TELESTACK SUCCESS STORIES : CASE STUDY

Country / Region: India, Gangavaram Port

End User: Port of Gangavaram

Products: CF 1015 Wheeled Mobile 'Reclaim' Hopper

Application: Mobile hopper reclaiming coal from stockpiles in Stockyard to Stacking / Reclaiming System.

Material Type: Coal

Max Lump Size: 0 - 50 mm

Tonnage: 1000 TPH - 1400TPH (1.0 t/m3 Bulk density)

Wheeled Mobile Hopper reclaiming coal with CAT 966 Loading shovels from stockpiles

What is the situation now?

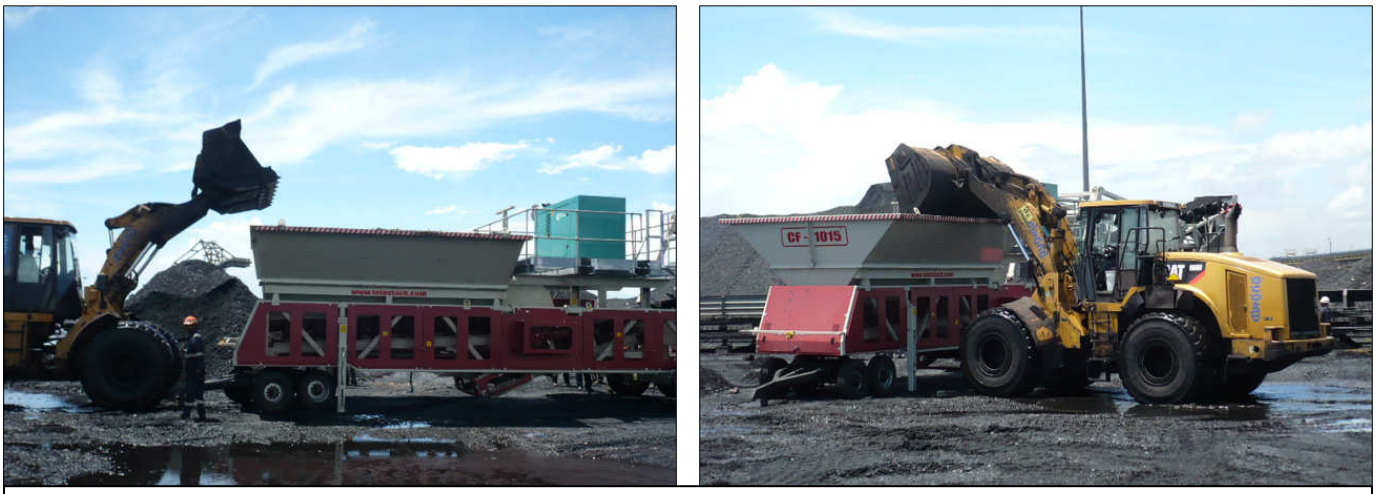
The installation of the wheeled mobile reclaim hopper will feed onto a stacker /reclaimer conveyor belt in Gangavaram Port, India. Currently, the customer has 3 lines in the stockyard consisting of 2 x Stacker/Reclaimers and 1 x Stacker only. However, when unloading vessels with the 2 x unloading cranes onto 2 of the lines, this only allows for one other for either feeding the local power plant or loading trains for inland transportation. This presents an operational 'bottleneck' and reduces the operational capabilities and flexibility of the operation. The mobile reclaim hopper is fed via 2 x CAT 966 front end loading shovel. The machine is placed in the downstream from any of the 3 lines even if the stacker/reclaimer or stacker is operating and used to feed these lines directly from the coal stockpiles in the stockyard. This greatly increases operational flexibility and production, which allows for 1 x line to be redundant in case of routine maintenance or failure.

CF 1015 reclaiming coal directly onto stacking/reclaiming belt)

The customers stacker / reclaimer currently reclaims the coal at 1500TPH, however, with the CF 1015 they are reclaiming the coal at a peak rate of 1400TPH. The 2 x CAT 966 front end loading shovels have an average capacity of 1000TPH, which is currently achievable over a 15 – 20 metre load and carry distance with 5m3 buckets (8 tonnes per load). This increase in production shows that with minimal investment, current stacker / reclaiming systems can greatly enhance their production capacity with this type of reclaiming hopper, without investing in further high equity equipment.

Customised Design

The CF 1015 wheeled mobile reclaim hopper offers maximum flexibility for the operator, it includes a wheeled bogie unit complete with toe hitch for easy site movement via a loading shovel. The 18m3 hopper is fed from 2 x CAT 966 from three sides and reaching a maximum capacity of 1400TPH of coal. The advantage of the 3 x side loading allows the operator to use the machine in the narrow access areas between the reclaim belt and the stockpiles, which allows greater flexibility during the loading process.



CF 1015 Wheeled Reclaim Hopper fed from CAT 966 loading shovel from 3 x sides (Left, right and rear)

Also there is a custom upgrade of Polyurethane low friction liners on the material transfer points (hopper, transfer feed-boot and chute) to allow the material to flow easily without potential blockages and bridging. The hopper also includes a 200mm aperture grid which excludes any foreign material from mixing with the coal. As the reclaim hopper is directly feeding the reclaiming belt, the incline conveyor on the Telestack unit has luffing capabilities (raise / lower) from 12 – 20 degrees, which offers the customer the flexibility to vary the discharge height, depending on ground levels and the height of the reclaiming belt at the certain points. The unit also includes a manual trimming chute which allows the customer to direct the material to reduce segregation / degradation and control the flow of material onto the belt in the same direction as the Stacker / Reclaimer.

Manual Trimming Chute to Direct material onto stacking / reclaiming belt

This is further enhanced with The CF 1015 also includes a 100Kva Gen-set for all functions to make the unit a complete independent unit, with optional lights to ensure 24 hour operation.

This customized solution highlight's Telestack's aim to provide for the specific needs of each application to ensure the equipment is efficient and reliable to enhance the production capabilities of any stacking / reclaiming system within a stockyard.