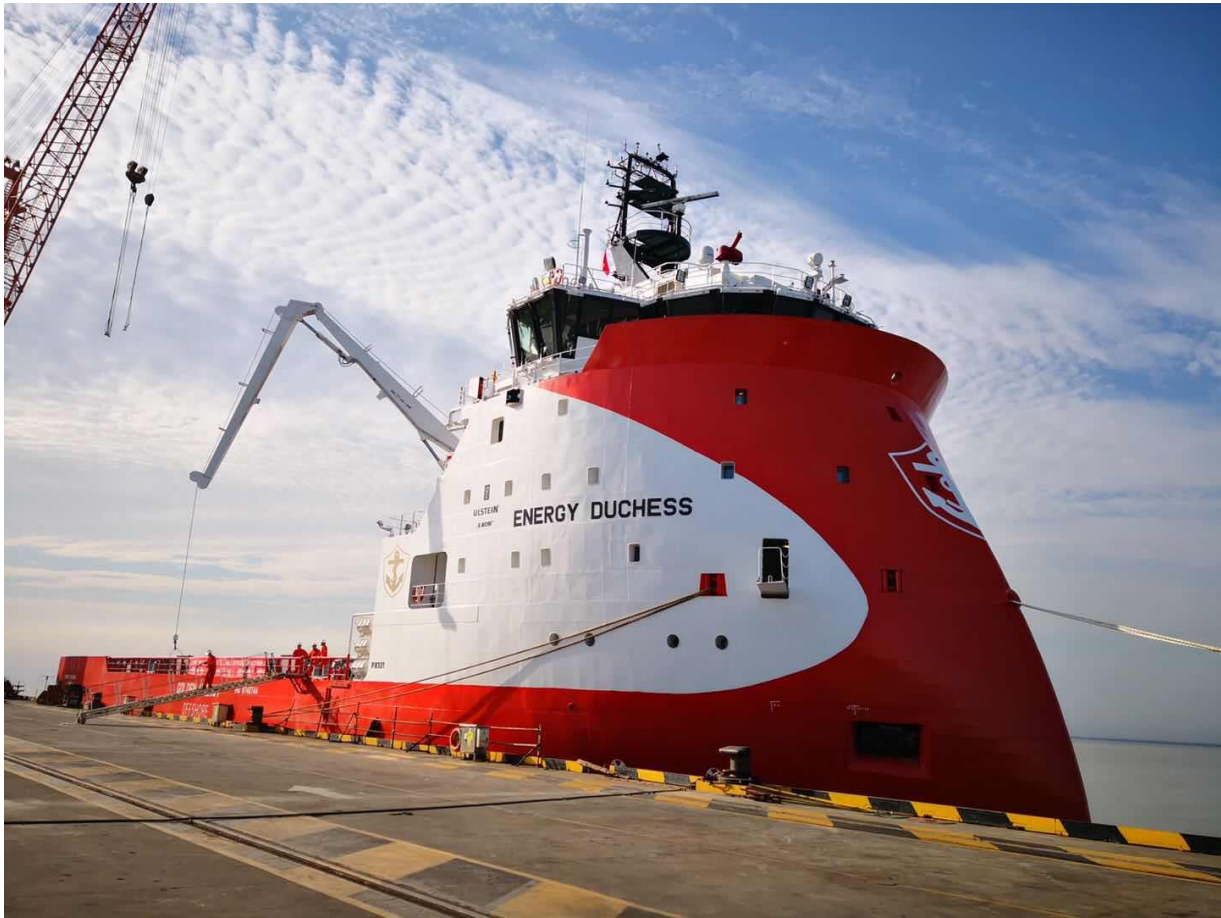




## **MV Energy Duchess** of Ulstein PX121H DESIGN



### **TECHNICAL OUTLINE SPECIFICATION**

#### **MULTIPURPOSE FIELD SUPPLY-, PIPE CARRIER, SPECIAL PURPOSE VESSEL**

Rev.: 17/06/2021

**Yard: Hull # 1023 @ ROC**  
**Delivered 27.05.2019**

**Name of ship: Energy Duchess**  
**Port of registry: Aalesund**  
**Distinctive number or letters: LAWS7**  
**IMO Number: 9740744**  
**Maritime Mobile Service Identity (MMSI): 259 032 000**  
**DNV ID: 34240**



