

Hoistech: Lifting In Construction

Safety checking system using RFID provides improved customer service.

The construction industry continues to be concerned about improving safety but there is a need to make sure safety checks are carried out in the most efficient manner. Operators of hazardous equipment need to be confident that it has been checked and that all regulatory reports have been produced. Radio frequency identification (RFID) tagging can provide an easy way to prompt appropriate actions and to audit who has done what. Irish lifting equipment specialists Hoistech are using an RFID based solution to keep track of safety inspections.



Safety In Lifting

Hoistech, together with sister company Chain and Rope Suppliers, have been serving the Irish construction industry for over twenty five years providing specialist skills in materials handling and lifting equipment.

Chain and Rope Suppliers provides a complete range of lifting, transport and fall arrest slings chains, ropes and restraints for both sales and hire. Hoistech offers bespoke manufacturing and maintenance of overhead cranes, hoists and jib cranes.

An important aspect of Hoistech's business is the test and certification of lifting equipment and the provision of breakdown servicing and planned preventative maintenance on the products that it installs. It also provides inspection and maintenance of construction excavators, tele-porters, forklifts and auxiliary plant across all of Hoistech's customer sites.

As part of the safety management regime for lifting equipment defined in the Safety Health & Welfare at Work Regulations 2007, the Irish Health & Safety Authority has defined a requirement for six monthly, thorough inspections of lifting equipment. As part of the service that they provide for their customers, Hoistech carry out these inspections and produce the relevant reports that are required by the regulations.

However, the inspection activities required are different for different classes of asset and the effort needed to tie together reports with specific items of equipment using manual recording methods was time consuming and carried with it the risk of error.

CoreRFID proposed a solution for Hoistech that would simplify the inspecting engineer's tasks, speed up the collection of information, and improve the accuracy of the data collected. The solution proposed was based on the use

of radio frequency identification tags for identifying each item needing to be inspected.

Engineers are provided with hand held computers that can read the data on the tags, display lists of inspection tasks and collect data relating to the results of inspections.

The system works by downloading lists of assets scheduled for inspection to each engineer's hand-held computer. The inspecting engineer is provided with the asset list for each site and uses the computer to check the tag on each asset. The identity number calls up the list of inspection tasks for that particular item. At the same time the hand held computer software records the location where the asset has been found and the results of any tests, measurements or observations that the engineer needs to record. The data collected is then automatically uploaded to provide an up-to-date record of the inspection.

Benefits of the system include:-

- **Easily retrofitted to existing installations**
- **Prompted inspection tasks by asset type reduces the risk of errors**
- **Easy availability of reports to Hoistech customers**
- **Automated production of regulatory inspection reports**
- **Easily integrated with existing asset database**

"The CoreRFID solution is helping us to streamline operations and deliver a better service to our customers." Joe Duignan, Managing Director, Hoistech Ltd.

Inspection Management Solution

The system implemented by Hoistech is one of a range of health and safety inspection management solutions provided by CoreRFID using automated-id technology to improve the accuracy and efficiency of reporting.

As part of the system CoreRFID provides a web interface that allows data on the hand held computers to be synchronised with Hoistech's own asset management system. Each asset category has its own set of inspection criteria. As the service engineer carries out their inspection, the results are recorded, including if relevant, photographs taken with the computers own camera.

Once inspection is completed results are uploaded across a GPRS link to a database hosted on Hoistech's behalf by CoreRFID. The database holds a list of each asset by location and the results uploaded are used to produce the standard GA1, Report of Thorough Examination required by the Irish HSA.

As well as providing Hoistech with the information they need to manage the inspection of assets (the system records the time taken for each inspection and generates the next scheduled inspection date after a period of 3, 6, 12, or 48 months depending on the asset type), the system provides valuable information for Hoistech's customers.

Each of Hoistech's customers is able to view data related to the equipment installed on their sites, using the database's secure web portal. As a result, Hoistech is able to offer better service to their clients, providing them with up to date information about which assets have been inspected and the outcome as well as confirming exactly which assets are at which location.



Hoistech engineers carry out on-site inspections for their sale and rental customers.

The CoreRFID Approach

The Hoistech solution is one of a number of RFID based health and safety applications delivered by CoreRFID. The Hoistech application was developed based on CoreRFID's Portable Data Collector software and adapted to Hoistech's specific needs as part of the implementation process. CoreRFID provided the handheld computers used by Hoistech's engineers together with the integrated RFID readers and a robust, weatherproof housing to make the system usable out-of-doors on construction sites.

CoreRFID also selected and supplied the RFID tags which are used to identify the assets, providing tags that are proven to work in the environments where Hoistech equipment is in use and which can be mounted on metal without disturbing the ability to of the reader to be able to interrogate the data held on the tags.

CoreRFID carries out training on the system and provides ongoing support for both the application running on the mobile computers and the hosted database and reporting application.



The compact & rugged M3 mobile used by Hoistech.

About CoreRFID

Contact us at:

CoreRFID Ltd, Dallam Court, Dallam Lane, Warrington, U.K. WA2 7LT

T: +44 (0) 845 071 0985 F: +44 (0) 845 071 0989 W: www.corerfid.com E: info@corerfid.com