

SURF Challenger

292 ft (89 m), US Flagged, Class 2 DP MSV



General

Owner/Operator	SURF Subsea, Inc.
Call Sign	WDF5385
Port of Registry	New Orleans, LA
Builder	Bender Ship Building & Repair
Year	2007
Flag	United States
Class	DP Class 2 (Kongsberg SDP 22)
Compliance	US Coast Guard Subchapter 1, SOLAS Approved
Classification	American Bureau of Shipping A1, Fire Fighting Vessel, Class 2, AMS, ACC, and DPS 2

Dimensions, Tonnage, & Speed

Length Over All (LOA)	292 ft (89 m)
Width	59 ft (18 m)
LBP	268.7 ft (81.9 m)
Deck Space	Approx. 8,700 sq ft (808 sq m)
Cargo Deck Loading	1,000 lbs/sq ft (4,882 Kg/sq m)
Gross ITC	2,302 tons (2,087.9 Te)
Net ITC	1,275 tons (1,156.4 Te)
Vessel Speed	10 Knots (maximum)
Cruising Speed	9.0 Knots
Minimum Draft	10.4 ft (3.2 m) Light Ship
Maximum Draft	18.6 ft (5.7 m)

Accommodations

Accommodations	73 total
Client Suite	3-room suite/office
Single Berth	11 cabins
Double Berth	15 cabins
4-Man Cabins	8 cabins
Hospital Room	(2) manual hospital beds; (1) main oxygen supply; (1) Life Pack 11 cardiac monitor; (1) mobile patient care advanced life support backpack; (3) patient lockers; full-time, certified emergency technician

Features

Moon Pool	25 ft x 23 ft (7.6 m x 7 m) with 100-ton crawl hatch; doors can open and close with 100-ton load on top
Helideck	Sikorsky 76 (5 metric tons)
Machinery/Propulsion	
Z-drive units	(2) Steerprop SP-25
Generation	(4) Cat 3516B engines, each 2,549 HP @ 1,800 RPM
Bow Thrusters	(2) Berg SP-12-S
Firefighting Capability	FiFi 2 Classification; (4) fire monitors atop bridge to deliver 8,000 gallons water per minute; firefighting team and team dedicated to Helo rescue
Communications	13 phone lines; Internet 768K bandwidth (expandable) and Inmarsat emergency backup; 512K streaming video service
Rescue/Safety Equip.	SOLAS compliant; (6) additional 25-person life rafts with cradles and hydraulic; additional life jackets provided as required
Rescue Craft	(1) Schat-Harding rescue craft
LOA	16'3"
Beam	6'2"
Capacity	6 personnel (5 seats and capacity for stretcher on deck)
Engine	40-HP Johnson outboard
Launching	(2) personnel

Capacities

Total Fuel Oil	194,000 gallons (734.4 m ³)
Fresh Water for Ship	235,000 gallons (889.6 m ³)
Total Days Offshore Fuel Supply	Approx. 90 days
Fuel Consumption:	
In Transit	3,500 gallons (13.2 m ³)/day
In Port	700 gallons (2.6 m ³)/day
DP Mode	2,400 gallons (9.1 m ³)/day

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Lifting Tower

Heave Compensated Tower	124 tons (113 Te)
Winch	Electric driven
Overall Height	101 ft (30.8 m)
Hook Height	72 ft (21.9 m) clear
Max. Lift Capacity	124 Tons (113 Te) down to 5,246 ft (1,599 m)
Max. Operational Depth	11,319 ft (3,450 m)
Winch Hoist Speed	Full Load 18 m/min Half Load 36 m/min

