

# Support Bearing Comparison: Ball vs. Kingpost

## **Old Technology: Roller Bearing Cranes**



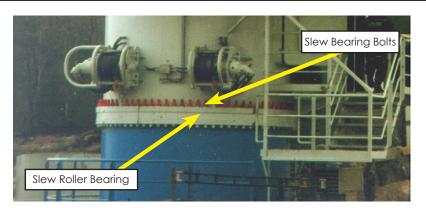
The revolving superstructure of a roller bearing type crane bolts on top of a roller bearing that is subjected to the full overturning moment from the weight of the load and the self-weight of the crane and boom.

# **Seatrax Kingpost Marine Cranes**



All Seatrax cranes are based on the well-proven kingpost concept. This basic design consists of a stationary or fixed kingpost and a revolving superstructure, which fits over and revolves around the stationary post.

#### **Old Technology: Roller Bearing Cranes**



- Slew roller bearing failure can lead to the loss of the operator and the entire crane from its mount.
- Bolts are required to attach the crane's revolving superstructure to the platform (or rig). Failure of these bolts can lead to the loss of the operator and the entire crane from its mount.
- Even when the crane is not in use, the self-weight of the crane imparts fatigue loads from the vessel motions. Improper maintenance, such as lack of lubrication to the slew bearing, can degrade the structural integrity of the crane and lead to premature wear and failure of the slew bearing.
- Bearing and bolt maintenance/replacement requires assistance from another crane and/or a large array of expensive, complicated special tools.
- Bearing replacement is extremely expensive and time consuming.

### **Seatrax Kingpost Marine Cranes**



- The proven kingpost design ensures the crane CANNOT separate from its mount due to slew bearing failure.
- All bolted connections between the crane and the platform (or rig) have been eliminated. There is NO possibility of crane separation due to a bolt failure since there are not any bolts.
- The use of non-metallic bearings ensures that the bearings cannot wear or degrade the structural integrity of the kingpost or other structures they contact.
- Slew bearings can be easily changed with the crane in place using common hand tools. Assistance from another crane or special tools are not required.
- Bearing replacement is typically 5-10% of a similarly sized roller bearing crane and can be completed in about half of a day.