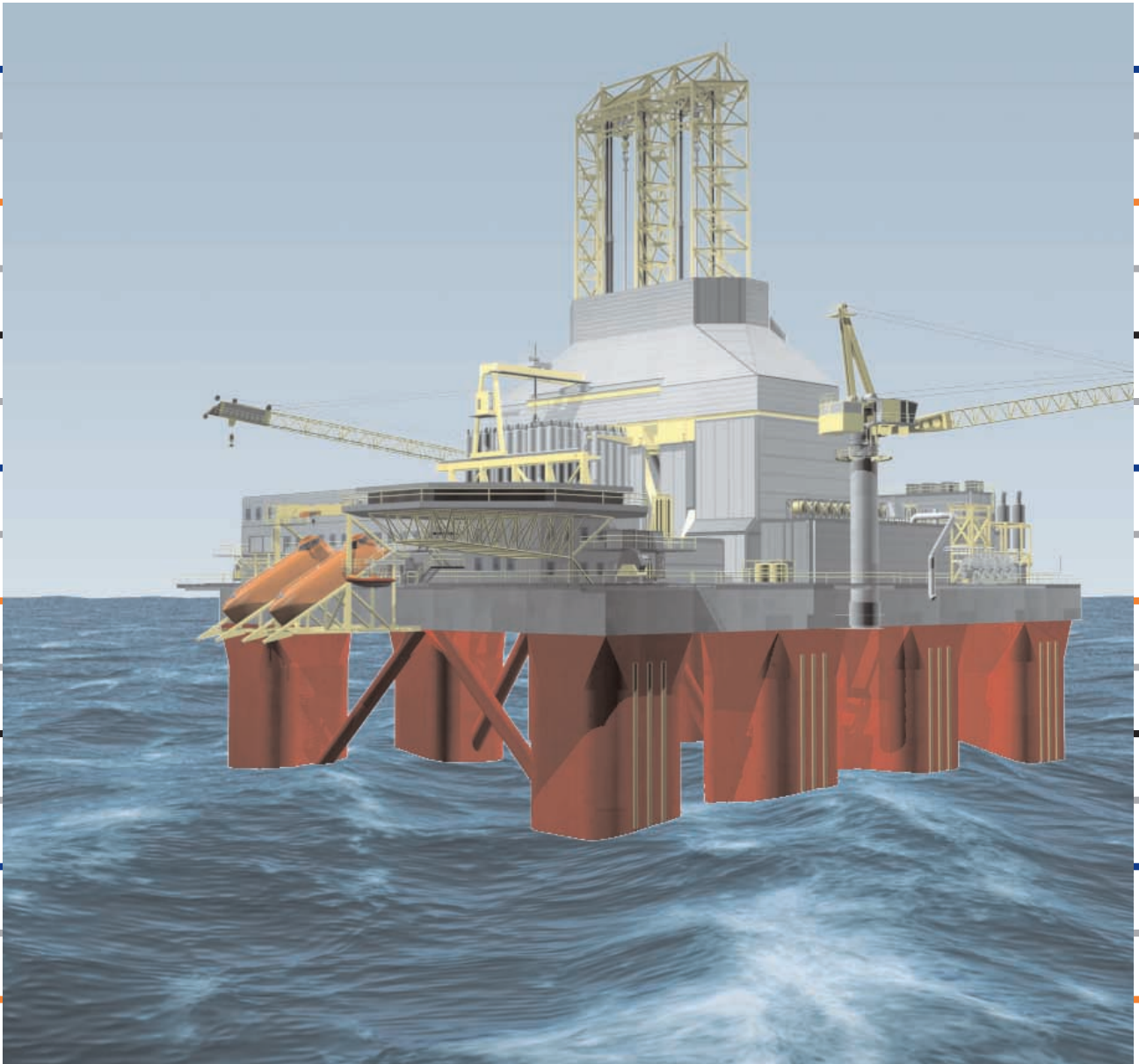


Case study:

Alimak elevators take on extreme offshore challenge at world's largest drilling rigs



Aker H601 & H602, semi-submersible rigs

Case study:

Alimak Hek was chosen as an elevator supplier for the first two Aker H-6e-rigs, which is the world's largest drilling rig design, ready for operation in 2008.

Intended for extreme offshore working environments and ultra-deep water drilling, the Aker H-6e is the world's largest drilling rig design, with wave height up to 35 meters. Meeting the stringent demands on equipment to be used in the constructions.

On contract with the new rig company Aker Drilling, Norwegian Aker Kværner is designing and building two identical semi-submersible rigs for harsh environment operations. The design, called Aker H-6e, represents something new in the rig industry. It is specially developed for drilling under extreme conditions, such as ultra-deep waters, arctic waters or within areas of great distance from existing infrastructure. With dual drilling towers, the rigs are designed for exploration and development drilling of more than 10,000 meters in water depths down to 3,000 meters.

Six Alimak elevators

Both rigs now under construction, the Aker H601 and H602, will be equipped with three Alimak offshore elevators. At each rig, two elevators will be placed in the hull columns to get access to the pump rooms for service and maintenance, and one in the drill area, serving the lower, upper, piperack, shaker decks and drill floor. The elevator cars are adapted to the special needs on the rig. For example, they have a length of 2.47 m and have doors on one or two sides to be able to carry a horizontal stretcher when needed. The unique characteristics of the Alimak rack and pinion drive principle bring dependability.

"Aside from the technical advantages, closeness to service and prior knowledge of the product helped settle the deal to Alimak Hek's advantage, says Håkon Ottesen, Senior Consultant Procurement at Aker Kværner Engineering & Technology AS".

Rack & pinion benefits

Alimak rack and pinion elevators have their drive motor fitted on top of the car, along with brake and gear, thus eliminating the need for a separate machine room or lift-well. These benefits and the narrow installation profile makes Alimak elevators suitable for the harsh rig environment.

"Using rack and pinion elevators has a long history in the offshore industry, from the first Aker semisubmersible

rigs through concrete gravity based structures (Condeeps), topsides installations to the latest H6e drilling rigs.

Alimak Hek was chosen because it was the best option, considering their technical skills, technical solutions, and their continual support through all phases, says Svein Blandhoel, Principal Engineer, Mechanical at Aker Kværner Engineering & Technology AS".

Massive order intake

Alimak Hek first entered the offshore market in 1974 and has since then delivered several hundred elevators, both for semi-submersible drilling rigs, production platforms and FPSOs. For the time being, business is booming in the oil & gas industry. In August 2006, Alimak Hek had orders for more than 30 elevators for the oil and gas industry.

DETAILS

Column elevators

Application:	Aker H601 & H602, semi-sub rigs, hull columns		
Elevator type	ALIMAK SE 1250 FC Offshore		
No. of elevators	4		
Payload capacity	1,250 kg		
Lifting height	36.31 and 40.81 m		
Car size (internal)	1,170 x 2,470 x 2,165 mm (W x L x H)		
Speed	0.7 m/s		
Motor control	Variable frequency converter (VFC)		
No. of landings (incl. base)	2 and 3		
Control system	Collective control		

Drill area elevators

Application	Aker H601 & H602, semi-sub rigs, drill area		
Elevator type	ALIMAK SE 1500 FC Offshore		
No. of elevators	2		
Payload capacity	1,500 kg		
Lifting height	24 m		
Car size (internal)	1,170 x 2,470 x 2,165 mm (W x L x H)		
Speed	0.7 m/s		
Motor control	Variable frequency converter (VFC)		
No. of landings (incl. base)	5		
Control system	Collective control		

www.alimakhek.com

Alimak Hek AB is ISO 9001 and 14001 certified.

