



EUROPEAN COMMISSION

DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

INTERNATIONAL AFFAIRS AND MARKETS

INTERNATIONAL AFFAIRS, LAW OF THE SEA AND REGIONAL FISHERIES ORGANISATIONS

Brussels, 25 JAN. 2012
MARE B-1 AK/86322

Dr. Robin ALLEN
SPRFMO Interim Secretary
L4, ASB Bank House
PO Box 3797
Wellington
6140 New Zealand

Subject: Results of inspection of vessel *Lafayette* in the port of Las Palmas, 2-3 December 2011.

Dear Secretary, *Robin*


I would like to inform you, and the SPRFMO Participants, that Spain has undertaken an inspection of the Russian-flagged vessel *Lafayette* in its port of Las Palmas on 2-3 December 2011.

The inspection report is accompanied by a technical report containing a review of photographic evidence to determine active pair trawling capability of the MV *Lafayette*. Both reports are attached.

The results of the inspection confirm the findings of the inspection carried out on 24 January 2010 in the port of Papeete, French Polynesia, which concluded that this vessel is a former oil tanker converted into a processing vessel and was not operating as an active trawler in 2009, and against the background of this analysis, neither in 2010. Moreover, the technical report reviewing photographic evidence concludes that it is highly unlikely that the *Lafayette* could ever act effectively as a pair trawler.

As you are aware, the EU is of the view that compliance with the Interim Measures is of utmost importance for the conservation and sustainable management of pelagic fisheries in the SPRFMO Area. The EU therefore considers that a thorough discussion on the state of implementation and compliance with the Interim Measures by all Participants, including Russia, at the forthcoming 3rd Preparatory Conference, is essential for the conservation of the stock and the credibility of South Pacific RFMO.

I would be grateful if you would disseminate this letter to other SPRFMO Participants.


Roberto CESARI
Head of EU Delegation
to SPRFMO

Encl: 2

C.c.: Bill Mansfield (SPRFMO Chair)

Technical Report Lafayette

1 Introduction

This vessel was inspected by the Spanish fisheries authorities in the port of Las Palmas when officials from DG MARE of the European Commission officials were present.

This report drawn up by DG MARE together with the independent Technical Report drawn up by Seafish (UK) Marine Services and attached with this report, focus on the technical characteristics of the vessel in relation to the potential use of the vessel notably the active pair trawling capability.

2 Vessel description

The principal data of the vessel are as follows:

Ship Name	LAFAYETTE
Ship Flag	Russian
Registry. No	795238
IMO No	7913622
IRCS	UDFI
Build date	30 June 1980
Classification	(Norway) DNV *1A1 Tanker for Oil
Classification	(Russia) * (1) (REF) Fishing vessel

The principal vessel's dimensions are as follows:

Dimension type		Value	Measures
<i>Code</i>	<i>Meaning</i>		
LOA	Length overall	228.00	metres
Lpp	Length between perpendiculars	219.00	metres
B	Beam moulded	32.20	metres
D	Depth moulded	19.00	metres
GT	Gross Tonnage	49173.00	tonnes
NT	Net Tonnage	14752.00	tonnes
DW	Dry Weight	36484.00	tonnes

Picture No. 1 is of the Lafayette with a Faroese fishing vessel (Arctic Viking, 58.00 metres LOA, 13.00 metres Beam and 1720 tonnes GT), alongside Lafayette's port side (in the vicinity of one of the two port side pumping stations), and aptly demonstrates the bulk and size of Lafayette. Arctic Viking is the size of fishing vessel normally encountered fishing in the NAFO and NEAFC areas, which in 2-3 months fishing, can catch, and carry 500 to 600 tonnes of processed fish (about 700 tonnes live weight equivalent).

Picture No.1: Lafayette at anchor in Faroe Islands 2011



Picture No.2 is of the vessel alongside Reina Sofia pier in Las Palmas following repainting, and illustrates the how it has been transformed from oil tanker to "fishing vessel/fish factory vessel". The factory area is positioned within the white painted area extending forward from the bridge superstructure to the bow position aft of the foremast. Below this area, in the are painted blue, are the refrigerated holds and refrigerated sea water tanks in that area previously used to carry oil and petro-chemicals. The draught of the vessel as shown here is approximately 6 metres, and the GT approximately 40, 000 tonnes.

