

1.8 MW OVERFLOW BALL MILL Ø 4.43m x 5.01m EGL

This mill was purchased from Tower Hill by Western Metals Ltd. for its Pillara operation and then extensively refurbished in 2001 prior to it being taken over by Lennard Shelf P/L plant ID no. 330-ML-02



Duty

- mill speed 75% Cs
- power required at pinion 1,350 kW
- motor power draw 1,425 kW
- duty capacity 290 tph
- ball charge volume
 - design 35%
 - maximum 40%
- ball size 50 mm
- mill discharge density 78% solids
- mill lining rubber
- discharge trommel size 1.8 m diameter x 3.0 m long
- discharge trommel aperture size 8 mm x 20 mm
- nominal feed size P₈₀ 400 µm
- Russian manufacture with extensive Australian re-manufactured major components

- **Mill Body**

- fabricated one-piece mill shell
- mill heads with fabricated trunnions



- **Drive Train**

- TOSHIBA AEDT 1800 kW high voltage wound rotor induction motor
 - 11 kV, 50 Hz, 6 pole
- liquid resistant starter
- Valmet 2G-710E fixed speed gearbox complete with lube system and cooler
- inching drive



- **Ring Gear and Pinion**

- fabricated steel ring gear
- reversible pinion with integral shaft
- pinion bearings with seals
- automatic pneumatic ring gear and pinion grease lubrication system
- ring gear and pinion guards



- **Main Mill Bearings (trunnion mounted)**

- feed and discharge end multi-pad hydrostatic bearings
- skid-mounted oil lubrication system including duplex filters, standby pump, accumulator system for emergency shutdown, and oil cooler

- **Lining System**

- Metso local-supplied rubber linings

- **Ball Mill Trommel and Screen**

- Svedala Skega rubber panels
- 1,576 mm diameter x 2,933 mm long
- 10 mm x 20 mm slot mesh
- slotted pipe spray bar
- steel fabricated frame
- fabricated mild steel plate trommel cover



- **Ball Mill Trommel discharge chute**
 - fabricated from mild steel plate
 - rubber-lined
- **Ball Mill Feed Spout**
 - complete with liners and trolley



- **MCC**
 - stand-alone transportable MCC mounted on steel platform with safety rails and steps



- Ball loading hopper (kibble) and ball box

- Ball discharge scats chute
- Ball Mill discharge launder
- Structural steel support framework with steps, handrails, walkways, and platforms



- Dismantled and packed FOT Pillara minesite
- **Spares include the following additional major components:**
 - high voltage wound rotor induction motor
 - reconditioned main drive gearbox
 - girth gear
 - pinion shaft with bearing and coupling
 - trunnion housing bearing assemblies
 - trommel (used)
 - feed spout trolley (used)