

NEW BUILD ETERNAL LIGHT FR35

FACT FILE

SKIPPER Ian Taylor
REGISTRATION FR35
HOMEPORT Fraserburgh
CREW 6
OWNERS Whitelink Seafoods Ltd.
VESSEL TYPE Scalloper
BUILD YEAR 2019
BOATYARD Macduff Shipyards Ltd.

NEW BOAT

A NEW DESIGN OF SCALLOPER

Macduff Shipyards Limited have recently handed over their latest new build, FV "Eternal Light" FR 35, to owners Whitelink Seafoods Ltd of Fraserburgh.

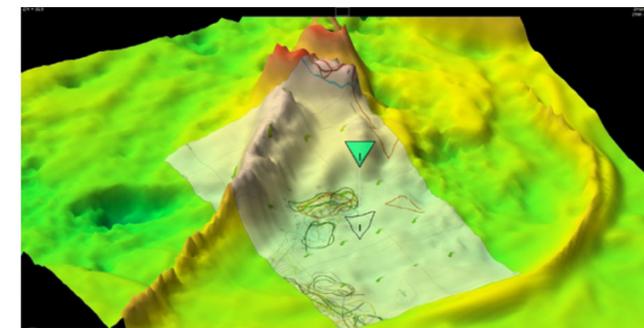
The "Eternal Light" is a new design of scallop trawlers developed by the yard to provide a good working platform to suit trawling 10 dredges per side whilst keeping below the 16.45m registered length. Work began on this new model in the summer of 2017 with close collaboration between the owners and the yard to design a suitable layout of vessel which would need to combine a spacious working deck, efficient catch sorting system and also be economical to run.

After the design was finalised the first steel for the hull was cut in the spring of 2018 with units for the vessel being built between the Macduff and Buckie yards. Over the next year, the vessel was fitted out extensively in the main fabrication hall in Buckie where the vessel was near completed before being launched and then running engine and fishing trials in the Moray Firth where initial signs

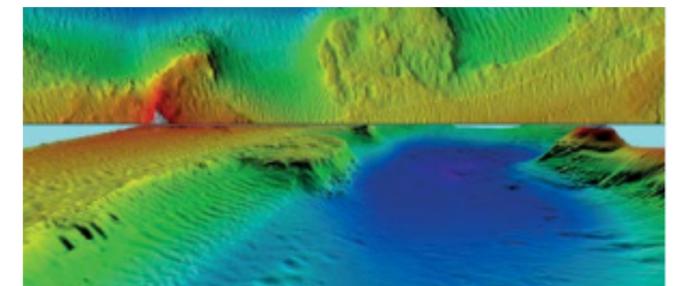
promised good levels of fuel economy and seakeeping.

As is customary with all the yard's new builds the hull was developed in close cooperation with Macduff Ship Design and CFD technology was used to optimise the hull form for fuel efficiency, bow to reduce areas of high resistance as much as practicable and align external hull fittings with the water flow. Macduff Ship Design then created a full set of hull construction plans which were approved by SFIA and produced the vessels stability booklet upon completion. The hull of the "Eternal Light" is of typical modern construction with the hull being built from steel and the wheelhouse finished in aluminium.

The vessel is arranged below deck in the conventional layout with cabins aft where there is sleeping accommodation arranged for eight crew members. Following this is the main engine room which features an all Mitsubishi engine package. The main



3D seabed samples – an example of the high-resolution charts provided by Seafield Navigation Ltd.



The WASSP F3 is set to revolutionise inshore fisheries with its Wideband CHIRP technology. Scanning a 120 degree swath port to starboard and using 224 beams, the F3 delivers each and every time. By using advanced signal processing, you get a complete picture of seafloor bathymetry with ease.



engine is a Mitsubishi S6R2 MPTK with 643hp @ 1350 rpm driving a Teignbridge 2200 mm ducted propeller through a Masson Marine MM W6000 gearbox with 7.063:1 reduction. To the starboard side and providing the main hydraulic onboard is a Mitsubishi 6D24TCE engine with 244hp which is also fitted with a 48kW generator to provide back-up electrical power. Fitted to the port side of the engine room is a

Mitsubishi S4KT generator set with 48 kW output.

Forward of the engine room is a refrigerated fish hold arranged with the main hold storage area aft, with capacity for some 20t of bagged scallops, and the fish reception area, ice lockers and access stair arranged forward. Forward of the hull is a larger freshwater tank for ice making and domestic use and also within this space is an access trunk to the bow



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thruster. Above deck, there is a full-width casing fitted at the transom where the galley/mess area is arranged to the starboard side and a skipper's cabin arranged to the port side. Forward of this is a central casing where the WC, dry locker and workshop is fitted along with services to the engine room such as vent trunks, exhaust trunks and the access and escape.

