Press information

Eichhorn equips waste disposal vehicles with RFID:

MOBA identifies general waste bins in the Bamberg district

Limburg, June 2014

In municipal waste disposal, identification systems enable user-based fee levying. RFID technology is being employed in the Bamberg district too. There, the Eichhorn company relies on MOBA for carrying out general waste disposal.

The disposal of general waste, organic waste, recyclable paper and recyclable packaging material bins is a task which requires good planning and corresponding logistics from municipalities and the respective waste-management companies. Already months in advance a determination is made as to when exactly in which community which bins must be emptied. In order for this schedule to be adhered to, the entire waste disposal process – from the container emptying on up to the disposal site – must function problem-free. This also includes, during the container emptying, the identification of the individual waste bins. This makes it possible to exactly match the waste to its originator and to levy fees accordingly.

And, thus it is handled in the Bamberg district, where Eichhorn Transport und Entsorgungs GmbH has been managing the waste disposal of the 144,000 residents in 36 municipalities since January 2014. To master this task, the company bought seven new waste disposal vehicles and equipped them with an identification system. When searching for the best system, the company decided on MOBA because of their many years of proven experience in this market and because of the robust, dependable devices used for a MOBA solution. "Installation and commissioning were very uncomplicated. Within 14 days all of the devices were installed in the vehicles. MOBA subsequently installed the software by way of remote maintenance", explains

Dominik Eichhorn, authorised officer at Eichhorn. "And, we are also completely satisfied with the system in practical use. The identification of the waste bins and the data transfer function quickly and reliably".

Waste disposal fees: savings of up to 17 percent
The bins are identified by means of a transponder. These tiny chips are mounted under the edge of the waste bins and are assigned an individual number. While the bins are being emptied the scanner, which is mounted on the waste collection vehicle, detects this number. The emptying is recorded and relayed to the municipal administration office. There the respective waste disposal fee is calculated according to the total number of bins emptied for each household. The reason being that, in the Bamberg district, the calculation of the fees is not based on the number of members of a household but instead on the bin size and the number of bins emptied. The basic fee for an 80 litre bin, which is the typical size used in households of up to fifth persons, is EUR 51.36. Each individual emptying is charged with a service fee of EUR 2.36. Because general waste is picked up every two weeks, this results in a maximum number of 26 emptyings per year. The minimum quantity which is calculated is 18 emptyings. Therefore, if a resident puts out his or her general waste bin only 18 times to be emptied, he/she pays about EUR 94 for the entire year instead of about EUR 113 for 26 bins emptied. With billing on this basis, which is made possible by the identification system, a household can therefore save up to 17% on waste disposal fees. "Each resident can thus personally co-determine how much he or she has to pay. With a system such as this, residents can be encouraged to engage in waste prevention and waste separation and recycling", explains Jürgen Pfister, department head for waste management in the Bamberg district administrative office. In the Bamberg district identification technology has already been put to use since around ten years in order to match general waste

with its originator and thus determine the fees correspondent to the quantity of bins emptied. "We leave it up to the provider to choose which system he will make use of. What we are really interested in is the emptying data. Because only with the data can we calculate usage-based fees", continues Pfister. The district already uses software with which the emptying data input is administered and the fee invoices are generated. "Our MOBA system on the vehicles is based on the open protocol Clean Open, which defines the communication of the electronic components on a waste collection vehicle. With this protocol, components from different manufacturers can be integrated with no problems whatsoever. The integration of the existing software with ours was no problem at all either, and also the reading-out of the already present transponders works without a hitch", explains Hans Mayer, MOBA Sales Manager.

Navigation and documentation by means of on-board computer

Along with the possibility to identify containers and to transmit the compiled data, the system also offers additional functionalities: with it, the quantity of general waste disposal bags and diaper bags – which residents can supplementally buy at the district administrative office – can be entered via the control panel in the vehicle cab. If a bin is ready to be emptied, but no fees have been paid for it yet, the system shows the driver this information directly on the on-board computer and the emptying of the bin is stopped. Damage to a bin can likewise be entered, stored and relayed to the responsible office, which in turn greatly simplifies the container management. Overfilling or a message that a bin has not yet been emptied can be noted in the system via the on-board computer. "The occurrence is stored along with the corresponding geo-coordinates. If a resident enquires, the dispatcher can immediately send the respective info to him or her", states Dominik Eichhorn. Thanks to the data storage, the company

consequently has proof of the work performed. "If a resident complains that his or her bin wasn't emptied, the dispatcher can then look into the system and see the reason. For example, that the bin was obstructed by parked cars", explains Hans Mayer. Via the MAWIS web portal, the dispatcher can also check the location of the vehicles at all times in a digital map, and adjust the operations planning accordingly.

"Our drivers get along quite well with the technology. The operation by means of touch screen is kept very simple and intuitive", adds Eichhorn. However, not only the operation but also the navigation is simplified: with the FollowMe function the travelled route can be recorded and saved. This can be reproduced at any time, so that a replacement driver can correspondingly navigate exactly the same route.

About MOBA

With more than 40 years of experience in the development and manufacture of measurement and control technology, identification and weighing systems for construction machines and waste disposal vehicles, MOBA is a globally recognised expert in the field of mobile automation. MOBA is one of the leading system specialists and OEM partners in the industry. With headquarters in Limburg, branch offices in Dresden, Langenlonsheim and Merenberg as well as eight subsidiaries and an international dealer network, MOBA is present on all large growth markets. Company sales grew over the past decade from 23 million euros in 2003 to nearly 50 million euros in 2013; the number of employees increased in this period from 185 to 465.

Press information

The new waste disposal vehicles from Eichhorn are equipped with the MOBA identification technology (Figure: Eichhorn)
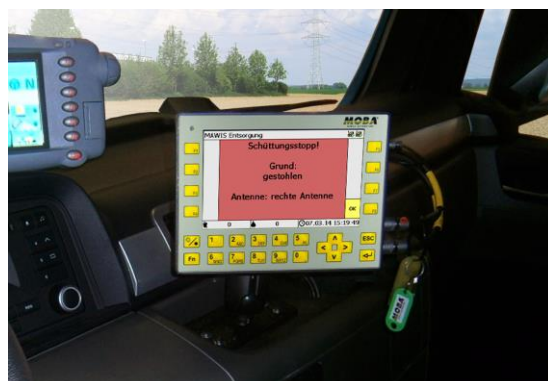
On the on-board computer the driver sees all emptying and address data, as well as disposal stops (Figure MOBA)

If you have any questions, please contact:

MOBA Mobile Automation AG
Sabine Werle
Marketing Communications

Kapellenstraße 15
65555 Limburg / Germany
Germany

Phone: +49 6431 9577-287
Fax: +49 6431 9577-177
E-mail: swerle@moba.de
www.moba.de

Further information and downloads of press texts and images

available at www.moba.de.