



**GOLDEN
ENERGY**
OFFSHORE

MV Energy Duchess of Ulstein PX121H DESIGN



TECHNICAL OUTLINE SPECIFICATION

MULTIPURPOSE FIELD SUPPLY-, PIPE CARRIER, SPECIAL PURPOSE VESSEL

Rev.: 07/01/2026

Yard: Hull # 1023 @ ROC
Delivered 27.05.2019

Name of ship: Energy Duchess
Port of registry: Aalesund
Distinctive number or letters: LFZG
IMO Number: 9740744
Maritime Mobile Service Identity (MMSI): 259 032 000
DNV ID: 34240



MAIN DESCRIPTION

Type : MULTIPURPOSE FIELD /
PLATFORM SUPPLY VESSEL.
Classification:
✱ DNV *1A1, SF, Fire Fighter (I), Offshore Service
Vessel, SPS, BIS, CLEAN DESIGN, COMF (V-3),
DK(+), DYNPOS AUTR, E0, HL (2,8), LFL(*),
NAUT OSV (A), OILREC

ERN 99.99.88.78

MEASUREMENTS

Length o.a. : 83,318m
Length p.p. : 79,56m
Breadth mld. : 18,00m
Design draught : 6.0m
Draught max. : 6,70m
Moulded draught to M.D. : 8,00m
Lowest service draft : 3,3 / 4,2m (Cargo ship / SPS)
DWT : 3956,5T
Gross Tonnage : 3795
Net Tonnage : 1275
Deck load, VCG : 1960 / 1750T (Cargo ship / SPS)

CARGO CAPACITIES

Work/Cargo Deck area: 858m² (L 50,4 x B 15 + L 7 x B 14,5)
Usable Deck area: 850m²
Deck strength: 10t/m² aft of #35, 5t/m² elsewhere
Cargo tks_ : Vessel has 10 x combi tanks for mud/brine /slop/ etc.

DISCHARGE RATES

Fresh Water	: 1061m ³		0 - 200m ³ /hour -	9 bar
Fuel Oil cap	: 1473m ³	- 9264 US bbl	0 - 200m ³ /hour -	9 bar
FO giveaway	: **1000m ³	- 6289 US bbl		
Liquid Mud	: 1294 m ³ total volume	- 8139 US bbl	2x 0 - 75m ³ /hour -	24 bar
(Water based	: *1164m ³ i.e.@ 90% Sg. 2,8	- 7321 US bbl)	2x 0 - 75m ³ /hour -	24 bar
(Oil based	: *800m ³	- 5031 US bbl)	2x 0 - 75m ³ /hour -	24 bar
Brine / Slop	: 1164m ³ i.e.@ 90% Sg. 2,8	- 7321 US bbl	0 - 75m ³ /hour -	18 bar
ORO	: 662m ³	- 4163 US bbl	2 x 0 - 75 m ³ , 24 bar & 4x75 m ³	9 bar
DW/ballast	: 1571m ³		0 - 200m ³ /hour -	9 bar
Methanol	: 155m ³ 4 tanks	- 976 US bbl	2 x 0 - 75m ³ /hour -	9 bar
Baseoil	: 267m ³ 2 tanks	- 1680 US bbl	0 - 150m ³ /hour -	9 bar
Cement/barite	: 255m ³ 4 tanks	- 9005 Ft ³	2 x compr. 30 m ³ /min.-	5,6 bar
Slop	: 506m ³ 4 comb tks	- 3187 US bbl	2x 0-75m ³ /hour -	24 bar
Foam	: 8,8m ³			

* Max capacity of each product

** According to IOPP regulations



Height of cargo rail: 4m

All mud / brine tanks have agitators. Tank washing system with hot/ cold water and chemical injection in washing water for mud and brine tanks.

Inert Gas Generator installed, capacity: 11 Nm³/h with 97% nitrogen (N₂) purity.

Flow meter for Fuel Oil (w. print) and FW.

Loading and discharge stations on both sides amidships and aft.

Work air on Main Deck: 7 bar

Lashing points on Main Deck:

32 x low lashing points SWL 8T on cargo rail 1200 mm and 200 mm from main deck

28 x high lashing points SWL 8T on cargo rail 2750 mm from main deck

28 x low lashing points SWL 10T on cargo rail 1000 mm and 200 mm from main deck

28 x lashing points in main deck for pipe support

14 x rollers (6 each side and 2 astern) for tugger wire arranged in cargo rail

MACHINERY -PROPULSION

PERFORMANCE @ draft 4,8m

Main eng.: 2 x Caterpillar C3512 1628 kW each
Generator: 2 x Marelli MJR 630 LA8 B3 1550kW each
Main eng.: 2 x Caterpillar C32 994 kW each
Generator: 2 x Marelli MJR 630 LB8 940 kW each
Emergency gen. : 99 kW
Propellers :2 x Azipull 85, CP 1700 kW each
Bow thruster:2x Tunnel thr. CP 880 kW each

