

1st Crane Cable Engineering Day at igus

Results of the expert conference: the use of chainflex individual wires in crane applications does not lead to harmful bearing currents

Cologne, 18th September 2013 - At the first Crane Cable Engineering Day organised by igus, electrical crane engineering specialists discussed the safe installation of cables on the basis of comprehensive series of tests. A special focus was on the avoidance of bearing current. Results have shown that the use of optimised chainflex individual wires in crane applications does not lead to the formation of harmful bearing currents. In addition, igus presented new fibre optic cables which help the crane industry to save costs.

Leading crane manufacturers from German-speaking countries took up the invitation from igus to discuss new possibilities of electrical energy supplies in the crane industry. The lectures and subsequent discussions amongst the electrical experts from the industry brought forth new insights into the safe installation of cables for the heavy-duty drives of crane trolley and stroke motors.

Avoiding bearing currents and reducing costs

Series of tests carried out by igus on the subject of bearing current and how to avoid it served as a basis for discussion. During these tests, a wide range of different cable designs were tested over a six-month period in the igus in-house cable laboratory, which covers an area of 1,750 m², in order to re-evaluate bearing current depending on cable design. A concrete comparative model with 580 kW crane motors and respective inverters and control units showed that bearing currents in crane applications can be avoided by the use of optimised chainflex individual wires. In addition, the test results showed that service lives can be significantly increased with the aid of optimised cables and that costs can be significantly reduced at the same time: Use of the chainflex individual cables allowed design space to be reduced by 36 per cent and reduced the overall costs by more than 17 per cent.

New generation of fibre optic cables saves costs

The new cable developments from igus were also met with great interest. Particularly the new generation of fibre optic cables CFLG.2LB, CFLG.4LB and CFLG.6LB developed especially for



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(Source: igus GmbH)



RTG and RMG crane technology. These cables have already passed tests with more than 50 million cycles in the igus laboratory. This new generation of FOC cables with 2, 4 or 6 gradient fibres offers a series of significant advantages: The particularly bend-resistant 62.5/125 and 50/125 µm gradient fibres guarantee a long service life under the rough conditions in crane applications. They also reduce the design space. The costs benefits of the new generation of FOC cables from igus, however, are particularly interesting. The simplified connector pre-assembly allows users to save more than half their costs. Which also reduces the overall system costs.

With the first Crane Cable Engineering Day, igus has initiated a series of expert conferences which are to be continued for different branches in the future.

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About igus®:

The igus GmbH is a world's leading manufacturer in the field of energy chain systems and polymer plain bearings. The family-run company is based in Cologne, represented in 29 countries and contracts 2,200 employees worldwide. In 2012 igus generated a turnover of 399 million Euro. igus operates the largest test laboratories and factories in its industry to offer customers innovative and tailor-made products and solutions within the shortest time.

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