

PROJECT SHEET

Newlyn, Manganese Export Terminal Study

DemcoTECH was appointed by Newlyn to undertake a materials handling study whereby manganese ore would arrive in 100 ton rail carriages and 50 ton haul trucks and the ore had to be tipped through a rotary tippler, stockpiled and thereafter conveyed overland to two rail-mounted ship loaders addressing Capesize vessels moored at two Coega manganese quays in the Eastern Cape, South Africa.

The tandem rotary wagon tippler was rated for 5000 tph and vessels were to be loaded at 2 x 5000 tph. The overland conveying distance between the stockpiles and quayside was approximately 4.5 km, requiring significant engineering to optimise the routing, layout, and type of conveyors to be employed and to satisfy the arduous environmental considerations imposed upon industry by the local authority.

The scope of work undertaken by DemcoTECH included all materials handling conceptualisation and development, block plan and detailed drawings, locating and sizing of hoppers and silos, preliminary conveyor designs, budget costing and operational costing for the terminal.

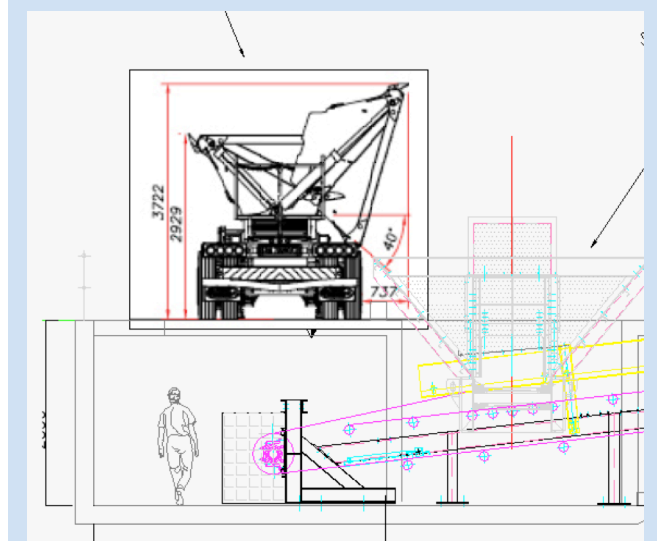
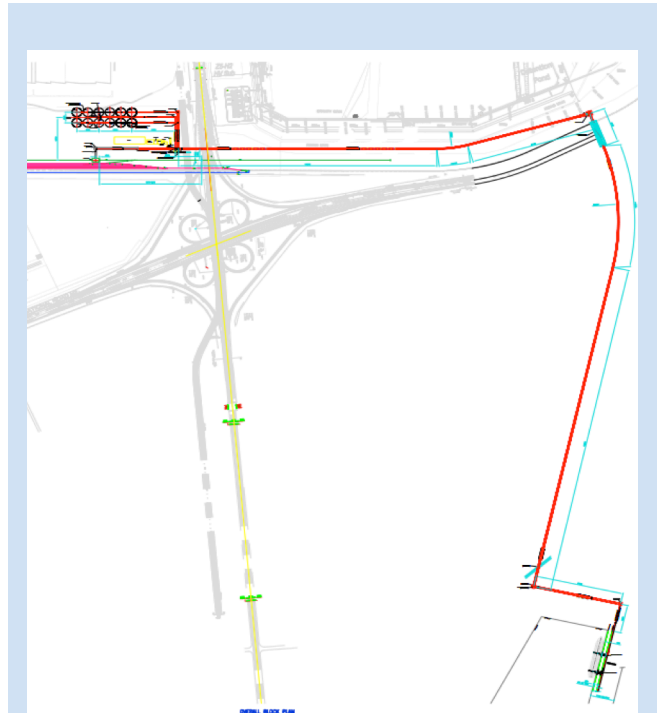
The system extended from the rail siding to the stockyard and from the stockyard to the quayside. Narrow, complex servitudes imposed design features that had to be carefully developed to ensure reliability from receipt to vessel loading.

The plant incorporated numerous troughed and pipe conveyors, groundline and elevated structures, road truck receiving facility / tips, stockyard bypass facilities, surge silos with reclaim equipment, a sampling system to ISO requirements on the export route and moving heads on all of the transfer points to enhance reliability through added flexibility.

DemcoTECH delivered a technical solution involving all engineering disciplines, i.e. mechanical, structural, electrics, and integration with quayside equipment and facilities.

DemcoTECH is a specialist bulk materials handling and niche process plant company, offering services from concept design through to project completion to the power generation, cement, mining, metallurgical, manufacturing and port handling industries. Services include conceptual design, feasibility studies, design, engineering, procurement, expediting, construction and commissioning.

Plant supplied by DemcoTECH includes troughed conveyors, air-supported conveyors, pipe conveyors, rail-mounted slewing boom stackers, pivot boom conveyors and mobile conveyors.



Client	Newlyn
Commodity	Manganese Ore
Contract Type	Feasibility Study (Conceptual design, multi-disciplinary engineering, budget costing)
Duration	2020
Location	Ngqura, South Africa