

HYG-2 Full Hydraulic Engineering Exploration Drilling Rig



1. General Introduction:

HYG-2 full hydraulic engineering exploration drilling rig is mainly applied in the fields of buildings, high roads, bridges, water conservation, hydroelectric power, mines and tunnel construction and other industries. It is used for drilling of foundation surveying hole, deep foundation pit anchor hole, foundation, road, as well as dam strengthening hole, water drainage hole, quarry hole, small water well and engineering hole.

2. Main Structure and Features:

- (1). fully hydraulic driven, integrated structure with steel crawlers.
- (2). the main crane arm is in the function of lifting, lowering, swinging, extending and retracting.
- (3). the mast and mast sliding seat can swing simultaneously with the help of hinge seat mechanism.
- (4). the mast could do forward & backward movement and side-swing on the mast sliding seat.
- (5). the drill head is driven by oil cylinder and chain double-speed mechanism, besides. it is with dual-chain balancing mechanism.
- (6). the drill head has the following functions:
 - a. Oil cylinder turnover
 - b. Spindle floating
 - c. Sliding clearance compensation and adjustment
 - d. Dual-motor with low speed and big torque
 - e. Top drive
 - f. Integrated water swivel structure
- (7). with perfect function of shackles of drill rod.

(8). with integration arrangement of hydraulic system, electric system and mud pump and concentrated and convenient operation function.

(9). the overall unit is compact in structure, complete in function, light in weight and flexible in movement.

3. Main Technical Specifications:

(1). drilling depth: 150-280m (492-918 feet)

(2). drilling hole dia.: 130-250mm (426-820feet)

(3). Drill rod: $\Phi 89 \times 2000$ mm ($\Phi 3.5 \times 78.7$ inch), $\Phi 73 \times 2000$ ($\Phi 2.87 \times 78.7$ inch)

(4). Output Spindle Speed of Drill Head

Positive & Negative: high speed: 0-120rpm

Low speed: 0-60rpm

(5). Output torque of Spindle High speed:

0-2900 N•M(0-2137 lbf•ft) Low speed: 0-5600 N•M(0-4127 lbf•ft)

(6). Feeding Stroke of Drill Head: 2800mm (110inch)

(7). Max. Lifting Force of Drill Head: 50KN (11240lbf)

(8). Max. Feeding Force of Drill Head: 34KN (7643 lbf)

(9). Sliding Stroke of Mast: 850mm (33.5inch)

(10). the angle of the mast: from horizontal to vertical continuously adjustment

(11). Power Unit: electric motor: 37KW (50HP)/1480rpm

(12). Main arm: diesel engine: 75KW (100HP)/2200rpm lift to 55°

(13). Main arm: lower to 12°

(14). Mast: swing to the left 59° swing to the right 4° swing to the left: 85° swing to the right: 45°

(15). Dimensions: Working dimensions (L×W×H): $7800 \times 2200 \times 5600$ mm($307 \times 86.6 \times 220$ inch) Transporting dimensions (L×W×H): $8000 \times 2200 \times 2700$ mm($315 \times 86.6 \times 106.3$ inch)

(16). Weight: about 8.5T (18743 lb)