



INSPECTION DEPARTMENT

P.P.42 N.E. CABLE BAND BOLT REPLACEMENT

DATE: 24th May 2009

The final defective nut/bolt change out was successfully carried out on Friday 22nd of May 2009.

Present at operation:

De-torquing commenced at 08:54hrs and was completed, without incident at 08:58hrs.

New bolt entered as old bolt retracted at 09:00hrs. Cable band washer faces were cleaned and nuts and washers set to correct positions. A gap of approx. 1.5mm was found between nut and washer on live side (east), this was reorientated for best fit which was approx. 1mm.

Bolt was tensioned using a PS4 tensioning tool. Temperatures ranged between 12 and 16°C during the three loading that took place.

09:45hrs pressurisation commenced reaching 21000psi at 09:48hrs. Nut was tightened and pressure released. A load of 695.5 kN was measured using the Boltscan machine 184.

09:51hrs pressurisation commenced for the second time, reaching 21100psi at 09:54hrs, again nut was tightened and pressure released. A load of 770 kN was measured.

10:00hrs the final pressurisation commenced reaching 21000psi at 10:05hrs, nut was tightened up and pressure released. A final load of 775.5 kN was measured. A final elongation of 2.26mm was measured.

Note: At time of operation gantry hydraulic legs were in the down position. Temporary cable bands were incorrect position and all temporary cable band washers were also in the correct position.

Bridge Inspectors:

Created by lc/Q:\E Engineering\E2 - Inspections\E2.1 Bridge\Main Cables\Cable Bands\Cable band bolt replacement reports C.T\Cable Band Bolt Replacement Record P 42NE 22.05.09.doc