

Case Study

Service: Preloading Steelwork

Location: Victoria Nova, London

Client: InterSteels Ltd.

Swantest have been working alongside InterSteels & Mace on the Victoria Nova Development, London.

Our services were required to preload a series of hold down bolts for the base of an on-site tower crane.

The prerequisite of the job was that each of the 16 hold down bolts would be loaded to 2300kN.

In order to carry out this procedure we utilised a set of hydraulic bolt tensioners; working a pair of opposing bolts at one time, these tensioners gripped the thread of the bolt as we applied a tensile force equal to that of the required preloading force. When this force was applied the nut was tightened.

Swantest successfully preloaded the 16no. hold down bolts for the base, and were able to certify our loading works before leaving site. This allowed for the speedy continuation of works & permitted the erection of the crane to begin on the same day.

Key to images:

1. Overview of the Victoria Nova Development
2. Steel frame base for tower crane
3. Hydraulic bolt tensioners pressured at 1100bar equating to 2300kN
4. A set of hold down bolts with locking nuts in place.

