

General Report - Main Span North & South

DATE. 2014. 11.13.

(E2.1 Bridge) REPORT No 448. MAIN SPAN NORTH & SOUTH

DATE: 07.10. 14 to 13.11.14

The North and South Main Spans were inspected intermittently between the above dates; General findings were as follows.:

<u>Structural Steelwork:</u> The structural steelwork on the main span remains in a satisfactory condition. Prominent areas of salts remain evident, especially on the south main span. . A wash down program to remove these salts has been carried out on the north main span since last inspection. This inspection produced 3 no. new bolts; this takes the outstanding total of broken/sheared bolts to 94 in no. 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.

<u>Deck Stiffeners:</u> 7 new locations found this inspection, 4 in No repaired since last inspection. The current status of cracked trough welds at present is that there are 35 no. 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 unchanged since the Principal Inspection that was carried out in 2008; Program of works being considered for replacement of all runway beam plate connection set screws.

<u>A Line access .:</u> New access walkways have been incorporated between PP.50-51 both North & south.

<u>Top to bottom access ladders</u>: New access ladders from top to bottom chord are currently being installed at specified locations throughout the main-span.

<u>Grillage/Crash Barrier (Slow Lane).</u>: Since the last inspection report with respect to the new expansion sleeve detail installed on the top handrail. Further damage to the fixing bolts is evident, Deflection of the deck panels due to wear down / missing packers in the half joints is in effect basically pulling the bolts through the top handrail. Program of maintenance works being carried out to incorporate new packer detail in the half joints throughout the main- span.

<u>"D" Line walkway support beam new angle brackets.</u> Program of maintenance works being carried out in conjunction with half- joint repairs, new angle fixing brackets are being installed to replace existing original detail (Lindaptors.).

<u>Steelwork:</u> Exposed areas of steelwork, discoloration, algae becoming more prominent this inspection. Areas as reported in previous inspection reports. Requires to attended to.

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

## Bridge Inspectors:

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<u>Billets.</u>: This inspection a total of 3 in No total cracks were found throughout the main span on billet No 1. Locations as structure No.7277 & 7278.

<u>Half joints.</u>: Hardox steel packers now being introduced into the half joints following required prep work to the jaws, The use of hardened steel has been adopted to eliminate repetitive visits to the same locations.

<u>Top Laterals & Top chord.</u>: The vertical faces throughout the main span where they are open to the elements, ie, between inner balustrade & slow lane grillage/ crash barrier, "D" line / Centre grillage are now showing green discoloration, slime. These areas require to be cleaned throughout the main span.

<u>Walkway hanger lindaptors.</u>: A program of works has now been incorporated where the walkway hanger indaptor fixings located on the bottom flange of stringer No 4. Are now being replaced following continual reports of beam movement. The new detail has an angle bracket which is now connected support beam and to the faces of stringer No 4.

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