**MAIN DESCRIPTION**

**MEASUREMENTS**

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

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**

**DISCHARGE RATES**

Work/Cargo Deck area: 858m<sup>2</sup> (L 50,4 x B 15 + L 7 x B 14,5)  
Usable Deck area: 850m<sup>2</sup>  
Deck strength: 10t/m<sup>2</sup> aft of #35, 5t/m<sup>2</sup> elsewhere  
Cargo tks\_: Vessel has 10 x combi tanks for mud/brine /slop/ etc.

Fresh Water	: 1061m <sup>3</sup>		200m <sup>3</sup> /hour -	9 bar
Fuel Oil	: 1473m <sup>3</sup>	- 9264 US bbl	200m <sup>3</sup> /hour -	9 bar
Liquid Mud	: 1294 m <sup>3</sup> total capacity	- 9139 US bbl	2x 75m <sup>3</sup> /hour -	24 bar
(Water based	: *1164m <sup>3</sup> @ 90% Sg. 2,8	- 7321 US bbl)	2x 75m <sup>3</sup> /hour -	24 bar
(Oil based	: *800m <sup>3</sup>	- 5031 US bbl)	2x 75m <sup>3</sup> /hour -	24 bar
Brine / Slop	: 1164m <sup>3</sup> @ 90% Sg. 2,8	- 7321 US bbl	75m <sup>3</sup> /hour -	18 bar
ORO	: 662m <sup>3</sup>	- 4163 US bbl	2 x 75 m <sup>3</sup> ,24 bar & 4x75 m <sup>3</sup>	9 bar
DW/ballast	: 1571m <sup>3</sup>		200m <sup>3</sup> /hour -	9 bar
Methanol	: 155m <sup>3</sup> 4 tanks	- 976 US bbl	2 x 75m <sup>3</sup> /hour -	9 bar
Baseoil	: 267m <sup>3</sup> 2 tanks	- 1680 US bbl	150m <sup>3</sup> /hour -	9 bar
Cement/barite	: 255m <sup>3</sup> 4 tanks	- 9005 Ft <sup>3</sup>	2 x compr. 30 m <sup>3</sup> /min.-	5,6 bar
Slop	: 506m <sup>3</sup> 4 comb tks	- 3187 US bbl	2x75m <sup>3</sup> /hour -	24 bar
Foam	: 8,8m <sup>3</sup>			

\* Max capacity of each product

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 Nm<sup>3</sup>/h with 97% nitrogen (N<sub>2</sub>) purity.

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

Loading and discharge stations on both sides amidships and aft.

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

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

## PERFORMANCE @ draft 4,8m

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

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

## ACCOMMODATION

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

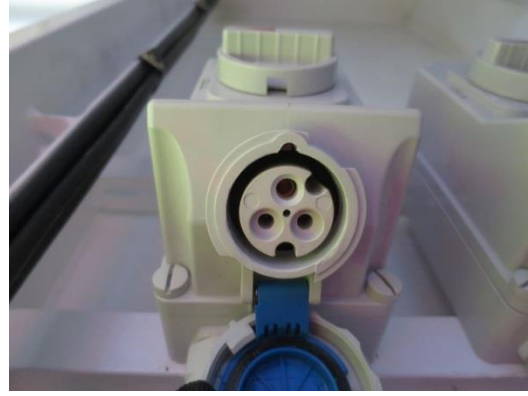


Reefer Connection PS



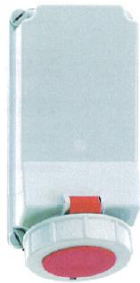


Reeper Connection SB



Reeper Connection type

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



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### 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

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### 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

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### TELEPHONE SWITCH BOARD:

Intercom: Ulstein VCOM

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### 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





**GOLDEN  
ENERGY**  
OFFSHORE





## 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:

Golden Energy Offshore Management AS,  
St. Olavsplass 1  
N-6002 Ålesund, Norway.

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