

# Dockside Container Crane Workshop

## Procurement

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# Crane Procurement

- Crane Purchase Environment
- Procurement Strategy
- Price Guidelines

# Crane Purchase Environment



- History
- Chinese Success
- Highly Competitive Pricing
- Led to Cost-Cutting Measures by Others





# Procurement Strategy

Off-the-Shelf



Tailor-Made



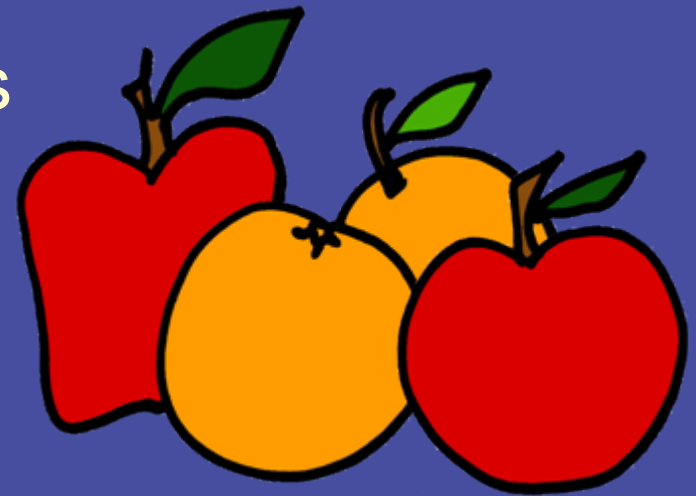
# Off-the-Shelf

- Visit Operating Cranes – 2 to 3 Vendors
- Get Input from Operations and Maintenance Personnel
- Obtain Vendor Specifications
- Understand Procurement Process and Quality Monitoring Effort



# Off-the-Shelf Procurement Process

- Issue Specifications Outline
- Solicit Terms
- Confirm Vendor Specifications
- Negotiate
- Implement Monitoring Effort





# Limitations: Off-the-Shelf

## Suitable for Private Industry

- Can Use Different Standards
- Not Limited to Low Bidder
- Can Negotiate

May not be Suitable for Public Agency

## Example: Off-the-Shelf





# Tailor-Made

- Detailed Specifications
- Permit Bid Alternatives
- Confirm Technical Proposal
- Implement Quality Monitoring Program



# Detailed Performance Specifications

- Start with Detailed Baseline Specifications
- Identify Specific Components
- Identify Specific Needs



# Consider Alternate Bids

- Require Bid for Specified Crane
- Alternate Bid for Vendor Specifications
  - Bidders Note Exceptions
  - State Reasons for Exceptions
  - Only Use Proven Designs



# Components

- Drive and Motors
- Reducers
- Motor Brakes, Couplings
- Drum Brakes
- Cable Reel
- Spreader
- Elevator





# Evaluate Commercial Proposals

- Capital Costs
- Lifetime Costs
- Other Costs
  - Specifications, Bidding, Bid Review
  - Quality Monitoring Costs
  - Administrative Effort

# Example: Tailor-Made



# Price Guidelines - US\$

- Panamax 4.5 to 5 million \$
- Post-Panamax 5 to 6 million \$
- 22-wide 5.5 to 6.5 million \$
- Public Agency vs. Private Agency



# Monitoring Costs

- Typical Monitoring Costs as % of Price of Two Crane Order
  - Off-the-Shelf – 0.5% to 1.5%
  - Tailor-Made – 2.5% to 5%



# Conclusions

- Highly Competitive Market
- Better and Cheaper Cranes
- Can Use Off-the-Shelf & Tailor-Made
- Requires Quality Monitoring
- More Diligence by Purchaser
- Trend: Tailor-Made

