

VESSEL SPECIFICATION – M/V ADAMS CHALLENGE

DESCRIPTION

THE VESSEL IS A DYNAMICALLY POSITIONED DIESEL ELECTRIC POWERED MULTI ROLE OFFSHORE SUPPORT VESSEL WITH RAPID AND EFFICIENT HANDLING CHARACTERISTICS, CAPABLE OF SUPPORTING A WIDE RANGE OF OFFSHORE SUPPORT ACTIVITIES, INCLUDING DIVING SUPPORT, ROV SUPPORT, SURVEY SUPPORT, CABLE LAY AND OFFSHORE CONSTRUCTION AND MAINTENANCE.

THE VESSEL IS OF ALL WELDED MILD STEEL CONSTRUCTION WITH FLARED BULBOUS BOW, TRANSOM STERN AND ROUND BILGE HULL FORM.

A MOONPOOL IS ARRANGED NEAR MIDSHIPS OPEN FROM DECK TO THE BOTTOM AND EQUIPPED WITH A BOTTOM CLOSURE HINGED DOOR, AND A TOP LIFT OUT GRATING ARRANGED FOR 5 TONNES/SQ.M LOADING. THE MOONPOOL IS DOUBLE SKINNED.

PROPULSION IS PROVIDED BY TWIN AZIMUTH PROPELLER UNITS AFT, EACH DRIVEN BY AN ELECTRIC MOTOR. TRANSVERSE THRUST IS PROVIDED BY THE TWIN AZIMUTH UNITS AFT AND BY THREE TRANSVERSE THRUSTERS FORWARD, ONE OF WHICH IS A RETRACTABLE AZIMUTH UNIT.

ACCOMODATION IS ARRANGED FORWARD IN THE SUPERSTRUCTURE AND DECKHOUSES ABOVE THE FORECASTLE DECK, SURMOUNTED BY A MAXIMUM ALL ROUND VISION BRIDGE.

A HELIDECK CONFORMING TO CAA CAP437 GUIDELINES AND TO SUIT AN AEROSPATIALE AS332L HELICOPTER IS ARRANGED ABOVE AND FORWARD OF THE BRIDGE.

THE VESSEL IS EQUIPPED WITH A DUAL REDUNDANT DYNAMIC POSITIONING SYSTEM CONFIGURED TO AND SUITABLE FOR THE SUPPORT ACTIVITIES.

IN ADDITION TO THE STANDARD RADIO FACILITIES, A DEDICATED 24/7 INTERNET AND VOIP INTERNATIONAL TELEPHONE ACCESS NETWORK IS PROVIDED BY A TELENOR C-BAND VSAT TERMINAL OFFERING 128KBPS DATA THROUGHPUT. BANDWIDTH CAN BE INCREASED UP TO 512 KBPS BASED ON THE CHARTERERS REQUIREMENTS.

VESSEL PARTICULARS

BUILT:	ASTILLEROS BALENCIAGA S.A. ZUMAIA, SPAIN.
YEAR OF BUILD:	2008
FLAG STATE:	TBA
PORT OF REGISTRY:	TBA
IMO NO:	TBA
CALL SIGN:	TBA
MMSI NO:	TBA
CLASSIFICATION:	AMERICAN BUREAU OF SHIPPING
NOTATION:	ABS +A1, CIRCLE E, +AMS, +DPS2

THE VESSEL ALSO COMPLIES WITH THE REQUIREMENTS OF THE FOLLOWING;

- SOLAS 1974, 1978, 2000 CONVENTION WITH SUBSEQUENT PROTOCOLS AND AMENDMENTS
- INTERNATIONAL LOADLINE 1966
- FLAG STATE REQUIREMENTS
- INTERNATIONAL CONVENTIONS FOR:
 - PREVENTION OF POLLUTION AT SEA 1973 WITH AMENDMENTS 1978
 - PREVENTION OF COLLISIONS AT SEA 1972 WITH RESOLUTIONS A464(X11), A676 (15) AND A678 (16)
- INTERNATIONAL TONNAGE MEASUREMENT 1969
- ABS GUIDE FOR CERTIFICATION OF CRANES
- IMO GUIDELINE FOR VESSELS WITH DYNAMIC POSITIONING SYSTEMS
- IMO CODE OF SAFETY FOR SPECIAL PURPOSE SHIPS

