



# ARTEMIS BF 60

THE NEW "ARTEMIS" WAS HANDED OVER TO OWNERS WISEMAN FISHING CO. AND NORTHBAY FISHING CO. OF SCOTLAND ON 13 SEPTEMBER 2022 FROM KARSTENSEN SHIPYARD.

PHOTOS: IVAN REID

THE HULL FOR **ARTEMIS** was built by Karstensen Shipyard Poland in Gdynia, and arrived in Skagen in February 2022. *Artemis* replaces skipper Adam Wiseman's previous command of the same name. The new vessel will operate along the same pattern as the existing vessel, with a traditional pelagic trawl fishery, where target species are mackerel and herring.

**Northbay Fishing Company** is a subsidiary of Interfish of Plymouth, headed by Jan Colam.

**Wiseman Fishing Company** is headed and owned by well-known pelagic fishing personality and chairman of Scottish Pelagic Fishermen's Association (SPFA), Alex Wiseman along with his son Adam Wiseman.

**Karstensen Shipyard** is very proud with the new delivery, which continues long standing working relations with both Mr Colam and Messrs Wiseman. Cooperation

between Northbay Fishing Company and Karstensen has been with the maintenance and repairs on "Altaire" for a good few years. Cooperation with Alex Wiseman stretches even further back, some 30 years, when "Radiant Star" was in Skagen to do overhauls. Adam and Alex Wiseman also built KS-431 "Kings Cross" in 2016 in Skagen (in partnership with Lunar Fishing).

The vessel design, specification and arrangements is a result of an extensive and close cooperation between owners and yard where all solutions are optimized and tailor made to suit owners and crews specific requirements.

Main focus has been set on optimizing working, safety and comfort for the crew, optimizing catch handling – and storage facilities and optimizing of fuel consumption. In order to reach above targets, the vessel is fitted out with all the newest developed machinery and equipment.



Owners sit on the bridge, left, father Alex Wiseman and son and Skipper Adam Wiseman.



The massive Wheelhouse.



Owners and crew of the Artemis.

### THE DESIGN

The hull is built in steel with two continuous decks; main deck and shelter deck, and with long forecastle- and boat decks. Wheelhouse, second boat deck, funnel and masts are built in aluminium.

The hull shape is of round bilge construction with bulbous bow and stern skeg, flared stem and transom stern.

Below main deck the hull is subdivided into the following watertight compartments: Forepeak, bow thruster-/sonar room, RSW pump- and manifold room, insulated RSW-tank section, engine room

with main engine connected to one reduction gearbox with one, ducted propeller and aftpeak with fuel- and lub oil tanks.

On main deck the hull is arranged with: Forepeak, RSW machinery room, RSW-hold/trunk section with Starboard/Portside corridors and a central room for the unloading (vacuum) system.

Abaft the hold section is the Starboard accommodation area, Portside engineers workshop, control room, engine store and all aft CL hydraulic room with steering gear.

Accommodation on main deck is arranged with 3 single crew- and

### ARTEMIS

#### MAIN DIMENSIONS

<b>Length overall:</b>	75,70 m
<b>Length between PP:</b>	66,60 m
<b>Breadth moulded:</b>	15,60 m
<b>Depth main deck:</b>	6,50 m
<b>Depth shelter deck:</b>	9,20 m
<b>Frame spacing:</b>	600 mm
<b>Tonnage:</b>	3215 GT
<b>RSW-tanks:</b>	2312 cum
<b>Fuel oil:</b>	595 cum
<b>Fresh water:</b>	103 cum

**Design:** Karstensens  
Skibsværft A/S

**Trial speeds/average:**  
16,8 knots, diesel-mechanical/  
speed step 1.  
15,4 knots, diesel-mechanical/  
speed step 2.

12,1 knots, diesel-electric.

**Hull:** Built by Karstensen  
Shipyard Poland, Gdynia,  
Poland.

**Class:** DNV +1A Fishing Vessel  
EO TMON, hull: Ice-C.

3 engineers cabin, all with en-suite toilet/shower facilities, laundry and stairs and corridors. In order to create best possible design for low noise, the accommodation is located as far away from the propeller as possible.

