

Legendary Reliability

Clyde Bergeman Materials Handling Ltd, uses hydraulic drive systems for their ash handling equipment and systems.

▶▶ Reliability and a total system undertaking are some of the reasons why customers in the material handling business chooses Hägglunds as a long time partner.

Hägglunds in the United Kingdom have had quite good success with power station projects. The main applications tend to be bulk material handling types in the coal stock-yards with bucket-wheel stacker reclaimers, drag link feeders, paddle feeders and conveyors. But perhaps the best application over the years has been the submerged scraper chain conveyors, which are positioned under the boilers.

They are filled with water so that the hot ash falling out of the boilers cools quickly and is then conveyed along, up and out, dropping into the crusher which is also often driven by Hägglunds motors. From here the ash is conveyed hydraulically or mechanically, to either De-watering Bins or Silos for truck loading, or to the ash pond disposal area.

Power stations world-wide

Most of these systems have been exported by our customers to the developing countries of the world like India, China, and Malaysia. The main manufacturer, now being Clyde Bergemann Materials Handling Ltd, whose ash handling equipment and systems are exported worldwide. Earlier customers were the well known major power station contractors like Babcock and GEC, who operate on a world-wide basis.

John Martin, Ash Systems
Manager of Clyde Bergemann

who has been involved in the design and production of these systems for many years, says of Hägglunds; " These are the finest power units on the market where high torque and low speed applications are required. We have been using the Marathon and Compact motors for many years and their reliability is legendary."

Customised solutions

Hägglunds Marathon motors are ideal for this application because of the very low speeds and the potentially very high torque in certain conditions, when the conveyor can be completely filled with hot ash. The power required is quite low



Hägglunds Maraton motor driving a Scraper Chain Conveyor. Many of the Ash Conveyors delivered with Hägglunds drive systems are used in India, China and Malaysia.

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/Mr. John Martin
Clyde Bergeman

which means standard PEC power units are not appropriate and so open loop power units have been used designed to fit underneath the elevated section of the conveyor. When

maintenance is required the whole conveyor including drives and power unit can be moved on rails safely out of the working position.

Variable speed is provided with a proportional valve, and the variable displacement piston pump efficiently load senses the drive thereby providing only that pressure that is necessary so that no unwanted heat is produced. If a crusher drive is included, this would normally be a small Compact motor driving at a fixed speed to suit the application. On some systems Hägglunds also provided the hydraulic system for operating the hydraulic cylinders, which operate the boiler gates controlling the ash dropping from the boilers. It is quite convenient to have one supplier providing the complete system including piping kits, so there are fewer suppliers with less co-ordination to do. Particularly when there can be years between supply and commissioning of the systems.