



ANNEX «A» to TimeCharterParty

M/V SANCO SPIRIT

YOUR PARTNER IN MARINE SEISMIC OPERATIONS



SHIP DESIGN	MM 86 Seismic, Source / 2-D Seismic Survey Vessel
CLASSIFICATION	BV
BUILDER	Vaagland Båtbyggeri AS, Norway , build no. 141,
BUILT	Year 2009
PORT OF REGISTRY	Gibraltar
FLAG	Gibraltar
IMO NUMBER	9429936
CALL SIGN	ZDJN3

OWNER:	Sanco Holding AS Moljevegen 32 N-6083 Gjerdsvika NORWAY	MANAGER:	Sanco Shipping AS Moljevegen 32 N-6083 Gjerdsvika NORWAY
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MAIN DIMENSIONS		CLASS NOTATIONS
Length O.A	86.5 m	BV: + HULL, + MACH, + AVM-DPS, + AUT-UMS, ICE, + DYNAPOS AM/AT R, SPS IMO A.534(13) HELDK-SH. Unrestricted navigation BV ID Number: 34673 Q
Length P.P	83,41 m	
Breadth	16.0 m	
Draft	5.80 m	
Gross Tonnage	4396	

Updated: May 2020
All specification given without guarantee, and subject to changes

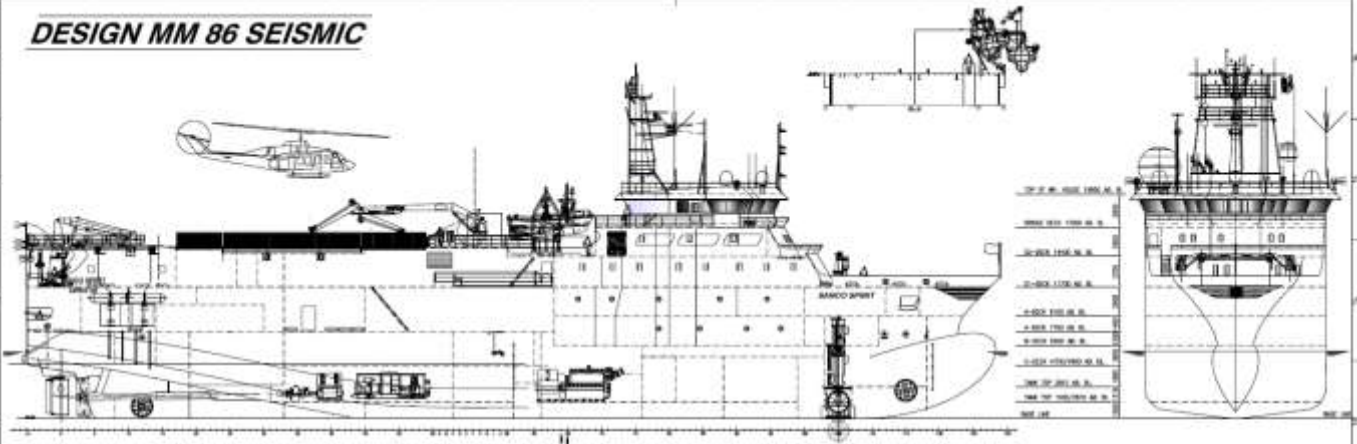
OUTLINE SPECIFICATION M/V SANCO SPIRIT

MACHINERY AND PROPELLER PLANTS	
Main propulsion:	STADT Stascho, 2 x 2500 kW, 690 V
Main engines:	4 x 1593 kW, ABC Diesel, 8 DZC, 900 rpm
Main gear:	2 x Finnøy
Generators:	4 x AVK, 1612 kW each
Propeller:	2 x 4 bladed Finnøy, Ø=3100, 150/190 rpm
Emergency Aux.	1 x Scania, 352 kW
Bow thruster 1:	1 x Brunvoll tunnel, 700 kW
Bow thruster 2:	1 x Brunvoll, Azimuth, 700 kW
Stern thruster 1:	1 x Brunvoll tunnel, 700 kW
Rudders:	2 x RR Hince Flap rudder
Steering Gear:	2 x RR Tenfjord
Working air Compressors:	2 x Sperre . + 1 Atlas Copco
ELECTRIC POWER	
690 V, 440 V, 230 V all 60Hz	
DECK MACHINERY	
Crane, 02-deck:	1 x Triplex folded jib, SWL 5 T at 15 m
Crane, provision, 01 deck:	2 x Triplex crane, SWL 1,5 T at 6 m
Crane, 01 deck (streamer deck):	1 x MB Hydraulic, SWL 5 T at 15 m
Seismic Cable winches:	4 x 9000 m each, 60 mm diameter