Picture No.2: Lafayette Las Palmas December 2011



3 Propulsion and Electric Power

The main engine for propulsion is:

Manufacture	SULZER (Sumitomo)
Engine type	6RND 76M
Power	10920 Kw
Cylinder's No	6
Bore	760 mm
Stroke	1550 mm.
Revolution	122 Revolutions per minute (RPM)

This is a typical two stroke diesel engine of a type expected to be found in an oil tanker of this size. These engines are physically very big being about 5 metres high. They are very heavy with a large internal mass moving up and down at a slow rate of rotation (122 RPM maximum). It is an engine designed for work in a stable and continuous regime, such as would be found during very long ocean voyages. The economy peak is found therefore at points approaching the maximum RPM.

Picture No.3 is of a similar size engine and the comparative sizes of men working around it demonstrates the dimensions and mass of these engines.

Picture No.3: Marine diesel engine similar to the type fitted to oil tankers



The engine fitted on Lafayette also powers an electrical generator supplying the electrical needs of the vessel; when the vessel was modified in 2009 a new electricity generating station was installed at main deck level forward of the accommodation and bridge structure, and which contains the following engines:

No	Serial No	Manufacture	Engine Weight	Engine Type	Power x RPM	Total Power
3	134 FQK 199 FQF 135 FQK	YANMAR Ltd	3 x 52.000 Kg 156.tonnes	6N 330-SV	2207 x 720	6621
6	ZO 253 ZO 254 ZO 255 ZO 274 ZO 275 ZO 276	DAIHATSU Diesel	6 x 35.000 Kg 210.tonnes	DK 628	1596 x 720	9576

Considerable generating potential is required to produce energy for the refrigeration plants servicing the freezer tunnels and associated equipment in the factory area, the refrigerated sea water tanks and the refrigerated holds, as well as conveyor belt systems and the various other

pumps (fish, salt and fresh water) and handling systems associated with the production and handling of frozen fishery products.

4 Vessel Naval Characteristics

The design of the vessel envisages a large volume capacity (about 60.000 m³) able to transport a large cargo of oil (about 50.000 tonnes). At these levels the vessel would sail with 75% of the hull immersed with a draught of around 14 metres. This would lend to a good stability condition enabling the vessel to steam at an economical speed of around 11 knots.

The modifications transformed the ship from oil tanker to fishing vessel or "factory vessel", and added structure (the factory and an accommodation block) on the main deck. This also included the electrical power station at main deck level just forward of the main deckhouse/bridge structure as well as associated facilities such as cranes, winches, elevator structures and gear storage areas.

The net effect of these modifications would have been to raise the vessel's centre of gravity, potentially prejudicial to the stability curve, especially when in low displacement condition, producing a "slow rolling" effect (exacerbated when the vessel is empty of cargo and carrying reduced volumes of liquids). This stability issue could explain the presence of ballast tanks in the deeper fish holds.

As floating fish factory, the main engine of the vessel will have to work at a very low speed when in an area where fishing activity (including transshipping) is taking place, or if acting as a pair trawl team partner. Such operating procedures can cause two distinct problems:

1. The main engine must work at low revolutions (less than 50% of the maximum speed). This in turn creates difficulties for the engine whose primary purpose is to provide energy to propel the massive bulk of the vessel through the water as well as powering an electric generator. Such a regime can lead to malfunctioning of the engine in the form of overheating, and there are records of a problem detected by an engineer of the Russian Classification Register. Overheating and incomplete combustion of fuel can in the short to medium term lead to damage to the cylinder linings which in the longer term can extend to crankshaft and piston damage. Operating the vessel in such a role could detrimentally affect its primary purpose as a floating and mobile fish processing factory;
2. The raising of the centre of gravity is likely to cause stability problems manifested by an exaggerated lateral movement of the hull, when in a light condition, during transshipment operations in an oceanic environment, or simply during low speed manoeuvring. They create potential hazards for the fishing and other support vessels during their approach to and when lying alongside. Since the area of exposed hull has been increased, the net adverse effects of wind and sea when manoeuvring at low speed are likely to increase. It would not be unusual for the ship when operating in an oceanic environment, to encounter manoeuvring difficulties at slow speeds (3 knots and below) when in close proximity to other vessels for transshipment operations or to lie in close proximity to receive pumped fish either on the port side or via the stern pumping station;
3. To limit or minimise the potentially damaging effects of such close proximity operations the Lafayette must be always have on board sufficient ballast, and fishery products located in the deeper holds and the seawater storage tanks. The vessel also provides a bunkering service for fishing trawlers, and thus at any one time it likely to

be disposing of liquids which in turn will affect its stability and manoeuvrability at low speed. Given the need to move product to the buyer as soon as possible and to free up valuable storage space, it appears that such stability problems have previously been encountered at sea, especially in the South Pacific during 2010.

