



INSPECTION DEPARTMENT
Main Tower Expansion Joints North & South
DATE. 17.02.13

(BC06)
REPORT No 385
MAIN SPAN EXPANSION JOINTS N & S

DATE: 17.02.13 to 17.02.13

A visual inspection of the North and South Main Tower Expansion Joints was carried out on the above date, general information and current status is as follows:

Structural Steelwork: All the steelwork remains satisfactory.

Fixings: All of the associated fixings are satisfactory and remain intact and secure. At the time of the inspection there was some evidence of the protective covering breaking down with medium to heavy corrosion on the bolt heads.

Expansion Plate Failsafe System: Regular monthly inspections are carried out and all the plate failsafe system trains remain in a satisfactory condition, all fixings are intact and secure and functioning correctly.

Pins, Springs & Bushes: Pins and bushes located in the plate ends are still showing a state of deterioration. North Main Tower expansion joint tongue plate west spring located in cell MW4 and South Main Tower expansion joint rocker plate spring SE3 have both been replaced since the last inspection. Some of the springs have evidence of paint breakdown but remain in a satisfactory condition.

Surface Plates: A cracked weld was detected on surface plate MW2 (west perimeter plate) this has been recorded and passed to the relevant Maintenance Supervisor. All other surface plates remain in a satisfactory condition.

Spring Dimensions: Spring dimension were taken on all Rocker and Tongue Plate springs, these remain in a satisfactory condition. At time of inspection there was still evidence of paint breakdown. (Survey Sheet Attached)

Bridge Inspectors:



INSPECTION DEPARTMENT
South main tower Main tower expansion joint spring checks
DATE. 2013. 02. 17.

DIMENSION OF SPRING CHECK. 01/08/12..						
SOUTH EAST (MAINSpan)	ME1	ME2	ME3	ME4	ME5	ME6
ROCKER PLT. SPRING COMPRESSION DIM.	139 mm	140 mm	136 mm	138 mm	139 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	70 mm	69 mm	70 mm	70 mm	69 mm	69 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	69 mm	70 mm	69 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	141 mm	139 mm	140 mm	139 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	70 mm	69 mm	70 mm	68 mm	69 mm	68 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	69 mm	68 mm	65 mm	68 mm	68 mm	69 mm

DIMENSION OF SPRING CHECK . 01/08/12.						
SOUTH WEST (MAINSpan)	MW1	MW2	MW3	MW4	MW5	MW6
ROCKER PLT. SPRING COMPRESSION DIM.	139 mm	140 mm	139 mm	138 mm	140 mm	140 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	68 mm	69 mm	69 mm	68 mm	68 mm	68 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	67 mm	68 mm	69 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.	139 mm	138 mm	139 mm	139 mm	139 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	68 mm	68 mm	68 mm	68 mm	68 mm	69 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	66 mm	68 mm	68 mm	68 mm	69 mm	70 mm

SE3. Rocker plate spring replaced since last inspection.

F:\E Engineering\E2 - Inspections\E2.1 Bridge\Joints\Main Tower Demag Expansion Joints\General Reports\General report. No. 385 Main Tower Expansion Joints. N & S. 2013. 02. 17\South Main Tower Expansion Joint Spring sizes. 2013. 02. 17..doc



INSPECTION DEPARTMENT
Main tower expansion joint (North) expansion joint spring checks
DATE. 2013. 02. 17 .

DIMENSION OF SPRING PRE-COMPRESSION						
NORTH EAST (MAINSpan)	ME1	ME2	ME3	ME4	ME5	ME6
ROCKER PLT. SPRING COMPRESSION DIM.	140mm.	139mm	138mm	140mm	140mm	137mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	72mm	70mm	71 mm	70 mm	71 mm	70 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	72mm	71mm	71 mm	70 mm	72 mm	70 mm
DIMENSION OF SPRING CHECK						
NORTH EAST (SIDESPAN)	SE1	SE2	SE3	SE4	SE5	SE6
ROCKER PLT. SPRING COMPRESSION DIM.	141mm.	137mm	139mm	139mm	138mm	138mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	68mm	68mm	71 mm	65mm	67 mm	67 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	65mm	67mm	67 mm	65 mm	66 mm	67 mm

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

MW4. Tongue plate spring replaced since last inspection.

F:\E Engineering\E2 - Inspections\E2.1 Bridge\Joints\Main Tower Demag Expansion Joints\General Reports\General report. No. 385 Main Tower Expansion Joints. N & S. 2013. 02. 17\North Main Tower Expansion Joint Spring Sizes. 2013. 02. 17..doc