

PILED SWING CYCLONE MOORING SYSTEM



OVERVIEW

Project Name	Piled Swing Mooring Solution
Client	BHP Billiton Iron Ore
Site	Nelson Point, Port Hedland
Contract	\$7m
Duration	5 months
Main Equipment	Robert Purnell Construction Barge; Manitowoc 200t Crawler Crane; Junttan HHK 16t Hydraulic Impact Hammer; Daintree1 Work Vessel

DETAILS

BHP Billiton Iron Ore required a day and cyclone mooring system to berth four 32m vessels and to include a facility for safe crew transfer.

TAMS Group were able to deliver this innovative solution whilst working safely within Stingray Creek and delivering a high quality cost effective solution which minimises the risk of any interruptions to operation of the Port Hedland Port.

TAMS provided all services for the works including delivery of the dredging requirements (over 120,000 m3) for a mooring swing basin and approach channel.

Using a hydraulic piling hammer, a 1600mm diameter 34m long pile was hammered into the seabed and cut at the required level. A 24 tonne pile head was then lowered into the driven 1600mm pile and grouted in place. The pile head incorporated a rotary joint onto which mooring furnishings were connected to.

An 80m dumb barge was purchased, refurbished / modified to class enabling 4 x 32m vessels to berth. TAMS towed the dumb barge (Singapore to Port Hedland) where it was installed on mooring. The facility is designed to withstand cyclone conditions and swings with tidal, wind and wave action.