

Special Scope of Competence

Special activities that steelwork contractors should be able to manage using specialist subcontractors as necessary.

1. Grouting bases.
2. Placing bearings that allow movement.
3. Installing a scaffold platform.
4. Assisting second or third party inspection:
 - Personnel working for second or third parties may need to undertake inspections or witness tests. Additional precautions may be needed to ensure that their presence in the area designated for erection does not cause added risks.
 - Whilst ultrasonic inspections would be considered special, steel constructors would not normally undertake radiographic inspection at all.
5. Use of special fasteners and fixing proprietary items:
 - Special fasteners are proprietary products for which no British Standard exists - *Lindaptors* and crane rail fixings are examples. The manufacturer's recommendations for installation should be reviewed against the requirements for safe erection - checking back directly with the manufacturer's technical staff if the written instructions are not sufficient.
 - Similar precautions apply to installation of proprietary items such as *Halfen* channels.
6. Work on decking for composite steel and concrete structures:
 - For metal profiled steel decking, the SCI's *Good practice in composite floor construction* should be followed. Arrangements for edge protection and safety precautions along the leading edge of the work front need to be agreed.
 - Particular care is needed during the stage when the steel frame and decking are loaded with wet concrete.
 - Stud welding and shot firing are operations for which the equipment manufacturers issue guidance on suitable safety precautions. The use of cartridge operated tools should follow the advice given in the HSE's PM series of guidance notes. These operations can also require additional noise protection.
7. Work in artificial light:
 - Shift work can also involve additional precautions.
8. Extensive temporary works:
 - Whilst many temporary bracing and restraint requirements are relatively simply executed (eg wire rope guys, *Acrow* props or added strut-tie braces), extensive temporary works will require consideration of the guidance in BS 5975 *Code of practice for falsework*.
9. Large scale site assembly "on the ground":
 - Assembly on site before lifting of the subassembly into its final erected position can be chosen as the most appropriate safe method of construction. However, the large scale of some subassemblies will require provision for safe access during assembly "on the ground" if working positions are at heights of more than 2 metres off the ground.
 - Any jigs or stillages used to support or stabilise the subassemblies need to be treated in the same way as temporary works supporting the structure in its final erected position.
10. Lateral movement of heavy loads:
 - CIRIA's *Lateral movement of heavy loads* provides guidance on sliding, winching and braking operations.
11. Work in a confined space:
 - HSE's GS 5 (rev) *Entry into confined spaces*, and *Confined spaces* [CIS no 15] provide suitable guidance.
12. Work over water, over a railway or airside at an airport:
 - Clients and Principal Contractors should determine the appropriate additional precautions to be followed in these and other especially hazardous environments - such as mines, quarries and oil or chemical refineries. This would normally include permit-to-work procedures.
13. Work on tall structures over 45m high:
 - Methods of achieving all three safety objectives are different on structures over 45 metres high, compared to those used on the most common type of steel structure - single storey sheds. For example, the influence of wind is much more significant.

Other activities related to steel construction that steelwork contractors would not necessarily undertake and about which specific prior negotiations should take place to establish the competences necessary, the methods to be used and the consequent risks involved.

1. Radiography or assisting radiographic inspection by third parties.
2. Site blasting and use of compressed air equipment.
3. Fixing preglazed frameworks.
4. Erecting precast concrete frames.
5. Using bonding adhesives.
6. Fixing roof or wall cladding.
7. Proof testing to commission runway beams etc.
 - Commissioning of runway beams involves proof loading which should be done under the direct instruction of a suitably qualified engineer.