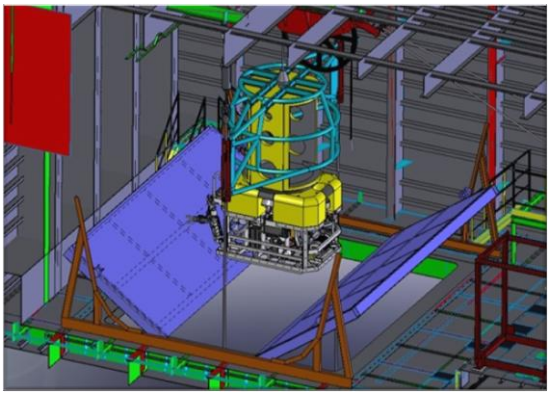
DESIGN AND MANUFACTURE OF HYDRAULICALLY OPERATED MOONPOOL DOOR OPENING SYSTEM FOR WOODSIDE DRILL RIG

EL ES DE was contracted by Subsea7 Australia, a leading provider of Remotely Operated Vehicle (ROV) services, to design and construct a moonpool door opening system for the 'MAERSK B281' semi-submersible rig, currently operated by Woodside.



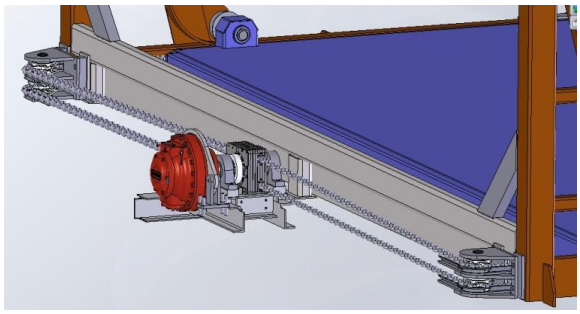
3-D model snapshot of the partially open moonpool doors preparing for ROV deployment

The moonpool doors serve a dual purpose – when opened, they allow the ROV to be deployed through the opening and into the water below, when closed they provide personnel access to the ROV for servicing.

EL ES DE's scope included the design and manufacture of the moonpool doors, the hydraulically driven chain operating system, the sheave used to deploy the ROV and the 'cursor frame' which stabilizes the ROV as it lowered down to sea level.

EL ES DE was required to meet a demanding delivery schedule to coincide with the Rig manufacturer's build program. The large (7m x 3m) moonpool doors and associated framework – weighing more than 5 tonne – were designed, fabricated, painted and shipped to Singapore just three weeks after project award.

Remaining package components including the RUD hoist chain, 70kNm HAGGLUNDS CA70 hydraulic motor and bespoke EL ES DE designed chain drive and idler wheels were air-freighted to Singapore as they were completed.



3-D model snapshot of the centre drive chain mechanism

The client's representatives required a simple, robust design which avoided the 'racking' problems that plagued previous door mechanism designs.

EL ES DE's unique centre-drive design eliminated the 'racking' problem and allowed for smooth and reliable operation of the system.

Above: EL ES DE designed chain pocket wheel being CNC machined

Right: Sheave wheel manufactured and ready for shipping