5 Fishing possibility

A winch is installed (see Picture No. 4 below) in the port quarter station on the stern deck at main deck level. The plate on this winch shows that it is a Funz San hydraulic towing winch, model WO 135 with a capability rated at 60 tons x 28 metres on the first layer and 25 tons times 67 metres on the second layer. Irrespective of the quantity (length of warp) which it could accommodate, it is alleged that the vessel tested the winch shown in pair trawling trials in the Pacific during 2010. The current Master at the time of the inspection in Las Palmas but who was not on board in the Pacific in 2010, stated that a rope of 26 mm had been used, but that the result was inconclusive and the experience had not been repeated. This was supported by comments made by the then Master during the inspection of the vessel by the French Polynesian authorities in 2010, and who stated that it would not work.

Theoretically at least the Lafayette could operate as a member of a pair trawl team. However, putting aside for one moment seamanship problems associated with a vessel of this size operating in close quarters at low speed and manoeuvring to pass and recover pair trawl gear, the vessel does not appear to have, or has had, any capacity to haul a net aboard or to handle a pair trawl and associated gear of the size used by the larger fishing trawlers in the small pelagic fisheries with Lafayette was associated with. Irrespective of the lack of suitable towing points for a trawl warp, there are only limited control facilities for this winch. There are no warp tension-meters fitted anywhere either in stern area adjacent to the winch or in the wheelhouse itself, and there are no fishing sonar or fish finding devices to be found.

Pair trawling is a delicate fishing operation suited to vessels matched in terms of engine power, engine type (medium or lower RPM), vessel displacement and vessel pulling power (bollard pull). If the Lafayette, which is fitted with an engine and a propeller having performance considerably different in respect to the fishing vessel partner, had fished with a fishing vessel of displacement magnitude between 5 to 10 times less, the likelihood of a successful operation is likely to have been compromised. The main engine of Lafayette, operating at a lower RPM than that of a conventional deep sea trawler, would mean that during the fishing operation it would be working at levels outside the recommended operating envelope. Such operating methodology could cause damage the main engine.

Picture No. 4: Winch fitted to stern main deck area aft port side Lafayette

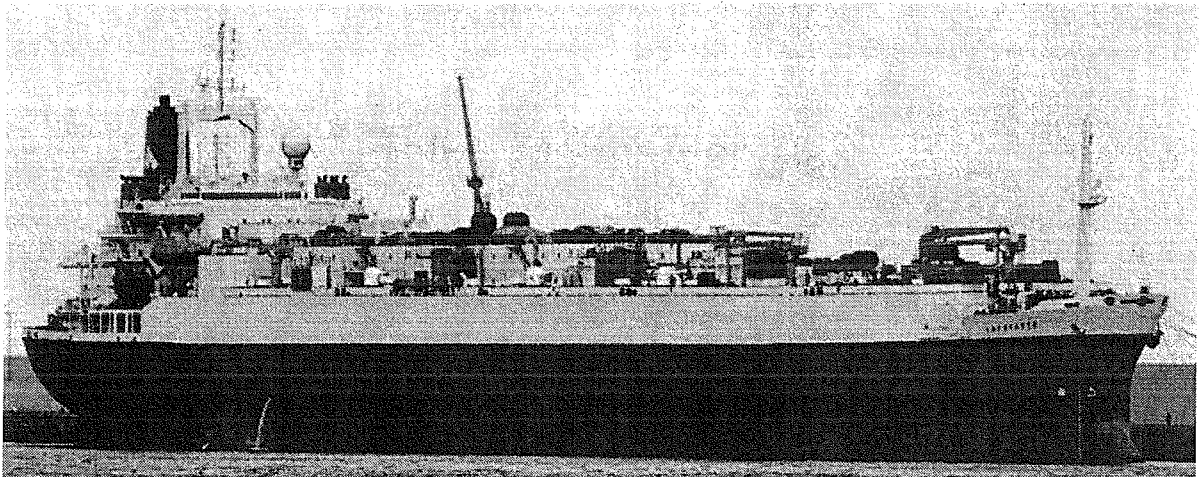


Seafish Marine Services

Technical report

Review of photographic evidence to determine active
pair trawling capability for the

