

# STRENGTH & BUCKLING ASSESSMENT CRANE PEDESTALS

**B**astion was contracted to analyze the structural integrity of crane pedestals and immediate supporting structures on the starboard and aft port sides of a jack up vessel. These cranes are a pedestal mounted rotating crane and can be classified as a Type C. The starboard side crane pedestal was unique in its location on the vessel with half of the boom and pedestal located outside of the vessels main structure. Bastion generated the reports for strength and buckling assessments for both pedestals and their immediate supporting structure including main decks, machinery decks, tank tops and bulkheads. Our analysis verified that the design of the crane pedestal is in compliance with three codes, namely:

- ABS guidelines ABS-152 “Guide for CERTIFICATION OF LIFTING APPLIANCES” OCTOBER 2006
- API SPECIFICATION 2C, “Specification for Offshore Cranes”, Fifth Edition, April 3, 1995
- ABS-126 “Guide for Buckling and Ultimate Strength Assessment for Offshore Structure” April 2004

Similar strength and buckling analysis were also performed on structure for our customer.

