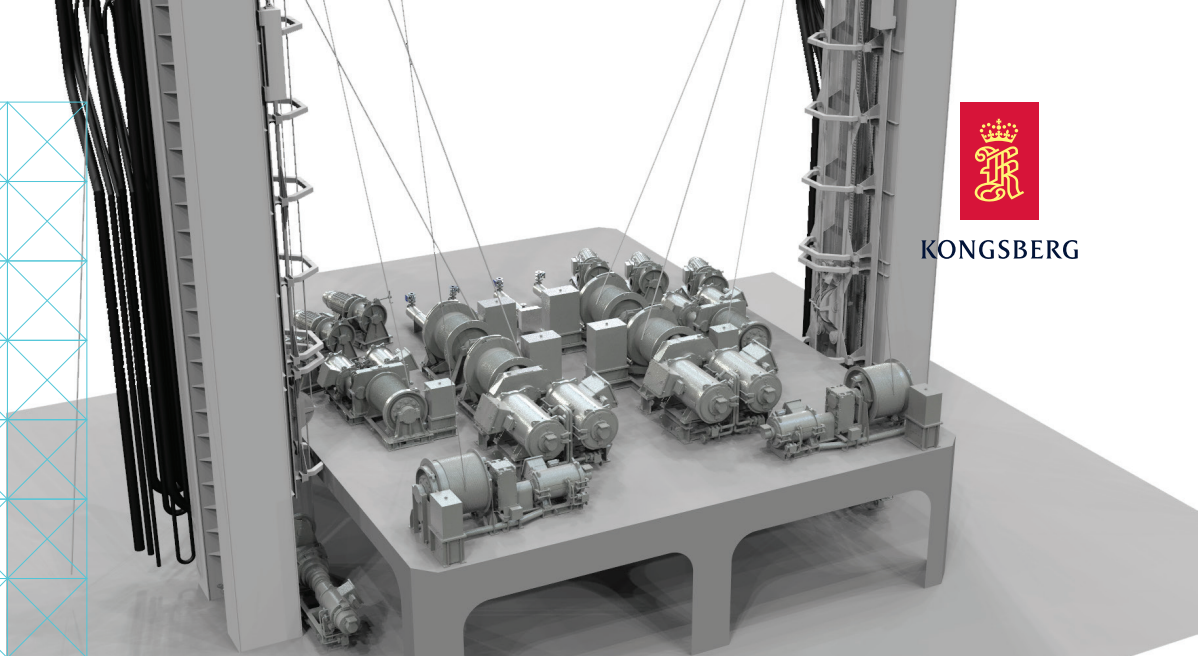


# REPLENISHMENT AT SEA

## OEM RAS PRODUCTS - UK AND WORLDWIDE EXPORT

- RAS delivery systems
- 2te solid stores delivery
- Up to sea-state 6
- 24 to 61m separation
- High transfer rate
- All electric high performance drives
- Automatic transfer with load stability control
- Low through life cost



KONGSBERG

## KONGSBERG REPLENISHMENT AT SEA EQUIPMENT

### 2te replenishment at sea

KONGSBERG replenishment at sea (RAS) equipment offers UN-paralleled performance and system maturity to meet the demanding requirements for naval replenishment schedules around the world.

KONGSBERG RAS equipment utilises tried and trusted technology for naval applications in a marine environment. Our RAS systems have been developed over many years of close collaboration with navies around the world and have been thoroughly validated through in service operations.

Our RAS systems present a low risk solution for shipbuilders, proven by working with shipbuilders worldwide and working closely with major classification societies i.e. Bureau Veritas, Lloyds Register and RINA.

We pride ourselves in providing the world's leading replenishment at sea equipment optimised to your requirements with the highest availability. We also have the same philosophy about supporting our equipment throughout the world.

KONGSBERG's global reach extends to 34 countries around the world and supports its products through its global Services Network. This means we can rapidly provide field service support and spare parts close to the region of operation.

KONGSBERG has the right people with the right experience, product knowledge, customer knowledge, and expertise to be a trusted supplier to your business.



NATO netted pallet RAS



RAS (2te) replenishment  
(using NATO pallets)



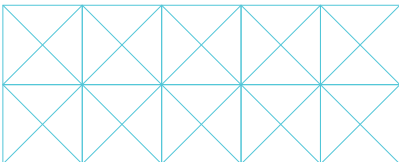
RAS (2te) replenishment  
(test load)



Night RAS

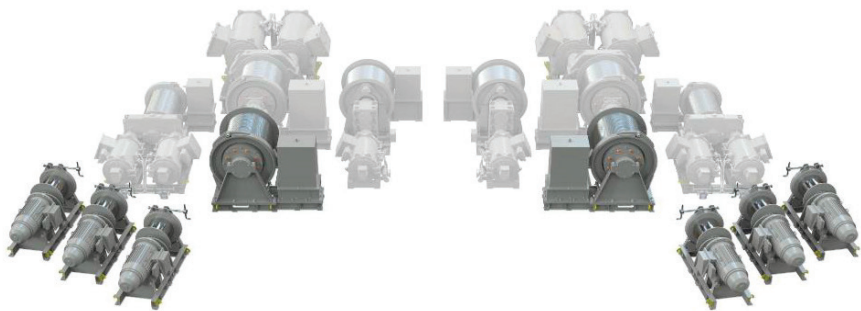


RAS and FAS transfer



## KEY FEATURES

Payload	2te delivery and reception systems available
Operational capability	Can operate in seas up to sea-state 6
Vessel separation	Payload delivery capable between 24m and 61m, can remain connected up to 91m
All electric drives	Controlled by all electric AC drive system, available with 440V or 690V, 3 phase ships supply connections. HV supply connections can also be incorporated
Automatic transfer	Operator can engage automatic transfer mode, this enables automatic ship motion compensation and guarantees a fixed point of delivery for the payload
Low through life cost	Due to the limited number of consumable components in the all-electric RAS system, maintenance routines are kept to a minimum, which ensures a low through life cost for the equipment



Typical RAS winch layout as part of a dual rig installation