PRINCIPAL DIMENSIONS

THE VESSEL HAS THE FOLLOWING PRINCIPAL DIMENSIONS;

LENGTH OVERALL	85.00M
LENGTH B.P.	78.00M
BREADTH MLD	18.00M
DEPTH MLD	8.00M
DESIGN DRAFT	5.75M
CLEAR DECK AREA	544 SQ.M (EXCLUDING FORWARD MEZZANINE DECK)
UNIFORM DECK LOADING	5 TONNES/SQ.M

VESSEL SPECIFICATION – M/V ADAMS CHALLENGE

DEADWEIGHT AND CAPACITIES

THE VESSEL IS CAPABLE OF CARRYING A DEADWEIGHT OF ABOUT 2000 TONNES AT THE DESIGN DRAFT.

CAPACITIES:	FUEL OIL TANKS (100% FULL)	1230 CU.M (INC. DAILY SERVICE AND SETTLING)
	FRESH WATER TANKS (100% FULL)	265 CU.M
	BALLAST WATER TANKS (100% FULL)	1000 CU.M
	DECK CARGO (MAX)	800 TONNES
	FRESH WATER GENERATION	20 TONNES/DAY
TONNAGE:	GROSS REGISTERED TONNAGE	TBA
	NET REGISTERED TONNAGE	TBA

PERFORMANCE

THE VESSEL IS DESIGNED FOR A SPEED OF 15 KNOTS IN A FULLY LOADED CONDITION UNDER TRIALS CONDITIONS WITH THE ELECTRIC MOTORS OPERATING AT 100% POWER.

SERVICE SPEED:	14 KNOTS	FUEL CONSUMPTION:	16.5 TONNES/DAY
ECONOMIC SPEED:	10 KNOTS	FUEL CONSUMPTION:	8.5 TONNES/DAY
	FUEL CONSUMPTION (DP):	10-13 TONNES/DAY	
	FUEL CONSUMPTION PORT:	2.5 TONNES/DAY	

HULL CONSTRUCTION

THE VESSEL IS DESIGNED AND CONSTRUCTED TO CLASSIFICATION REQUIREMENTS AND INCLUDES CLASS RECOMMENDATIONS FOR SIDE IMPACT. A DOUBLE PLATE SKEG IS FITTED ON CENTRELINE AFT.

THE MAIN DECK CLEAR WORKING AREA IS 32.0M LONG X 17.0M WIDE BETWEEN BULWARKS AND IS LAID WITH 70MM HARDWOOD SECURED IN 'T' BARS.

THE DECK IS DESIGNED FOR A STATIC LOAD OF 5 TONNES/SQ.M, WITH 10 TONNES/SQ.M AT THE MOONPOOL AND STERN AREA.

THE MAIN DECK BULWARK IS 1.08M IN HEIGHT WITH A TOP RAIL FORMED FROM HEAVY BULB SECTION.

THE CONSTRUCTION AND MATERIALS OF THE VESSEL ARE SUITABLE TO THE FOLLOWING SITE CONDITIONS:

SEA WATER TEMPERATURES	5 TO 37 DEGREES CENTIGRADE
AMBIENT SHADE TEMPERATURES	-10 TO 50 DEGREES CENTIGRADE

HULL OUTFITTING

ANCHORS AND CABLES ARE PROVIDED IN ACCORDANCE WITH CLASS REQUIREMENTS INCLUDING TWO ANCHORS, CHAIN CABLES, TOWLINE AND MOORING LINES.

