

MGN 439 (F)

Survey Standards for 24m and Over Registered Length Fishing Vessels.

Notice to all Owners, Operators, Shipyards, Boatbuilders Crews, Managers and safety trainers.

PLEASE NOTE:-

Where this document provides guidance on the law it should not be regarded as definitive. The way the law applies to any particular case can vary according to circumstances - for example, from vessel to vessel and you should consider seeking independent legal advice if you are unsure of your own legal position.

Summary

This Note provides general guidance on the survey policy for 24m and over Registered Length fishing vessels. The MCA requires that classed and unclassed vessels are constructed and maintained to the same standards, therefore unclassed vessels will be required to adopt the same survey regime as classed vessels, including the annual survey.

Key points

- The MCA requires fishing vessels of 24m and over Registered Length to be constructed and maintained in accordance with the rules of a recognised organisation.
- MSN 1672 set out the recognised organisations accepted by the MCA.
- The MCA requires that the design, construction and maintenance of hull, main and auxiliary machinery, electrical and automatic plants of a fishing vessel shall meet the standards of a recognised organisation.
- The MCA will ensure that unclassed vessels meet the same rules of recognised organisations and the same survey regime is applied.
- There is no technical or commercial advantage in using the MCA for survey and the appropriate rules must be complied with whoever carries out the survey.
- Annex 1 sets out the survey cycles for classed and unclassed vessels. Annex 2 is a Hull and Machinery Inspection and Survey Record which is intended to assist vessel owners in demonstrating that maintenance, inspection and surveys have been carried out. An electronic version that can be downloaded for use by owners is available on the MCA website http://www.dft.gov.uk/mca/ and can be found under Ships and Cargos, Vessel Information, Fishing Vessels, Survey Standards for Fishing Vessels of 24m and Over – User Guide

Introduction/Background

- 1.1 Most flag states do not have their own specific rules for design, construction, and maintenance of fishing vessels, and instead apply the rules of a recognised organisation. Such rules (known as classification rules) provide for:
 - the structural strength and the watertight integrity of all parts of a vessel's hull and its appendages;
 - the safety and reliability of the vessel's propulsion and steering systems;
 - the effectiveness of other features and auxiliary systems built into the ship to maintain the basic conditions on board so that safe working and living conditions are maintained at all times and personnel can be carried safely at sea, at anchor, or in harbour.
- 1.2 The following aspects are not normally covered by classification rules and are usually covered by national regulations (Statutory Instruments or Codes of Practice issued by the MCA) or international conventions;
 - stability;
 - life-saving appliances;
 - structural fire protection, detection and extinction arrangements.
- 1.3 In the 1990s, in an attempt to ensure classification societies and flag states worked to a common standard, the EU issued a directive on common rules and standards for ship inspection and survey organisations. Article 14 of the directive states that;

Each Member State shall ensure that ships flying its flag shall be constructed and maintained in accordance with the hull, machinery and electrical and control installation requirements of a recognised organisation.

- 1.4 The EU Directive was implemented in the UK through **The Merchant Shipping (Ship Inspection and Survey Organisations) Regulations 1996 (SI 1996 No. 2908).** These Regulations set out the standard the MCA would expect from recognised organisations and the duties placed upon them.
- 1.5 MSN 1672 The Merchant Shipping (Ship Inspection and Survey Organisations) Regulations 1996 outlines the scope of work classification societies would be allowed to take on (hull; machinery; electrical installations; and control installations).
- 1.6 The recognised organisations currently accepted by the UK are;
 - 1. Lloyds Register of Shipping (LR)
 - 2. Bureau Veritas (BV)
 - 3. Det Norske Veritas (DNV)
 - 4. Germanischer Lloyd (GL)
 - 5. American Bureau of Shipping (ABS)
 - 6. Registro Italiano Navale (RINA), and,
 - 7. Nippon Kaiji Kyokai (NKK) (Not currently authorised for Fishing Vessels)

2.0 Survey Requirements for UK Fishing Vessels of 24m Registered Length and over

2.1 EC Directive 97/70 set up a harmonized safety regime for vessels of 24m and over in the EU. Article 5 of the Directive states;

The standards for the design, construction and maintenance of hull, main and auxiliary machinery, electrical and automatic plants of a fishing vessel shall be the rules in force at the date of its construction, specified for classification by a recognised organisation or used by an administration.

