

## GM-20A Engineering Drilling Rig

### 1. General

GM-20A Drill, a light weight big-hole engineering drill, is improved and designed based on GM-20 drill. The new type drill unites the tower and machine body.

This type of drill integrates the drill's advantages of the type's turn plates, the power heads and the main shaft drills. The drill has such advantages as high drilling efficiency and precision, powerful torque, wider ranges of speed and smaller coefficient of oversize of hole. It can drill in the ways of forcing feed or reducing bit load drilling by hydraulic system. Oil cylinders of the drill can raise or pull down the tower safely and quickly, move and fit the hole position conveniently. After moving the machine, the bit of two meters diameter can be directly lifted or run in. The tower is ten and a half meters high. it can directly pull down the steel cages. The assistant hoist is in strong capacity. The drill is equipped with step device to fitting the hole position conveniently. The control handlebars are collected for easy operation. The drill can be used in drilling technologies of normal or reverse circulation in the quaternary period gravel or hard rock stratum and ground. The drill can be mainly in application of foundation piles construction in large diameter for grouting pile holes drilling of high-rise building, port and bridge, etc.



### 2. Specifications

Drilling capacity	Drilling diameter	2.0m(66feet)	Main hoist capacity (single rope)	45kN(10116 lbf)
	Drilling depth	80m(262feet)	Assistant hoist capacity (single rope)	30kN(6744 lbf)
Speed	Positive	10.4, 19,31, 49.3, 76.5 r/min	Effective height of drill frame	10.5m(34.4 feet)
	Negative	11.8 r/min	Max. load of drill frame	180kN(40464 lbf)
Max. torque		40kN·m (29480 lbf·ft)	Power	45kW(60HP)
Max. pressuring force		100kN(22480 lbf)	Dimensions(L x W x H)	5760x3000x11000mm (227x118x433 inch)
Max. lifting force		120kN(26976 lbf)	Weight (with power unit)	12500kg(27563 lb)
400mm(15.7 inch)				

### 3. Aligned Auxiliary Apparatus:

- (1). SF-168 Water swivel
- (2). CF-180 Bushing retainer
- (3). 6BS Sludger unit
- (4). ZF-222A Hexagonal Kelly  
    ZFL-180 Reverse circulation drill pipe
- (5). H3-18t Swing pulley
- (6). TF-180 Elevator