Seismic Gun winches:	7 x 330 m each, 67 mm diameter
Auxiliary winches:	17 pcs on gun & streamer deck
Hydraulic power pack:	2 x 350 bar
NAVIGATION EQUIPMENT	
Auto Pilot:	Anschutz PilotStar D
GPS:	2 x Furuno GP-150
Radar 1:	1 x 3 cm Furuno FR 2117, Arpa
Radar 2:	1 x 10 cm Furuno FR 2137, Arpa
Radar 3:	1 x SeaHawk
Gyro 1 & 2:	2 x Simrad GC 80
Gyro 3:	Furuno SC-50
Electronic Chart navigation:	2 x Furuno TECDIS, Telco
DP system:	Kongsberg SDP 21
C-Joy with track steering:	Kongsberg with dedicated software
Echo sounder bridge:	Furuno FE 700
Survey echo sounder:	Kongsberg EA-640, 18, 38 & 200 kHz
Speed log / Current meter:	Furuno DA-80
Voyage Data Recorder:	Furuno VR-3000
AIS:	Furuno FA-150 AIS
EPIRB:	1 x Sailor SE-406 II
SEISMIC	
On-line Nav. system:	ION Gator II
Primary Navigation:	Fugro Starfix.XP2/G4
GPS receiver:	Fugro StarPack and Starfix 9205
Gun array tracking:	Seamap BuoydLink 4DX, 2 pods pr Array
Acoustic / Transducer:	Almek HPR, USBL Sonardyne
Gyro:	Teledyme TSS, Meridian, Seapath 320
ENERGY SOURCE	
Type:	BOLT 1900 LLXT
Number of Sub. Arrays:	6 pcs sub. arrays in use, 6 position each array and 2,5 meter between guns
Configuration:	Single / Dual source/ Triple Source.
Tow width:	Dual /Triple source, 100 m max COS
Firing control:	2 X Gun Link 2000
Navigation Processing:	FGPS SeisPos
NFH:	All position
PT:	Pressure Transducer Last Position
Depth transducer:	3 per sub-array
Tow system:	Baro Flex. 18' float syst. with diverters
Deflectors:	Baro C680-2000, Midi 140 %
Near Field Hydrophone QC:	RadExPro real time monitoring
Seismic compressors:	2 x Neuman & Esser, SAPS 62
Compressor capacity:	2 x 2200 cfm = 4400 cfm in total
Working pressure:	2000 Psi
Power control:	Freq. drives with auto RPM control