MV Lafayette



Written by Tony Tait

Background

The Lafayette was constructed in 1980 for bulk oil transport and as such was purposely designed and constructed under DNV classification society rules for this role,

The vessels principal dimensions and class notations are shown below;

Length Overall	228 m
LBP	219m
Beam	32.2m
Depth	19m
Gross Tonnage	49,173 tonnes
Net tonnage	14,752 tonnes
Ship Flag	Russian
Registry No	795238
IMO Number	7913662
IRCS	UDFI
Build Date	30 June 1980
Classification	(Norway) DNV *1A1 Tanker for Oil
Classification	(Russia) *(1) (REF) Fishing Vessel

There has been no evidence submitted for review that supports the conversion from bulk oil tanker to fishing vessel, and that the conversion work has been undertaken to classification society rules for fishing vessels.

Given the visible modifications to the vessel with the accommodation decks added above the main deck and the additional power generating machinery that has been added to enable the operation of the fish processing equipment, the stability characteristics of the vessel will have been markedly changed. The writer has not seen the vessels stability book which would shed light on the modifications made and allude to any conditions in which the vessel is purported to operate as a pair trawler.

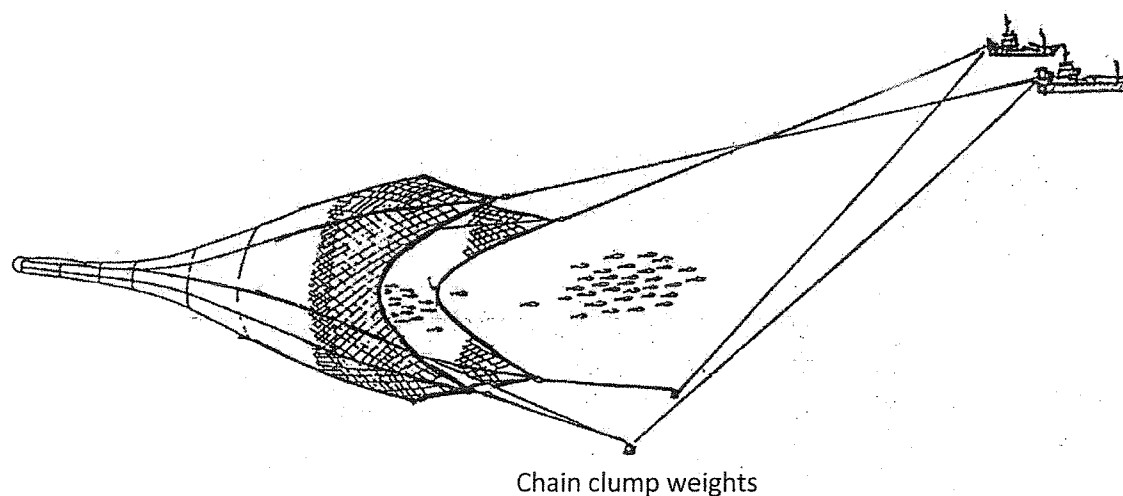
Requirements for Pair Trawling

Pair trawling is an effective and efficient means of pelagic fishing, allowing a significantly larger net to be towed than a single vessel could tow alone.

The vessel requirements for pair trawling requires that the vessels that make up the pair team are equally matched in performance and size to enable the effective tow of the net for extended periods.

One of the problems of both methods is that the two vessels have to come close together to pass the tails of the net across. This can be hazardous in poor weather.

Pelagic or midwater trawls are generally much larger than bottom trawls with the forward sections of the net usually comprising of very large meshes (5-120m) or ropes that herd the shoals of fish towards the main body of the trawl.



The position of the net between the surface and seabed is usually monitored using electronic sensors on the headline to give a depth for both top and bottom of the net allowing the skipper to position his net in line with the shoal. These nets can be as big as 160 metres deep and 240 metres wide.

Assessment of the Lafayette for Pair Trawling

The Lafayette design and physical size and layout prohibit the Lafayette from acting as an active pair trawler. The physical size of the Lafayette at 228m LOA and 32.2m Beam is 4 times the size of any other pair trawler currently fishing; the performance characteristics of the Lafayette are vastly different from a conventional trawler as they were designed for the transportation of oil and not for towing. For the Lafayette to act as part of a pair trawl team would pose significant risks to the partner vessel given her size and poor manoeuvrability.

