



INSPECTION DEPARTMENT
General Report – Main Span North & South
DATE. 2014.05.19

(E2.1 Bridge)  
REPORT No 429.  
MAIN SPAN NORTH & SOUTH

DATE: 15.04.14 to 19.05.14

The North and South Main Spans were inspected intermittently between the above dates; this was mainly due to other scheduled inspection being carried out and the weekly inspections which fell into these dates and which are required by management.

**Structural Steelwork:** On the deck soffit there still remain some prominent areas of salts evident on the steelwork, deck stiffeners and stinger soffits; but in general the steelwork remains in a satisfactory condition. A wash down programme to remove these salts would be beneficial to the steelwork and would help to prevent further breakouts. This inspection produced 3 no. new bolts; this takes the outstanding total of broken/sheared bolts to 91 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. Beam no. 4 E/W would benefit from a thorough wash down to clear any blocked drainage routes.

**Deck Stiffeners:** The current status of cracked trough welds at present is that there are 33 no. in total throughout the main span an increase of 5 since last inspection. 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; programme of works has yet to be implemented.

**Ducts and Conduits:** Installation of new support brackets under the inner balustrade on the North East Main Span is still ongoing.

**Grillage/Crash Barrier (Slow Lane):** It was reported on the last general report that the new expansion sleeve detail incorporate in the top handrail at each deck panel section throughout the main span that due to its restrictive movement that more damage is being caused to the top rail vertical post base welds; this becomes more prominent when there is deck panel deflection through missing packers installed in the half joints. To record an accurate account of the total number of welds that have been broken, an independent inspection will be required from the carriageway.



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**Billets.** : 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.

**Half joints.** : 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.

**Top Laterals & Top chord.** : 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.

**Walkway hanger lindaptors.** : 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.

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

Bridge Inspectors:



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