



# Working Report Documents

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#### **Vessels:**

- 01 Bigga
- 02 Dagalien
- 03 Daggri
- 04 Filla
- 05 Fivla
- 06 Geira
- 07 Good Shepherd IV
- 08 Hendra
- 09 Leirna
- 10 Linga
- 11 New Advance
- 12 Snolda

#### **Questions:**

- 01 Berthing issues at each port for each vessel that serves them (e.g. tides, wind directions / speed etc.)
- 02 Overnight positioning and the reasoning for this
- 03 Seagoing operational issues – e.g. wind and significant wave height limitations etc.
- 04 Operational issues such as crewing arrangements and restrictions in this regard – i.e. how easy is it to add additional crew?

No	Vessel	Vessel Details
01	Bigga	 <p> Type: Ro - Ro vehicle and passenger ferry  Official number: 709505  MMSI: 232003606  IMO: 9000821  Year introduced: 1991  Builder: Millers, St Monans  Normal route: Bluemull sound Gutcher / Belmont /Hamars Ness  Alternative routes: Toft – Ulsta and Symbister – Laxo / Vidlin  Max. Passenger capacity: 96  Vehicle capacity (PCUs): 14  Commercial Vehicles: 2  Number of crew: 4/5  Length OA: 33.0 m  Beam: 10.1 m  Depth: 3.85 m  Max Draft: 2.61 m  DWT: 104.3 T  Displ. @ max draft: 404 T  GT: 274 T  NT: 82 T  Main Engines: 2 x Mitsubishi S6R2-T2MPTK  Total power: 2 x 640kW @1360 rpm  Propulsion: Twin propellers and rudders  Speed: 11 kts  Fuel consumption: 95 l/hr  Classification: MCA  Passenger certificates: UK CI IV (96 pax with 5 crew summer &amp; all year Gutcher / Belmont, 50 winter with 5 crew or 46 with 4), VI (75 pax with 5 crew or 46 with 4) &amp; VIA (50 pax) </p> <p> <b>Recent Work Carried out:</b>  New bow thruster motor fitted 2011  2 new main engines and remanufactured gearboxes 2014 </p>

02	Dagalien	<div> </div> <div> <p> Type: Ro - Ro vehicle and passenger ferry  Official number: 908546  MMSI: 235014766  IMO: 9291626  Year introduced: 2004  Builder: Stocznia Polnocna, Gdansk  Normal route: Toft / Ulsta  Alternative routes: None  Max. Passenger capacity: 144  Length of Car deck: 52.60  Vehicle capacity (PCUs): 31  Commercial Vehicles: 6  Number of crew: 5/6  Length OA: 65.36 m  Beam: 13.8 m  Depth: 5.6 m  Max Draft: 3.7 m  DWT: 325 T  Displ. @ max draft: 1436.38 T  GT: 1861 T  NT: 558 T  Main Engines: 2 x MAK 6M20  Total power: 1,200 kW @ 1,000 rpm  Propulsion: 2 x Azimuth thrusters  Estimated operating hours: 47,000  Speed: Operational 10.5 kts (full power 13.9 kts)   Fuel consumption: 204 l/hr  Classification: Lloyd's &amp; MCA  Pax certificates: EU B (95 pax with 5 crew or 144 pax with 6 crew) </p> </div> <div> <p><b>Recent Work Carried out:</b></p> <p>New engine monitoring system in 2014</p> </div>
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03

Daggri



Type: Ro - Ro vehicle and passenger ferry  
 Official number: 908547  
 MMSI: 235014768  
 IMO: 9291614  
 Year introduced: 2004  
 Builder: Stocznia Polnocna, Gdansk  
 Normal route: Toft / Ulsta  
 Alternative routes: None  
 Max. Passenger capacity: 144  
 length of Car Deck: 52.60m  
 Vehicle capacity (PCUs): 31  
 Commercial Vehicles: 6  
 Number of crew: 5/6  
 Length OA: 65.36 m  
 Beam: 13.8 m  
 Depth: 5.6 m  
 Max Draft: 3.7 m  
 DWT: 325 T  
 Displ. @ max draft: 1436.38 T  
 GT: 1861 T  
 NT: 558 T  
 Main Engines: 2 x MAK 6M20  
 Total power: 1,200 kW @ 1,000 rpm  
 Propulsion: 2 x Azimuth thrusters  
 Estimated operating hours: 47,000  
 Speed: Operational 10.5 kts (full power 13.9 kts)  
 Fuel consumption: 204 l/hr  
 Classification: Lloyd's & MCA  
 Passenger certificates: EU B (95 pax with 5 crew or 144 pax with 6 crew)

**Recent Work Carried out:**

New engine monitoring system in 2014

04 Filla



Type: Stern loading vehicle, freight and passenger ferry  
Official number: 906998  
MMSI: 235009928  
IMO: 9269192  
Year introduced: 2003  
Builder: Northern Shipbuilders, Gdansk  
Normal route: Vidlin and Lerwick to Skerries  
Alternative routes: Gutcher / Belmont / Hamars Ness, Toft / Ulsta, Laxo /  
Symbister, Lerwick / Bressay, West Burraferth / Papa Stour  
Max. Passenger capacity: 30  
Vehicle capacity (PCUs): 8  
Commercial Vehicles: 1  
Freight: 106 T  
Number of crew: 4  
Length OA: 35.5 m  
Beam: 9 m  
Depth: 4.2 m  
Max Draft: 3.05 m  
DWT: 158.72 T  
Displ. @ max draft: 559.4 T  
GT: 356 T  
NT: 106 T  
Main Engines: 2 x Mitsubishi S12R MPTA  
Total power: 2 x 671 kW @ 1,500 rpm  
Propulsion: Twin propellers and rudders  
Estimated operating hours: 50,400  
Speed: 9.5 kts  
Fuel consumption: 225 l/hr  
Classification: Lloyd's & MCA  
Passenger certificates: EU B

