

# SAFETY TALK



## 'NINA BOOSTS BOTH SAFETY AND PRODUCTION!'



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**01 THE OPERATION IN SOUTHAMPTON**  
The backhoe Manu Pekka loading the split hopper dredger Frigg.

**02 SPLIT HOPPER DREDGER CORK SAND AT WORK**  
Self-propelled split hopper dredgers are used to remove and deposit sediment, sand or rock, with hydraulic cylinders being used to split open the vessel.

The dredging work in Southampton involves deepening the entrance channel over a distance of approximately forty kilometers. A total of approximately three million cubic meters of hard clay, sand and gravel will be dredged. Medium-sized trailing suction hopper dredgers will be deployed in combination with backhoes on this assignment. 'The split hopper dredgers are mainly used on projects in our area,' says Hans Dieteren, the Europe business unit manager in the Dredging & Inland Infra division. 'They haven't always been at work in recent years. As a result, different crews manned the ships, and that doesn't benefit continuity, quality and safety. So it was decided, in close consultation with the P&O department Crewing and Fleet Management (FM), to work with fixed crews on these vessels. P&O appointed a number of people to positions as core crew members and organized targeted competence interviews.'

### UNIQUE OPPORTUNITY

A range of disciplines wanted to get everybody's noses pointing in the same direction with the aim of improving quality and safety on the split hopper dredgers. The chance to organize a joint session emerged earlier this year on the project in Southampton, which involved the simultaneous deployment of the four split hopper dredgers and the backhoe Manu Pekka. Area Europe and FM saw the opportunity to focus on ways of working together and communicating, conducting a joint risk survey, and developing best practices. P&O was able to organize intensive discussions with all the crew members about working in fixed teams on the split hopper dredgers. And this was a perfect opportunity for SHE-Q to set up a kick-off meeting and a NINA course for the English, German, Baltic, Swedish and Dutch crews.

Four split hopper dredgers and a backhoe working together on a single project: that's not an everyday occurrence. This unique opportunity on the Southampton project led to a successful, multidisciplinary, NINA session.

### CENTRAL ROLE

The session was set up for early March and it was attended by representatives from the project, Area Europe, P&O, FM and SHE-Q. The central role was reserved for approximately 35 crew members from the day and night shifts on the split hopper dredgers and the backhoe. Miron Kleist, a deck hand on the Frigg, looks back: 'Mooring at the quay-side used to be a bit rough and ready. In all weather conditions, and whatever the tide, you were left on your own to moor the ship. Most of us thought that was a major safety risk because of the lack of backup.' Thijs Kieft, a member of the responsible team from Fleet Management, adds: 'Another factor was that the operator of the backhoe would sometimes move the bucket onto the hopper without warning to pull the vessel in his direction. The skippers didn't think that

was always a good idea. So it has been agreed that the backhoe operator will only do this in the future when the crew of the split hopper dredger ask him.'

### USEFUL

'Those are just some examples of the useful results we achieved,' says project leader Gert-Jan Peters. 'They have produced better coordination and communications with the backhoe. A lot of the agreements we made are now routine, which demonstrates that the session really did pay off. And there are now protocols in place for mooring at the quay-side. There is always backup from one of the other vessels, for example to push the split hopper dredger towards the quay. And a member of crew always goes onto the quay to pick up the mooring line. Miron adds: 'It is now clear to everyone that mooring should

be done in a professional, serious way. I haven't seen any dangerous situations since the session.' Hans concludes: 'This session demonstrated how NINA can improve operational efficiency. That is an important NINA spin-off. It's easy to get talking with one another about how to improve our working methods. NINA boosts both safety and production.'

> For more information: send an e-mail to [gert-jan.peters@boskalis.com](mailto:gert-jan.peters@boskalis.com) or check out [www.boskalis.com/nina](http://www.boskalis.com/nina).

## WHAT IS A SPLIT HOPPER DREDGER?

**A self-propelled split hopper dredger is a vessel that is used to remove and deposit sediment, sand or rock, with hydraulic cylinders being used to split open the vessel.**

Heavy locking systems are used to keep the parts closed during loading and sailing. The largest split hopper dredgers owned by Boskalis, the sister ships Cork Sand and Long Sand, were built in 1988 and they have a capacity of 1,040 m<sup>3</sup>. The split hopper dredgers Rind and Frigg date from 1975 and they can transport 750 m<sup>3</sup>. The ships are fitted out with accommodation for the crews which generally consist of five men. 'Our split hopper dredgers often team up with backhoes,' says Thijs Kieft, a member of the FM team. 'Our company has only a small fleet of split hopper dredgers because we have started to work more often with push barges and push boats. As a result of takeovers and the reallocation of equipment,



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we have a lot of good barges. They have been converted to push barges and are now used in combination with push boats. That makes us more flexible because push boats can be used on other assignments as well. Even so, the split hopper dredgers are very useful and reliable vessels and,

after recent overhauls, they also comply with the most stringent standards.'

> For more information: send an e-mail to [thijs.kieft@boskalis.com](mailto:thijs.kieft@boskalis.com)