

SIM, Combined Projects – Gantry Repairs Methodology – Rev B 12.07.24

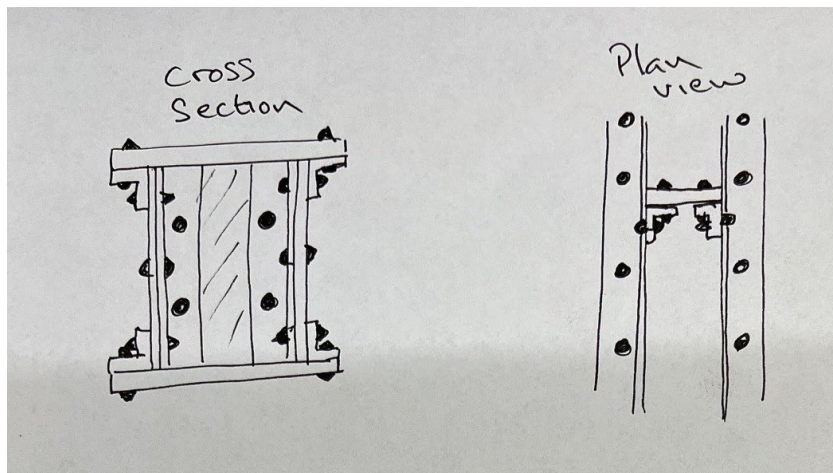
Repair 1

1. Temporary propping installed to centre of beam prior to works commencing.
2. Cut top of existing rivet head off with an angle grinder to create flat surface for mag drill.
3. Setup mag drill over rivets to be removed.
4. Drill out existing rivets. 4no at a time.
5. De mount mag drill.
6. Install dome headed bolts from underside of top flange. Bolts will be M24 x 40 or 50mm. Sized to match existing bolts.
7. Install nut from top of side of flange.
8. Install dummy dome head to bolt and nut on top side of flange so it appears to be a rivet.

See below photo as an example of repair 1 location:

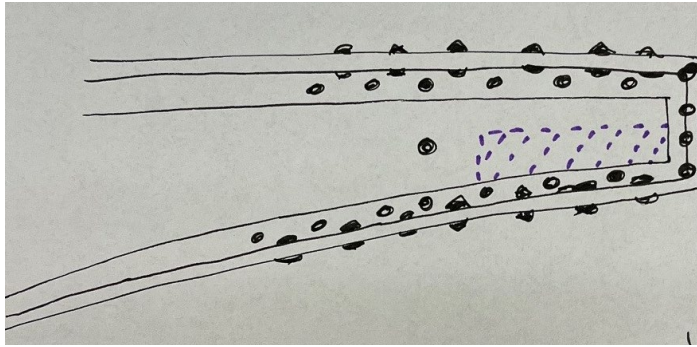
Repair 2

Existing detail of gantry steel sections:

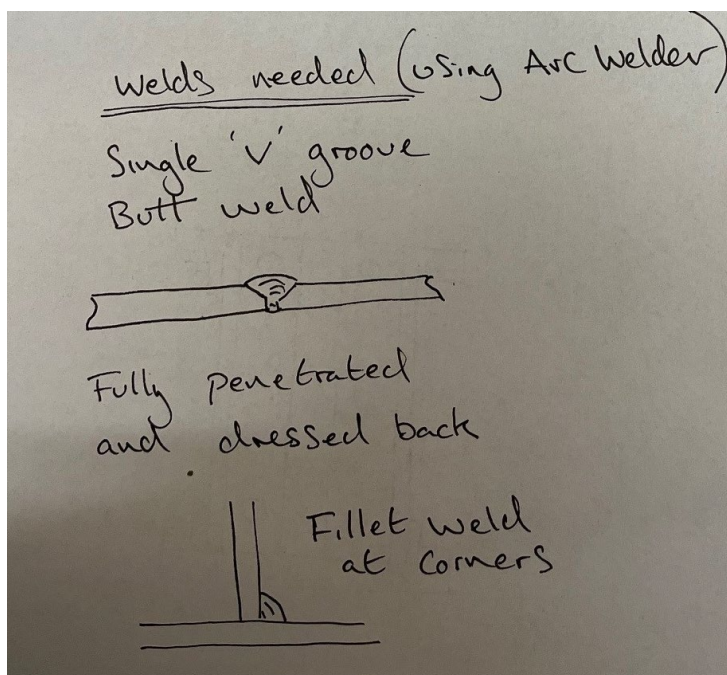


1. Temporary propping installed to centre of beam prior to works commencing.
2. Carefully remove steel c-section to make repair more accessible. Store for reinstall once repair works are completed.
3. Identify extent of corroded steel by cutting back and using calipers to find where the steel thickness is matching the existing steel thickness.
4. Produce plate to match extent of steel removed. This will be fabricated off site.
5. Lay in the replacement steel plate into the section previously removed and fully weld the plate. See below sketch.

SIM, Combined Projects – Gantry Repairs Methodology – Rev B 12.07.24



6. Plate to plate weld will be single 'V' groove butt weld as per below sketch. Fillet weld to be used to weld plate to steel flanges. See below sketch.



7. All rivets in this location will be replaced with dome headed bolts and made to look like a dummy rivet. Bolts will be M24 x 40 or 50mm.
8. Where the angle is also corroded this will also be cut out and an additional steel welded to the face of the replacement plate and then fully welded to the in-situ. Again, dome headed bolts will be installed as dummy rivets.
9. The previously removed steel c-section will be reinstalled in its original configuration.
10. 12mm hole drilled through bottom flange of steel beam at lowest point between each vertical stiffener to allow water to escape all voids.



SIM, Combined Projects – Gantry Repairs Methodology – Rev B 12.07.24

See below photos of the repair 2 locations identified:

