

Summary of Positech Articulated Jib Design Specifications

Design

Positech articulated jibs are designed with a 5:1 factor of safety to the ultimate strength of the material. The maximum allowable deflection in the jib is 1/8 degree per axis or 1/4 degree total.

Material Standards

All plate steel used is a minimum of ASTM A-36. All steel tubing is ASTM A-500.

Painting

All steel components are shot-blasted and cleaned with aqueous based solvent prior to painting. Parts will be painted with 2 part polyurethane painted to minimum of 2.0 mil thickness. Standard color is safety orange.

Fabrication

All welding conforms to AWS D1.1 (Structural Welding Code), AWS D1.2 (Structural Welding Code-Aluminum), and AWS D14.1 (Specification for Welding of Industrial and Mill Cranes and Other Material Handling Equipment).

Standards Used

(As they apply to jib cranes)

1. OSHA: Machine guarding -1910.212
2. ASME B30.20-1999 Below the Hook Lifting Devices
3. ASME B30.16-1998 Overhead Hoists – Under hung
4. ASME B30.17-1998 Monorails & Under hung Cranes
5. ISO-12100-1-2003 – Safety of Machinery – Basic Concepts, general principles for design – Part 1: Basic terminology, methodology.
6. ISO-12100-2-2003 – Safety of Machinery – Basic Concepts, general principles for design – Part 2 : Technical principles.
7. ISO-13852-1:1996 Safety of Machinery – Safety distances to prevent danger zones being reached by the upper limbs.
8. ISO 9001:2000 Quality Management Systems
9. 98-37-EC Safety of Machinery