- 2.2 This directive was implemented in the UK through The Fishing Vessels (EC Directive on Harmonised Safety Regime) Regulations 1999 (SI 1999 No. 2998). These regulations require that UK fishing vessels of 24m and over Registered Length comply with the standards for construction and maintenance relating to hull, machinery, electrical installations and control installations, as listed in MSN 1672. As the MCA has no rules for hull construction, machinery, electrical and control systems, new vessels (new build and flag in vessels from 1999) now have to be built according to the rules of one of the recognised organisations accepted by the MCA that were in force at the time of construction.
- 2.3 Greater detail on the requirements is set out in MGN 322; Ship Survey Standards, which outlines the standards for hull construction, machinery, electrical and control systems to which vessels are expected to be built.
- 2.4 MGN 322 makes it quite clear that:
 - 'New-build', 24m and over fishing vessels will have to be built to the rules of one of the recognised organisations (i.e. be "Classed");
 - New Build or Existing 24m and over fishing vessels will be required to be maintained in "Class". Any vessels on the UK Register that are currently unclassed must follow an equivalent standard under MCA control to ensure that these vessels maintain adequate standards;
- 2.5 There is no technical or commercial advantage in using MCA for survey and the appropriate rules must be complied with whoever carries out the surveys.

3.0 Survey Cycles;

- 3.1 For a classed vessel; the class items will be on a 5 yearly cycle, however the flag state survey items will be on a 4 yearly cycle (to match the International Fishing Vessel Certificate (IFVC) duration).
- 3.2 For unclassed vessels; all items will be on a 4 yearly cycle; if owners wish to take advantage of the longer class cycle then they should seek to class their vessels.
- 3.3 See attached Annex 1 for survey cycles.

4.0 Unclassed Vessels – Survey Requirements

- 4.1 If vessels are not classed, then the MCA has to ensure that the rules of recognised organisations for hull construction, machinery, electrical and control systems are met in addition to the usual flag state requirements. This is achieved through <u>annual and intermediate surveys</u>, as happens in the survey regime of a recognised organisation. **These surveys are chargeable.**
- 4.2 MGN 322 Annex 3 para 3 provides guidance on what should be included in annual surveys.
- 4.3 It is the owner's responsibility to ensure that appropriate and provable records of all hull and machinery inspections are maintained. If records are not available then attending surveyors may require items to be additionally opened up or presented for survey. When hull or machinery items are being overhauled or maintained then you should check with the local marine office to see if surveyor attendance is required.

- 4.4 Annex 2 is an example Hull and Machinery Inspection and Survey Record which is intended to assist vessel owners in demonstrating that maintenance, inspection and surveys have been carried out.
- 4.5 An electronic version of Annex 2 which can be used to keep your records, together with guidance for use, can be downloaded from the MCA website on:

http://www.dft.gov.uk/mca/mcga07-home/shipsandcargoes/mcga-shiptype/mcgashiptype-fishingvessel/survey_standards_for_fishing_vessels_of_24m_and_over_-_user_guide.htm

- 4.6 The records in Annex 2 are as follows:
 - Hull Maintenance Records Checks and Testing
 - Machinery Maintenance Checks and Operational Functionality Testing for:
 - Main Engine;
 - Auxiliary Engine No.1;
 - Auxiliary Engine No.2;
 - Pumping Equipment;
 - Ancillary Equipment;
 - Electrical Equipment;
 - Propeller, Shaft Bearings, Rudder and Rudder Stock;
 - Fishing Equipment;
 - Tank Inspection Record; and
 - Controls and Trips.
- 4.7 As the survey cycle for unclassed vessels lasts for 4 years, a new table for all of the above should be completed each year and the relevant year recorded in the top left of the table.

More Information

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ANNEX 1

SURVEY CYCLES FOR FISHING VESSELS OF 24m AND OVER

Unclassed Vessel Flag State Survey (4 year cycle) Survey items: entire vessels	Initial Survey	Annual	Intermediate*	Annual	Renewal**
Year	0	1	2	3	4
Range Dates	0	±3m	±3m	±3m	-3m

* 2 bottom Inspections should be carried out within a four year period of validity of the certificate. The Intermediate and Renewal Surveys for unclassed vessels should include a bottom Inspection but the bottom Inspection may be deferred for up to 12 months, subject to satisfactory Inspection at the Intermediate or Renewal Survey. If the period between bottom Inspections has been extended by 12 months, the next bottom Inspection should be carried out within 12 months to ensure that the bottom Inspection is normally carried out during the Renewal or Intermediate Surveys.

