



INSPECTION DEPARTMENT
Main Tower Expansion Joints North & South
DATE. 02.08.12

(BC06)
REPORT No 369.
MAIN SPAN EXPANSION JOINTS N & S

DATE: 01.08.12 to 02.08.12

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:

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

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

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

Pins, Springs & Bushes: The pins and bushes located in the plate ends still show 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 on SE3. have each got a small section broken away at the top but remain in tension and secure, have been recorded on the monthly record sheets and passed to the relevant Maintenance Inspector. Some of the springs have evidence of paint breakdown but remain in a satisfactory condition.

Surface Plates: On the surface, plate MW5 is showing signs of wear with a bevel evident in the steel. All other surface plates remain in a satisfactory condition.

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

Bridge Inspectors:



INSPECTION DEPARTMENT
South main tower Main tower expansion joint spring checks
DATE. 01/08/12.

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.	69 mm	70 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	140 mm	140 mm	140 mm	139 mm	138 mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	70 mm	69 mm	70 mm	69 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

F:\E Engineering\E2 - Inspections\E2.1 Bridge\Joints\Main Tower Demag Expansion Joints\General Reports\General report No 369 Main Tower Expansion Joints N & S. 02
08 12\South Main Tower Expansion Joint Spring sizes. 01 08 12..doc



INSPECTION DEPARTMENT
Main tower expansion joint (North) expansion joint spring checks
DATE. 01/08/12 .

DIMENSION OF SPRING PRE-COMPRESSION						
NORTH EAST (MAINSpan)	ME1	ME2	ME3	ME4	ME5	ME6
ROCKER PLT. SPRING COMPRESSION DIM.	139mm.	139mm	137mm	140mm	140mm	138mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	71mm	71mm	70 mm	70 mm	72 mm	71 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	71mm	72mm	70 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.	140mm.	137mm	140mm	139mm	138mm	138mm
TONGUE PLT. SPRING /E COMPRESSION DIM.	68mm	68mm	71 mm	66mm	67 mm	67 mm
TONGUE PLT. SPRING /W COMPRESSION DIM.	65mm	67mm	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.	140mm.	139mm	140mm	139mm	139mm	139mm
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	70 mm
DIMENSION OF SPRING CHECK						
NORTH WEST (SIDESPAN)	SW1	SW2	SW3	SW4	SW5	SW6
ROCKER PLT. SPRING COMPRESSION DIM.	140mm.	139mm	140mm	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