

Pressemeldung

Versatile handling of heavy loads – with the battery-powered trolley

- **Moving loads weighing up to 40 t per wheel – also across intersecting rails**
- **On-board power supply**
- **Demag wheel blocks from the modular drive system**

Wetter, Germany, 13 March 2018. “Everything on board” is the motto for the battery-powered trolley that Demag is showing at LogiMAT 2018. It can transport loads weighing up to 40 tonnes per wheel and does not need an external power supply. That makes this carriage suitable for crossing rails or for outdoor operation, for example.

Flexibility is a key factor in intralogistics, and is one reason why fixed ground-level materials handling equipment such as roller conveyors is becoming less and less popular. Particularly for higher load capacities – it is also a strong argument in favour of overhead solutions, i.e. cranes, or transfer carriages. For this type of materials handling, Demag has developed a new concept with its battery-powered trolley.

This development was prompted by a customer enquiry for a heavy-duty transfer carriage that is able to cross the rails of an industrial siding. This eliminated the possibility of supplying power via a rail or cable. For this reason, the Demag engineers developed a battery-powered transfer carriage. They were able to use major components from the Demag modular drive system, especially the travel units – consisting of DRS wheel blocks and precisely matched drives.

On the other hand, the electric battery part of the drive system had to be developed from scratch. However, Demag also has extensive experience in this field. Conventional lead-gel batteries, such as those used on electric forklift trucks, or lithium-iron phosphate cells can be used. Central drive units on two axles ensure that there is also sufficient traction when rails are crossed.

While the first series of battery-powered trolleys was still equipped with a low-voltage system, for current projects Demag now uses combined charging and power units that can generate 230 volts and 400 volts, respectively, and allow the use of standard components (Demag geared motors, Dedrive frequency inverters) and cables with small cross-sections. The batteries are charged and maintained via an integrated charging unit in the supply zone.

The battery components have now become a permanent part of the Demag range of products for heavy-duty load handling. The carriages can be operated separately or (e.g. for handling long materials) simultaneously via radio control. In terms of their load capacity and safety functions according to EN ISO 13849, they can be equipped with the Demag SCU safety control system (including safety equipment such as bumpers and scanners) and adapted to meet a wide range of individual requirements – and it remains to be seen whether battery systems will offer even more power in the next few years.





41596: Demag drives for a battery-powered transfer trolley.

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