** Renewal survey can be completed up to 3 months prior to expiry of IFVC.

Classed Vessel Class Survey (5 year cycle) Survey items: Hull, Machinery, Electrical and Control	Initial Survey	Annual	Annual/ Intermediate	Annual/ Intermediate	Annual	Renewal
Year	0	1	2	3	4	5
Range Dates	0	±3m	±3m	±3m	±3m	-3m
Flag State Survey (4 Year cycle) Survey items: stability, LSA, FFE, SFP, Crew safety and comfort, all remaining items*	Initial Survey	Annual	Intermediate	Annual	Renewal**	
Range Dates	0	n/a	±3m	n/a	-3m	

LSA – Life Saving Appliances

FFE – Fire Fighting Equipment

SFP – Structural Fire Protection

** Renewal Survey can be completed up to 3 months prior to expiry of the IFVC

ANNEX 2

HULL AND MACHINERY INSPECTION AND SURVEY RECORD. UNCLASSED VESSELS

National and International regulations require vessels to be maintained, inspected, and surveyed in accordance with the standards of a classification society which is a member of the International Association of Classification Societies.

This record is intended to assist vessel owners in demonstrating that maintenance, inspections and surveys have been carried out.

Vessel owners should ensure that all details specific to the vessel are entered in the following record, and that the record is maintained up to date.

Surveyors attending for certificate renewal survey, or for unscheduled inspections, will ask to inspect this record. If the details are not complete and up to date, machinery or hull items may need additional opening and presentation for survey. Attending surveyors will ask for documentary evidence (reports, measurements, photographs, invoices etc) in support of the records contained in this document.

If machinery overhauls have been completed by manufacturer's authorised service agents, or other repair specialists with appropriate quality control certification or experience the attending surveyor may use his discretion in accepting overhaul records without witnessing the dismantled machinery. In all cases it should be agreed with the attending surveyor that overhaul proposals are acceptable before overhaul and survey procedures commence.

Owners may have alternative planned maintenance records that provide an equivalent to the records contained in this document. The attending surveyor may use his discretion in accepting records equivalent to this document.

It is the vessel owner's (or manager's) responsibility to ensure that this record is maintained up to date. Incomplete records will result in additional costs for opening up of machinery and hull items being incurred.

The following abbreviations are used in the records.

FT : Fuction Testing. Indicate if carried out, Pass or Fail

MR : Maintenance Records. Indicate whether records are kept in good order.

GENERAL GUIDANCE ON THE CONDUCT OF FUNCTIONAL TESTS

The test is to be carried out by accredited service personnel with a ship's officer in charge (OIC) and witnessed by an authorised MCA person. The OIC is in charge of the test at all times and should brief those carrying out the test on what is required.

The authorised person should take no part in the test and should not be the OIC. The authorised person may be an MCA surveyor, a Classification Society Surveyor appointed by MCA, or other persons authorised by MCA to witness such tests. If the authorised person is not an MCA surveyor, then the individual concerned will require a letter of appointment from MCA.

MCA authorised Class Societies should be aware of these procedures as this will have been given as part of a general authorisation.

Surveys for damage or alterations

At any time when a ship is undergoing alterations or damage repairs, any exposed parts of the structure normally difficult to access are to be specially examined, e.g. if any part of the main or auxiliary machinery, including boilers, insulation or fittings, is removed for any reason, the steel structure in way is to be carefully examined by the Surveyor, or when cement in the bottom or covering on decks is removed, the plating in way is to be examined before the cement or covering is relaid.

Unscheduled surveys

In the event that MCA has cause to believe that its Rules and Regulations are not being complied with, MCA reserves the right to perform unscheduled surveys of the hull or machinery and the applicable statutory requirements whether or not the appropriate statutory certificate has been issued by MCA.

