

Metso delivering on time to the new force in Iron Ore



The FMG Train Unloader Tippler Cells at AGC Kwinana, Perth ready for shipping to site.
Pictured from left to right are: Andrew Forrest (CEO - FMG), John Linehan (TUL Package Manager - Team 45), David Bryant (VP Projects & Engineering – Metso AP) and Russell Scrimshaw (Executive Director – FMG).

On the 1st of June 2006 Metso Minerals were awarded the contract to supply a twin cell rotary TUL (Train Unloader) system to the Pilbara Infrastructure Pty Limited, a subsidiary of Fortescue Metals Group Limited (FMG). The train unloader is being situated in Port Hedland, Western Australia at Anderson Point. The train unloader is supplied by Metso Minerals from the Perth, WA offices and is the first train unloader system of hopefully many for FMG. FMG is already planning to expand their operations, ramping up from 55 mtpa to 100 mtpa and finally 200 mtpa. The infrastructure at Anderson Point is being put in place now to handle the first phase to 55mtpa and talk of further expansions would include a second and third train unloader system.

Rotary iron ore train unloaders guide the wagons into position using an Indexer, two wagons at a time. The system then literally rotates the two tippler cells 160 degrees to create a fast dump for increased efficiency increasing efficiency across the board. The rotary iron ore railcar unloader also allows for minimal maintenance and downtime eliminating the need for extravagant unloading mechanisms on each individual car; in turn reducing cost.

Metso Minerals designed the system to accommodate a plant throughput of 80 cars per hour of iron ore. The Indexer and Plant cycle time is 90 seconds. The number of cars per train is 240 and the gross wagon weight loaded being 160Te.



Andrew Forrest getting shown the workings of the Train Unloader Indexer by Marc Humm (TUL Project Manager – Metso AP).

The train unloader system was manufactured and assembled at AGC's workshop in Kwinana, Perth and consists of a twin cell which to date is the longest Metso Minerals have produced. The cells incorporate a fixed beam and onboard hydraulic clamping. FMG took up an option to have all the lubrication and hydraulic pipe work installed prior to shipment reducing site costs and site installation lead-time. The Indexer system is the largest Metso manufactures comprising thirteen 90kW electric drives.

On Sunday 16th September 2007 the fully assembled cells were loaded onto a vessel at Kwinana bound for Port Hedland. Marc Humm stated “Metso achieved the target delivery date on budget while including additional variations for enhancements during the contract at the request of FMG’s engineers Team 45 (Worley Parsons). This was achieved with relative ease due to a good working relationship and open lines of communication with Team 45. Metso are now at site working with FMG on the installation and commissioning which is due for completion early 2008.”



The first of the Tippler Cells being moved from AGC Kwinana to the wharf bound for Port Hedland.

About Metso Minerals

Metso Minerals is a leading global supplier of equipment, service and process solutions to industries including quarrying and aggregates production, mining and minerals processing, construction and civil engineering, and recycling and waste management.

Further information available at: www.metsominerals.com

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