Propulsion system

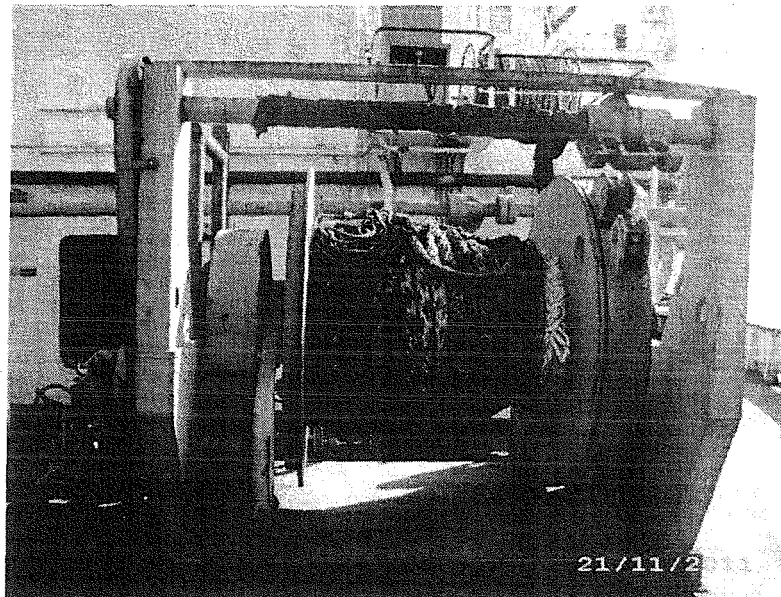
The Lafayette propulsion engine is designed for maximum efficiency at a constant rpm to enable the vessel to undertake long ocean passages at maximum load displacement at approximately 11kn. For the Lafayette to operate as a pair trawler it

would require the vessel to operate at a speed between 2 and 4kn it would also require the Lafayette to constantly adjust its speed depending on the depth required for the net to effectively target the fish marks. The Lafayette could not respond to the required changes in speed given the vessel size and the performance characteristics of the propulsion engine.

Deck Machinery

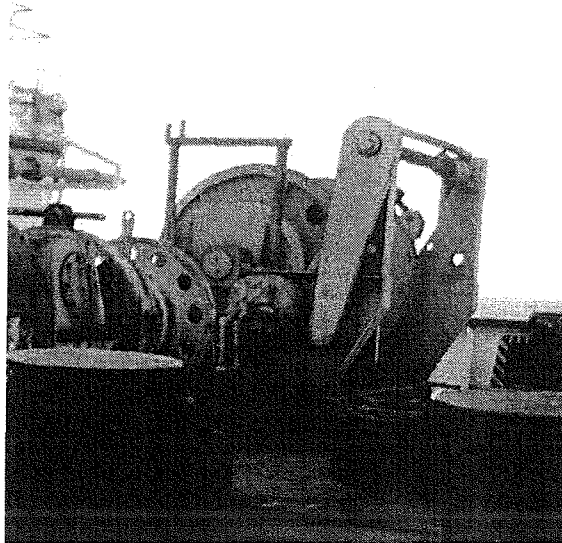
The deck machinery onboard the Lafayette that is purported to be utilised in pair trawling is unlikely to be of any effective use without causing significant risk to the crew and damage to the vessel.

The main trawl winch shown in the photograph below has been taken from another vessel and placed onboard the Lafayette.



The winch arrangement is completely unsuited in its current form for pair trawling. The guide on gear is positioned high above the main winch barrel; it is likely that this winch came from a vessel with a large stern gantry requiring a high lead off angle from the winch.

In the current position if the guide on gear was used it would result in significant damage to the winch given that the lead from the winch barrel through the guide on gear and out over the stern of the vessel would result in an almost 90 degree angle as shown in the photograph below. This would place significant loading on the guide on gear. And create a substantial bending moment.



The winch controls are located on the first tier of the deckhouse structure behind the winch. Although this gives a good line of sight to the winch itself it does not provide the operator sight of anything to the port side of the vessel. Given that the fish pumping arrangements on the Lafayette are all located on the port side, the partner vessel would likely also be to the port side to enable easy handling/hauling of the net and discharge of the catch. In light of this the winch control arrangement onboard the Lafayette does not allow sight of the partner vessel. The winch control position cannot be seen from the helm position therefore effective fishing as a pair trawl team would be incredibly difficult and dangerous.