In the event of significant damage or defect affecting any ship, MCA reserves the right to perform unscheduled surveys

Tank	Survey I (Ship 4	Special Survey II (Ship 6 years old)	Special Survey III (Ship 8 years old)	Special Survey IV (Ship 12 years old)	All Subsequent Special Surveys (Ship 16 plus years old)
Peaks	All tanks	All tanks	All tanks	All tanks	All tanks
Salt-water ballast	All tanks	All tanks	All tanks	All tanks	All tanks
Lubricating oil	None	None	None	See Notes 1 and 2 One tank	One tank
Fresh water	None	One tank	All tanks	See Notes 1 and 2 All tanks	All tanks
Oil fuel — in way of					
<i>(i)</i> Machinery space	None	None	One tank	One tank	One tank
<i>(ii)</i> Supply (Replenishment) Oil Area	None	One tank	Two tanks — see Note 3	50% of tanks — see Notes 3 & 4	All tanks — see Notes 3 & 4
Oil fuel (water compensated)	All tanks	All tanks	All tanks	All tanks	All tanks
Sanitary	All tanks	All tanks	All tanks	All tanks	All tanks

Tank internal examination requirements for steel ships

NOTES

1. The above requirements apply to integral tanks only.

2. Where a selected number of tanks are examined, then different tanks are to be examined at each Special Survey on a rotational basis.

3. To include one deep tank, if any.

4. Where 50% of tanks are to be examined, a minimum of two tanks are required to be examined depending upon the overall number of tanks.

5. When examining tanks internally the Surveyor is to verify that striking plates or other additional reinforcement are fitted under sounding pipes. In the case of tanks only with remote gauging facilities, the satisfactory operation of the gauges is to be confirmed.

6. Particular care must be taken in examining structure under suctions.

7. Where testing is required, a functional test may be acceptable at the Surveyor's discretion.

Fuel tanks which do not form part of the vessel's structure are to be examined, and if considered necessary by the Surveyor, they are to be tested to the pressure specified for new tanks. The tanks need not be examined internally at the first survey if they are found satisfactory on external inspection. The mountings, fittings and remote controls of all oil fuel tanks are to be examined, so far as is practicable.

SMALL ENGINE SURVEY REGIME.

A "dismantle and inspect" regime is appropriate to large engines characterised by having individual units with typically cylinder heads which can be removed to allow dismantling of one unit at time. Typically such engines have bores in excess of 350mm.

Many fishing vessel do not have such engines. Some older vessels may still be fitted with existing engines, for example of Kelvin manufacture, which have individual heads. However many such engines have been replaced and new vessels are fitted with engines of compact design manufactured by, for example, Caterpillar and Cummins which may have one or two heads depending on "in-line" or "V" construction which means that the whole engine has to be dismantled at one time.

Typically such engines have a bore of 150mm. These new engines also run on more refined fuel and utilise advanced metallurgical developments which extend the service interval.

For example in the case of medium-speed diesel engines, some class societies recognize that dismantling and replacement of main and crank bearings may be postponed until the service life limits have been reached.

MCA will consider and may allow an alternative regime similar to that followed by Class. Where indicated by the maker's servicing recommendations, MCA will give consideration to deviation from these detailed requirements where it is warranted, taking account of design, appropriate indicating equipment and operational records. An acceptable lubricating oil trend analysis programme is usually required as part of the condition monitoring procedures. An alternative to prescriptive dismantling of the engine for survey, is acceptable conditional on:

- 1 The vessel has the engine maker's manuals on board.
- 2 A planned maintenance schedule is followed as per engine manual.
- 3 A record is maintained of running hours, oil changes, fuel consumed and engine maintenance.

It is understood that some vessels have to keep such a record as a condition of their insurance cover.

Vessel Name:	
Port:	
Owners or managers contact deta	ils.
Length	
G.T.	
Year of build	
Official Number, Call sign,	
or Fishing number	

Year 1/2/3/4

Hull Maintenance Records Check and Testing

Item	Checks undertaken	Date	Remarks
Hull Thickness Measurement			
Sea water Pipework			
Thickness Measurement			
Fuel Tanks			
Ballast Tanks			
Void Spaces			
Fresh Water Tanks			
Other Tanks			
Ventilation Systems			

Notes:

- 1. Fishing vessels will normally be on a 4 year cycle.
- 2. All internal spaces should be inspected within the survey cycle.
- 3. A full external inspection is to be carried out.
- 4. Anchors chains and chain lockers to be inspected.
- 5. Fuel tanks should be internally cleaned and inspected within the survey cycle.
- 6. Thickness measurements will normally be required at renewal survey.
- 7. Other tanks and void spaces should be internally cleaned and inspected.
- 8. Fresh water tanks should be internally cleaned and super chlorinated at renewal survey.
- 9. Water ballast tanks should be internally cleaned and inspected.
- 10. All sea inlet and overboard valves will be opened and inspected.
- 11. Ventilation system inspection should be for cleanliness/fire prevention, and includes galley extraction systems.

