

Geotechnical Drilling Vessel MV Bucentaur



GENERAL DESCRIPTION

Bucentaur is a dynamically positioned drilling vessel operating world wide in up to 2000 metres of water. The main market is geotechnical and geological surveys and shallow stratigraphic drilling. Other market areas include subsea module handling, wellhead maintenance, pilot holes for shallow gas detection, pile and conductor installation and drillstring operated jetting tools for excavation and removal of material from clay fraction up to boulder size.

MAIN PARTICULARS

Name	MV BUCENTAUR
Built	: 1983
Owners	: Fugro
Class	: DnV + 1A1, "Dynpos", "Heldk", "E0", "ICE C"
Notation	: dk(+), AUTR (99, 99, 94)
Flag	: Bahamas
Port of Registry	: Nassau
LOA	: 78.07 mtrs
Length between PP	: 68.90 mtrs
BMid	: 16,0 mtrs
Depth Shelter Deck	: 8.40 mtrs
Draught max	: 5.55 mtrs
Air Draft	: 39.00 mtrs
DWT	: 2,200 tonnes
Gross tonnage, internat.	: 2,768 tonnes
Free deck area (max available)	: 400 m ²
Call sign	: C6SU4

CAPACITIES

Quarters	: 44+2 persons
Helideck suitable for	: Bell 214, Super Puma, Sikorsky IS.61.N in emergency
Bulk tanks for dry mud	: 324 m3
Tanks for liquid mud	: 105 tonnes
Speed	: 12 knots max., 10 knots cruising
Consumption	: 16 tonnes I.F.O. 30 cst. At cruising speed

The advantages of the vessel are :

- Very accurate depth control of drillstring relative to seabed by use of an advanced active heave compensation system which corrects for tidal variations.
- Short mobilisation – 12 – 24 hours in port.
- Very experienced crew ; all key persons have 8 – 20 years experience from this kind of operations.
- Operates independently up to 6 weeks without new supplies.
- Can pull off location in less than 1 minute in case of gas blow-out.
- Operation in water depth ranging from 13 metres to 2000 metres.
- Safe operation by use of automatic pipe handling system and remote controlled operation of sampling and testing tools.
- Very competitive day rates compared to drilling rigs.



Maximum drill string	:	1,050 metres API steel pipe
(water depth + penetration)	:	2,000 metres ALU pipe
A-frame	:	SWL 45 tonnes

EQUIPMENT LIST

DRILLING MACHINERY

Heave compensator

Fugro Hydraudyne

Hard-tie Winch

One Ingersoll Rand, max.pull 10,000 lbs, linespeed 55 ft/min, capacity 300 m wire 19 mm dia., with auto. Failsafe brake.

Power Swivel

Wirth type B3-5, max. Torque 30,000 Nm, max. Speed 194 rpm, fitted with hydraulic gearshift and 3 speed gearbox, max. Dynamic load 50 tonnes, with hydraulic-operated ball valve 125 mm. Dia opening fitted on top of swivel to allow easy operation of wireline tools.

Hydraulic tilt mechanism when picking up/laying down drillpipe on deck. Swivel mounted on trolley running on guides in derrick.

Hydraulic System

With centralized el. Hydraulic powerpack, total output 420 hp, with Rexroth hydraulic components, powering mudpumps, power swivel, winches and associated equipment.

Heavylift Winch

One winch made Pusnes, capacity on single drum 2 lengths each 2500 m wire, 34 mm dia. Max. Pull on inner layer 2 x 30 tonnes at line speed of 14 m/min., fitted with hydraulic brake and 2-speed hydraulic motors. Braking force 90 tonnes.

Tool Handling

Remote controlled handling of sampling and CPT equipment.

DRILL STRING

Drillpipe

5 inch O.D., Grade G-105, 19.50 lbs/ft, with special upset 4 inch I.D., 5 _ FH tool joints with 4 inch I.D.

Drill Collars

5 m long, 7 inch O.D. and 4 inch. I.D., 5 _ FH tool joints with 4 inch I.D.

Pup Joints

Complete set of 2,3 and 5 m joints, with same spec. as pipe

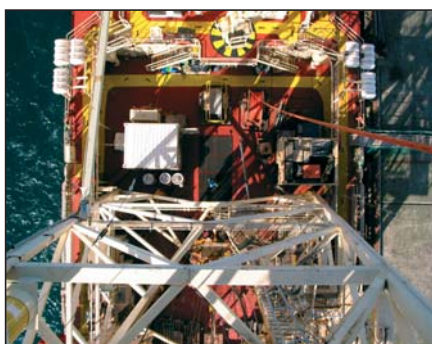
WHEELHOUSE EQUIPMENT

Dynamic Positioning - class II

One Kongsberg Simrad SDP 21, dual operation station OS1 and OS2. Computer cabinet DSP-1, with redundant processors and I/O equipment.

