

## **Chapter 1**

### **CARRIAGE OF MATERIALS**

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## **1. CARRIAGE OF MATERIALS**

### **1.0 GENERAL**

The carriage and stacking of materials shall be amendant as directed by the Engineer. All tools and plants required for the work will be considered as covered by the cost of the work and shall be arranged by the Contractor. The carriage of materials includes loading, unloading and stacking including all leads.

### **1.1 RESPONSIBILITY FOR LOSS OR DAMAGE**

Loading, carriage, unloading and stacking shall be done carefully to avoid loss or damage to the materials. Mode of carriage depending upon the feasibility and economy, the Engineer-in-Charge shall determine the mode of carriage viz. whether by mechanical or animal transport or manual labour.

### **1.2 LEAD**

**1.2.1** All distances shall be measured over the shortest practical route and not necessarily the route actually taken.

**1.2.2** Carriage by animal and mechanical transport shall be reckoned in one km unit. Distances of 0.5 km or more shall be taken as 1 km and distance of less than 0.5 km shall be ignored. However, when the total lead is less than 0.5 km., it will not be ignored but paid for separately in successive stages of 50 metres subject to the condition that the rate worked on this basis does not exceed the rate for initial lead of 1 km by mechanical / animal transport.

### **1.3 STACKING**

Material shall be stacked as directed by the Engineer in such a manner as to ensure the preservation of their quality and fitness for the work. Different types of materials shall be stacked separately and in such a way that counting and measurements can be done without disturbing the stacks.

### **1.4 MEASUREMENTS**

Length, breadth and height of stacks shall be measured correct to a cm. The quantity shall be worked out in cubic metre correct to two places of decimal. The volume of stacks shall be reduced by percentages as shown against each for looseness in stacking to arrive at the net quantity for payment. No reduction shall be made in respect of articles or materials for which mode of payment is by length or weight or number.

#### **1.4.1 Earth**

**1.4.1.1** In loose stacks such as cart loads, lorry loads, etc. - 20%

**1.4.1.2** In fills consolidated by light mechanical machinery -10%

**1.4.1.3** In fills consolidated by heavy mechanical machinery but not under OMC (Optimum Moisture Content) - 5%.

**1.4.1.4** In fills consolidated by heavy mechanical machinery at OMC - Nil.

**1.4.1.5** Consolidated fills in confined situation such as under floors, etc. - Nil.

**1.4.2** Manure or sludge - 8%.

**1.4.3** Moorum, building rubbish Lime and sand -Nil.

**1.4.4** Stone metal, 40 mm nominal size and above -7.5%.

**1.4.5** Coarse aggregate / stone metal below 40 mm nominal size - Nil.

**1.4.6** Soling Stone/Boulder 100 mm and above -15%.

**1.4.7** Excavated rocks - 50%.

**1.5 RATE**

The rate for carriage of materials is inclusive of all the operations described above.