NB all tanks and enclosed spaces are to be prepared for entry as per the Code of Safe Working Practice. Linings may be required to be removed for access to vessels plating.

Machinery Maintenance Records Check and Operational Functionality Testing Main Engine and Gearbox

Year 1/2/3/4

Main Engine	Makers and Type	FT	MR	Remarks

Component part	Planned Maintenance Schedule	Done	Record	Remarks
Crankshaft & Bearings				
Running Gear				
Air Starting				
Fuel System				
Lube Oil System				
Cooling Water System				
Alarms & Trips				
Controls				
Lube Oil Analysis				

Overhauls and Oil Samples	Planned Maintenance Schedule	Date	Total Hours	Hours since last overhaul	Remarks
Oil Samples					
Overhaul or Repair					

Turbo Charger	Done	Record	Remarks
Maintenance Plan			
Exhaust System			

Gear Box	Makers, Type and Ratio	FT	MR	Remarks

Component	Planned Maintenance Schedule	Done	Record	Remarks
Gearbox				
Clutch				

If a maintenance schedule is adhered to then has it been

done as per recommendation and has it been recorded.

- 1. Fishing vessels will normally be on a 4 year cycle.
- 2. Turbo-chargers and attached oil pumps should be included.
- 3. Overhaul and repair work should be carried out in accordance with manufacturers recommended hours.
- 4. Where no recommended hours are given for main and bottom end bearing, piston, and liner inspections these should be carried out at a maximum of 25,000 hour intervals.
- 5. Where no records exist for oil sample analysis results, and cooling water treatment maintenance, attending surveyors may require bearings and liners to be opened for survey more frequently than manufacturer's recommendations or 25,000 hours.
- 6. If oil sample results are satisfactory, and cooling water treatment has been maintained, then, subject to a satisfactory running trial, and at the attending surveyors discretion, it may be satisfactory to open up and present for survey just one cylinder, piston, main and bottom end bearing.
- 7. Engine protection devices (low L.O. pressure, overspeed, etc) should be demonstrated at each survey.
- 8. Engine holding down devices and chocks should be inspected at each survey. Oil and filter changes should be in accordance with manufacturers instructions and may be recorded in the vessels diary or elsewhere.
- 9. Gearboxes should be maintained in accordance with manufacturer's recommendations. Oil sample analysis should be carried out. If no sample analysis results are available an internal inspection of the gearbox should be carried out. Full dismantling and bearing, gear wheel, clutch, inspection should be carried out as required and at the attending surveyor's discretion.

Machinery Maintenance Records Check and Operational Functionality Testing Auxiliary Engine No.1

Year 1/2/3/4

Auxiliary Engine	Location	Type/Makers	FT	MR	Remarks

Component part	Planned Machinery Schedule	Done	Recorded	Remarks
Crankshaft and Bearings	· · · · · · · · · · · · · · · · · · ·			
Running Gear				
Starting System				
Fuel System				
Lube System				
Cooling Water System				
Alarms and Trips				
Turbo Charger				
Exhaust System				
Lube Oil Analysis				

Overhauls and Oil Samples	Planned Maintenance Schedule	Date	Total Hours	Hours since last overhaul	Remarks
Oil Samples					
Overhaul or Repair					

- 1. Fishing vessels will normally be on a 4 year cycle.
- 2. Turbo-chargers and attached oil pumps should be included.
- 3. Overhaul and repair work should be carried out in accordance with manufacturers recommended hours.
- 4. Where no recommended hours are given for main and bottom end bearing, piston, and liner inspections these should be carried out at a maximum of 25,000 hour intervals.
- 5. Where no records exist for oil sample analysis results, and cooling water treatment maintenance, attending surveyors may require bearings and liners to be opened for survey more frequently than manufacturer's recommendations or 25,000 hours.
- 6. If oil sample results are satisfactory, and cooling water treatment has been maintained, then, subject to a satisfactory running trial, and at the attending surveyors discretion, it may be satisfactory to open up and present for survey just one cylinder, piston, main and bottom end bearing.

