

Coming into Ullapool harbour the *Venture IV* started fishing at the end of 2022.

PHOTO:
STEVEN GOURLAY
PHOTOGRAPHY LTD



Venture IV

Macduff Shipyards Limited are delighted to announce the signing over of their latest new build, 'VENTURE IV', to Mark Lovie of the Venture II Fishing Company Limited.

THE VESSEL IS THE FOURTH Macduff built boat owned and skippered by Mark Lovie. 'VENTURE' was built by the yard in 1993 as the 'ENDEAVOUR II' and was a wooden hull fishing vessel. 'VENTURE II' was built by the yard in 2001, this time of steel hull construction and was the largest vessel built by the yard to that date. 'VENTURE III' followed suit, handed over in 2017, again being the largest vessel built by the yard at the time. And finally, 'VENTURE IV' continues the trend, carrying the distinction of being the largest vessel ever delivered by the yard, both in terms of physical size and gross tonnage.

The project began early in 2020 when the owner expressed an interest to build a new fishing vessel to replace the existing <24m

registered vessel. Improving on the fuel efficiency, speed, sea keeping, and crew comfort. Based on their recent experience with a similar project, the yard knew that to meet these goals that a longer ship would likely be required, free from the restraints of registered length and gross tonnage. As well as increased length, it was decided that it would be advantageous to study the performance of various bow designs in relation to speed and sea keeping, to enable the hull to be optimised to its full potential.

With this, the yard reached out to the **Wolfson Unit** in Southampton who had helped with similar projects in the past. The Wolfson Unit suggested that a program of tank testing be carried out, comparing two hulls of similar overall length.



Woodsons of Aberdeen supplied the wheelhouse electronics.

The first featuring a conventional hull with bulbous bow and flared stem, and the second featuring a hybrid bow with an inverted bow for the majority of the stem but still retaining a small flared portion at the top to keep the fore deck dry. Following from this, two scale models were manufactured and then trialled in the **Solent University Towing Tank** at a range of different speeds, in both calm water and

simulated waves representative of the areas which the owner operates. The results from the trial showed a decrease in hull resistance in calm water, mainly due to the increase in waterline length of the new bow. However, more notably the modern bow should a significant reduction in both resistance and motion when being towed into a head sea with waves, particular at higher speeds above 8 knots.



Venture IV managed a couple of quick trips off the west of Scotland at the end of 2022.

DIMENSIONS AND CAPACITIES

Length overall: 34.50 m
Length Registered: 32.65 m
Beam: 10.50 m
Depth: (main deck) 4.90 m
(trawl deck) 7.25 m
Hold capacity: 2200 stacking boxes
Ice: 10 t in lockers
Speed: 13.0 knots at 100% MCR during trials
Crew: 12 persons certified

Poland who were sub-contracted to fabricate the hull and wheelhouse which upon completion was towed to Macduff in the late summer of 2021. The full outfitting was completed in Macduff to MCA and BV regulations with the vessel departing Macduff just over a year after arriving to go to Fraserburgh where it docked for a final paint. Sea

and fishing trials were conducted in the Moray Firth before the vessel was signed over to the new owners just before Christmas 2022 with enough time for two short maiden trips, fishing off the west coast of Scotland. Early indications are that the hull is performing as anticipated with increased speed, reduced fuel consumption, and improved sea keeping evident.

The hull is of round bilge form with a streamlined inverted bow, flared upper stem, beam carried full length to the transom and possesses two complete decks, as well as a partial shelter and bridge deck above this. A ballast box keel is fitted along with deep 'V' bilge keels to dampen roll motion.

'VENTURE IV' features four deck levels which apart from the bridge deck all run the full length of the ship. The arrangement of the ship is based closely on the successful predecessors, 'ENDEAVOUR IV',

'VENTURE III', 'ENDEAVOUR V', which have proven themselves over the years. The longer vessel makes use of the additional space to increase crew comfort and working areas, with large generous cabins and mess areas provided along with a fish hold which can comfortably carry 2000 fish boxes without the need to stack high.

