



INSPECTION DEPARTMENT
Main cable inspection.
DATE. 10.06.14 to 12.06.14

(E2.1 Bridge)
REPORT No. 435
MAIN CABLE

DATE: 10.06.14 to 12.06.14

An inspection of the main cable was carried out by the Bridge Inspectors between the above dates and general findings were as follows:

Cable bands. : All cable bands throughout the structures main cable remain in a satisfactory condition. The acoustic monitoring sensor which is attached to the north face of the cable band at PP. 30 North west side span is a little loose, requires to be re-attached. This defect was reported during the last main cable / paint inspection.



Cable bands bolts. : Cable band bolts and nuts that were replaced showing no signs of any defects this inspection, however, it should be noted that the new paint protective coating that was applied to the nut faces is making it difficult to detect any defects.





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Cable bands sealant. : All the cable band sealant which is located on the top & bottom half of the collars is in-situ and remains in a satisfactory condition, however there are 7 locations which were previously reported where there are slight air leaks evident and no repairs done since time of last inspection with the addition of 1 new location:

South West Side Span. : - PP 18. (north side)

South East Side Span. : - PP 34. 9 (north side)

South East Main Span. : - PP 62, 66, 70 & 100 (all south side)

North East Main Span. : PP 68. (north side)

New Location:

South West Main Span: PP64-66 on north- west corner of injection unit cover plate

Main cable wrapping. : All the main cable wrapping throughout the main cable remains in-situ and in a satisfactory condition.

Main/ Side tower sleeves. : All sleeves remain in a satisfactory condition. Cable bands immediately below all main tower sleeves, bolts have slight to medium corrosion evident, protective paint covering broken down.





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Handstrand stanchions. : All hand-strands & bolt fixings throughout the main cable remain in a satisfactory condition. At PP 92 on the south east main span & north east main span the internal locking nuts on the east & west face in the underside of the hand-strand stanchion (which is box section) are not on the threaded bolt. (this could have been when handstrand stanchions were removed to allow main cable gantry access and not been put back in place). Outer nuts remain in place and secure.



Locking nut position for
hand-strand internal face

Handstrand cable casting clamp / post connections. : All remain in situ. All welds to hand-strand stanchions remain satisfactory, no defects found. Following survey carried out in 2007 with regards to movement / noise levels on the above, no work has been carried out. Approx 50% of wedges installed following survey remain in position. A program of works will be implemented to remove & replace existing wedges and to install new where required. Following this inspection, with information related to the above, again I raise the concern with regard to the internal condition of the bolt shank and the condition / deterioration / wear- down of the clamps phosphorous bronze sleeve and washers. It is of my opinion that if possible one of the worst examples should be removed and examined to ascertain its current condition, and to use this example to determine the wear- down of other locations.





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Anti-Skid: It should be noted that in various locations the new anti-skid covering that was applied to the main cable has started to show signs of wear and in some instances has come away completely at the edges; the existing anti-skid in general remains satisfactory.

Paintwork. : As part of the cable band bolt replacement contract, it was agreed between both parties that following the completion of the bolts at every location, a protective paint coating would be applied by FRB painters. There were four types of paint used. On the high levels (carried out from the gantry) which was uncovered, three different types of Acothane were used. This was supplied by Spencer coatings Ltd. On the low level (carried out from staging) which was covered, a 3 coat system was applied. This was supplied by PPG. (please refer to, File-path E3.1, Main cables / cable band drawings/ drawing no 04. 01. 02. Full detailed report with regards to paint condition, application, protective covering thicknesses (over/under) missing paint and impact damaged areas will be supplied by D. Gill.

Main cable gates. : All main cable access gates generally remain in a satisfactory condition. Medium corrosion is evident on all plates & bolts . There is one bolt missing (which requires to be replaced.) at PP. 86 Main span north west.



All information has been recorded and entered onto the structural report program. Photographs taken can be viewed in relevant file.

Bridge Inspectors:



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