

# Chantland MHS

Case History

Chantland MHS has built a variety of belt tripper designs over the past seventy years, most all of which have been motor driven, however a few years ago we began receiving requests to replace trippers for belt conveyors powered by the main conveyor belt. Almost all of these trippers had been installed in the 1940's and 50's and though very ruggedly built, were finally deemed beyond repair by maintenance groups.

We provided replacement trippers utilizing electric drives until we were contacted by a Missouri based aggregate processor. This client wanted their decades old belt trippers replaced with the same design which they had, that being manually operated and powered by the main conveyor belt. Electric drives were not an acceptable alternative.

The Chantland team was invited to visit the site and after reviewing with the plant engineer and operations personnel, determined we could design and build what they wanted. The end user's group expressed an extraordinary willingness to work closely with Chantland's team to develop a user friendly manual tripper drive system.

Sitting atop a storage complex are two belt conveyors, each with a tripper discharging to either side filling four rows of silos. The concrete deck is covered by a corrugated steel structural housing protecting the equipment and silo inlets from the environment. By the time product arrives at our trippers it has been reduced into small granules and colored for use in making shingles. Still slightly tacky and well over 100 degrees Fahrenheit, these granules are very abrasive so all contact surfaces are lined with ceramic tiles to withstand wear. Personnel control the trippers by engaging one of the control levers when they are standing on the operator platform. One lever is pushed forward or backward to engage the drive system with



the main conveyor belt and allow the tripper to travel in forward or reverse direction. This lever must be held in place by the operator and when released goes to a neutral position to disengage the drive motion. Approximate travel speed is 35 feet per minute and personnel can operate the tripper at slower speeds to align the discharge chutes with the small inlet hatches of the silos quite easily. The second lever engages a spring tensioned brake assembly which clamps directly onto the rails to prevent creeping during operation. A secondary clamp is locked to the

rail as a double safety. The trippers also include a cross-over platform with stairs to allow personnel to access either side of the main conveyor at the tripper rather than walking to the end of the conveyor system.



The new trippers mirror the originals in structural integrity yet offer new design features that are not readily visible. User friendly operation and maintenance will hopefully give these trippers an even longer lifespan than their predecessors.

See the video of these trippers and more at our product video library on our website [www.chantland.com](http://www.chantland.com), or search ChantlandMHS on YouTube.

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