SPEED AND FUEL CONSUMPTION	
Max. speed:	15 knots – 27 m3/day
Service speed:	13 knots – 19 m3/day
Economic speed:	10 knots – 10 m3/day
Seismic shooting:	4,5 knots – 11 m3/day
Bollard pull:	40 tons
Endurance shooting:	90 days
Endurance economic speed:	100 days
IN LINE BUNKERING CAPABILITY	
The vessel is arranged with in line bunkering over the bow	
CAPACITIES	
Fuel:	1100 m3 (MDO)
Drinking water:	117 m3
Lube oil:	17 m3
Sewage:	50 m3
Grey water:	48 m3
Dirty oil / Sludge oil:	10 m3 + 4 m3
Fresh water generator:	ENWA Osmosis Plant, 21 m3/day
Sewage treatment plant:	DVZ-SKA-40 "BIOMASTER"
Ballast treatment plant:	MMC Green Technology 100 m3
Waste compactor:	Delitek, Type DT- 500 Mk II
Incinerator:	Teamtec Golar OG 400
Black water:	Jets Vacuum DVZ
Helideck, Daylight:	D-value 19,5 meter, 11 tonnes
LIFE SAVING EQUIPMENT	
Safety manning level:	10 persons
Rescue / FRC / MOB:	MAGNUM 750, water jet
Workboat:	Malo 22' Seismic
Inflatable life rafts:	6 x 25 persons Viking DK 25
Life Jackets:	99 pcs + 5 kids
Life buoy:	11 pcs
Survival suits:	54 pcs
Emergency radios:	3 x Sailor SP 3520
Radar transponders:	2 x Sailor Sart II
Fire detection system:	Autronica Minerva T200 CV
Fire pumps:	2 x Allweiler 36 m3/h + 1 x 31 m3/h
Co2 system:	Autronica
Lifesaving capacity max.:	47 persons
COMMUNICATION	
M/F & H/F:	Sailor CU 5100
VHF Stationary:	2 x Sailor 6222 + 1 x Sailor RT 2048
Handheld VHF radios:	3 x Sailor SP 3520
UHF stationary:	5 x Motorola GN 380
UHF portable:	6 x Motorola UHF GP 340
Internal communication:	Alcatel Omini PCX
Satellite – Inmarsat Type C:	2 x Sailor TT 3606
Nav. Tex.:	Furuno NX-700
Satellite com. Equipment:	Iridium
ACCOMMODATION	
Instrument room:	1 pcs sep. aircon. with redundancy
Gun Shack:	1 pcs with air-condition
Work Shop:	2 pcs with air-condition
Seismic store:	2 pcs
Mess room:	Seating for 30 persons
Day rooms:	3 x dayrooms 1 conference room 1 internet café
Gymnasium:	Yes
Air condition:	Techno Term HVAC system
Cabins:	13 x 1 bed with bathroom 17 x 2 bed with bathroom Hospital with bathroom

