BASSOE TECHNOLOGY

BT-3500

TENDER DRILLING UNIT

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SELF-ERECTING TENDER ASSISTED DRILLING

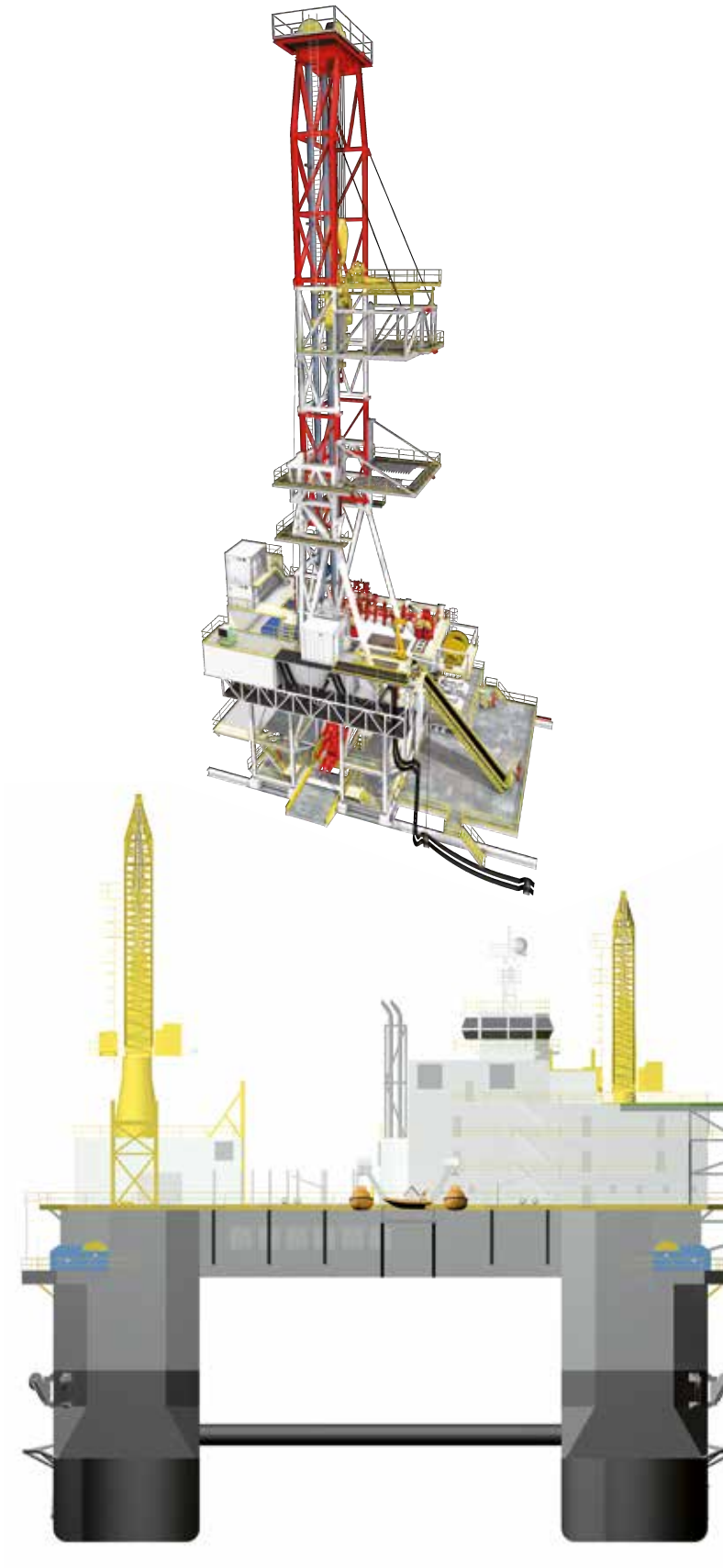
The BT-3500 is a new generation semi-submersible Tender Drilling Unit, taking self-erecting Tender Assisted Drilling (TAD) to harsher environments and deeper water with higher efficiency and operability than previous generations.