Machinery Maintenance Records Check and Operational Functionality Testing Auxiliary Engine No.2

Year 1/2/3/4

Auxiliary Engine	Location	Type/Makers	FT	MR	Remarks

Component part	Planned Machinery Schedule	Done	Recorded	Remarks
Crankshaft and Bearings				
Running Gear				
Starting System				
Fuel System				
Lube System				
Cooling Water System				
Alarms and Trips				
Turbo Charger				
Exhaust System				
Lube Oil Analysis				

Overhauls and Oil Samples	Planned Maintenance Schedule	Date	Total Hours	Hours since last overhaul	Remarks
Oil Samples					
Overhaul or Repair					

- 1. Fishing vessels will normally be on a 4 year cycle.
- 2. Turbo-chargers and attached oil pumps should be included.
- 3. Overhaul and repair work should be carried out in accordance with manufacturers recommended hours.
- 4. Where no recommended hours are given for main and bottom end bearing, piston, and liner inspections these should be carried out at a maximum of 25,000 hour intervals.
- 5. Where no records exist for oil sample analysis results, and cooling water treatment maintenance, attending surveyors may require bearings and liners to be opened for survey more frequently than manufacturer's recommendations or 25,000 hours.
- 6. If oil sample results are satisfactory, and cooling water treatment has been maintained, then, subject to a satisfactory running trial, and at the attending surveyors discretion, it may be satisfactory to open up and present for survey just one cylinder, piston, main and bottom end bearing.

Year 1/2/3/4

Control and Trips

Main Engine Controls & Trips	Tested	Date
Local Control		
Remote Control		
Lube Oil Low Pressure		
Lube Oil High Temperature		
Cooling Water Low Pressure		
Cooling Water High Temperature		
Overspeed		
High Exhaust Temp		
Lube Oil Level (Low)		
Header Tank Level (Low)		
Other		

Compressed Air Relief v/v's	Date	Tested
#1 Compressor		
#2 Compressor		
#1 Air Reservoir		
#2 Air Reservoir		

Hydraulic Systems	Date	Tested
Relief Valves		
Controls		
Piping and Supports		

Auxiliary Engine trips	Date	# 1 Tested	# 2 Tested	# 3 Tested	#4 Tested
Lube Oil Pressure					
Lube Oil Temperature					
Water Pressure					
Water Temperature					
Overspeed					
Other					

Machinery Maintenance Records Check and Operational Functionality Testing Pumping Equipment

Year 1/2/3/4

Salt Water Pumps	Location	Type / Makers	Drive	FT	MR	Remarks
Fire p/p #1						
Fire p/p #2						
Emergency Fire p/p						
Deck Wash #1						
Deck Wash #2						
Engine Cooling						
Aux Eng Cooling						
Refrigerant Cooling						
Sewage Eductor Drive						
Domestic SW						

Fresh Water Pumps	Location	Type / Makers	Drive	FT	MR	Remarks
ME Jacket Cooling						
Aux Eng Cooling						
Domestic FW (Cold)						
Domestic FW (Hot)						

Oil Pumps	Location	Type / Makers	Drive	FT	MR	Remarks
Fuel Oil Transfer						
Lube Oil Transfer						
Steering Gear						
Hydraulic Drive						
FO Separator p/ps						
Gear Box						

Bilge and Sludge	Location	Type / Makers	Drive	FT	MR	Remarks
Bilge p/p #1						
Bilge p/p #1						
Oily Water Discharge						
Dirty Oil Discharge						
Sewage Discharge						

- Fishing vessels will normally be on a 4 year cycle.
 At renewal survey normally at least one sea water pump should be opened for survey.
 At renewal survey a running test and visual inspection for other pumps may, at the attending surveyors discretion, be satisfactory.

Machinery Maintenance Records Check and Operational Functionality Testing Ancillary Equipment

Year 1/2/3/4

Ancillary Equipment	Location	Type / Makers	Drive	FT	MR	Remarks
Steering Gear						
Air Compressor #1						
Air Compressor #2						
Air Receivers (off)						
Refrigeration System						
Fuel Separator						
Coolers & Condensers						
Heaters (Water)						
Heaters (Space)						
Ventilation Fans						
Windlass						
Bow Thruster						
Ship Side Valves						
Galley Equipment						
Boiler						

Notes:

1 Air compressors if used for main engine starting should be opened for survey at renewal survey. If running hours are low and a satisfactory running trial is carried out the requirement for opening up may be extended to alternate renewal surveys at the attending surveyors discretion.

