

### DESIGN AND

#### INTEGRATED SYSTEMS

Ship Design provides integrated system solutions for:

- Propulsion
- Power generation
- Automation
- Deck machinery incl. cranes
- Unified Bridge



# **DESIGN AND INTEGRATED SYSTEMS**

# NVC 374 WP / EMERAUDE 80 m Stern Trawler

# Design focus

Designed for bottom trawling as well as pelagic trawling, operating single and double trawl gears.

A low resistant hull design attend to the increasing demand of fuel saving capabilities combined with good seakeeping and speed characteristics.

This is an efficient trawler with improved onboard working efficiency combined with the importance of safe working conditions for the crew.

A modern factory deck arrangement optimized for flexible white fish handling:

- Heading, gutting and freezing of round fish in VPF
- Filleting of white fish and freezing in HPF
- Sorting of liver and roe and freezing in VPF
- Meal/oil factory

Solutions attend to the demand of increased capacity per hour as well as the importance of the highest catch quality of the catch.

A hybrid propulsion system, capable of both Mechanical and

Diesel/Electric drive of the propeller attend to the high focus on reduced fuel

consumption as well as noise reduction into the water and in the ship.

Latest technology for NOx reduction included.

The accommodation - including well sized wardrobes, two light mess dayrooms and a new designed bridge, ensures that the need of optimal living facilities for the crew is well taken care of.

# NVC 374 WP 80 m STERN TRAWLER

#### Class:

Det Norske Veritas-Germanischer Lloyds + 1A1, Stern Trawler, lce 1B (Hull: lce1A\*), TMON

#### **Regulations:**

National Maritime Authorities and reg. for fishing vessels

### Main dimensions:

Length over all	80,00 m
Length between p.p.	75,00 m
Breadth mld.	16,00 m
Depth mld. to Main deck	6,50 m
Depth mld. to Shelter deck (trwl dk)	9,55 m
Scantling draught	6,50 m

#### Performance:

Trial speed	ab. 15,	) knots
Capacities:		
Meal Hold / Freezing hold 1	Appr.	550
Freezing hold 2	Appr.	1400

Freezing hold 2	Appr.	1400 m³
Packing/freezing hold,main dk	Appr.	350 m³
Heavy fuel oil		700 m³
Fresh water (incl FP tank/anti		
rolling tank)		230 m³
Fish oil		70 m³

#### Roll-Reduction system:

1 off passive roll-reduction tank

#### Propulsion system:

Main engine, Bergen B33:45 L6 P	3600 kW / 750 rpm
PTI power electric propulsion only	1200 kW /0-1200 rpm

m³

#### Option:

PTI power electric propulsion, boost 1200 kW /1200 rpm Max propeller power, diesel & electric 4800 kW

CP propeller 102A1/4E-B/P/N in Innoduct nozzle 3800 mm Gearbox type 850 GHC-SC600

#### Manoeuvring system:

Tunnel bow thruster, type TT 1650 - 640 kW Steering gear, type SR723 FCP- 412 kNm Flap rudder, type Promas 3300 x 4100 – 13,5 m<sup>2</sup> Remote Control system, type Helicon X3

#### **Electrical power generation:**

Hybrid shaft generator (HSG)	2220 kW
Aux. 1 medium speed diesel generator	1843 kW
Aux. 2	550 kW

#### Electrical system:

440 VAC 60 Hz for generators and heavy consumers
230 VAC - 60 Hz for illumination and small consumers
230 VAC - 60 Hz UPS & clean power for electronic equipment
24 VDC battery power for emergency lights

#### Automation System:

ACON including following modules: Alarm & monitoring Pump & valve control Tank sounding PES Main switchboards and AFE converter

#### Deck Machinery: BRH 64 bar

BRI 04 Dai	
Trawl winches	2 x 50 tonnes
Center trawl winch	1 x 56 tonnes
Net drum	1 x 46 tonnes-20 m <sup>3</sup>
Sweep line winches	8 x 17 tonnes
In haul winches	1 x 13 tonnes
Gilson winches	3 x 26 tonnes
Net sounder cable winch	1 x 3,8 tonnes
Outhaul winches	2 x 11 tonnes
Cod-end winches	2 x 18 tonnes
Capstan	2 x 6 tonnes
Aux. retriever winches	3

## Freezing Machinery:

According to customers requirements for freezing capacity Approx. 60 tons per 24 hours, in 2 automatic HPF, 3 VPF and 1 IQF tunnel.

#### **Processing Plant:**

According to customers requirements for H/G/filleting capacity **Protein factory:** Raw material upto 50 t/ 24 hr Meal output ab. 20% Oil output ab. 55% of liver

#### Cargo handling:

Palletized cargo in cargo hold Forklift transport in freezing hold Lift/palletized loading/unloading system 1 service deck crane, 3 ton SWL at 8 m 1 cargo deck cranes, 4 t – 15 m (8 ton SWL at 7,5 m)

## Fish finding system:

1 off Multi beam Echo sounder 1 off Dual frequency Echo sounder Necessary transducers Hydro acoustic catch control system

#### Electronics:

2 off Radars 2 off Chart Plotters 2 off GPS / DGPS systems Communication system GMDSS-A3 Satellite communications system (Inmarsat C) Satellite entertainment / Internet / Communication system

#### Accommodation:

9 x 1 person cabins on upper forecastle deck + 2 x 2-pers. cabins + guest cabin
2 x 1 person cabins on lower forecastle deck + 9 x 2-pers. cabins Totally 35 persons in 23 single/double cabins
WC / shower facilities in each cabin
Separate mess room, day rooms & conference room
Hospital on lower forec. deck

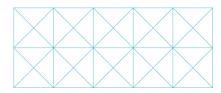
#### Life saving equipment:

Life saving according to MA requirements for fishing vessels without life boat.

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#### PLEASE NOTE:

All figures to be treated as a subject to change, without further notice, in order to meet Owners requirements or application



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