Overpull Mode for Bottom Recoveries

Lifting Tower Wire Load Rating Calculator

Depth Feet (Meters)	SWL US Ton (Metric Tons)
0	124.5 US tons (113 Te)
1,338.2 ft (408 m)	124.5 US tons (113 Te)
2,699.44 ft (823 m)	124.5 US tons (113 Te)
4,001.6 ft (1,220 m)	124.5 US tons (113 Te)
5,244.72 ft (1,599 m)	120 US tons (109 Te)
6,422.24 ft (1,958 m)	109 US tons (99 Te)
7,544 ft (2,300 m)	98 US tons (89 Te)
8,603.44 ft (2,623 m)	88 US tons (80 Te)
9,600.56 ft (2,927 m)	78.2 US tons (71 Te)
10,538.64 ft (3,213 m)	69.4 US tons (63 Te)
11,316 ft (3,450 m)	61.6 US tons (56 Te)



Knuckle Boom Crane

Knuckle Boom Crane	110 tons (100 Te)
Hook Height	87 ft (27.1 m)
Operation Temperature Range	(-20) to (+45) degrees C
Design Standard	According to ABS "Guide for Certification of Cranes" 1991

Man Lift Line

Harbor Lift

SWL Main Lift Line	100 metric ton @ 9 m
Hook Travel, Single Line	452 ft (137 m)

Offshore Lift (Sea State 1)

SWL Main Lift Line	SWL: 75 metric ton @ 9 m
Hook Travel, Single Line	452 ft (137 m)
Constant Tension Mode	10 – 30 tons

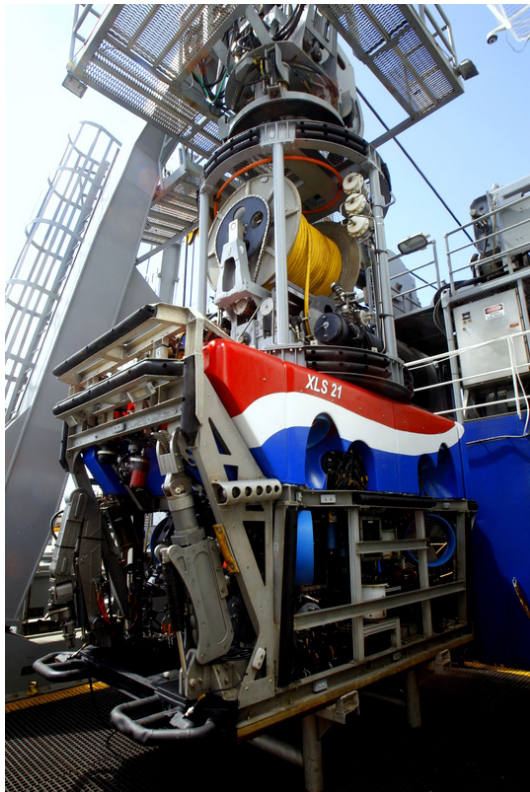
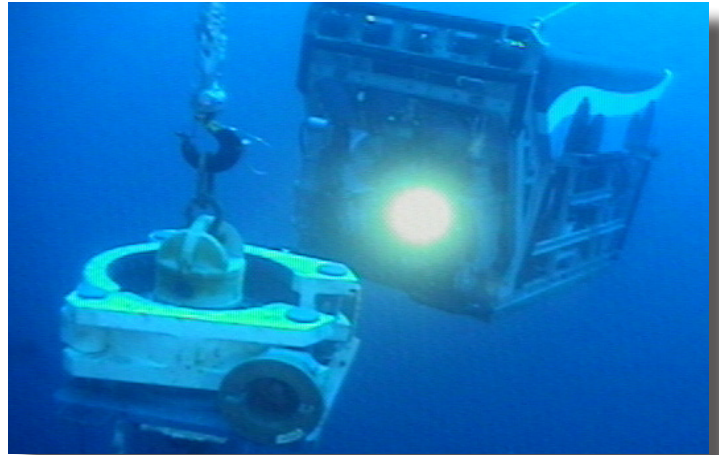
Auxiliary Lift Line