Simrad HIPAP hydro acoustic position reference system.

Simrad HPR T310 hydro acoustic system with tracking transducer with capacity up to 9 transponders. GEC deep water taut wire system.



NAVIGATIONAL EQUIPMENT

One Furuno Inmarsat FELCOM 12
 One Furuno MF/HF FS1562-25
 Two Furuno VHF FM8500
 Two GSM
 Two radars, type Furuno FR-2110/FR2010D
 One Satellite Communication System, type EB Saturn 3S + Norsat
 Seven portable VHF transceivers, make ASCOM
 One weather facsimile, type Alden Marinefax IV
 Two gyros, type Sperry MK 370
 One aviation radiobeacon, type Southern Avionics SS800A
 One aviation VHF transceiver, type Narco Com 120M
 One portable aviation VHF, type Comco 733
 One GPS receiver type Magnawox 200 + One GPS Furuno
 One DGPS Furuno GP 80
 One Navtex type Furuno Nx 400

Depth Recorder

One survey echosounder, type Simrad EA200 with hullmounted dual frequency transducers 38/200 kHz, with digital repeater in geotechnical lab.

DECK EQUIPMENT

Anchors

Two Flipper Delta, each 4,000 kg.

Cranes

One el. Hydraulic main deck crane 5 tonnes capacity. Fully revolving with 1,000 m of hoisting wire on winch. Outreach adjustable with hydraulic telescope from 14 to 18 m.

One el. Hydraulic combineddeck/transponder crane, 3 tonnes capacity, fitted with cargo handling winch and winch with 1,000 m wire for handling of transponders. Outreach adjustable with hydraulic telescope from 6 to 10 m.

One el. Hydraulic provision/transponder crane, 1 tonne capacity, with 1,000 m wire for handling of transponders. Outreach adjustable with hydraulic telescope from 5 to 11 m.

One electric tautwire crane, lifting capacity 1tonne with 1,000 m wire, fitted with 500 kilo clumpweight.

LIFESAVING EQUIPMENT

Two fully enclosed Harding motor lifeboats, each 44 man capacity.
 Inflatable liferafts for 44 persons.
 Survivalsuits for 46 persons.
 One inflatable pick-up

SAFETY EQUIPMENT

Twelve fixed gas detectors spread throughout the vessel.
 Two portable gas detectors.
 One torus annual packer for mounting on top of power swivel (optional).
 One Baker wireline check valve (optional).

GEOTECHNICAL EQUIPMENT

Down hole testing	WISON Mk III and/or WISON XP
Down hole sampling	WIP and PISTON HYDRAULIC PUSH SAMPLERS, MkIII and/or XP
	Fugro CORER (optional)
Geophysical logging	Optional



Fishing winch	Imatrans, maximum 2,200 m water depth
UCE winch	Downhole umbilical cable
Large diameter piston sampling	Fugro Jumbo Corer maximum 40-m samples in maximum 2,000 m water depth
Gravity coring	6-m samples in maximum 3,000 m WD
Grab sampling	Optional
Box coring	Optional
PCPT testing	Wheeldrive and Searobin
Remarks	Custom made sample tools as per request

Geotechnical Laboratory

The lab. is located in the deckhouse close to the drillfloor, total area 40 m², fitted with hydr. sample extruder, drying ovens, wax melter and hot & cold water provided.

ROV Optional

MAIN MACHINERY

Generator Sets

Four Wärtsilä diesels, type Vasa 8R22HE, each diesel driving a van Kaick generator of 1,200 rpm, 600V/60 Hz AC. Engines fitted for operation of Intermediate Fuel Oil max. 30 Cst.

Power Management

One centralized el. Power management system make Malling Delomatic for fully automatic start-up/shutdown of the generator sets according to actual power requirements.

Harbour Generator

One Volvo/Stamford dieselgenerator 200 kW, 400 V

Propulsion Units

Two azimuthing thrusters with CP propeller in nozzle, make Liaaen, each fitted with 2 speed el. Motor of 2,000 hp.

Bow Thrusters

Two tunnel thrusters with CP propeller make KaMeWa, each fitted with 2-speed el. Motor of 1.200 hp.

Workshops

One deck workshop located in deckhouse close to drillfloor.
One engine workshop located on maindeck with access hatch to drillfloor area.
One electric workshop located on maindeck close to engine room.

Freshwater Generator

One Pasilac Therm unit coupled up to maindiesel-generator sets, 16 m³/day

The specifications of the equipment in this data sheet may be subject to modifications without prior notice

For more information contact

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