

Safety Alert

Portal Gantry – Loose Sign Support Connections

26 May 2021

Background information

Following high winds, a Safety Inspection of a portal gantry sign identified the tall steel frame supporting traffic signs on top of a newly refurbished gantry, was rocking in the wind. A subsequent inspection identified the bolts in the splice connection had become loose and one bolt had fallen to the ground. Nobody was harmed.

Close inspection identified the bolts were too short, with only limited engagement into the locking nuts designed to keep the connection secure. As a temporary measure the missing bolt has been replaced and all the bolts were re-tightened, until they can be replaced.

Further investigations of 5 similar gantries, refurbished/ replaced at the same time, revealed similar defects and were also made safe. A review of this detail is now underway.

Recommendations

Site bolted connections must be in accordance with the Designer's Construction / Fabrication Drawings. Bolts must be of sufficient length to allow for full engagement, with at least 1 full thread protruding beyond the outer face of the nut/lock nut following tightening.

Works Examiners supervising new works and Bridge Inspectors inspecting existing structures shall be vigilant and report for immediate action, similar defects with bolted connections, where the full engagement length has not been provided. If in any doubt please contact your local [SES Structures Advisor](mailto:Said.El-Belbol@highwaysengland.co.uk) for support.



Traffic sign support on portal gantry



Missing/loose bolt, nut and lock nuts