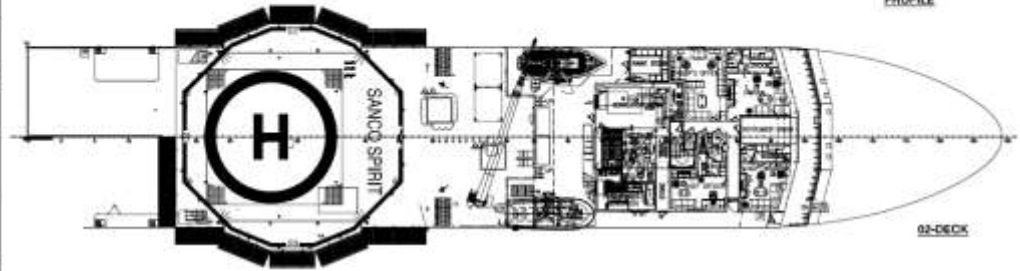


DESIGN MM 86 SEISMIC

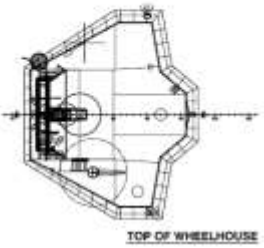


PROFILE

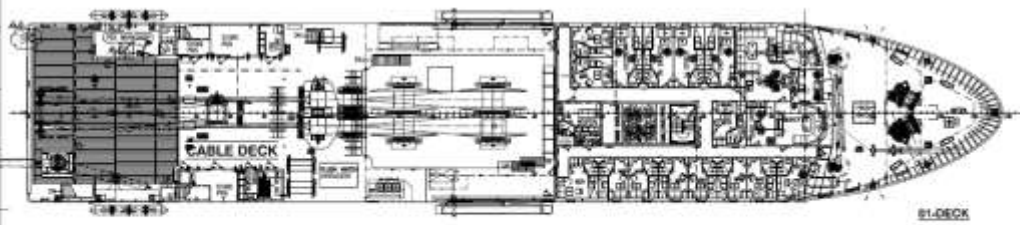
FRONT VIEW



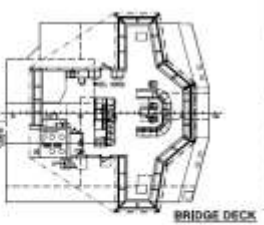
02-DECK



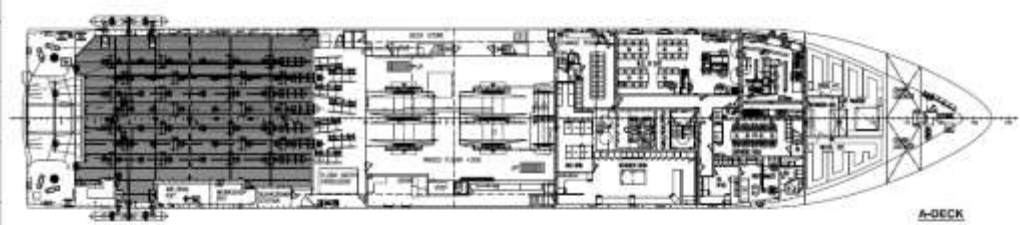
TOP OF WHEELHOUSE



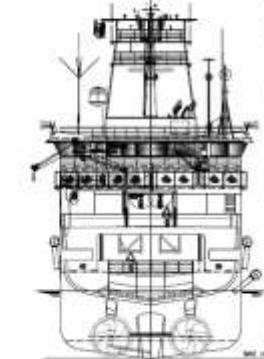
01-DECK



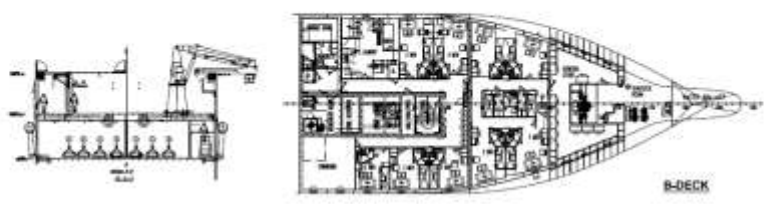
BRIDGE DECK



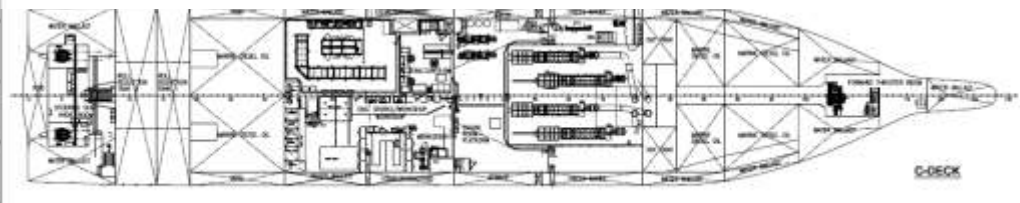
A-DECK



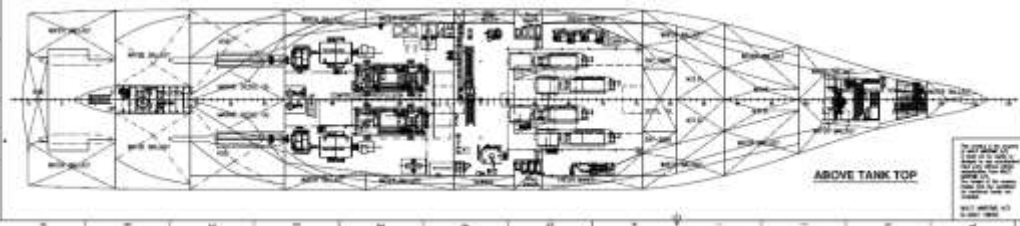
STERN VIEW



B-DECK



C-DECK



ABOVE TANK TOP

MM 86 SEISMIC

MAIN DIMENSIONS:

LENGTH OVER ALL	98.00 m
LENGTH BETWEEN LIP	78.00 m
WIDTH MOLDED	19.00 m
LENGTH BETWEEN LIP (LOD LINE)	70.00 m
LENGTH BETWEEN LIP (50% Rule length)	69.41 m
DEPTH MOLDED TO FREE	5.18 m
SCAFFOLD WATER LINE	6.70 m
DESIGN WATER LINE (DWL)	6.75 m
SINGLE CABIN	18
DOUBLE CABIN	18
RESCUE EQUIPMENT FOR	47 PERSONS

CLASS:
 DNV + MAR. REG. IN PR. DYNALAGEC HD/ENR

IMO No: 9439836

1. Safety certificate 11003	11003
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Sanco Spirit Towing