- 2 Air receivers should be internally inspected at alternate renewal surveys if a satisfactory external visual examination is carried out. Safety devices (relief valve, fusible plug) should be inspected and tested at renewal survey.
- 3. Coolers should be inspected internally at the Surveyors discretion.
- 4. Refrigeration system should be visually inspected to ensure that no corrosion has occurred to pressurised parts. Note, if refrigeration systems are to be changed to any type other than HCFC's (R22 etc) then the MCA should be consulted for survey requirements.
- 5. Hydraulic systems including the incorporated relief equipment will be inspected.
- 6. Boilers/Water heaters should be inspected internally at certificate renewal if of the pressurised type. Burners should have safety devices tested at each survey.
- 7. All ship side valves should be removed for inspection within the survey cycle.
- 8. Bow thrusters should be inspected during renewal survey and subjected to operational testing at both renewal and intermediate surveys.

Machinery Maintenance Records Check and Operational Functionality Testing Electrical Equipment

Electrical Equipment Type / Makers FΤ Location Drive ΜR Remarks Generators / Alternators Switchboards Distribution Boards Distribution Circuits and Wiring Motors **Emergency Lighting** Navigation Lighting General Lighting & Wiring Gauges & Indicators Alarms (Visual, Audible) Controls, Instrumentation Cathodic Protection

Notes:

Year 1/2/3/4

1. Fishing vessels will normally be on a 4 year cycle.

2. Alternators internally should be maintained in a clean, dust, and oil free condition. Insulation resistance readings should be presented at each survey.

3. Switchboards should be maintained in a clean, oil, and dust free condition. Insulation resistance readings should be presented at each survey. Safety and protection devices (overloads, reverse power, low voltage) should be tested at renewal survey.

4. Distribution circuits and wiring should be inspected visually and, at the attending surveyors discretion, insulation resistance readings may be required.

<u>Machinery Maintenance Records Check and Operational Functionality Testing</u> Propeller, Shaft Bearings, Rudder and Rudder Stock

Year 1/2/3/4

Part	Planned Maintenance Schedule	FT	MR	Remarks
Propeller				
Shaft and Bearings				
Rudder				
Stock				

- 1. Fishing vessels will normally be on a 4 year cycle.
- 2. Intermediate shaft bearing and thrust block to be included with shaft and bearings.
- 3. Propeller inspection may require NDT, and on variable pitch propellers the hub and operating mechanism will require opening for survey. This may be done at alternate renewal surveys if an operating test confirms the system to be satisfactory with no oil leaks.
- 4. Rudders (if of the hollow type) should be inspected immediately after docking and if water ingress is apparent then pressure testing (max 0.1 bar) should be carried out.
- 5. Sea water lubricated shafts should be inspected at each renewal survey. Oil or grease lubricated shafts may be inspected at alternate certificate renewal surveys if clearances and lubricating arrangements are satisfactory.
- 6. Rudder stocks should be inspected at renewal surveys. If clearances are satisfactory and at the attending surveyors discretion then this may be relaxed to alternate renewal surveys.

Tank Inspection Record

Year 1/2/3/4

International Fishing Vessel Certificate

Tank	Description	Volume (m3)	Date Inspected	Comments
1	Aft Peak Starboard			
2	Aft Peak Port			
3	Shaft Tank			
4	Dirty Oil			
5	Sewage			
6	Fresh Water			
7	Fresh Water			
8	Gas Oil			
9	Gas Oil			
10	Gas Oil			
11	Gas Oil			
12	Daily Service			
13	Daily Service			
14	Lube Oil			
15	Lube Oil			
16	Lube Oil			
17	Fresh Water			
18	Fresh Water			
19	Fore Peak			

Machinery Maintenance Records Check and Operational Functionality Testing Fishing Equipment

Fishing Equipment Type / Makers ΜR Location Drive FΤ Remarks Main Hauling Winch #1 Main Hauling Winch #2 Emergency Stops Net Drum Drive #1 Net Drum Drive #2 Gilson Winch Power Block Winch Controls Gauges & Indicators Hydraulic Hoses Brakes Guards Emergency Release

Year 1/2/3/4