There is no fixed tow point on the stern of the vessel and the gantry position on the port side with associated hanging block is not structurally strong enough to trawl through. The fair leads in the transom are not suited for pair trawling or any other type of fishing. The passage of a trawl warp through these fair leads would as a result of the vessels motion and movement of the wire both with a static load and during hauling cut through the fair lead as they are designed for mooring ropes and the associated mooring of the vessel.

Fishing operations

As stated above it is important for pair trawlers to be equally matched in performance. Given the dimensions of the Lafayette and its propulsion machinery, and the deck machinery the Lafayette would pose a significant risk to any vessel it fished with as a pair team. The manoeuvrability of the vessel in close quarter operations is extremely limited. The stopping distance given the vessels inertia would pose a significant risk to any vessel it paired, with particular regards to the net becoming fastened or a breakdown of the partner vessel during a tow this could lead to capsize and foundering of the partner vessel.

Summary

Given the photographic evidence provided and reviewed by the writer it is highly unlikely that the Lafayette could ever act effectively as a pair trawler. If pair trawling was to be attempted it would pose significant risk to the vessel and crew of the Lafayette and the partner vessel.

It is most likely that the Lafayette acts as a floating fish factory vessel transshipping catch from other fishing vessels and processing onboard prior to transshipping to other vessels for landing to shore.

To enable the Lafayette to operate effectively as a pair trawler would require a complete re-design and re-fit of the vessel and its propulsion machinery. The associated costs of such a re-fit would be beyond any economical benefit that could be achieved from such modifications.



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CURRICULUM VITAE

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NATIONALITY: British

DATE OF BIRTH: 27th May 1974

QUALIFICATIONS: CWB Welding Inspector, CSWip welding inspector, C&G Shipbuilding & Engineering

CURRENT POSITION: Marine Services Manager & Senior Marine Surveyor

SYNOPSIS:

Anthony Tait completed a full traditional shipbuilding apprenticeship as a plater specialising in the construction of steel fishing vessels utilising traditional building & lofting techniques at Hepworth Shipyard Ltd. From 1998 He spent 5 years as engineering manager/superintendent at Nanaimo Shipyard Ltd in British Columbia, Canada. Responsibilities included Repair & Refit project Management, Vessel condition surveys for Canadian DoD and government contracts as well as corporate and private vessel owners. After returning to the UK in 2003 he joined Seafish Industry Authority as a fishing vessel surveyor. In 2005 he became the Senior Marine Surveyor and manager of the Marine Safety Services Department for the authority. In 2006 he led the merger of Kingfisher Information Services and Marine Safety Services which created Seafish Marine Services. During his career he has gained considerable experience in the construction of all types of fishing and small commercial vessels in wood, steel, aluminium and GRP and their operation. He has led the development of the Seafish Construction Standards that are accepted worldwide and is also a member of the Fishing Industry Safety Group and its sub committees; he has played a lead role in the development and project management of many fishing industry safety related projects. Seafish Marine Services surveys and certifies over 100 new construction fishing vessel each year and in excess of 200 existing vessels surveys.

CAREER:

25/05/2005 to Present	Senior Marine Surveyor & Marine Services Manager, Seafish Industry Authority.
01/03/2004 – 25/05/2009	Marine Surveyor, Seafish Industry Authority
1998 – 2003	Engineering Manager/Superintendent, Nanaimo Shipyard Ltd, British Columbia, Canada
1990 – 1998	Plater, Hepworth Shipyard Ltd UK

RECENT WORK INCLUDES:

- New & Existing Fishing vessel surveys
- Code of practice vessel surveys
- Consultancy for Government organisations including advice on vessel design and powering
- Construction Standards Development for fishing and code of practice vessels
- Plan Approvals
- Tonnage Measurement
- Government grant approvals for devolved administrations
- Vessel surveys on behalf Irish DOM, French Merchant Marine, MCA
- Overseas consultancy contracts including; New Zealand, Ireland, Canada, Denmark, France, Ghana, Finland and Norway
- Development of Fishing vessel risk assessments folders
- Development of Safety at Sea strategy for Seafish
- IMO member for the development of world fishing vessel construction standards