SWL Auxiliary Line	SWL: 5 metric ton @ 6 m
Hook Travel, Single Line	196.8 ft (60 m)

SURF Challenger ROV Systems

Remote Operating Vehicles

ROV System	(2) Triton® XLS 150-HP heavy, work class
Depth Rating	10,000 fsw (3,000 msw)
HPU Shaft	150 HP
Through Frame Lift	6,600 lbs (3,000 Kg)
Control System	Single mode, fiber optic P.C. based
Electrical Supply	480 VAC 3-phase 60 Hz
Tether Capacity	1,980 ft (600 m) usable 35 mm tether available
Thrusters	(4) vertical and (4) horizontal
Auxiliary Hydraulic	3,200 psi @ 52 gpm
Length (inc. manip. mount)	120 in (3048 mm)
Width	70 in (1778 mm)
Height	76 in (1930 mm)
Weight in Air	8,500 lbs (3,864 kg)
Reserve Payload	650 lbs (250 kg)



ROV Standard Features

Sonar	(1) Mesotech MS 1000
Lights and Brackets	(8) each
Altimeter	(1)
Hydraulic Pan & Tilt	(2)
Pitch/Roll Sensor	(1)
Digiquartz Depth Gauge	(1)
Manipulators	Schilling Titan 4 S/C 7-function Perry TA60 5-function grabber
Real-time video channels	(8) ROV, (1) TMS
Spare Single Mode Fiber	(1)
Customer Valve Drivers	(7) 4-GPM solenoid operators; (2) 10-GPM proportional
Serial Communication Interface	(16) full duplex RS232 @ 115 Kbps data channels; (6) full/half duplex RS422/485 @ 115 Kbps channels; (1) Ethernet communication 10/100 Mbps
LARS	Dynacon Model 6015 wide base A-frame 16' 1.5"

SURF Challenger ROV Systems

ROV Tooling

Jabsco Jet Pump	Produces 75 GPM up to 90 psi
Stanley Dredge Pump	3" Pump flowing 450 GPM
Superzip/Jet Pump/ Dredge	130 GPM at 4-bar
1.5", 3", 4" Hard Line Cutters	Cuts umbilicals, cables, and high strength lines up to 4"
Soft Line Cutters	Stainless steel flat bar cutter
Perry Torque Tool	Class 1-4; operates at 0 – 2,000 ft lbs
Smart Manifold	Incorporates various tools associated with subsea equipment and tools
Torque Tool w/Subsea Digital Read	Electronic turns counter for use with various SURF tools
Perry Surface Verification Unit	Class 1-4 torque tool bucket coupled to torque sensor
Seanic Isolated Hydraulic Pump	Capable of use with aggressive fluids up to 15,000 psi
Mako Isolated HPU	Capable of use with aggressive fluids up to 10,000 psi
17-H Male & Female Hotstab	Quick disconnect valves easily manipulated by ROVs
Iverson HC2W Mini-Booster Pump	Increases output pressure potential of the ROV
H.P. DCVs	4-way, 3-position directional control valve
FLOT Tool	Flying lead orientation tool
Other Tools	Super saw, Stanley grinder, hydraulic impact wrench, and more

Additional details for each tool, available upon request.



ROV Control Center

ROV Control Consoles	(2) custom control consoles – one port & one starboard
17" PC/Video Monitors	(7) per system
DVR Recorder	(1) per system
16-Channel Video Switcher	(1) per system
4-Channel VGA Switcher	(1) per system
32-Channel CCTV Switcher	(1) nVision CCTV per system
Clear Comms Units	(2) per system
Control for Deepwater Deployment System	(1) control
42" HDLCD Monitors	(4) for viewing ROV and back deck operations; (2) for drawing or project related projection; (1) high definition Zandar unit controls input
Client Chairs	(2) chairs for observation and monitoring
Closed Circuit TVs	(1) for viewing bow/back deck, deployment winch, engine room/Z-drive room, and crane operations

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