DECK MACHINERY

- 1 X ELECTRIC WINDLASS WITH TWO CABLE LIFTERS AND TWO WARPING DRUMS
- 2 X HYDRAULIC CAPSTANS EACH 5 TONNES PULL
- 1 X MOONPOOL DOOR WINCH
- 1 X BEACON DEPLOYMENT WINCH AND DAVIT
- 1 X STORES CRANE AT MAIN DECK, DUTY 15 TONNES AT 10 METRES
- 1 X STORES CRANE AT FORECASTLE DECK, DUTY 7 TONNES AT 8 METRES

DECK CRANE

1 x ELECTRIC HYDRAULIC DECK CRANE COMPLETE WITH ACTIVE HEAVE COMPENSATION AND WITH A STATIC WORKING LOAD OF 100 TONNES AT 8 METRES IN TWIN LINE OPERATION. IN SINGLE LINE OPERATION HOOK TRAVEL IS 600 METRES WITH STATIC SAFE WORKING LOAD OF 50 TONNES AT 10 METRES.

MAXIMUM OUTREACH IS 25 METRES WITH 25 TONNES SAFE WORKING LOAD

A WHIP HOIST IS PROVIDED WITH CAPACITY OF 10 TONNES AND TO A DEPTH OF 300 METRES

THE CRANE IS FULLY CERTIFIED AS AN OFFSHORE MARINE CRANE

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PROPULSION AND MACHINERY

MAIN GENERATORS:	4 X WARTSILA 8L26 MEDIUM SPEED IN LINE MARINE DIESEL ENGINES EACH RATED AT 2600 KW FITTED WITH MARINE ALTERNATORS AT 2495 KW, 690 V, 3 PHASE, 60 Hz ARRANGED IN PARALLEL
AZIMUTH UNITS:	2 X WARTSILA/LIPS STEERABLE THRUSTERS RATED AT 2450 KW
TUNNEL THRUSTERS:	2 X WARTSILA/LIPS TUNNEL THRUSTERS EACH RATED AT 990 KW
AZIMUTH UNIT FORWARD:	1 X WARTSILA/LIPS STEERABLE THRUSTER RATED AT 1000 KW
HARBOUR GENERATOR:	1 X DIESEL DRIVEN MARINE ALTERNATOR RATED AT 500 KW
EMERGENCY GENERATOR:	1 X DIESEL DRIVEN MARINE ALTERNATOR RATED AT 350 KW

DIVING SYSTEMS

THE VESSEL INCORPORATES AN AIR DIVING SYSTEM FOR UP TO 50 METRE WATER DEPTHS AND A SATURATION SYSTEM FOR UP TO 300 METRE WATER DEPTHS.

THE AIR DIVE SYSTEM COMPRISES THE FOLLOWING BELOW DECK MOUNTED EQUIPMENT:

- 2 X HP AIR COMPRESSORS (1- ELECTRIC AND 1- DIESEL DRIVEN)
- 2 X LP AIR COMPRESSORS (1-ELECTRIC AND 1- DIESEL DRIVEN)
- 1 X HP BOTTLE BANK
- 2 X LP AIR RECEIVERS
- 1 X WELD GENERATOR AND TRANSFORMER
- 1 X TOOL AIR COMPRESSOR AND AIR RECEIVER

PLUS 1 X CONTROL CONTAINER WITH DDC CHAMBER AND 1 X DIVER LAUNCH AND RECOVERY SYSTEM MOUNTED ON DECK.

THE SATURATION DIVE SYSTEM COMPRISES THE FOLLOWING EQUIPMENT:

- 2 X TWIN LOCK LIVING CHAMBERS
- 1 X HYPERBARIC RESCUE CHAMBER
- 1 X 3 MAN BELL
- 1 X LAUNCH AND RECOVERY SYSTEM
- 2 X DIVE AND SAT CONTROL STATIONS
- 2 X EQUIPMENT SUPPORT CONTAINERS

ALL NECESSARY LIFE SUPPORT SYSTEMS, SAFETY AND LOOSE EQUIPMENT ARE PROVIDED.

MAINS ELECTRICAL AND EMERGENCY SUPPLY IS PROVIDED FROM THE VESSELS SYSTEMS.

GAS STORAGE IS PROVIDED BELOW DECK IN STORAGE KELLY'S.

