

Strong decline in forklift accidents due to fleet management system

Security from the blue box

Quality and cost-effectiveness are as important to the decision-makers at Arcelor Mittal as are environmental compatibility and safety. Three of these production targets are supported using a new fleet management system. Since the introduction, the accident numbers strongly decreased.



The Arcelor Mittal plant in Hamburg delivers 1 million tons of quality steel every year - by rail, truck and ship.

They manufacture mainly wire, from which are turned into structural steels, tensioning bars for bridging ropes, wire and weld wires, as well as fishing hooks and wire mesh fences, by the further processing through their customers. 550 employees work on an area of 590,000 m², including its own port and connection to the rail network of the railway. Iron ore from Brazil, Canada and Norway is processed. Metal scrap also finds its way back into the production circuit. Arcelor Mittal is not only looking for raw materials, but also resource-conserving alternatives. The CO₂ emissions of 824 kg per ton of steel produced are just half of the industry's usual value.

Hamburg is thus the "greenest German plant". "Quality, efficiency, environmental compatibility and safety are equally important production targets here," says Marc Schölermann, a logistics manager at Arcelor Mittal in Hamburg since August 1, and since 2006 at the company. Three of these goals were also particularly supported by the fleet management system "Mobile Easykey" of Domnick + Müller GmbH + Co. KG.

The accident figures have declined sharply since the launch

Ten years ago, the vehicle department of the Hamburg plant demanded the installation of the system in its forklift trucks to reduce the massive frequency of damage and the associated costs. Today, the so-called "Dornstapler", i.e. the heavy-duty forklift trucks from Kalmar with special forks for receiving the wire rolls, the five factory diesel locomotives, the slag bucket conveyors and all industrial stackers, are fitted with the little blue box by Mobile Easykey.

Since the introduction of the fleet management system, the accident numbers have drastically declined, which affects both the safety and the profitability of the operation. The goal of emitting less CO₂ is also supported by Mobile Easykey and the automatic shutdown of unused equipment after a freely definable time. Meanwhile, Arcelor Mittal has equipped 38 devices with the system. Especially in the case of the 13 diesel heavy-duty trucks from Kalmar, the time-controlled

automatic shut-off system leads both to an improved environmental as well as cost balance. But also structural changes in the plant have made access control for the machines and equipment indispensable. Through various outsourcing, many of the current 750 users are employees of external companies. "And with employees of third-party companies, the careful handling of our expensive special machines is just as necessary as with our own employees," says Marc Schölermann. Again, Mobile Easykey has led to a cautious driving style and drastically reduced damage.

The next step is to equip the cranes

The modular system of Mobile Easykey is the answer to the range of different machines and deployments at Arcelor Mittal. In the so-called furnace stacker, e.g. a pure access control is in use. The patented crash sensor system, which shuts down a stacker after an accident or puts into crawl speed, cannot be used here, because in emergencies, the driver must be able to get himself and the vehicle quickly away from a dangerous situation. For the diesel locomotives, the departure control of Mobile Easykey is also installed. After logging on with his personal transponder, the driver confirms that he has carried out the prescribed check of the device. The confirmation is stored in the so-called log book. In the next stages, Marc Schölermann will also equip the cranes, the remote-controlled traverse cranes and the 30 Haydeck cranes with Mobile Easykey. Even though today many devices are equipped with Mobile Easykey and the system is an integral part of tenders for new acquisitions, not all the software's potential has been exploited. "Our WLAN structure in the plant has to be expanded first," says Logistics manager Schölermann. "I know the possibilities of the software with the analysis and optimization tools, the maintenance planning and the user administration. But before we can make use of this, we must create the fundamentals here. "After that, Marc Schölermann would like to present the fleet management system to his colleagues in Arcelor Mittal's the other three German plants. "We have certainly defined our leasing contracts. By the exact determination of the operating hours by the software, we remain on all machines within the agreed warranty periods," the logistics manager continues. Marc Schölermann got an impression of the intensive use of Mobile Easykey at an innovation workshop in the past year. In Frankfurt am Main, customers met for the exchange and further development of hardware and software. In particular, companies like Daimler and Volkswagen use the entire range of analysis and optimization tools of the software, which has resulted in considerable savings in the fleet within a very short time.

A workshop transponder should provide even more security

The next planned step at Arcelor Mittal is also quick to implement: the introduction of the workshop transponder. In addition to the regular transponder for users with defined authorizations for selected machines and the master transponder for the logistics manager, this should provide even more security in the company. For example, after a crash a device has been shut down- with the transponder it can be set into the workshop mode and released for the transfer, by a workshop employee. As long as the machine is in the workshop mode, it is not possible to start with a user transponder. The danger of using a defective device would be banned.

Photo: Marc Schölermann, Logistic Manager ArcelorMittal, Torben Rutsatz, Customer Service Manager Mobile Easykey; Diesel locomotive

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