The design principles for main engine / auxiliary arrangement are →

KARSTENSENS SKIBSVÆRFT A/S



## SETTING THE STANDARD

Congratulations to the owners and crew of the new vessel "Artemis"



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as follows:

Main engine with reduction gearbox, 1 Power-Take-Off, mounted with a shaft alternator, producing 2800 kWe.

To supply additional electric power, the vessel is fitted with 2 auxiliary engines / gen-sets, producing 866 kWe each. In addition a separate harbour gen-set of 200 kWe is fitted.

During heaving/shooting operations at fishing, when the winch system is in use, the gearbox PTO will be clutched in, and electric power will be supplied from the shaft alternator.

When there is demand for full power on the winch(es), there will normally not be same demand for power on the main engine. Following the main engine will be power source for both propulsion and hydraulic system.

During normal towing, the shaft alternator will/can be disengaged (from switchboard), and the electrical power will/can be supplied by either of the gen-sets.

The 2 main gen-sets will be able to connect into main switchboard, controlled by the vessels DEIF Power-Management-System. Further on bus-bar breaker is fitted in main switchboard, allowing aft thruster to be fed off shaft alternator and forward thrusters and vessels hotel load off the diesel generator sets.

Electrical power system is fitted for sliding frequency (60-50 Hz), by means of frequency converters for 400/440 V and rotating frequency converter for 230 V. This will allow main engine and propeller rpm to be reduced with 17%.

Further on, the vessel is fitted with a 2-speed gearbox, giving 2 fixed propeller speed, ie 138 and 116 rpm.

In order to create take-me-home power in case of main engine failure, the vessel is fitted with a clutch between main engine and gearbox. A separate donkey engine will allow the shaft generator to start up as an electric motor, being fed off the auxiliary engines. Up to 1500 kW can be used for this diesel-electrical propulsion drive. ●



Aft trawl Deck from Wheelhouse.

**“Main focus has been set on optimizing working, safety and comfort for the crew, optimizing catch handling – and storage facilities and optimizing of fuel consumption.”**



Wärtsilä 10V31, 6100 kW main engine.



The Freezing Plant.





Fishing deck aft. net drums.

### ENGINES AND MACHINERY

<b>Main engine:</b>	Wartsila 10V31, 6100 kW @ 750 rpm.
<b>Propeller plant:</b>	Wartsila 4G1095, d4200 mm.
<b>Reduction gearbox:</b>	Wartsila SCV 100/2-PDC68.
<b>Shaft alternator:</b>	Marelli MJRM 710, 2800 kW / 3500 kVA.
<b>Auxiliaries:</b>	2 x Wartsila W12V14, 866 kWe @ 1800 rpm.
<b>Harbour set:</b>	1 x Scania DI 09, 200 kWe @ 1800 rpm
<b>Rudder</b>	Kongsberg high lift flap rudder.
<b>Steering gear:</b>	Kongsberg Tenfjord SR 622.
<b>Thrusters:</b>	2 x Brunvoll FU-63, 950 kW / 1292 HP.
<b>Starting air compr.:</b>	2 x Sperre HL2/105A.
<b>Working air compr.</b>	1 x Atlas Copco MAS GF11FF
<b>Fuel oil cleaning:</b>	Alfa-Laval P615.
<b>Lub oil cleaning:</b>	Alfa-Laval P615.
<b>FO transfer pumps:</b>	2 x Bombas Azcue.
<b>Remote sounding:</b>	API / Marine Control Services.
<b>Pumps:</b>	Main engine cooling: Bombas Azcue.
	Deckwash, fire and bilge pumps: Bombas Azcue.
	Deck sump pumps: ITT Flygt
<b>Main coolers:</b>	Kelvion, box coolers.
<b>Bilge ejectors:</b>	Ellehammer.
<b>FW pressure sets:</b>	2 x Bombas Azcue.
<b>Hot water tank:</b>	OSO, 200 l / 2x15kW.
<b>Sewage pumps:</b>	2 x Bombas Azcue.
<b>Sewage vacuum syst:</b>	Jets.

