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8 ERECTION

8.1 GENERAL

8.1.1 Scope

- 1 This Part specifies the requirements for the erection of structural steelwork.
- 2 Related Parts and Sections are as follows:

This Section

Part 5..... Welding

Part 6..... Bolting

8.2 ERECTION

8.2.1 Erection Method Statement

- 1 The Contractor shall prepare a written method statement, taking into account the requirement of the design, erection procedure and programme, respectively.
- 2 The Contractor shall submit the method statement to the Engineer for acceptance at least two weeks before erection commences.
- 3 Erection shall not commence before the method statement has been accepted by the Engineer.

8.2.2 Meaning of Acceptance

- 1 Acceptance by the Engineer of the Erection Statement does not reduce the contractors responsibility for the safety of the erection process.

8.2.3 Provision of Setting-Out Lines by the Employer

- 1 The Contractor shall provide and maintain until the steelwork is accepted, setting-outlines and datum levels within, or immediately adjacent to, the Works.

8.2.4 Handling and Storage

- 1 Components shall be handled and stored in such a manner as to minimise the risk of surface abrasion and damage.
- 2 Fasteners and small fittings shall be stored under cover in dry conditions.

8.2.5 Damaged Steelwork

- 1 Any steelwork damaged during off-loading, transportation, storage or erection shall be restored to conform to the standards of manufacture as given in this Specification.

8.2.6 Column Base Plates and Slabs

- 1 Steel packings shall be supplied to allow the structure to be properly lined and levelled and of sufficient size to avoid local crushing of the concrete.
- 2 Base packings shall be placed so that they do not prevent subsequent grouting to completely fill all spaces directly under the base plates.
- 3 Base packs may be left permanently in place.

8.2.7 Grouting

- 1 Grouting shall not be carried out under column base plates until a sufficient portion of the structure has been aligned, levelled, plumbed and adequately braced.

- 2 Immediately before grouting, the space under column base plates shall be clean and free of all extraneous matter.

8.3 STABILITY

8.3.1 Temporary Restraints until Permanent Features are Built

- 1 The Engineer shall advise the Contractor of positions on the structure where temporary bracing or restraints are necessary until walls, floors or other non-steel structures are built. He shall also provide details of the forces and moments in these elements.
- 2 The Contractor shall design and provide the temporary bracing or restraints.

8.3.2 Other Temporary Restraints used by the Contractor

- 1 If the Contractor uses temporary restraints during erection which do not substitute for permanent features, they may be removed after the structure has been lined, levelled and plumbed provided that sufficient steelwork and or permanent bracing has been erected to ensure the stability of the structure under the worst expected conditions of dead, imposed and wind loading.

8.4 ERECTION LOADS

8.4.1 General Requirements

- 1 The Contractor shall ensure that no part of the structure is permanently distorted by stacking of materials or temporary erection loads during the erection process.

8.5 LINING AND LEVELLING

8.5.1 Alignment of Part of the Structure

- 1 Each part of the structure shall be aligned as soon as practicable after it has been erected. Permanent connections shall not be made between members until sufficient of the structure has been aligned, levelled, plumbed and temporarily connected to ensure that members will not be displaced during subsequent erection or alignment of the remainder of the structure.

8.5.2 Temperature Effects

- 1 Due account shall be taken of the effects of temperature on the structure and on tapes and instruments when measurements are made for setting out, during erection, and for subsequent dimensional checks. The reference temperature shall be 30oC.

8.6 SITE WELDING

8.6.1 General Requirements

- 1 Site welding shall be carried out in accordance with Part 5 of this Section.
- 2 Welding shall not be permitted during inclement weather, unless adequate protective measures are taken.

8.7 SITE BOLTING

8.7.1 General Requirements

- 1 Bolting shall be carried out in accordance with Part 6 of this Section.

8.8 CERTIFICATION OF COMPLETION

8.8.1 General Requirements

- 1 When the steelwork, or portion of the steelwork, has been completed, the Contractor shall present a certificate for the Engineer and the Contractor to sign.
- 2 The completion of the certificate means the following:
 - (a) the Contractor's signature signifies that an inspection has been made to ensure that all connections are completed and that the steelwork is erected in accordance with this Specification and contract requirements.
 - (b) the Engineer's signature signifies acceptance that the structure, or part of the structure, has been built in accordance with this Specification and the contract requirements.

END OF PART