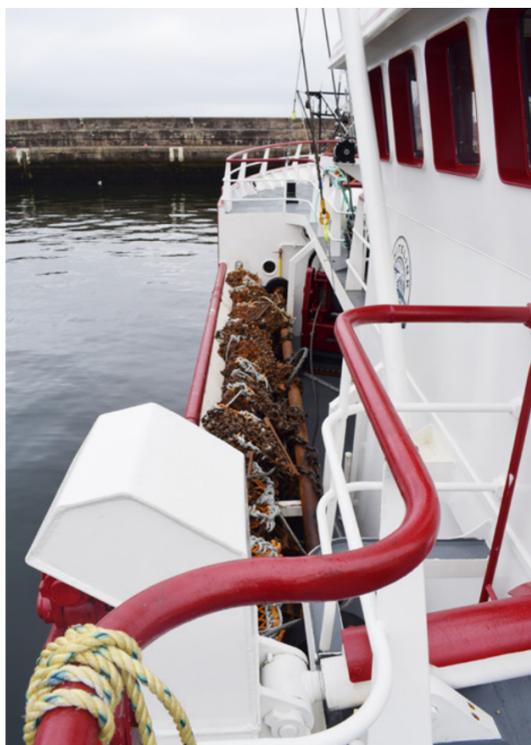
CREW COMFORT AND WELL-BEING

Immediately forward of this is the open deck space where the hold unloading hatch and two split trawl winches fabricated by the yard are fitted. The trawl winches aim aft and outboard towards a hydraulically controlled outrigger either side of the casing which are hinged at deck level and can be lowered or lifted remotely using hydraulic rams. These allow the crew to lift the arms when they are hauling and provide safe access to clip the Gilson winches onto the dredge bar easily, something the owners were very keen to implement for crew safety, comfort and to eliminate manual labour while sorting through the catch.

Another feature added for crew safety, alongside efficiency and speed, are stainless steel tipping doors and conveyors are also fitted both sides which take the catch forward and into a sheltered picking area where the scallops are picked and collected before being lowered into the hold through a dedicated hatch on deck which feeds a stainless-steel reception hopper in the hold. At the forward extend of the main deck is weathertight whaleback which is used for general storage and also houses the ice machine and some of the refrigeration plant.

At shelter deck level the aluminium wheelhouse is fitted which features an extensive package of the latest electronics supplied by various companies along with two skipper's chairs and two control stations forward at each corner for working the hydraulic deck machinery.

Speaking with The Skipper, Whitelink Seafoods said: "The vessel was constructed with fuel efficiency, crew comfort



"The vessel was constructed with fuel efficiency, crew comfort and well-being at the top of our list and to maximise on the seakeeping capabilities that Macduff Shipyards provide with their constant up to date modern hulls."



The Eternal Light on trials

and well-being at the top of our list and to maximise on the seakeeping capabilities that Macduff Shipyards provide with their constant up to date modern hulls. The vessel will operate around UK waters on the usual nomadic pattern of all the other Whitelink Scallop fleet vessels.

"Whitelink Seafoods would like to thank Macduff

Shipyards for providing such a well laid out and capable vessel which has been finished to a very high standard. Throughout the build, they were very professional and pleasant to work with."

Commenting on the build, Matthew Watt from Macduff Shipyards said: "The Macduff team have been delighted to work with Whitelink and the

crew of the Eternal Light. It has been a fantastic project for the yard, we are very grateful for the order and hope the vessel serves them well for many years".

The Skipper team would like to wish Whitelink, the Skipper and crew of the Eternal Light every success with the new boat.

ETERNAL LIGHT FR35

SCALLOPER

PRINCIPAL DIMENSIONS AND OUTLINE CAPACITIES

Length Overall 19.20m
Length BP/Reg 16.45m
Breadth 7.20m
Depth 4.20m
Gross Tonnage 125t
Maximum Serv. Displacement 235t
Oil Fuel 20,000 Litres
Fresh Water 10,445 Litres
Hold Capacity 20t

ENGINES AND MACHINERY

Mitsubishi S6R2-T2-MPTK-3 main engine **supplied by Macduff Diesels**
 Mitsubishi 6D24TCE E2 Auxiliary and generator engine **supplied by Macduff Diesels**
 Mitsubishi S4KT 65SG Generator set **supplied by Macduff Diesels**
 W6000 gearbox supplied by **Masson Marine**
 Propeller supplied by **Teignbridge Propellers Ltd**
 MT1000 steering gear **supplied by Scan Steering APS**
 T550 bow thruster **supplied by Hardy Engineering Ltd**
 Engine box cooling **supplied by Blokland Non Ferro BV**
 Switchboards, starters and electrical installation provided by **R D Downie**

DECK EQUIPMENT AND HOLD

Trawl winches, conveyors, tipping doors and outriggers **supplied by the Macduff Shipyards**
 Gilson winches, derrick winches and pull-down winches **supplied by Brevini**
 Power washer supplied by **Grampian Power Clean**
 Hold refrigeration and Ice Machine **supplied and installed by Airo-Tech Solutions**

FISHING GEAR

Scallop dredges, swords and chain bags, towing bars, bridles and swivels **supplied by Oban Scallop Gear Ltd.**
 2 x 250 fathoms of 26mm compact wire, Gilson wires, tigger winch wires, landing crane wire and 14mm rope for covering chain bags have been **supplied by Karl Thomsen.**

