

CASE STUDY

PARABURDOO BRIDGE RECLAIMERS SUSTAINING WORKS

PROJECT PROFILE

The refurbishment project of the two (2) Bridge Reclaimers at the Paraburdoo Stockyard extended the lifespan of the existing machines by approximately 20 years.

The machines were first commissioned in 1972 and have been in service for over 100,000 hours each.

PRODUCTS HANDLED

- Iron Ore: Pilbara Blend Fines, Yandi Fines and Pilbara Blend Lump

CAPACITY

- Actual capacity depends on mix of products, rail receipt arrangements and import / export mix
- Reclaimers operate in a duty / standby arrangement with outloading design capacity of approximately 5,800 TPH

PRODUCTS USED

- Schneider Unity Pro XL Software
- Ethernet, Profibus & Modbus networks
- Citect SCADA
- Siemens G120 VSD Control Modules



SCOPE OF WORKS

Design, fabrication, site installation and commissioning of structural, mechanical, electrical and control system of the two site bridge reclaimers

Each reclaimer scope covered:

- Replacement of travel bogeys
- Replacement of Harrow and Harrow hoist system
- Upgrades to cross travel carriage and bridge
- New MCCs
- Functional safety updates
- New bucketwheel control system
- New Siemens VVVF drives for long travel and cross travel cable and hose reelers
- New remote IO and operator stations

OUR INVOLVEMENT

Control system design, development and commissioning for:

- New bucketwheel controls
- Automated relocation and reclaiming functionality
- Drive and starter configuration for all new drives
- Modifications to reeler control philosophy between torque and speed control methods
- Citect modifications and upgrades