



INSPECTION DEPARTMENT
Main Tower Expansion Joints North & South
DATE. 07.02.12

(BC06)
REPORT No 349.
MAIN SPAN EXPANSION JOINTS N & S

DATE: 06.02.12 to 07.02.12

A visual inspection of the North and South Main Tower expansion joints was carried out on the above dates, information and current status is as follows:

Information: On the 8th October 2011 inspection of the current condition of the South Main Tower expansion joint plates ME3 & SE3 were carried out and associated repairs and remedial works, if required, before plates were reinstated back into position. It should be recorded however, that no refurbishment work was required to be carried out on any of the plates, only cleaning operations to remove excessive detritus from plate seats to ensure that no problems were encountered during reinstatement.

Structural Steelwork: All the steelwork generally remains in a satisfactory condition.

Fixings: All associated fixings remain intact and secure. Protective covering breakdown is evident with medium to heavy corrosion on the bolt heads also evident at time of inspection.

Pins, Springs & Bushes: All these remain in a satisfactory condition, although the pins and bushes located in plate ends still show a state of deterioration.

Surface Plates: Surface plate located above cell ME5 (South Tower - East Side) gave indications of a slight noise during the inspection. On further investigation from above wear-down was evident, possible indication of a weld crack, will investigate further.

Spring Dimensions: Spring dimensions taken on all Rocker and Tongue Plate springs, all remain in a satisfactory condition. There was evidence of paint breakdown at time of inspection. (Survey Sheet attached)

Access Platform: Nut missing from upper access platform steelwork, the bolt is housed below the access cover plate, D. Bishop has been notified (photograph attached).

Bridge Inspectors:

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INSPECTION DEPARTMENT
South main tower Main tower expansion joint spring checks
DATE. 07.02.12

DIMENSION OF SPRING CHECK. 21/07/11.						
SOUTH EAST (MAINSpan)	ME1	ME2	ME3	ME4	ME5	ME6
ROCKER PLT. SPRING COMPRESSION DIM.	139 mm	139 mm	135 mm	138 mm	138 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	68 mm	69 mm	69 mm	69 mm	69 mm	69 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	69 mm	69 mm	68 mm	69 mm	69 mm	69 mm
DIMENSION OF SPRING CHECK . 23/01/11.						
SOUTH EAST (SIDESpan)	SE1	SE2	SE3	SE4	SE5	SE6
ROCKER PLT. SPRING COMPRESSION DIM.	138 mm	139 mm	139 mm	139 mm	139 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	69 mm	69 mm	69 mm	69 mm	69 mm	69 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	69 mm	68 mm	65 mm	69 mm	69 mm	68 mm

DIMENSION OF SPRING CHECK . 21/07/11.						
SOUTH WEST (MAINSpan)	MW1	MW2	MW3	MW4	MW5	MW6
ROCKER PLT. SPRING COMPRESSION DIM.	139 mm	139 mm	138 mm	138 mm	139 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	68 mm	68 mm	68 mm	68 mm	68 mm	68 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	67 mm	68 mm	68 mm	68 mm	68 mm	68 mm
DIMENSION OF SPRING CHECK . 23/01/11.						
SOUTH WEST (SIDESpan)	SW1	SW2	SW3	SW4	SW5	SW6
ROCKER PLT. SPRING COMPRESSION DIM.	138 mm	139 mm	139 mm	138 mm	138 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	68 mm	68 mm	68 mm	68 mm	68 mm	68 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	66 mm	68 mm	68 mm	68 mm	68 mm	69 mm