GENERAL

Weathertight doors **supplied by Winel**
 Windows **supplied by Van Wingerden**
 Anchor and chain **supplied by Fendercare**
 Paint system **supplied by International Paints**

LIFE-SAVING – FIREFIGHTING

Fire doors supplied by Promat

Fire-fighting and LSA equipment **supplied by Blue Anchor**

WHEELHOUSE

Compass, clocks, barometer and charts **supplied by Poseidon Navigation Services Ltd**
 Wheelhouse chairs **supplied by Norsap**

ELECTRONICS

Extensive array of electronic equipment (navigation, fish finding and communication):
 Main **supplies by Woodsons Marine Electronics, Furuno UK Ltd and Seafield Navigation Ltd.**

WOODSONS PACKAGE

1 x Sailor 6310 150W GMDSS MF/HF SSB
 2 x Sailor 6210 VHF GPS
 2 x Furuno GP39 GPS receiver c/w Echo-Sounder
 1 x Simrad ES80 38kHz split beam echosounder
 Wind sensor
 1 x Windsonic ultrasonic wind speed and direction sensor
 Auto Pilot
 1 x Simrad AP70 autopilot system
 1 x CCTV System c/w 6 external and 4 internal cameras
 1 x Hull Mount Camera
 1 x Prop cam
 1 x e-SEA 60 Satellite TV system
 1 x e-SEA 600 KA INTERNET
 1 x Jotron TRON 60GPS Float
 Free EPIRB with GPS

1 x Entel HT649 GMDSS Hand Held VHF
 1 x Navtex receiver
 1 x 8 x 8 way HDMI matrix
 16 x 7m DVI Male to Male leads
 3 x AG Neovo X19AV
 1 x AG Neovo X24 wide screen
 1 x CPU358 4 port switch for trackballs
 1 x HP Pavilion windows 10 PC
 c/w wireless keyboard

FURUNO PACKAGE

1 x WASSP F3i (fishing version) multibeam sonar mapping system
 1 x Time Zero Professional V3.1 Plotter
 6 x Glass fronted Neovo x series displays and buffer boxes
 1 x FA-170 Class A AIS
 1 x New Searchlight Sonar CH-500
 2 x FAR-1513-BB 12kW radar with AIS/ARPA connectivity built-in

SEAFIELD NAVIGATION PACKAGE

1 x Fanless TurboWin plotter with AIS, ARPA, 3D, Roxann Ground Discrimination*
 High resolution 3D seabed charts for UK and North France
 UK tide stream predictions
 1 x Koden CVS-1410 HS – high sensitivity echo sounder for the Roxann

*The TurboWin software will shortly be upgraded to the new Version 9 including seabed and surface tide prediction.

ETERNAL LIGHT FURUNO INSTALLATION

The Eternal Light FR35 boasts an impressive Furuno package including the latest WASSP F3i multibeam sonar mapping system, which provides bathymetry information including sounder image and backscatter.

This next generation of sounder has been redesigned around a new fully digital DRX transceiver and delivers on accuracy, versatility, user-friendliness and scalability, allowing you to generate your own personal multibeam chart, and introduces a new simplified WASSP CDX for control, visualisation and data management while still providing a comprehensive set of functions to meet the most demanding fishing requirements, and providing

unprecedented clarity.

A Time Zero Professional Plotter forms an integral part of the Eternal Light Furuno package, and with this plotter the vessel's radars are interfaced –the radar image can be overlaid directly on the chart in order to have a better understanding of the data. The Wasp is controllable from the Time Zero (TZ), and once connected to WASSP, TZ will save all the depth points generated by the sonar, and the association of these two products allows the drawing of the seafloor 100 times quicker than a conventional sounder. The TZ is also weather forecast is integrated, alongside AIS, ARPA, tides/currents, depth chart. The vessel has also been kitted out with 6 glass fronted Neovo X-Series displays and

buffer boxes to distribute the heading for compass and position from GPS.

An FA-170 Class A AIS, Type approved Class A stand-alone AIS system, presents data for collision avoidance with its easy-to-use interface. With LCD displays it integrates with radar, Time zero plotter real-time AIS information provided interfaced into the TZ plotter system.

A CH-500 bb 60kHz New Searchlight Sonar—the new 12.1" Searchlight Sonar model, a successor model of the CH-250—provides the latest signal processing, sensing and other technologies, and allows for longer detection range, faster training speed, a sharp and clear echo image, and comes with a built-in stabiliser. With a waterproofed raise/lower drive unit it can be installed in a wet

space of a small fishing boat. A locally replaceable soundome cover means that if the cover cracks it will not be necessary to replace the whole transducer, meaning fewer maintenance costs. A semi-transparent menu display, enables the user to adjust the setting while referring to the echo screen simultaneously.

Rounding off the Furuno package, two FAR-1513-BB 12kW 24v Radars with AIS/ARPA connectivity built in (one 6 foot and one 4 foot antenna) provide advanced capabilities including: Fast Target Tracking™ (TT), Target Analyzer™ function, Automatic Clutter Elimination (ACE) function which suppresses false echoes, along with a compact and easy to use control unit at a good price.