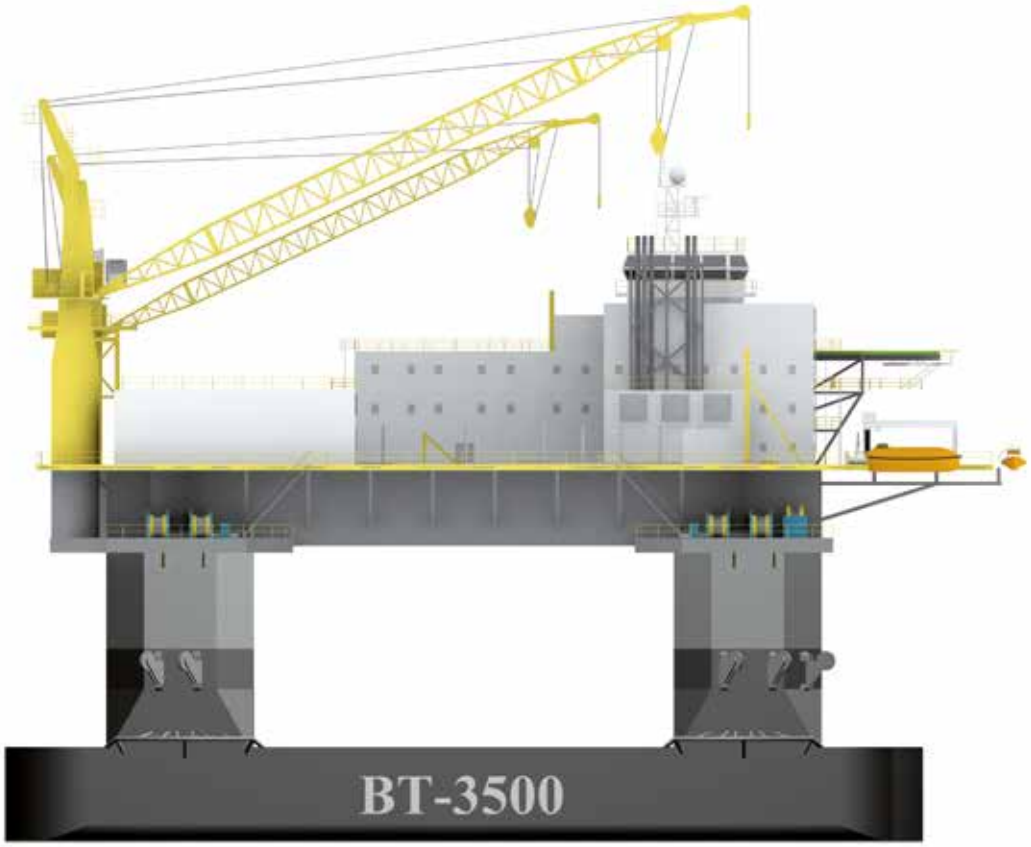
Due to its improved hydrodynamic performance compared with competing units, the BT-3500 will take TAD to a new level for various host platforms, such as a fixed jackets, Spars and TLPs.

The TAD concept means that only the modularized Mast Equipment Package (MEP) is located on the host platform, while the remaining parts of the drilling equipment and the supporting facilities are integrated on the Tender Drilling Unit, which during drilling operations is moored alongside the host platform and connected by a telescopic gangway. The MEP is transported by the Tender Drilling Unit which uses the onboard cranes to erect it on the host platform.

TAD brings, among other things, the following advantages to a field-development:

- **Reduced weights** for the topside and host platform hull/jacket, as part of the drilling facilities, supporting utilities and related loads are arranged on the Tender Drilling Unit.
- **Reduced loads** on the mooring systems of floating platforms (i.e. Spars and TLPs), thereby increasing their water depth capability.
- **Larger storage capacity** for drilling consumables due to the ample volume and variable load characteristics of the Tender Drilling Unit.
- **Improved safety** as accommodation facilities for drilling crew and others are located off-platform on the Tender Drilling Unit.
- **Safer evacuation** in case of an emergency situation on the host platform is provided by the telescopic gangway to the Tender Drilling Unit. The tender can then be moved away from the platform by a controlled release of the mooring lines.




BT-3500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BASSDRILL BETA KEY CHARACTERISTICS

GENERAL	
Class	✠A1 Column Stabilized Drilling Unit, Ⓟ
Rules and regulations	IMO MODU Code, IMO SOLAS, IMO MARPOL, IMO Load Line
Operational areas	Brazil, Gulf of Mexico, South East Asia, West of Africa
POB	140 people (in 1+2 man cabins)
Heli deck	Sikorsky S-61N and S-92, CAP 437

DESIGN CRITERIA	
Water depth, self-contained mooring	250 m
Water depth, pre-set mooring	2,000 m
Maximum drilling depth	10,000 m
Environmental criteria	10-year GOM hurricane, 100-year Brazil storm

MAIN DIMENSIONS	
Length over all	abt. 83.0 m
Beam over all	abt. 77.3 m
Height to box bottom	24.7 m
Height to upper deck	31.2 m
Pontoons (2)	
Length	76.7 m
Beam	13.7 m
Height	7.8 m
Columns (4)	
Horizontal section	12.4 x 13.7 m
Draughts	
Operation	16.0 m
Survival	12.5 m
Transit	7.5 m
Displacement	
Operation	21,550 tonnes

PAYLOAD CAPACITIES	
Deck and column payload, operation/survival	4,420 tonnes
Total payload, operation/survival	5,820 tonnes
Total payload, transit	2,900 tonnes

