

A photograph of two men in safety gear shaking hands on the deck of a white offshore vessel. Both men are wearing white hard hats, orange high-visibility safety vests over dark blue long-sleeved shirts, and dark blue trousers. The man on the left is also wearing a harness. They are standing on a metal deck with a white railing. In the background, there are windows on the side of the vessel and a lifebuoy on the left. The sky is clear and blue.

CAN SHARING
STRATEGIES LEAD TO
**SAFER CREW
TRANSFERS?**

As an integral part of completing a dredging project, crews perform routine crew transfers. But are these transfers so routine? Whether from vessel to vessel, equipment to vessel or land to vessel, crew transfers are a complex activity which take place multiple times during each and every project. Weather conditions at sea can change at a moment's notice, the quality of locally sourced crew boats can vary greatly across the globe, and language barriers between crew and local skippers may complicate communication. How do marine contractors ensure safe crew transfers if the presented conditions are not optimal?

Dredging companies are committed to safety. This was the motivation for IADC to hold a roundtable exclusively on the subject of safety in crew transfers. A panel of experts on the subject from IADC's member companies partook in a discussion moderated by Joep Athmer, who began the session by stating: 'Safety should not have boundaries. Each company should not keep safety to themselves. Share what you know. We want everyone to come home safely.'

Participants of the roundtable discussion were Peter Dotselaere from Jan De Nul Group, Harry Hesseling from Boskalis, Ruben Hulstaert from DEME Group, Arjan Jager from Van Oord (see Figure 1).

Goals for the discussion

The collective goal was to achieve a safer environment for all crews. The session presented the opportunity for participants to connect with other dredging companies and share in-house information and expertise.

The bottom line of holding such a discussion is to learn from each other. Each company

strives to be better and has made great strides individually, but if companies can come together on the subject, then a standard can emerge which can serve as an industry-wide example. Integrating safety more routinely in daily crew transfers requires a change in behaviour of all people involved. This can only be achieved by constant coaching and managing.

Participants also concurred that having a common standard which can be shared with suppliers would be beneficial. If contractors set out common goals or standards and communicate them, then a lot can be gained from suppliers of equipment.

Identifying risks

There are specific aspects of the crew transfer process which can be addressed to increase safety. In particular, participants noted that safety of crew transfers can be enhanced by looking at various topics:

- Establishing selection criteria for crew boats
- Clear structured communications during the transfer process

- Establishing safe environmental criteria
 - Ensuring competence of crew boat skippers
 - Management involvement
- In addition to these topics, the procedure itself must be written down clearly so as to eliminate concerns, which can result from overwhelming the crew with too many steps or details or using confusing terms.

Selecting a crew boat

A weatherproof and season-neutral decision regarding the crew boat should be taken upfront to ensure a suitable vessel has been selected for use in all seasons and possible weather conditions present at a specific project site.

The season or time of year when a boat is hired should be considered while selecting a crew boat for use in year-round projects. If a boat is selected during a calm season, crew may be able to easily step up and off, but six months later, when the monsoon begins, there may be waves of three, four or five metres.

Sometimes projects may be executed in areas where suitable equipment is not readily available. However, with some out-of-the-box thinking creative alternative solutions can be devised. These solutions may involve a higher cost but that should not be a reason to select or use equipment which is unsuitable or unsafe.

A project team's decisions, which are delineated at the start of the project, should not be infringed upon for operational reasons. If crew changes are planned to be done in the

This session is interesting because we are connecting with other dredging companies which is important if we can share some of our information and expertise.



FIGURE 1

The roundtable in action at Tideway in Breda, The Netherlands.

port and an inland boat is selected to support this decision, then this project-specific decision should be planned into the project's timeline. Likewise, if a project team decided that a vessel can only be boarded when the hopper is loaded, then the time frames where boarding the vessel are allowed should be allotted for within the project's schedule.

Crew boats should also meet minimum outfitting requirements. Harry Hesseling of Boskalis expects the crew boat 'to comply with a safety plan, first aid kit, fire extinguishers, emergency closing valve in the fuel system, navigation chart, GPS (global positioning system), VHF (very high frequency) radio, radar, reflector, navigational light, a designated transfer area – because it's not only the crew boat but it's also the stepping up and off the boat – and fenders'.

Communicating clearly

The authority of the captain of the main vessel is very important. Therefore if a captain needs to make a decision and say 'crew transfers in these conditions are not safe anymore', then without question, another solution must be found. If this means sailing to a sheltered port for a safe transfer, even if it would take more time, then this decision – apart from postponing the transfer – is the only correct one.

