

[ CASE STUDY ]

Customer: Maersk Tankers

Solution: Personal safety with manual and automatic alarm and wireless a71 ATEX alarm transmitters



## PERSONAL SAFETY INCREASES SECURITY AT MAERSK TANKERS

Chief Engineers on board the Maersk Tankers' ships often work alone in the engine room. If they get hurt for example at night they can risk lying helpless until the next morning. With a wireless alarm system from Ascom the chief engineer always has an alarm device at hand, which can be activated both manually and automatically. It gives more security and more flexibility in the work.

Chief engineers aboard the Maersk Tankers' vessels are responsible for operation, maintenance and repair of the ships' machinery. The work is not free from risk and the employee may need assistance if he for example falls, gets injured or suffers from nausea. In daytime colleagues will of course notice if the chief engineer is gone for longer than usual, but at night an injured employee can risk lying helpless until the next morning, before he is discovered. Therefore Maersk tankers decided that 34 tankers without a personal security system should install a wireless alarm system from Ascom.

- All our other tankers have personal security in the form of a "dead-man" button, which the engineer activates at the entrance to the engine room. The button has a timer which has to be restarted manually every 20 minutes. If the chief engineer doesn't restart the timer, the alarm is automatically activated and help will immediately be on its way. Instead of installing cables to the "dead-man" buttons for the ships without personal security, we chose a wireless system from Ascom.

With the Ascom solution we avoid the risk that an injured employee is left all night, waiting for help. At the same time it gives much more flexibility than the "dead-man" button says Per Ole Larsen, Technical Operation at Maersk Tankers.



**Per Ole Larsen,**  
Electrical Superintendent, Marine technology

#### Facts about Maersk Tankers

Maersk Tankers own and operate a large fleet of crude oil carriers, product tankers, gas carriers and LNG carriers, all built and operated to A.P. Moller – Maersk Group's high standards of quality and reliability. Maersk Tankers have established one of the largest, most modern and most diversified independent fleets in the world – all meeting the latest industry standards and demands with focus on safety, the environment and cost efficiency.

#### Faster installation and better security

If Maersk Tankers should have installed "dead-man" buttons on tankers without a personal security system it would have required bulky equipment and a lot of cabling. With a wireless solution from Ascom the installation requires only one position locator and system integration whereby the chief engineer always has an alarm transmitter device at hand when he enters the engine room.

Handsets are supplied with a built in "man-down" feature that automatically activates an alarm if the chief engineer for instance is down or is inactive for more than five minutes. Before the alarm is activated, the handset sounds and vibrates so that the chief engineer can reach to press the OK button and postpone the alarm for ten minutes if he is not hurt, but just is lying down working.

The alarm transmitters also have a manual alarm button, so the chief engineer can summon help immediately if he for example is stuck squeezed or unable to move. Furthermore, the alarm transmitters are ATEX approved so they can be used in hazardous areas on board tankers.

#### Modular and future-proof

Eventually Ascom's wireless solution can be expanded to receive paging from telephones and alarms from other warning systems on board. The system can integrate with external equipment via standard or special customized interfaces and be programmed to send for example machine or fire alarms directly to the appropriate personnel. The recipient can read details about the alarm on the alarm transmitter display and acknowledge or reject the alarm.

The solution is scalable and can be extended to provide personal security for other personnel on deck and bridge, who also could end up in dangerous situations. Thereby the wireless alarm transmitters constitutes of a solid foundation for all future personal security, paging and receiving alarms on board.

#### Facts about the solution

Maersk Tankers are using a personal security solution that is modular and may be extended to also handle paging and receiving alarms. The wireless alarm transmitters used are Ascom a71 ATEX (approved for use in environments with explosion risk) with the option of following functions:

- 2-way communication
- Manual alarm activation via button
- Automatic alarm, "man-down" and "no-movement"
- Information about the position of the person in distress (option)
- Possibility of specific alarm handling for example during charging

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