



White Paper

Self-Unloading Vessel Equipped with Scholtz-EFS FLEXOWELL Conveyor System

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The authors describe the introduction of the Scholtz-EFS FLEXOWELL conveyor system into the self-unloading vessel MV "AGAWA CANYON" which previously used a bucket elevator system for elevating material for discharge. The reasons for this conversion as well as the various erection stages are described. The newly equipped self-unloader was successfully unloaded under actual operating conditions for the first time on May 28, 1982. The capacity of the new elevating system was found to exceed the capacity of the former bucket elevator system.

The development of new unloading technologies for self-unloading vessels, mainly on the Great Lakes, with rational systems which fulfill the ever increasing environmental demands, is a constant challenge for the engineer.

The elevating of bulk materials has always been a problem within self-unloading vessels where space is at a premium and unloading capacities are high. Bucket elevators were ideal for the application but were expensive high in maintenance, noisy and extremely heavy. Despite these disadvantages elevators were used almost exclusively for many years and were installed with capacities up to 4,500 short tons per hour.

The Scholtz-EFS Conveyor System offers the simple advantages of the bucket elevator and a solution to maintenance, noise and weight problems.

In comparison with other systems the cost of this elevating system is reported to be attractive. For the replacement of existing bucket systems, there are substantial cost savings to the shipping line whereby the owner receives a practical system which minimizes maintenance, increases the unloading rate, saves energy and virtually eliminates the noise caused by a bucket elevator.