ELECTRICAL SYSTEM

THE ELECTRICAL SYSYTEM IS ARRANGED AS:

- 690 VOLT, 3 PH, 60 Hz- NORMAL
- 440 VOLT, 3 PH, 60 Hz- NORMAL
- 220 VOLT, 1 PH, 60 Hz- NORMAL + EMERGENCY
- 110 VOLT, 1 PH, 60 Hz- NORMAL + EMERGENCY

THE MAIN SWITCHBOARD IS ARANGED WITH SPLIT BUSBARS, TIEBREAKERS AND ALL NECESSARY SAFETY DEVICES.

THE FOLLOWING ARE ARRANGED ON THE MAIN DECK FOR PROJECT USE:

- 300 KW, 3 PH, 690 VOLT DECK SUPPLY VIA CIRCUIT BREAKER
- 400 KW, 3 PH, 440 VOLT DECK SUPPLY VIA CIRCUIT BREAKER
- POWER OUTLETS 2 X 440 VOLT 125 AMP
- 4 X 440 VOLT 63 AMP
- 2 X 220 VOLT 32 AMP
- 4 X 220 VOLT 16 AMP
- 2 X 110 VOLT 32 AMP
- 4 X 110 VOLT 16 AMP

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ACCOMMODATION

ALL ACCOMMODATION SPACES ARE AIRCONDITIONED AND HEATED ALLOWING THE VESSEL TO OPERATE IN CLIMATIC CONDITIONS OF -10 TO +50 DEGREES CELCIUS

A MAXIMUM ALL ROUND VISION WHEELHOUSE AND DP CONTROL CENTRE IS LOCATED ON THE NAVIGATING BRIDGE TOGETHER WITH A CLIENTS/ROV/SURVEY OFFICE

THE VESSEL CAN ACCOMMODATE 101 PERSONEL IN ONE AND TWO BERTH CABINS ARRANGED ON MAIN, FORECASTLE, LOWER AND UPPER BRIDGE DECKS. EACH CABIN IS FULLY EQUIPPED WITH HIGH QUALITY FURNITURE, FIXTURES AND FITTINGS, AND ALSO EACH ARRANGED WITH EN SUITE TOILET AND SHOWER UNIT.

THE CABINS ARE ARRANGED AS FOLLOWS

21 X 2 MAN ON MAIN DECK
12 X 2 MAN ON FORECASTLE DECK
2 X 1 MAN AND 11 X 2 MAN ON LOWER BRIDGE
11 X 1 MAN ON UPPER BRIDGE

THE UPPER BRIDGE IS RESERVED FOR SHIP'S OFFICERS. THE LOWER BRIDGE AND FORECASTLE DECK ARE ARRANGED FOR CLIENTS AND TECHNICIANS AND THE MAIN DECK ARRANGED FOR CREW AND PROJECT PERSONNEL. HOWEVER THE ACCOMMODATION CAN BE CONFIGURED TO SUIT CLIENT REQUIREMENTS IN OTHER COMBINATIONS UP TO THE MAXIMUM COMPLEMENT OF 101 PERSONS

A TWO BERTH HOSPITAL IS PROVIDED AT MAIN DECK LEVEL WITH ACCESS FROM THE DECK AND ACCOMMODATION ALLEYWAY.

SHIP, CLIENT AND SURVEY OFFICES ARE PROVIDED.

A FULLY EQUIPPED GALLEY IS PROVIDED TO SERVE A SPACIOUS MESS ROOM, AND WITH EASY ACCESS TO FREEZER, CHILL, COLD AND DRY STORES.

RECREATION AND QUIET ROOMS, AND GYMNASIUM ARE PROVIDED.

DYNAMIC POSITIONING (DP) SYSTEM

THE VESSEL IS FITTED WITH A SIMRAD KONGSBERG DUAL REDUNDANT DYNAMIC POSITIONING SYSTEM SDP21 TO MEET NMD CONSEQUENCE CLASS 11 REQUIREMENTS, IMO EQUIPMENT CLASS 11 AND ABS NOTATION +DPS2.