Below main deck is separated into four compartments: aft peak, engine room, fish hold and fore peak.

The aft peak features numerous tanks used to house both fresh water and ships services such as lubrication and hydraulic oil.

Forward of this, the engine room houses the main propulsion machinery which is provided by a **YANMAR 6EY26W engine** rated at 1110 kW at 750 rpm coupled to a free-standing **Mekanord 650HS gearbox** with a reduction ratio of 5.44:1 which drives the large 3.3 m diameter controllable →



The main YANMAR 6EY26W engine.

With the research complete the yard and **Macduff Ship Design** began on the design work, with the hull lines finalised, faired and stability assessed by **Macduff Ship Design** the construction plans were then drawn up and submitted to Bureau Veritas classification for approval along with the outfitting and engineering drawings. These were then supplied to **Finomar Shipyard** based in Szczecin,



Congratulations to owner/skipper Mark Lovie and crew on your new vessel Venture IV.



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The largest trawler to be built at Macduff Shipyards maintains a long connection between the yard and skipper/owner Mark Lovie of the Venture II Fishing Company.



Venture IV is fishing with a 4.50m² pair of Vónin Storm trawl doors, a Thyborøn clump, and with a set of trawls and rigging supplied by Jackson Trawl, who also supplied the warps.

pitch propeller. A low drag high thrust nozzle is fitted in way of the propeller and incorporates a triple rudder system to provide high turning force.

Two **YANMAR 6NY16L generator sets** are fitted within the engine room, each delivering 280 kW of power. The main engine and generators are cooled via freshwater plate coolers. The hydraulic towing pumps along with stern thruster are also fitted within the engine room along with the main electrical switchboard, refrigeration and the ships pumping systems.

A large fish room is fitted forward of the engine room with capacity for up to 2,000 stacking fish boxes. Refrigeration plant and chilling pipes

for the fish hold was provided and fitted by **Premier Refrigeration** along with two 2.5 t Geneglace ice making machines, each feeding into large ice lockers which can house up to 10 t of flake ice.

At the stem of the vessel the fore peak is divided into four compartments with three large freshwater tanks which are used for ice making along with a bow thruster access compartment on the centreline where grey and black water tanks are situated.

Above the main deck the vessel is generally divided along the centreline with working areas to port and accommodation to starboard. To the port side there is a steering gear compartment combined

with engineer's workshop aft, fish handling area amidships and dry locker forward. To the starboard side there is a laundry/pantry/galley aft, followed by a large mess/lounge amidships and four two-man cabins forward. A large 20 m³ hopper is fitted on the centreline.

A deck up features the trawl deck where most of the deck machinery is fitted, and fishing takes place. The deck features twin ramps aft with hydraulic stern gates fitted to the top of each ramp for crew protection. Forward of these are two flush mounted hopper hatches where the catch is taken onboard. The deck is then open all the way to the stem where three split sweep winches are fitted to allow maximum

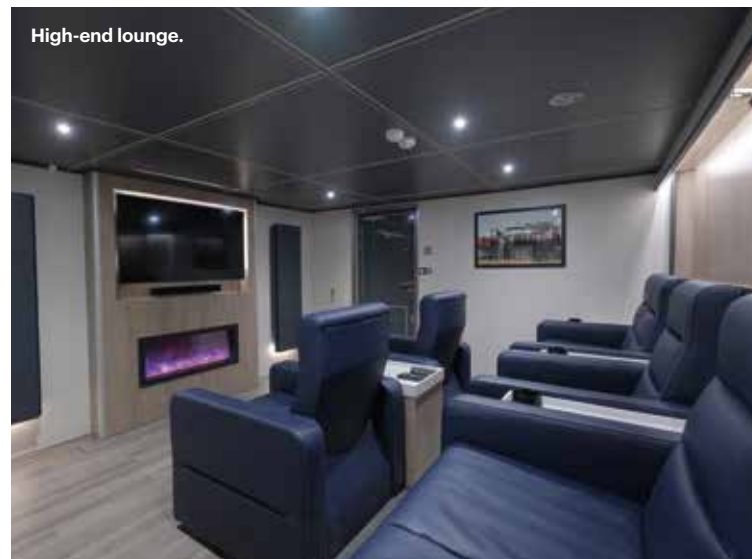
deck length for storing and mending nets. Fitted amidships immediately above the net tracks are three separate bagging winches. Three split winches are fitted amidships, two to starboard and the third to port and lead directly aft to large trawl blocks which are capable of sliding forward up to 1.2m from the transom to reduce the pressure on the steering gear when towing an edge in deep water. Numerous casings are fitted either side of the tracks and serve various functions such as a gear store, air handling unit room, two-man cabin and unloading trunk.

