



Casting / Ladle Transporters: GN series motors provide reliable drive of casting ladle transport vehicles

- Rugged DC shunt-wound motors feature infinitely variable control
- Designed for 20 journeys per shift (8h)
- Short-term 3-fold overload permissible
- Battery powered, automated guided vehicle system



Heavy-load transporters are used to transport the casting ladles from the warehouse to the casting house.



Battery powered and robust DC shunt-wound motor GN 17.17.4 for trouble-free operation without trailing cable.

Task

Infinitely variable DC motors are required to drive a 100 ton heavy-load transport vehicle used to transport casting ladles. The motors are powered by a 48 V battery and connected to a gearbox to provide a travelling speed of 10 m/min. They must be able to provide full torque across the entire speed range combined with a possible short-term 3-fold overload capability. The vehicles are equipped with a battery (capacity 625 Ah) to provide a minimum travelling time of 200 minutes, which is calculated to provide sufficient power for 20 journeys per shift. The motor output is to be dimensioned accordingly.

The Hübner Giessen solution

For each deployed transport vehicle Johannes Hübner Giessen supplied 2 separately excited, low-voltage, shunt-wound DC motors with an integrated spring-loaded brake from its GN 17 series. The motors are equipped with an additional integrated fan to cool the outer surface and are designed for intermittent operation (S3 42% CDF). The rated motor torque is 17 Nm. The motors are capable of delivering a short-term overload of up to 50 Nm. A BAMOBIL battery controller is included in the Hübner Giessen scope of supply to regulate power to the DC shunt-wound motor.

Products

- GN 17.17.4
- Engineering support