



Status of Asian Tunnel Cost

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Contents of this talk

- ***Asian Tunnel Unit Cost***



Specific Features of Asian Facilities (3)

Global Design Effort - CFS

Excavation using Tunnel Boring Machine (TBM)

- *Excavation speed is expected ~300 m/month*.*
- *Each of 15 TBMs are planned for excavating 5km.*
- *They are available from five Japanese makers within 13-15 months of the receipt of an order.*
- *Reduction of TBM number impact is discussed later.*

Kawasaki Heavy Industries, Ltd.



One of the world's largest tunnel boring machines. It has a diameter of more than 14 m.



A Eurostar high speed passenger train leaving the EuroTunnel.

The oldest train tunnel was constructed between Riverpool and Manchester in 1826. The Euro Tunnel is 52km long including two 7.6m diameter main tunnels and one 4.8m tunnel for service. Four Japanese TBMs of the total eleven TBMs excavated the main tunnels 20km each from the French side. The maximum excavation speed reached 1200m/month.



Summary of this talk

- *For SB2009 cost estimate, tunnel, shaft and cavern excavation unit costs were reviewed.*
- *3.5-m diameter shaft, 5.2-m TBM tunnel costs will be scaled by RDR unit costs.*