



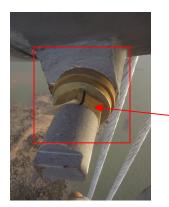
Following the finding of a defective nut located on the live side of the cable band (East side) at PP 32 n/e during the main cable dehumidification contract, the defective bolt (bolt $\tilde{0}B\ddot{0}$) in the cable band sequence at this location was removed (Friday 14/09/09) & replaced Saturday (15/09/09). Using a recorded bolt <u>RA CO258</u> with nuts <u>RA CN</u> 00552 & <u>RA CN 0591</u>. All went well with no problems recorded during the bolt replacement.



Nut defect. Located on the live side .

(East side)

Following a cable walk by contractors carrying out visual checks on dehumidification main cable sensors, it was found that at the same location the nut located on the dead side (West side) had failed, this was recorded and reported to bridge management.



Nut defect. Located on the dead side .

(West side)

 $\label{eq:end} Q:\ Engineering\ E2 - Inspections\ E2.1 Bridge\ Main Cables\ Cable Bands\ Cable band bolt replacement reports C.T\ Main Cable 2nd Bolt Replacement at PP32 NE.doc$





Following the procurement of suitable access platform equipment it was decided that the replacement of the defective nut would be scheduled for replacement on Thursday 30/09/10. It should be recorded that before the temporary cable band could be positioned FRB staff were instructed to carry out the removal of the main cable wrapping. This was carried out successfully and the temporary cable band was located in position.



Photograph showing view of (West side) temporary cable band located on main cable.

All went as prepared schedule of sequence of events and the bolt replacement took place. Below is the actual sequence of events as recorded.

08. 30 am. FRB bolt replacement team in position at PP32. n/e.

08.40.am. Alps. Arrived on site.

Alps still to locate in position 2 in No threaded bolts on temporary cable band.

FRB bolt replacement team sent up equipment required to tension up temporary cable band bolt threaded rods with PS2 Tensioners.

09. 55 am. ALPS finished locating threaded rods .

10. 15 am. All required equipment located on access platform ready to commence with tensioning temporary cable band.

10. 20. am. Inspection of all temporary cable band threaded rod exposed thread lengths, plates and washers carried out by bridge inspectors prior to commencement of tensioning.





10.25 am. Temporary cable band threaded rod PS2 tensioners and lines located in position. Tensioning commenced . Increments of PSI. applied through visual inspection of rams of the PS2 equipment. (Instructions to increase pressure or release pressure as required) relayed to ground staff operating air pump located on cycle track.

11.00.am. Required specified PSI of 16,61O reached. This sequence was carried out a further two times as specified to insure that the relaxation of the threaded rod following tensioning was allowed for. No problems were encountered during this part of the operation.

CT 6 torque tool required to de-tension defective nut located on bolt õBö fitted. This was fitted to the live side.



CT. 6 torque tool applied to live side of bolt

11.35 am. De- tensioning of defective bolt took place. ¹/₄ turn system as used in previous bolt replacements applied until load was removed from defective bolt.

11.45 am . De-tensioning complete . Bolt released and bolt removed from cable band . No problems encountered with removal.



Bolt being removed from its seating location from the dead (west side)