

Piling methods

Due to the diversity of “piling” methods throughout the world, it is somewhat difficult to standardise on a specific rope recommendation. However, a degree of standardisation may be attempted by grouping the piling methods together, and “standardising”, where possible for certain machine types within a particular group.

Essentially there are two basic methods (relating to rope), with variations within the two, as follows:

Driven Piles

These include:

- a) Captive Hammers.
- b) Drop Hammers (Guide located).
- c) Drop Hammers (Freely suspended).

(a) Captive Hammers

In this method, the hammer is suspended by means of steel wire rope, but is independently operated.

(b) Drop Hammer (Guide located)

With the drop hammer type, the pile head is struck by the hammer, which is located in guides, or leaders. Here the rope/hammer is not free to rotate.

Bored Piles

i. In this method sub-soil is removed from within a casing using either an auger or similar coring tool.

ii. BD Auger machines are used for major “bored” excavations, at diameters in excess of 0,762 m. Invariably this method is used in clay soils, up to a depth of approximately 36 m. The holes are cased (steel), by driving down from surface level into the clay soil. The BD type auger “cores” out the subsoil from within the casing.

Miscellaneous Piling Methods As the name implies, contractors may employ variations on established practices and use on-site equipment e.g. Mobile crane or Excavator. Invariably piling will commence using the existing hoist rope. It cannot be overemphasised that it is in the customer’s interest to consult the Technical Services Department of Haggie Rand Limited, prior to rope choice.

Recommended Ropes

Driven Piles

Due to the shock loading involved in this application, ropes of 6 x 19 / IWRC and 6x25/ IWRC - Non-Preformed R.H. Ordinary Lay are recommended. In certain cases, non-spinning ropes may be recommended.

Auger Piles

Pre-formed Ropes of:
6x19(9/9/1)/IWRC,
6x25(12/6F+6/1)/IWRC or
6x36 (14/7 + 7/17/1)/IWRC R.H.
Ordinary Lay is recommended.

Miscellaneous Piling

Please consult with the Technical Services Department of Elephant Lifting Equipment prior to choosing a rope.