# Commercial Documents

Public Agencies

Private Industry

FIDIC

# Dockside Container Crane Workshop

Other

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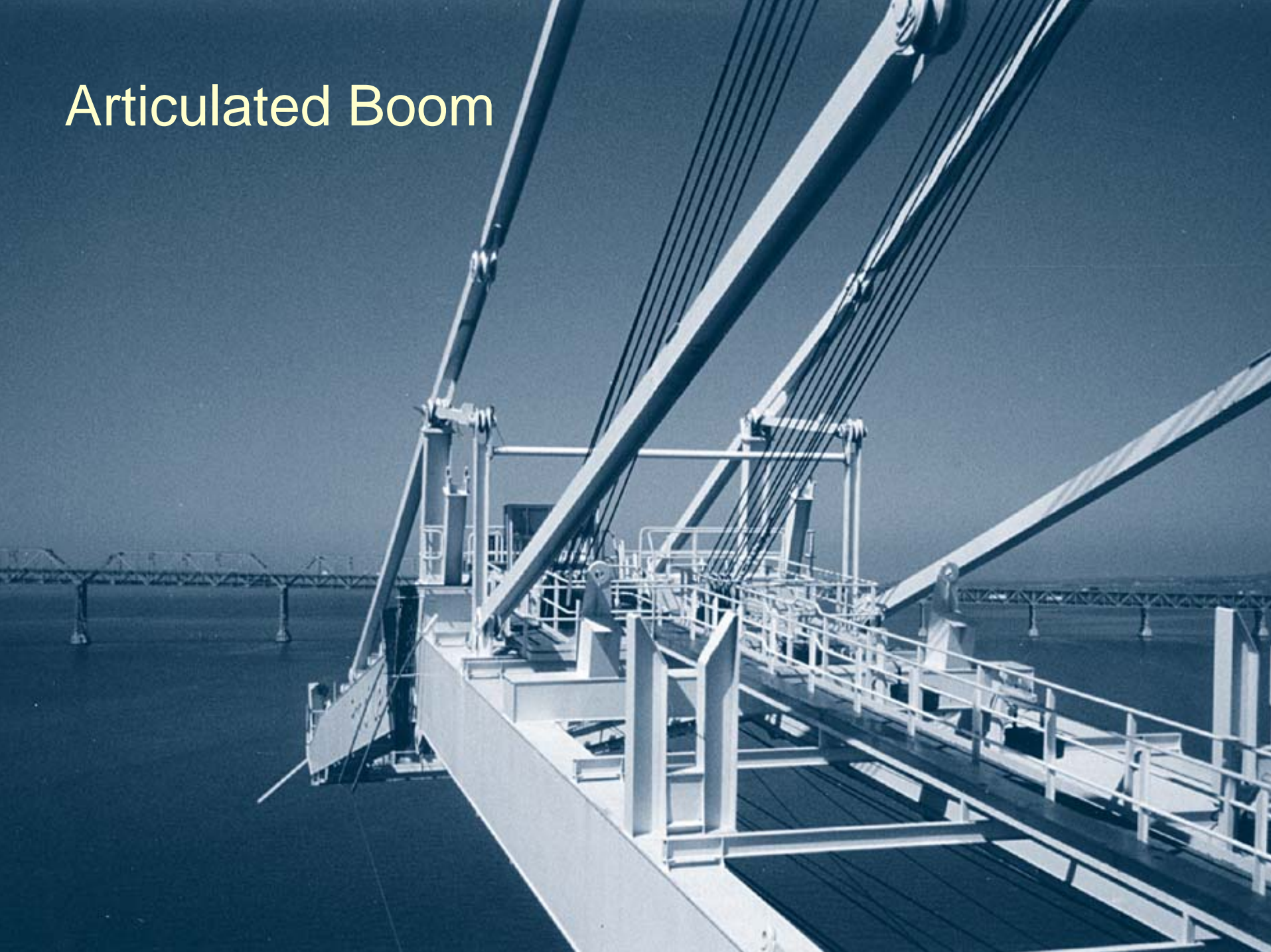