There must be clear communication between the hopper and crew boat, with the captain indicating when the crew boat is permitted to come alongside the hopper. Sometimes the hopper is overflowing and creating a wake on the side of the vessel. In this situation having a crew boat alongside the hopper should be

avoided. In a designated area, it is common practice to give lee to the crew boat and the captain signals the correct moment, saying to the crew boat: 'Okay, you can come alongside, I will slow down.'

Captains must be given the confidence to make these kinds of decisions. Ruben Hulstaert of DEME states: 'The captain decides if the vessel is on stand-by. If the captain says "we cannot do the crew transfer yet" for some unknown reason, then you may have to wait an hour. There is no other solution, the captain is responsible'. Cultural behaviour takes time to grow, therefore the company culture must support decisions which ensure safe transfers are performed

The individual also has a vital role in ensuring safety. Individuals must be empowered to speak up if they feel unsafe in any way while performing a crew transfer. As well they must speak up *before* a situation becomes unsafe. It's an individual's responsibility to look out for themselves and also for others. Harry Hesseling of Boskalis explains: 'If you step into an unsafe situation, then you could put other people in that unsafe situation as well. If you are not confident in doing the transfer, then don't do it.'

Not everybody's mindset is on the same level when it comes to safety. Therefore, a way to push everyone to a higher level is through a shared way of thinking. A crew member, who is a newcomer, has a different way of thinking about safety than someone who has been working for 20 years. The experienced crew should help new crew and train them. While

new crew may be eager and want to help, they should learn and use approved safety practices.

On the other hand, those who have been working in the industry for a longer period should update to current safety practices. This may require additional time to get workers up to speed and allow them to internalise new safety awareness within projects.

Peter Dotselaere explains how these issues are addressed at Jan De Nul Group: 'When the project gets presented, at the kick-off meeting, there is always a presentation about crew transfer in the template. All staff partakes in the safety management course with all procedures, one of which is the topic of crew transfer. There are always some people that have followed the course already. Many projects also have local QHSE advisers that are briefed in the office and know exactly what is required. In the beginning, it was difficult to get the information spread and know the standards, but now this is not much of an issue'.

Management's role

Management must safeguard the project, especially when it comes to the rules to support safe crew transfers.

Oftentimes, a company has fixed suppliers but in certain regions where pre-qualified or regular suppliers are not available, the local market must be explored. In this case, 'Do you have a special crew boat or a survey crew boat?' is the first question management should ask. For a project manager and line management, there is an obligation to be prepared to say 'No, we don't want that crew boat'. This clear decision-making sends a strong cultural message which is positive with regard to safety awareness and culture. It takes time for a cultural message to trickle down to all levels of crew therefore management has to establish its commitment from the start.

For the times when management needs to make tough decisions, Peter Dotselaere of Jan De Nul Group explains: 'When I review these crew boats, I do this with the backing

of International Operations. If there were an occasion where I was not able to come to an agreement with local management, I do have the possibility to get that extra bit of weight added to the scale’.

Testing skipper knowledge

Another risk involves the ability to assess the competence of the skipper operating the transfer boat. This can be complicated by language barriers and further amplified in locations with limited training availability or suppliers.

If there is a situation where a skipper of the crew boat has difficulty maneuvering alongside a vessel, miscommunicates or lacks experience, it can lead to a dangerous situation when crew wants to climb the ladder to make the transfer. This risk is amplified by the relative motion between the two vessels as well as during adverse weather conditions. Therefore, skilful manoeuvring by the skipper is important. The skipper must have sufficient experience, the right certifications and comply with STCW (Standards of Training Certification and Watchkeeping).

In Ruben Hulstaert’s experience at DEME, The vessel’s captain frequently asks skippers to come on board, has a chat with them and shows them what the vessel does and how big it is. At a shift change, the captain sends the first mate down to talk with the skipper to learn if there is a language barrier and how they can deal with that. If there is doubt, then a dummy run may be requested’.

In the situation where skippers who meet the safety standards are not found, then trainers should be deployed to project sites to train local crew. Trainers can then inform local skippers about the crew transfer procedure as well as specific skills such as safely going alongside a vessel or embarkation.

More procedures are less effective

At a certain point, the industry’s approach to increasing safety involved writing *more* procedures. But contrary to expectations, instead of being safer, too much paperwork leads to less reading of the procedures and, in many cases, it then sits on a shelf. Crews complain about paper procedures when there is not enough time to tick all the boxes and perform required inspections ultimately preventing the goal of safety from being achieved.