PRIMARY EQUIPMENT

1 X DUAL OPERATORS CONSOLE-FACING AFT
2 X PROCESSING UNITS
1 X PORTABLE JOYSTICK
1 X POWER MANAGEMENT SYSTEM
1 X AUTOPILOT PANEL

PERIPHERAL EQUIPMENT

2 X UPS (3 KVA)
2 X EVENT LOGGING PRINTERS
1 X DP ALARM SYSTEM

ENVIRONMENTAL SENSORS

3 X GYRO COMPASSES WITH 6 REPEATERS
2 X VERTICAL REFERENCE UNITS
3 X WIND SENSORS, SPEED AND DIRCTION INDICATORS

REFERENCE SENSORS

2 X INDEPENDENT DGPS (1-XP & 1-LP)
2 X HYDROACCOUSTIC HIPAP (1-500 & 1-350)
1 X MDL FANBEAM LASER
2 X LIGHTWEIGHT TAUTWIRE UNITS

REFERENCE DEPLOYMENT

2 X HYDROPHONE DEPLOYMENT SYSTEMS
1 X ACCOUSTIC DEPLOYMENT SELF SPOOLING WINCH WITH 2000 METRES OF 8MM SS CABLE

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DP OPERATING MODES

THE SYSTEM IS COMPLETE WITH THE FOLLOWING OPERATING MODES:

- STANDBY TRAINING
- MANUAL JOYSTICK
- MIXED JOYSTICK/AUTO
- AUTO HEADING
- AUTO POSITION
- FOLLOW TARGET (LOW SPEED)
- AUTO TRACK

THE SYSTEM IS THUS SUITABLE FOR DIVING SUPPORT, CABLE AND FLEXIBLE LAYING, ROV FOLLOWING, PIPELINE SURVEY, AND MOST CONCEIVABLE DP OPERATING REQUIREMENTS

LIFESAVING EQUIPMENT

THE VESSEL IS PROVIDED WITH ALL NECESSARY LIFESAVING EQUIPMENT TO MEET SOLAS AND FLAG STATE REQUIREMENTS FOR THE TOTAL COMPLEMENT AND COMPRISES LIFEBOATS, LIFERAFTS, LIFEJACKETS, IMMERSION SUITS, THERMAL PROTECTION AIDS, EMERGENCY BREATHING AND ESCAPE SETS AND RESCUE BOAT.

FIRE FIGHTING

THE VESSEL IS PROVIDED WITH FIRE FIGHTING EQUIPMENT TO MEET SOLAS, CLASS AND STATUTORY REQUIREMENTS INCLUDING CO2 FIRE SMOTHERING FOR THE ENGINE ROOMS, PAINT STORE AND GALLEY HOOD.

ELECTRONICS

THE VESSEL IS FULLY EQUIPPED FOR GMDSS AREA 3 AND NAVIGATION WITH THE FOLLOWING:

- 2 X RADARS
- 1 X ELECTRONIC CHART DISPLAY
- 2 X ECHO SOUNDER
- 3 X GYRO COMPASSES (INTERFACED TO THE DP SYSTEM)
- 1 X AUTO PILOT LINKED TO 2 GYRO COMPASSES
- 1 X WIND SPEED AND DIRECTION INDICATOR
- 1 X SATCOM INTERFACED TO THE DP SYSTEM
- 2 X INMARSAT C SATCOM
- 1 X NAVTEX
- 2 X VHF WITH DSC
- 1 X SSB RADIO WITH DSC
- 2 X SART
- 1 X EPIRB
- 6 X PORTABLE VHF'S
- 1 X C BROADBAND
- 1 X PUBLIC ADDRESS SYSTEM AND INTERCOM
- 1 X SOUND POWER TELEPHONE SYSTEM
- 1 X AUTOMATIC IDENTIFICATION SYSTEM

HELIDECK

AN ALLOY HELIDECK CONFORMING TO CAA CAP437 GUIDELINES AND TO SUIT AN AEROSPATIALE AS332L HELICOPTER IS ARRANGED ABOVE AND FORWARD OF THE BRIDGE.