# Articulated Boom





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# Articulated Boom

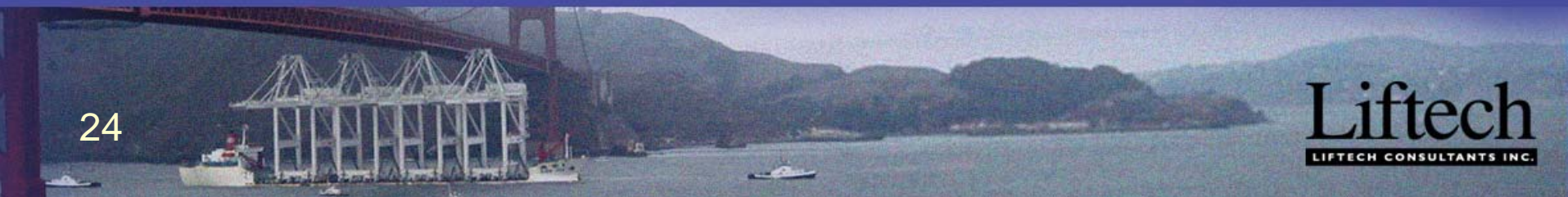


# Low Profile Crane





# Curved Rail System



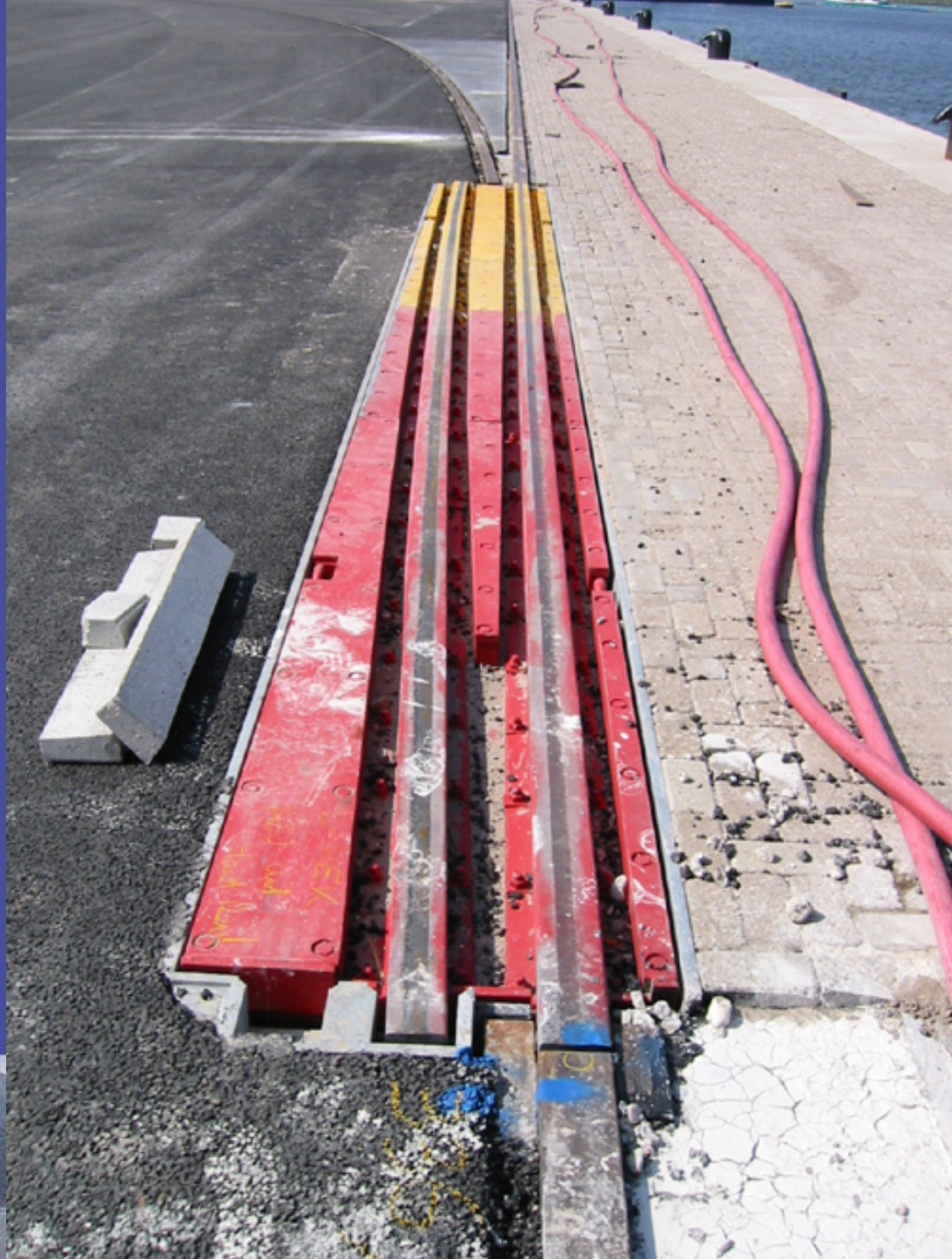


# Cranes Around Corner





# Crane Switch



# End of Crane Workshop Sessions

Comments?



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