Full speed (all generators running) : 14,5 kts ~ 18,1 mt/day
Service speed/cons. : 13 kts ~ 12,9 mt /day
ECO high speed : 11,5kts ~ 10,3 mt/day
ECO medium speed : 10,8kts ~ 8,6 mt/day
Eco speed/cons. : 10,5 kts ~ 7,7 mt /day
ECO slow speed : 10 kts ~ 6,7 mt/day
DP nice weather 2 gen online : 5 mt/day
DP med. weather 2 gen online : 6 mt/day
DP rough weather 4 gen online : 6,6 mt/day
Port consumption : 1,4 mt/ day

DECK/RESCUE EQUIPMENT

ACCOMMODATION

Lifesaving equipment according to NMA requirement
1 off Fast Rescue Craft: Mare 600 FRB, inboard diesel
1 off (SOLAS approved) TTS Davit
Life rafts : 3x20 pers. each side
Survival Suits : 30
Life Jackets : 34
Tugger Winches : 2 x 10t
Capstans : 2 x 10t
Windlass/Mooring : 1 double 15t
Cranes : 3t@18m
Incinerator : 1 off
Waste Compactor : 1 off

Total : 30 persons
Cabins : 16 x 1 (single) bed cabins
Cabins : 7 x 2 (double) bed cabins
Day room Smokers : 1 off, B deck
Day room No smokers : 1 off, A deck
Mess room : 1 off, A deck
Hospital : 1 off, Main deck
Reception : 1 off, Main deck
Laundry : 1 off, Main deck
Gymnasium : 1 off, Main deck
Ship`s office : 1 off, C deck
Conference room : 1 off, C deck



REEFER SOCKETS ON MAIN DECK:

6 pcs 200V-260V 16A 2-phase+ground type QX7012 midship port side frame #39

6 pcs 200V-260V 16A 2-phase+ground type QX7012 midship starboard side frame #39



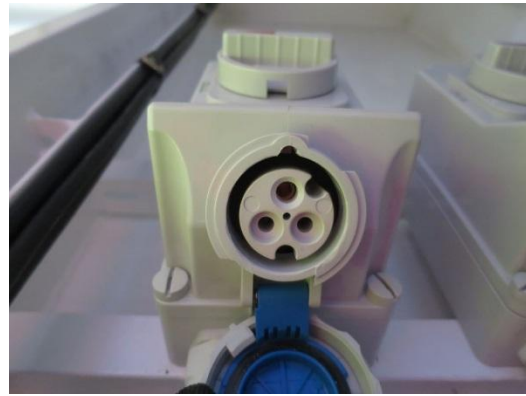
Reefer Connection PS



Reefer Connection PS

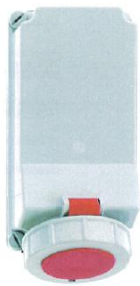


Reefer Connection SB



Reefer Connection type

14 pcs BALS wall mounted socket outlet, 440V 32A 3H socket, 7 pcs on each side on # 40PS & #43SB





NAVIGATION EQUIPMENT

1 off S-Band ARPA radar, 26" color display
1 off X-Band ARPA radar, 26" color display
1 off 22" Radar slave Monitor
2 x DGPS for navigation
1 x ECDIS system, + Conning
3 x Gyro
1 off Echo Sounder
1 off Doppler speed Log
1 off DP system AUTR
3 off MRU's
3 off Wind sensors
2 off Seatex DPS 110
1 off Cyscan Mark IV Laser DP reference system

COMMUNICATION EQUIPMENT

1 off MF/HF SSB Simplex Radio Station w/ DSC
1 off Navtex receiver
2 off Inmarsat C (with SSAS & LRIT)
Inmarsat Fleet Broadband
1 off VSAT system
2 off VHF with DSC
1 off VHF handset
2 off portable VHF's
5 off portable UHF's (+ 4 for Firemans outfit)
3 off fixed UHF's

TELEPHONE SWITCH BOARD:

Intercom: Ulstein VCOM

FIRE FIGHTING SYSTEM:

According to Class requirement
Fire fighting in Engine Room by Water mist /
Novec 1230 and foam
In Incinerator Room and Paint Store by sprinkler



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Golden Energy Offshores PX 121 H series General

Golden Energy Offshores PX 121H series are state of the art new vessels with high capacities and good station keeping capabilities.

The hull form, with the ULSTEIN X-BOW®, and the diesel electric propulsion system, ensures exceptional performances with regards to fuel consumption, sea keeping, station keeping, speed, stability and cargo capacity.

Low fuel consumption with low emissions and a ballast treatment plant makes the vessels environmental friendly.

The cargo systems ensure safe and efficient loading and discharging of the Vessel.

The propulsion system comprises two azimuth type propellers, each driven by an electrical motor.

Two tunnel thrusters are installed in the fore part of the Vessel.

The vessels have very large deck capacities for this class of vessels and are prepared with foundation for crane and can perform as a construction vessel. It has also been prepared for installation of ROV for survey and underwater inspections. The compliance with IMO Resolution MSC.266(84) Code of safety for special purpose ships will allow the vessel to have more charterers personnel onboard if required.

The vessel has the notation FiFi1 and can perform firefighting operations. Oil rec notation ensures the vessel will be able to assist in case of oil spill at sea.

Compliance with MEPC 197(62) Inventory of Hazardous Materials ensures the vessel is built environmental friendly.

Chartering & Operation Managers:

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