

# Cape Lambert Marine Facility

## PROJECT DETAILS:

Location: Cape Lambert, Western Australia

Contract Value: A\$27 million (1970)

Contract Period: July 1970 - December 1972



### Key Aspects

- ✓ Self Performed
- ✓ Marine Piling
- ✓ 3 Massive structures:
  - » Service Wharf and Trestle
  - » Ore Wharf
  - » 2,340m Trestle
- ✓ 18.6m above sea level

### Project Highlights

- ✓ Recognised for quality through Construction Achievement Award
- ✓ Largest resource marine facility in Australia at the time.

## CLIENT: Robe River Iron Associates

### Scope of Work:

The Harbourworks Clough JV (now BAM Clough) successfully executed the design and construction of a service wharf, ore loading wharf, the connecting trestles and associated marine facilities for the massive Cape Lambert marine facility development in Western Australia. At the time it was built, the Cape Lambert Marine Facility was the largest marine facility ever built in Australia.

### Service Wharf:

The service wharf consists of an approach trestle of 460 metres in length with a loading platform measuring 155 metres by 18 metres and suitable for berthing 10,000 dead weight tonnage vessels as well as small craft. This wharf functioned as a delivery berth for the supplies brought to Cape Lambert to build the ore wharf back in the early 1970s.

### Ore Wharf:

The ore wharf is a massive trestle structure of 2,340 metres in length and can simultaneously berth 100,000 and 150,000 dead weight tonnage vessels. The trestle carries a single lane roadway, a conveyor belt and a walkway out to the 280 metre long loading wharf.

Towering 18.6 meters above sea level, the wharves stand on steel cylindrical piles. These piles have been driven into the sea floor. Where hard rock limits depth, they are anchored by steel dowels.

The ore wharf approach trestle features 131 pairs of cylindrical piles (also known as bents), raked and joined at the top to form an A-frame. The piles stand at 18 metre intervals. Across the top of each bent a transverse beam has been laid to support the deck.

#### Loading Wharf and Marine Facilities:

The ore loading wharf at the end of the trestle stands on double A-frames at 12 metre intervals. This wharf supports a shiploader that towers above sea level and features a roadway and turnaround area, a conveyor belt terminal and oil unloading facilities for a tanker of 80,000 tons.

For the high standard of its work on the Cape Lambert Marine Facility, the Harbourworks Clough Joint Venture was awarded the prestigious Australian Federation of Construction Contractors Construction Achievement Award for 1973.