The shelter deck runs from stern to stem. Aft it is mainly open and provides a walkway around the perimeter of the vessel as well as shelter for those working on the trawl deck. Amidships features a full breadth casing where a skipper's cabin with en-suite is fitted, along with two two-man cabins, a general WC and electronics room. Forward is arranged for mooring and anchoring and features a three-barrel winch fitted within a weathertight compartment which is used to stow the two anchor warps along with a spare barrel for mooring rope.

At bridge deck level a large wheelhouse is situated which is nearly the full breadth of the vessel to provide great visibility when manoeuvring in restricted areas. Large windows are fitted all around for good visibility with full height windows fitted aft on the centreline, providing a commanding view of the trawl deck to enhance crew safety. ●



Left: Trawl doors and clump brought onboard first haul.



High-end lounge.



Starboard split winches.



Sweep winches.

DECK MACHINERY PACKAGE

The extensive deck machinery package was supplied by MacGregor, who also designed the hydraulic system. The packages comprises of:

- 3 off 30 t trawl winches, each with capacity of 2250 m of 26 mm diameter wire
- 3 off 20 t sweep winches
- 3 off 12 t bagging winches
- 2 x 10 t cod end winches
- 2 x 13 t gilson winches
- 2 x 6 t gear handling winches aft
- 3 x 3 t gear handling winch forward
- 1 x 3 t fishroom winch
- 1 x triple barrel anchor and mooring winch
- Pentagon autotrawl system
- 12.3m telescopic boom landing crane with 2.3 t winch



The midships fishroom can take 2200 stacking boxes.

ELECTRONICS PACKAGE

The Electronics for Venture IV were supplied by Woodsons, Furuno and Scanmar

The Woodsons package included:

Radio-Telephones

- 1 Sailor 6310/2 150W GMDSS MF/HF SSB
- 1 Sailor 6210 VHF
- 1 Sailor 6222 Class A VHF/DSC
- 1 EM-TRAK A200 Class A AIS

GPS/GPS Gyro

- 1 Simrad GC80 MK2 Gyro

Navigation

- 2 Sodena plotting system
- 1 Olex 3D seabed mapping system

Wind sensor

- 1 Ultrasonic wind speed and direction sensor

Auto Pilot

- 1 Simrad AP70MK2 autopilot system

Talk-Back

- 1 Phontech 3102 20 way system talkback

Echosounder

- 1 JRC JFC180BB Black box multi frequency echosounder

CCTV

- 1 CCTV System c/w 27 cameras

Satellite television

- 1 e-SEA 80 Satellite TV system

Satellite Communications

- 1 eSEA60Ka Internet System

Back up satellite phone:

- 1 Iridium satellite telephone

Emergency

- 1 Jotron TRON 60GPS EPIRB
- 2 Jotron GMDSS Hand Held VHF
- 1 Jotron TRON SART 20 Radar transponder

Matrix monitor system

- 1 4K Multiview Video Wall and Control System
- 4 28" Wide screen monitors
- 3 55" Wide screen monitors
- 7 Neovo X24 wide screen monitors
- 2 Neovo X19 monitors
- 1 22" touch screen, Video wall control



The deck machinery and hydraulic package are from MacGregor.

Driving fishing technology forward since 1970

www.jacksontrawls.co.uk



Best wishes to Mark Lovie, Family & Crew with your new vessel 'Venture IV'

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