



E2.1 Bridge) Report No 472. Main span north & south

Date.: 2015/04/17. To 2015/06/25.

The North and South Main Spans were inspected intermittently between the above dates; Due to staff shortage and other duties Inspection was pro-longed . General findings were as follows.:

<u>Structural Steelwork:</u> The structural steelwork on the main span in general remains in a satisfactory condition. Prominent areas of salts remain evident, especially on the south main span. Current status with regards to bolts remains as last inspection 94 in total throughout the main- span.

Beams 3 * 8 e/w, Beam 4 & Top Lateral Upper Bolt Clusters: Road debris and detritus were again evident this inspection in the rainwater passage channels intermittently at beam nos. 3 & 8, with these channels being blocked the natural flow of water is not clearing properly and in some instances not at all from the upper levels. These areas require to be physically cleaned by removal of offending material from the bottom chord.

Deck Stiffeners: 5 new locations found this inspection. The current status of cracked trough welds at present is that there are now 40. in total throughout the main span; these being trough nos. 1, 2, 4 & 5 with platforms being required for access (refer to structure nos. 7283 & 7284 for locations).

Runway Beams: Status remains as per principal inspection carried out by bridge inspectors in 2008.

<u>Cycle track ducting (located below inner balustrade) north east.</u> Utility ducts located below inner balustrade on the north east main-span between locations PP. 80 – 98 n/e. have become Mis-aligned. This is due to the duct holdfasts breaking. Currently these locations are supported by rope tied to the bottom rail of the inner balustrade. These locations were tied to ensure that no weight stress was produced on the cables located within the ducting and relieving any possibility of with the assist of weight stress and motion/vibration from the structure the introduction of any un-necessary any wear / damage on the cables located within .

Cycle track ducting (located below outer balustrade) West side.: A total of 8 in No intermediate hangers were found to be defective this inspection. These defective hangers had sheared directly below the support beam. This defect appears to be being introduced in to the hangers through the constant motion of the suspended structure. All defective hangers were replaced immediately following inspection, This was carried out to ensure that if locations with the 2 intermediate hangers being severed that no additional stress was put on the 2 in No end hangers. Visiual observation determined that because of the self weight of the duct section sagging occurred introducing unnecessary stress on the end hangers.





<u>Grillage/Crash Barrier (Slow Lane).</u>: Deterioration continues on expansion sleeve detail fixings (ie bolts & set screws.) / slow lane grillage / crash barrier vertical base welds.

Top chord / Top laterals.. : This inspection , a film of discoloration /algae was quite prominent at various locations. I.E. East & west faces of the top chords and top lateral steelwork located directly below the centre grillage.

All defects are recorded and entered onto the structural report program and all individual sheets distributed to the appropriate Maintenance Supervisor.

Bridge Inspector:





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END VIEW OF CAPPING PLATE WELDS TOP & BOTTOM ON O/S ARM, FOLLOWING APPLICATION OF DEVELOPER, HIGHLIGHTED IS LACK OF PENETRATION ON TOE OF UPPER PLATE.





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