

Geared motors for efficient cranes

Getriebebau NORD supplies drive units to SHB

Getriebebau NORD has supplied drive technology to SHB GmbH since 2004. The procedure for good cooperation is clearly defined, SHB supplies NORD with all the necessary load details, categorisations and conditions of use. SHB also preselects the drive units for gantry cranes and crane trolleys. The drive units configured by NORD exactly fulfil the specifications from SHB. The motors used in the cranes and trolleys are in almost continuous operation.

A company with tradition

The firm Saalfelder Hebezeugbau GmbH stands for 60 years of tradition in competence in the design, production and sale of cranes and crane components. The range of services also includes crane conversions, service and expert examination of cranes as well as the design and development of automatic parking systems. After the reunification of Germany, SHB belonged to VVB TAKRAF until 1992. Since January 2008, the company has been part of the crane technology division of the Georgsmarienhütte Group. As early as 1974, SHB supplied cranes to companies in West Germany and is still one of the most experienced crane manufacturers in the industry. With 143 employees, the company had a turnover of €22 million in 2007.

SHB cranes can be found in almost every sector of industry. For example, the company supplies steelworks cranes, ingot cranes, foundry cranes and grab cranes. The standard crane is also part of the product range. This variety was the reason that SHB looked for a drive unit supplier which was able to fulfil all of their technical requirements. In combination with this, a continuity of delivery performance is aimed for.

Decision for a drive specialist

The wide range of products and the great experience with drive technology components was the ultimate reason for the selection of Getriebebau NORD as a supplier. The main criterion was to gain a manufacturer with the necessary consultancy, solution and production competence. As well as this, it was also important to have the support of a drive specialist from the planning stage up to commissioning.

Drive technologies make cranes safe and efficient

Since 2004, the Saalfelder Hebezeugbau GmbH has used NORD parallel shaft gear units from 0.22 kW to 37 kW with a wide range of ratios. The speeds range from 80 m/min for crane movements to 32 m/min for trolley movements. The acceleration is approximately 0.2 m/s².

NORD parallel shaft gear units are available as two or three stage basic types with hollow or solid shafts with foot-mounted, flange mounted or plug-on versions, each in the same housing. The NORD unicas concept enables the design of extremely high performance parallel shaft gear units with very small dimensions. NORD parallel shaft gear units can be combined with the elements of the NORD modular system.

All gear units are produced in the unicas form, which was first developed in 1981. In addition to the high efficiency of gear units with helical, parallel, bevel and worm gears, there are further decisive benefits to operators.

Greater operational reliability, high output torques, high axial and radial loading capacity, quiet running, high efficiency, reduced maintenance and a longer operating life are the key features of this series.

SHB cranes for intralogistics

Cranes which are generally used for loading and unloading or in assembly, production and warehouses, as well as in the construction industry are considerably different from simple lifting devices. Picking up loads and setting them down at a precise location requires special drives and integrated brakes as well as a frequency inverter technology which ensures a soft start and generator braking via defined adjustable ramps. For all crane applications the following functions are essential for continuous safe transportation: smooth movement, simultaneous movement of the crane and the trolley, smooth running and synchronous operation for travelling drives, with high positioning accuracy. For travelling drives, an adaptation to the particular operating conditions must also be taken into account.

The requirements for geared motors range from continuous running at full power to the handling of large axial and radial forces. Add to this, the possible effects of a harsh industrial atmosphere or the use of aggressive substances sometimes make special protection options necessary. Here, products with protection class IP55 and IP66 together with rust-protected versions with special coatings can be used. The gear units can also be filled with synthetic oil if the cranes are to be used at high temperatures, for example in foundries. Although the variety of versions to be considered is very large, it can be fully covered by the wide range of NORD products.

The cranes and trolley are assembled at the factory in Saalfeld and undergo thorough quality checks prior to despatch.. The commissioning of the crane at the customer's premises is the final stage in the logistics chain.

Summary:

For Getriebebau NORD, SHB is an important customer in the regions of Saxony and Thuringia. There is always an intensive and continuous cooperation between the two companies. Project engineers and technicians from SHB regularly meet representatives from NORD for consultations and exchanges of opinions. These meetings have now become an established institution and illustrate how good and trusting a cooperation can be the key to success for both sides. Both SHB and NORD pursue a goal which can be simply stated as customer orientation, customer benefit and customer satisfaction.

About NORD

Getriebebau NORD with its headquarters in Bargteheide and subsidiaries in 35 countries is a global company with an extensive range of products and services for electrical, mechanical and electronic drive technology. With a staff of approx. 2500 in four German factories as well as international production facilities, NORD produces and markets drive technology (electric motors, gear motors and drive electronics) throughout the world. The design of user-specific drive solutions with its customers and their supervision from the planning phase right up to commissioning is what makes NORD a strong and dependable partner. We see 24-hour service, fast availability and customer proximity as both a responsibility and an obligation, just as you can expect from a leading drive manufacturer such as NORD.

Photos: <http://nord-de.net/presse/shb/>

Picture captions:

Fig. 1 Coil transport crane with rigid load guide and C-hook

Fig. 2 Scrapyard crane with portal design in order to obtain maximum lifting height.

Fig. 3 Crane drive

Fig. 4 Trolley drive