

DSI SANDWICH BELT HIGH ANGLE CONVEYOR AT ACERALIA STEEL MILL

SANDWICH BELT HIGH ANGLE CONVEYOR REPLACED POCKET BELT IN NORTHERN SPAIN

PHB Weserhutte S.A., of Gijon, Asturias, Spain was searching for the best equipment to elevate raw coal to the blast furnace pulverizing plants of a coal grinding plant at a major steel producer in Northern Spain. They were offering a system expansion, including a new pulverizing plant to a new blast furnace. This, plus the requirements of the existing pulverizing plant, required increased coal throughput besides the requirements of the expansion.

PHB's customer, Aceralia, also of Gijon, Asturias, Spain, needed to replace an existing vertical pocketbelt system that served the existing pulverizing plant. The pocket-belt system proved to be problematic, as it did not completely discharge the moist coal. Instead, it resulted in carry back and created a clean-up problem.

The search began to focus on sandwich-belt high angle conveyors and ended with DSI, the world's foremost authority on sandwich belt type high angle conveyors.

The original inquiry was for two DSI Sandwich High Angle conveyors. The first conveyor would replace the troubled pocket belt system to the existing pulverizing plant. A second sandwich conveyor would elevate to the new pulverizing plant. After some analysis, PHB and DSI found they could serve both pulverizing plants with only one DSI Sandwich Conveyor instead of two.

The conveying path to the new plant would pass by the existing plant, thus a single DSI Sandwich conveyor with bifurcated discharge chute and floggate could direct the raw coal flow alternately to the new pulverizing plant. Because the DSI sandwich belts utilize conventional, smooth rubber belts, they can offer a complete material discharge as well as belt cleaning with scrapers.

The DSI Sandwich belt high angle employs all and only conventional conveyor equipment and components. A firm yet gentle hugging pressure, imparted to the conveyed material, is induced entirely by radial pressure due to belt tension and carrying profile.

The DSI Snake at Aceralia Steel Mill has been in successful operation since 2003.



The DSI Sandwich conveyor replaced a problematic pocket belt system eliminating carry back and clean up problems by scraping belts clean.



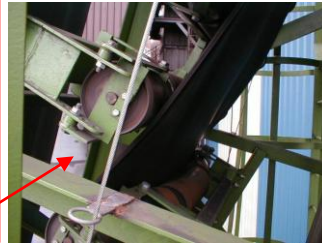
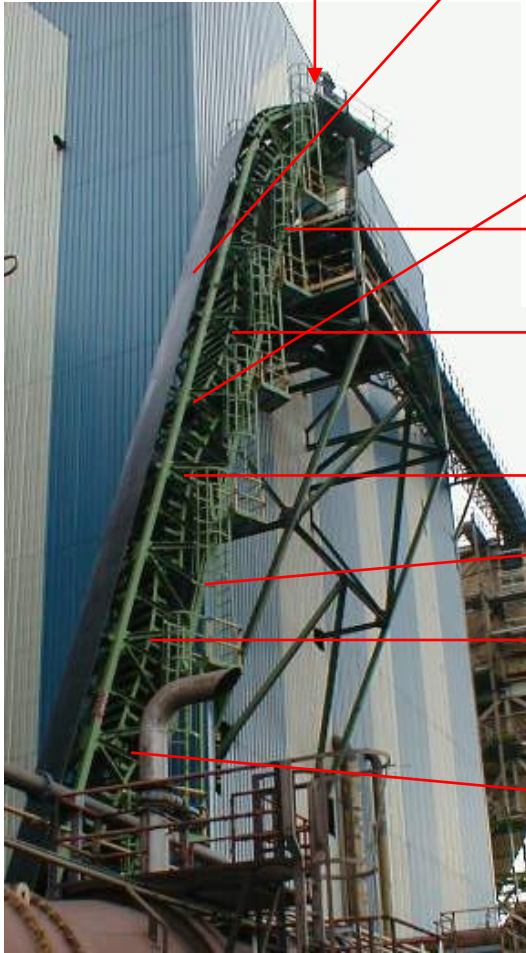
Discharge



Inflection 5



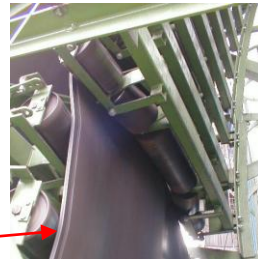
Curve 6



Inflection 4



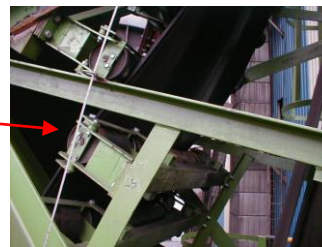
Curve 5



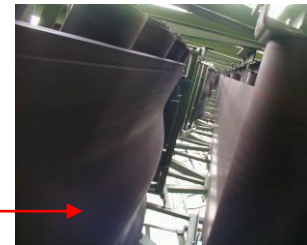
Inflection 3



Curve 4



Inflection 2



Curve 3



Loading



Curve 1



Inflection 1



Curve 2