

# DESERT RIGS

Highly mobile desert rigs equipped with fast moving transport system.

## SPEED RIG GENERAL FEATURES

- Climate: Desert -20°C to +55°C
- Drawworks capacities: 1,000 hp–2,000 hp
- Hook load capacities: 440,000 lbs–1,000,000 lbs / 200 t–450 t
- Drilling depth capacities: Up to 20,000 ft / up to 6,096 m
- API, DIN EN certified
- HAZOP risk assessment
- CE equipment
- Testing & commissioning



## SPEED RIG™ 1,500 hp

**Rating: 1,500 hp / 350 t**

**Static hook load: 770,000 lbs @ 10 lines / 350 t**

**Design drilling depth: 18,000 ft / 5,500 m**

## UNIQUE FEATURES

- Cantilever mast parallel lift substructure
- 36 hour rig move times with mast erect over flat terrain conditions up to 10 km
- Option to raise drawworks to permit rig skidding and pad drilling operations
- Mast and substructure raised by hydraulic cylinders
- Bentec automatic driller's control system complete with joystick
- Drawworks control
- Less NPT with Bentec TOP DRIVE
- Field approved equipment

# TECHNICAL DATA

## DESERT RIGS – SPEED RIG™ 1,500 hp

The Bentec SPEED RIG™ 1,500 hp is a highly efficient, light and fast moving desert land rig, delivering maximum safety and performance in a compact and highly mobile drilling package.

With many innovative features and advantages, the SPEED RIG™ achieves extraordinary gains in drilling efficiency.

Developed with a 350 t hook load capacity for medium deep wells, the small size and self-deploying design of the SPEED RIG™ allows for ease of transport and fast on-site rig-up. Every aspect of rig operation from mobility and deployment to machine and structural design has benefited from a wide array of improvements that maximize safety while minimizing the time for rig-up/down and transport.

An integrated hydraulic system is connected to raise the mast and the substructure. When the substructure is in the lowered position, the mast is connected to the drill floor. The mast is raised by two hydraulic cylinders. When the mast is in the vertical position then the hydraulic cylinders are disconnected and retracted. Two telescoping cylinders now lift the substructure into operational height. Every part of the SPEED RIG™ is portable on trailers. A complete SPEED RIG™ is moveable on only 28 trailers.

### TECHNICAL DATA

#### MAST

|                               |  |
|-------------------------------|--|
| Manufacturer:                 | Bentec                                   |
| System:                       | Cantilever, raised by hydraulic cylinder |
| Mast free height:             | 142.00 ft (43.30 m)                      |
| Mast base:                    | 23.00 ft x 16.00 ft (7.00 m x 5.00 m)    |
| Hook load capacity @ 10 lines | 770,000 lbs (350 t)                      |
| Racking capacity:             | Approx. 18,000 ft (5,500 m)              |

#### SUBSTRUCTURE

|                                 |   |
|---------------------------------|---|
| Manufacturer:                   | Bentec  |
| System:                         | Parallel lift substructure, raised by hydraulic cylinders |
| Height of drill floor:          | 30.00 ft (9.10 m)   |
| Height underneath rotary table: | 25.00 ft (7.70 m)   |
| Rotary capacity max.:           | 770,000 lbs (350 t)                                       |
| Setback load max.:              | 450,000 lbs (200 t)                                       |

#### DRAWWORKS

|                      |                     |
|----------------------|---------------------|
| Manufacturer:        | Bentec              |
| Type:                | DW-E-1500-AC        |
| Power rating:        | 1,500 hp (1,100 kW) |
| Drill line diameter: | 1 3/8" (35 mm)      |
| Max. line pull:      | 87,100 lbs (39.5 t) |

#### IRON ROUGHNECK

|               |   |
|---------------|---|
| Manufacturer: | Original Equipment Manufacturer<br>Controls by Bentec |
|---------------|---|

Optional: Substructure can be delivered with a wheel set to be transported as one unit on flat terrain.

The mast including the traveling equipment can be transported as one unit with optional mast dolly. The compact components and AC-powered drive systems further reduce the environmental impact at the well site.

The equipment fitted to the rig is suitable for performance drilling.

The Bentec TOP DRIVE is specially designed for rough conditions and less rig down time.

Due to this modular design, this rig type can be tailored to customers' requirements.

#### TOP DRIVE

|                 |                           |
|-----------------|---------------------------|
| Manufacturer:   | Bentec                    |
| Type:           | TD-500-HT                 |
| Load capacity:  | 500 ton / 454 t           |
| Electric motor: | 1,030 hp (758 kW)         |
| Output torque:  | 46,500 ft-lbs (63,000 Nm) |

#### POWER GENERATION

|                             |                                       |
|-----------------------------|---------------------------------------|
| Manufacturer:               | Bentec                                |
| Engine type:                | 3 x CAT 3512B (or equivalent)         |
| Generator type:             | 3 x CAT SR34 (or equivalent)          |
| Emergency generator engine: | Optional 1 x CAT 3456 (or equivalent) |

#### POWER CONTROL ROOM

|               |                                       |
|---------------|---------------------------------------|
| Manufacturer: | Bentec                                |
| Type:         | Variable Frequency Drive 600 V, 60 Hz |

#### MUD PUMPS

|                 |   |
|-----------------|---|
| Manufacturer:   | Bentec  |
| Type:           | 2 x MP-T-1600-AC                                      |
| Electric motor: | 1,600 hp (1,200 kW) AC                                |
| Max. pressure:  | 5,000 PSI (350 bar)<br>7,500 PSI (500 bar) on request |

#### MUD TANK SYSTEM

|                     |                               |
|---------------------|-------------------------------|
| Manufacturer:       | Bentec                        |
| Type:               | Rectangular tanks             |
| Active mud volume:  | As per customer specification |
| Reserve mud volume: | As per customer specification |

#### SOLIDS REMOVAL SYSTEM

|                        |                                   |
|------------------------|-----------------------------------|
| Manufacturer:          | Original Equipment Manufacturer   |
| Shale shaker:          | 1 x triple unit                   |
| Desander:              | 3 x 12" cones                     |
| Desilter:              | 16 x 4" cones                     |
| Drilling mud degasser: | Bentec type DMD 1-250             |
| Mud gas separator:     | Bentec 48" vertical type MGS V 48 |