

June 2007

Handling of more than 4,000,000 tons of coal

Successful coal handling in the port of Szczecin with AUMUND Wagon Tipper



About 15 delegations -most of them from Eastern Europe countries- visited the port of Szczecin during the past two years. Their focus of interest was on the coal handling which since September 2003 has been carried out with an AUMUND wagon tipper. In the meantime, more than 4,000,000 tons of coal have been handled with the new machine.

The 20-meter long wagon tipper with its 8-meter diameter was installed in September 2003 within just three weeks and commissioned after 28 days.

This record time, reached by local personnel under AUMUND supervision, had proved to be the

key to the award of the order at the project stage: The competition had offered installation and commissioning to be realized within five months.

AUMUND materials handling technology meets all relevant requirements on safety, environmental protection, utilization and economic efficiency. This applies to all materials handling operations in the cement plants as well as to the transport by rail, road or water. AUMUND wagon tippers ensure an economic unloading. The wagon tipper product line differentiates between the following three basic systems: The rotary tipper with its tipping angle of 360° and a handling capacity of up to 35 wagons/hour, the side tipper with a tipping angle of up to 150° and a

handling capacity of up to 20 wagons/hour and the front-end tipper with a tipping capacity of up to 15 wagons/hour. The wagon tipper offers all the benefits of an economic unloading: Up to 35 wagons with

SUMMARY

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CUSTOMER

Bulk Cargo –
Port Szczecin GmbH, Poland

INDUSTRY

Ports Operations



▲ Rotary tipper with cover

◀ Port of Szczecin

a weight of up to 80 tons can be unloaded each hour by means of an hydraulic rotating system.

The order for the wagon tipper was placed by Bulk Cargo – Port Szczecin GmbH, the largest materials handling company in the port of Szczecin and one of the largest materials handling companies at the Baltic Sea. This company was founded in 1994 by the formerly separate port operators Cargo-Port, Coal-Port and Mas-Port.

Coal is the most frequently handled bulk material in the port of Szczecin. For many years now, it

MORE INFORMATION

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has reached a rate of more than 60 % of the loads handled. In this port, the AUMUND wagon tipper replaced a predecessor of almost milestone character in industrial history: When the large conveying system was installed in Szczecin in 1953, this wagon tipper was the very first machine of this kind in Poland.

The tipper enabled the handling of up to 1,000 t/h of material. In spite of constant repairs and modernizations, now the time had come for the general overhaul of the conveying system and the replacement of the strongly worn wagon tipper. Szczecin-winoujcie Seaport Authority, the owner of the coal handling system had already started years ago to repair the foundations of the conveying system. Prior to the installation of the AUMUND tipper, the foundations were repaired once again.

In addition to the new tipper, AUMUND also supplied the complete

electric equipment for the shunting vehicle. The coal handling with the wagon tipper is designed for all makes of wagons currently used in Poland and functions according to the following principle which is as simple as efficient: A shunting vehicle travelling into an underground bunker moves the full wagon with its weight of up to 80 tons uphill into the tipper where the wagon is braked and rotated.

After the coal has been unloaded, the empty wagon is pushed out of the tipper by the next wagon and rolls down a smooth gradient into the requested parking position, into which it is guided by correspondingly set switches.

The wagon tipper with its drive power of 2 x 37 KW is operated via a control stand. The system was designed for unloading up to 24 wagons per hour, the coal particles handled on average range in size from 0 to 200mm, while individual lumps may reach a size of 400 mm.