### FISH TANKS

<b>RSW-system:</b>	2 x Johnson Controls, each 1400 kW / 1.204.000 kCal/h.
	Circulation pumps 4 x 500 cum/h, Bombas Azcue
	Condenser pumps 2 x 300 cum/h, Bombas Azcue
	RSW circulation system with remote operated RSW-valves through Johnson Controls control system.
<b>Actuators for valves:</b>	Eltorque.
<b>Vacuum-system:</b>	C-Flow:
	4 x 87 kW compressor units.
	2 x 4200 l tanks.



Water Separator on the main deck.

# SeaQuest Systems

Congratulations to all at  
Wiseman Fishing Co.  
Best wishes to the owners & crew  
of **MFV Artemis**



The largest stock of Fish Hose in Europe  
We supply, design & install Hydraulic Systems



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The stunning mess room.

### DECK EQUIPMENT

#### HYDRAULIC WINCHES:

All supplied by Karmøy Winch, main system:

2 x Trawl winches	91,0 t
1 x Topline winch	71,0 t
1 x Tail-end winch	57,0 t
2 x Netdrums	110,0 t
7 x Mooring winches	11,0 t
1 x Anchor windlass	14,7 t
1 x Netsounder winch	
2 x Hydraulic hose reel.	
2 x Fish hose reel.	

**Fish pumping equipment delivered by Sea Quest of Killybegs, Ireland:**

2 x Sea Quest fish pumps, 20".

#### DECK CRANES:

All supplied by MacGregor Triplex:  
1 x Fore deck crane, KN-60.

1 x Net crane aft, NK-6000.

1 x Gallow crane/fish pump crane, KNR-75.

#### HP HYDRAULICS:

Complete drives systems (2 off) winches and cranes, respectively fish pump and associated equipment:

5 x 158 kW pump-units.

3 x 110 kW pump-units.

4 x 88 kW pump units.

#### TRAWL BLOCKS:

Brdr. Markussen, Blue Line

#### ANCHORS & CHAINS:

AC-14, supplied through Max Fodgaard.



Wärtsilä 14 auxiliary generator.



Port wire winch.

### ECHOMASTER MARINE SUPPLIED EQUIPMENT

#### ACOUSTIC FISH FINDING

- 1x SIMRAD ST94 Low Frequency Omni-Directional Sonar
- 1x SIMRAD SN90 Mid Frequency Forward Looking Fan Beam Sonar with Inspection Beams
- 1x SIMRAD MF90 Mid Frequency Omni-Directional Sonar – (new Sonar model delivered in 2022 with improved Transceiver unit.) Artemis is one of the first vessels to have the SIMRAD MF90 sonar
- 1x SIMRAD ES80 38Khz Split Beam Echosounder
- 1x SIMRAD ES80 200Khz Split Beam Echosounder
- 1x SIMRAD FS70 Trawl Sonar with Spare FS70 Head and Deployment housing
- 4x SIMRAD Multicatch Catch Sensors and Chargers

Echomaster Marine has also internally developed a small handheld Remote control Keypad for controlling the three SIMRAD Sonars.

#### COMMUNICATIONS

- 2x Sailor 7222 Class A VHF DSC Radio
- 1x Sailor 6310 MF/HF Class A DSC Radio
- 1x Sailor 6391 Navtex Receiver
- 4x Sailor 6204 Remote Control Handsets for Sailor 7222 VHF DSC
- 2x LT3100S GMDSS Satellite Terminals
- 3x Sailor 3520 Portable Liferaft VHF Radios
- 12x Motorola 3441 UHF Portable Radios with Geko Helmets for Crew/Bridge

#### DECK COMMUNICATIONS

- 1x Icom ID-5100E VHF/UHF Radio
- 1x Victron Skylla 24/50 GMDSS Radio battery Charger and Bridge Battery status panel