In addition, by writing procedures in too much detail, authority and responsibility appear to be taken away from those involved with crew transfer and a false sense of security can be created. Joep Athmer states ‘Write enough down so people say “this is an important issue” but leave it up to the people to think about it. Otherwise they will think “as long as I tick the boxes I’m safe”. This is even worse for the awareness of safety and completely misses our goal.’ Paperwork is only guidance. If people aren’t competent and trained, then it becomes a dangerous exercise.

In the end, the procedure has to remain practical. Peter Dotselaere invites captains in the field to give him feedback on the procedures he has written. ‘I will send the procedure over to them and say please have a look and give me your ideas. They want to give input and I want their input.’

A successful crew transfer procedure concisely addresses the diverse aspects of transferring with a combination of adequate text explanation and visual aids. If the corporate procedure includes all the steps ranging from ship-to-ship transfers and transfers to fixed installations, to helicopter transfers, then the project team can lift out what applies to their specific project and local arrangements. Whether inland, coastal or offshore checklists are needed, they can go into one document and become part of the project induction.

In addition, checklists for the boat with pictures and drawings can help in aiding all passengers – from crews to clients – to know what is expected in regards to safety. Likewise such checklists can inform non-marine passengers of unfamiliar terms such as a ‘freeboard’. Similar procedural checklists for the gangway and pilot and embarkation ladders are also applicable.

Enforcing the procedures

Standards can be put on paper, but who ensures the standards are applied? Ensuring a transfer’s details are known to people on the project is in the induction of the project and promotes compliance. It is also the role of the entire staff. Staff are to be competent and transfers are part of their competencies. Every individual on board the crew boat and sailing to the vessel should be aware of the safety procedure to ensure that everything goes safe.

FIGURE 2
An example of a QHSE-HSE-TE inspection checklist for crew boats.

Utilising checklists (Figure 2) which can be performed by non-marine individuals also allows these individuals to answer their questions related to all safety aspects. Keep the checklist in plastic and next to the pilot ladder station.

Ensuring safe environmental conditions

At sea, weather conditions can deteriorate and become dangerous in a short amount of time. Amongst the most dangerous of situations is transferring onto stationary equipment when there is swell. With a hopper, a captain can provide lee to a crew boat but stationary equipment tends to be rigid.

If environmental conditions on a jetty or quay wall are not safe, then they must be made safe. Small pontoons can be shipped out with the equipment. This can be planned on a project level. Crew changes during the day are preferable, but if crew changes at night cannot be avoided, then lighting at the crew transfer location should be arranged. Every project needs a proper landing area and it is a mandatory part of the budget.

'We can learn from each other. I think it's to the benefit of us all. Are we perfect? No not yet. But we can learn from each other. If we pull together, then we can come up with something that can serve as an example to others.'

Summary

A roundtable on safe crew transfers was hosted by IADC to share the safety procedures utilised by dredging companies. Participants from different companies welcomed a discussion which shared safety practices employed by others in the hopes of formulating an industry-wide safety standard for crew transfer strategy. An agreed-upon safety standard will enable clarity during joint ventures.



Peter Dotselaere

'My background lies in the offshore drilling industry, where I worked for 25 years, ten of which as a Master. I started working for Jan De Nul in 2015 as QHSE Marine Adviser focused on offshore projects, but in the meantime that has grown to be quite a bit more than just offshore projects. One of the first tasks I did at Jan De Nul was to rewrite the personnel marine transfer procedure.'



Harry Hesseling

'I have been working for a very long time – 38 years – at Boskalis. I started in project management as a superintendent and later became a project director within Boskalis. I was working in a commercial role for the continent of Africa. When I came back, I became an operational manager on several projects for dredging as well as offshore activities. For the last three years, I have been operations manager HR, so I'm staffing our projects and preparing our teams for departing to our projects.'



Ruben Hulstaert

'I graduated in 2011 with a Master's degree in nautical sciences from the Antwerp Maritime Academy. Thereafter I started sailing with DEME on trailing suction hopper dredgers (TSHD) and I worked my way up to Chief mate. For now, I've said goodbye to the sea and have started a shore employment as a Marine Coordinator.'



Arjan Jager

'My background is a Bachelor's degree in dredging engineering. I work at the QHSE support desk at Van Oord, mainly supporting dredging projects. I started off in operational parts as project engineer and superintendent, worked my way up to works manager, and decided to go into the safety department a few years ago. I got additional training to be qualified as a safety practitioner.'



Joep Athmer

'I spent 41 years in the industry and became the president of Van Oord. From project engineer to executive board, I held many roles within the company. I was very active in safety, not only in my role as director and board director. Safety has always been my passion.'