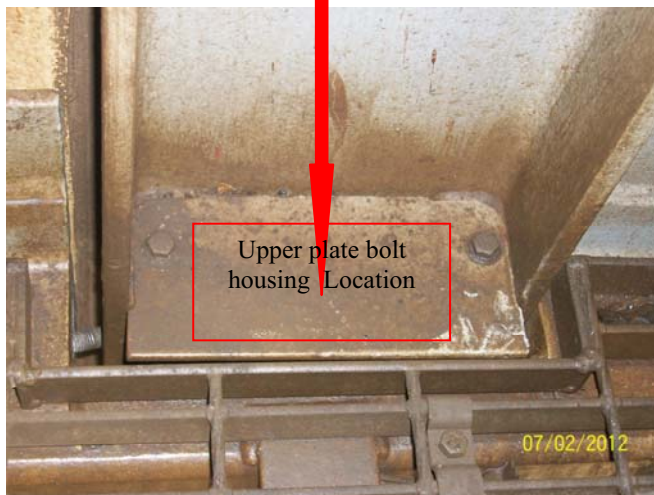
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INSPECTION DEPARTMENT
S/M/Tower expansion joint access platform. Adjacent to S/E 6.
DATE. 07/02/12



Nut missing from of upper access platform steelwork bolt . Bolt, which is housed below access cover plate as shown in photograph No 2.





INSPECTION DEPARTMENT
SOUTH MAIN TOWER EXPANSION JOINT FAILSAFE SYSTEM.
DATE: 07.02.12

Expansion Joint Failsafe System South main tower expansion joint.

	ROCKER PLATE SPRINGS & PINS	FIXINGS	TONGUE PLATE SPRINGS & PINS
SOUTH WEST SIDE SPAN			
S.W. 1	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.W. 2	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.W. 3	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.W. 4	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.W. 5	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.W. 6	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
SOUTH EAST SIDE SPAN			
S.E. 1	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.E. 2	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.E. 3	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.E. 4	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.E. 5	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
S.E. 6	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
SOUTH WEST MAIN SPAN			
M.W. 1	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.W. 2	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.W. 3	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.W. 4	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.W. 5	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.W. 6	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
SOUTH EAST MAIN SPAN			
M.E. 1	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.E. 2	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.E. 3	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.E. 4	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.E. 5	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
M.E. 6	SATISFACTORY	SATISFACTORY	IN LOCATION AND SATISFACTORY.
Signed by Inspector. :		T. Liebisch	
Comments. ;			

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INSPECTION DEPARTMENT
Main tower expansion joint (North) only
DATE: 07.02.12

DIMENSION OF SPRING PRE-COMPRESSION						
NORTH EAST (MAINSpan)	ME1	ME2	ME3	ME4	ME5	ME6
ROCKER PLT. SPRING COMPRESSION DIM.	139 mm	139 mm	137 mm	140 mm	140 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	72 mm	71 mm	71 mm	70 mm	72 mm	71 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	71 mm	72 mm	71 mm	72 mm	72 mm	70 mm
DIMENSION OF SPRING CHECK						
NORTH EAST (SIDESpan)	SE1	SE2	SE3	SE4	SE5	SE6
ROCKER PLT. SPRING COMPRESSION DIM.	140 mm	137 mm	140 mm	138 mm	138 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	68 mm	68 mm	71 mm	67 mm	67 mm	67 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	65 mm	67 mm	67 mm	66 mm	66 mm	67 mm

DIMENSION OF SPRING PRE-COMPRESSION						
NORTH WEST (MAINSpan)	MW1	MW2	MW3	MW4	MW5	MW6
ROCKER PLT. SPRING COMPRESSION DIM.	140 mm	139 mm	141 mm	139 mm	139 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	70 mm	70 mm	71 mm	72 mm	69 mm	71 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	70 mm	71 mm	71 mm	69 mm	71 mm	70 mm
DIMENSION OF SPRING CHECK						
NORTH WEST (SIDESpan)	SW1	SW2	SW3	SW4	SW5	SW6
ROCKER PLT. SPRING COMPRESSION DIM.	140 mm	140 mm	140 mm	138 mm	139 mm	140 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	74 mm	75 mm	75 mm	76 mm	76 mm	76 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	72 mm	76 mm	76 mm	77 mm	77 mm	75 mm