#### NAVIGATION

- 2x SIMRAD MX612 DGPS Navigators with SIMRAD I3007 7" Displays
- 1x SIMRAD HS80 GNSS Compass with SIMRAD I3007 7" Display
- 1x SIMRAD Dual GC80 Gyro Compass System with SIMRAD I3007 7" Displays for Heading Indication
- 1x Gill Instruments Windsonic Stainless Steel Anemometer
- 1x OLEX 3D Seabed Mapping system
- 1x SIMRAD AP70Mk2 Autopilot System with Dual Control Stations and 2x SIMRAD FU80 Remote steering Levers for Bridge-Wings
- 3x SIMRAD IS42 4" Multifunction Displays for Bridge wings and Office Desk

#### VESSEL SAFETY/SECURITY

- 1x JOTRON TRON60 GPS EPIRB
- 3x JOTRON TRON20 AIS SART
- 1x AMI Marine X2 Voyage Data Recorder System with Bridge Office Display Panel
- 1x Zenitel Vingtor Stenofon Hybrid X7 ACM Intercom system with various Deck, Cabin and Machinery Space Stations. Vingtor Stenofon CRM-V Master Controllers with DAK48 Direct access Key Panels in Bridge, Engine Control Room, Mess Room and Coffee Bar Areas
- 1x Genie CCTV system with a combination of 30 Stainless Steel Bullet, Stainless Steel Dome and Polycarbonate Dome Cameras monitoring key Deck and Machinery Spaces. Genie NVR's and feeding Video to Bridge Video Matrix, Engine Control Room and RSW Control Room.
- 1x Pylonics Burglar Alarm System

#### CREW ENTERTAINMENT

- 1x Intellian T100Q Quad Band 105cm Satellite TV Antenna and Multiswitch

#### CATCH SAMPLING/SCIENTIFIC FISH SAMPLING

In co-operation with Steve Mackinson, Fishery Scientist advising Scottish Pelagic Fishermen's Association, Echomaster Marine has developed the CatchTrak Sampling system, which enables the sampling system to operate in two different modes: Standard weight sampling or, Scientific sampling where additional data to be recorded whilst at sea to be stored with each sampled fish weight. The system shows real-time percentage of catch falling into various weight grades for sending to Factory or On-Line fish Auction site via Excel or PDF reports. The system can be developed to enable capture of any measured data a Scientist may find useful with each sampled fish weight.

Woodsons of Aberdeen supplied the VSAT Internet system.

## Smart Bridge Matrix System

**Furuno UK & Sweden supplied the Artemis with Radars, BNWAS, AIS and a Furuno DFF3 Echosounder which integrates with the Smart Bridge Matrix System.**

**Smart Bridge** is an integrated bridge system, especially developed for fishing boats. The matrix system is used to control the video distribution on the bridge and throughout the whole vessel.

There are some 30 different sources that can be presented on any of the 24 monitors on the bridge, ranging from 24" to 55". The **Smart Bridge** system is tailored from ship to ship and thus optimizing the bridge presentation and operation according to the specific bridge layout. It also enables the skipper to operate the radars, sonars, sounders, CCTV, chart plotters and other systems from a central touch panel with virtual keyboards and centralized mouse.

Furthermore, the skipper will have full mobility since **Smart Bridge** may as well be operated from an IOS (Ipad) or Android tablet. The presentation on the bigger 55" monitors can also be optimized from the **Smart Bridge** since the Smart Consoles can be adjusted in height and tilt and thus enabling the best presentation in respect of sunlight and working situation.

The remote monitoring system enables the personnel ashore to hook up to the system from the home office and monitor all videos from the bridge equipment. It also enables the technician to monitor the systems onboard for efficient fault finding while the boat is under operation at sea.

**Smart Bridge** also connect to the TV system onboard so that the video from the Bridge equipment can be viewed on any TV set onboard. In this way the crew can follow the fishing or navigation while dining or resting.