STORAGE CAPACITIES		
Liquids		
Mud pits in upper hull	1,180 m^3	7,400 bbls
Secondary mud in pontoons	0-445 m^3	0-2,800 bbls
Brine	160-380 m^3	1,000-2,400 bbls
Base oil	160-380 m^3	1,000-2,400 bbls
Drill water	2,130 m^3	13,400 bbls
Fuel oil	1,520 m^3	9,560 bbls
Potable water	710 m^3	4,460 bbls
Bulk		
Bulk cement	296 m^3	10,450 cu ft
Bulk barite/bentonite	296 m^3	10,450 cu ft
Total bulk storage	592 m^3	20,900 cu ft

MAJOR EQUIPMENT	
Tender Drilling Unit	
Power generation	5 x 2,200 kWe
Mooring system	10 x 80 mm wires plus 4 hawser winches for TLP cross mooring
Mud pumps	3 x 2,200 Hp @ 7,500 psi
Main crane	170 tonnes @ 46 m, max radius 64 m
Auxiliary crane	26 tonnes @ 20 m, max radius 44 m
Telescopic gangway	36 m ± 6 m, aluminum bridge
Mast Equipment Package	
Dry weight	1,100 tonnes
Max operating weight	2,300 tonnes
Skidding system	Lift & Roll Systems, X/Y skidding
Drilling mast	1,300 kips static hook-load, 152 ft clear working height, self-erecting bootstrap type
Setback	570 tonnes at quads 450 tonnes at trebles
Pipe handling	Mechanized handling of range 2 and 3 tubulars. Off-line stand-building
Pipe transfer	Hi-line system
Top drive	750 sh tons hook-load x 1,150 Hp
Drawworks	3,000 Hp
Rotary table	49½" diameter
BOP stack	18¾ BOP, 3 rams @ 10,000 psi, one annular @ 5,000 psi
Mud treatment	Gumbo buster, 5 shale shakers, degasser, cuttings dryer and 2 centrifuges

ATLANTICA TENDER DRILLING BUILDS TWO BT-3500 UNITS AT DSIC OFFSHORE

Atlantica Tender Drilling (formerly BassDrill) is a Houston based integrated drilling contractor founded to develop and operate a fleet of purpose built Tender Drilling Units.

In 2014 Atlantica Tender Drilling delivered its first semi-submersible Tender Drilling Unit BassDrill Beta to Petrobas. The Unit will perform drilling operations at the P-61 Tension Leg Platform at the Papa-Terra Field Development offshore Brazil.

In 2013, a second unit, Atlantica Delta, was contracted by Total Congo for use on the Moho Nord development offshore Congo. The unit will be delivered Q2 2015. Both units are built by DSIC Offshore.

DSIC Offshore is one of China's leading turnkey EPC contractors for offshore construction. It is the offshore arm of Dalian Shipbuilding Industry Corporation, one of the world's largest shipyard groups, which has the longest offshore construction history and track record in China. It has delivered ships and offshore projects to international clients since the mid eighties.

DSIC Offshore has over the years successfully delivered more than 30 offshore projects including jack-ups, semi-submersibles and FPSOs to international and domestic clients. In 2009 DSIC Offshore moved to a dedicated new offshore construction yard, which includes a 180 x 120 m drydock. DSIC has delivered the BT-3500 BassDrill Beta and is currently constructing Bassoe Technology designed BT-3500 Atlantica Delta semi-submersible and Atlantica Gamma Heavy Tender Barge (BT-HTB).

BASSOE TECHNOLOGY

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A LEADING DESIGNER

OF ADVANCED MOBILE OFFSHORE UNITS

Bassoe Technology focuses on marine and offshore engineering services including development and design of floating and mobile offshore units, such as semis, drill ships, tender drilling units and accommodation units.

Bassoe Technology has developed a large portfolio of innovative floating and mobile offshore units characterized by an emphasis on operational performance, efficiency and capacities while at the same time challenging size.

With a background from the shipbuilding and offshore engineering industry in Gothenburg, Sweden, our engineers have long experience in design and construction of offshore drilling units for harsh environment and floating production semis for both North Sea and GOM operations.

Bassoe Technology has designed for construction four semi-submersible units, two tender assist drilling barges and one ultra deep water drill ship.

Designs also include wind energy applications for offshore locations. The wind measurement mast located on the Bassoe Technology designed jack-up platform is an example of utilizing existing experience for new applications.

BassDrill Alpha delivered 2010

BassDrill Beta delivered 2014

Etesco IX to be delivered Q2-2016

Helix ESG Q5000 to be delivered Q1-2015


BT-UDS designed for Sigma Drilling Ltd

Atlantica Gamma to be delivered Q3-2014

Jack-up for offshore wind power industry delivered 2012

Atlantica Delta to be delivered mid 2015

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Bassoe Technology is an independent designer of advanced mobile offshore units. Since 2013 owned by CIMC Offshore, with the largest semi-submersible drilling rig manufacturing center in China – Yantai CIMC Raffles Shipyard.

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