**Recent Work Carried out:**

MES removed 2013

05	Fivla	<div> </div> <p> Type: Ro - Ro vehicle and passenger ferry  Official number: 399400  MMSI: 232003596  IMO: 8410237  Year introduced: 1985  Builder: Ferguson Ailsa, Troon  Normal route: Relief vessel  Alternative routes: Gutcher / Belmont / Hamars Ness, Toft / Ulsta, Vidlin / Skerries, Lerwick / Skerries, Laxo / Symbister, Lerwick / Bressay, West Burrafirth / Papa Stour  Max. Passenger capacity: 95  Vehicle capacity (PCUs): 10  Commercial Vehicles: 1  Number of crew: 4/5  Length OA: 30.0 m  Beam: 9.0 m  Depth: 3.85 m  Max Draft: 2.612 m  DWT: 107.7  Displ. @ max draft: 335.7  GT: 230 T  NT: 69 T  Main Engines: 2 x Kelvin TASC8  Total power: 2 x 328 kW @ 1,200 rpm  Propulsion: Twin propellers and rudders  Estimated operating hours: 153,000  Speed: 9.5 kts  Fuel consumption: 95 l/hr  Classification: MCA  Passenger certificates: UK CI IV (95 pax summer, 92 winter with 5 crew or 46 with 4), VI (75 pax with 5 crew or 46 with 4) &amp; VIA (50 pax) </p> <p><b>Recent Work Carried out:</b></p> <p>None</p>
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06

Geira



Type: Ro - Ro vehicle and passenger ferry  
 Official number: 709493  
 MMSI: 232003604  
 IMO: 8712489  
 Year introduced: 1988  
 Builder: Dunston, Hessle  
 Normal route: Gutcher / Belmont / Hamars Ness  
 Alternative routes: Toft / Ulsta, Vidlin / Skerries, Lerwick / Skerries, Laxo / Symbister, Lerwick / Bressay, West Burrafirth / Papa Stour  
 Max. Passenger capacity: 96  
 Vehicle capacity (PCUs): 10  
 Commercial Vehicles: 1  
 Number of crew: 4/5  
 Length OA: 30.0 m  
 Beam: 9.0 m  
 Depth: 3.85 m  
 Max Draft: 2.612 m  
 DWT: 107.7  
 Displ. @ max draft: 335.7  
 GT: 230 T  
 NT: 69 T  
 Main Engines: 2 x Kelvin TASC8  
 Total power: 2 x 328 kW @ 1,200 rpm  
 Propulsion: Twin propellers and rudders  
 Estimated operating hours: 60,750  
 Speed: 9.5 kts  
 Fuel consumption: 95 l/hr  
 Classification: MCA  
 Passenger certificates: UK CI IV (96 pax summer, 92 winter with 5 crew or 46 with 4), VI (87 pax with 5 crew or 46 with 4) & VIA (50 pax)

**Recent Work Carried out:**

None



07

Good Shepherd IV



Type: Passenger & freight workboat

Official number: 709492

MMSI 232003605

IMO None

Year introduced: 1986

Builder: Millers, St Monans

Normal route: Grutness (& Lerwick) / Fair Isle

Alternative routes: Could technically operate on a number of routes across the network but would not happen in reality.

Max. Passenger capacity: 12

Vehicle capacity (PCUs): 1

Commercial Vehicles: 0

Max. Freight: 55.5 T

Number of crew: 3/4

Length OA: 18.3 m

Beam: 5.8 m

Depth: 3.168 m

Max Draft: 2.63 m

DWT: 54.2 T

Displ. @ max draft: 125.6 T

GT: 76.38 T

RT: 45.33 T

Main Engine: 1 x Volvo TMD 121C

Total power: 238.6 kW

Propulsion: Single propeller & rudder

Estimated operating hours: 20,300

Speed: 7 kts

Fuel consumption: 69 l/hr

Classification: MCA Workboat

Passenger certificates: No

#### Recent Work Carried out:

None

08 Hendra



Type: Ro - Ro vehicle and passenger ferry  
Official number: 399390  
MMSI: 232003598  
IMO: 8200254  
Year introduced: 1982  
Builder: McTay Marine, Bromborough  
Normal route: Laxo (or Vidlin)/ Symbister  
Alternative routes: Gutcher / Belmont / Hamars Ness, Toft / Ulsta , Vidlin / Skerries, Lerwick / Skerries, Lerwick / Bressay, West Burrafirth / Papa Stour  
Max. Passenger capacity: 95  
Vehicle capacity (PCUs): 12  
Commercial Vehicles: 1  
Number of crew: 5  
Length OA: 33.6 m  
Beam: 9.4 m  
Depth: 3.66 m  
Max Draft: 2.61 m  
DWT: 111.65 T  
Displ. @ max draft: 343.45 T  
GT: 248 T  
NT: 74 T  
Main Engines: 2 x Volvo Penta TAMD 165C  
Total power: 2 x 375 kW @ 1,800 rpm  
Propulsion: Twin propellers and rudders  
Estimated operating hours: 138,600  
Speed: 9.5 kts  
Fuel consumption: 95 l/hr  
Classification: MCA  
Passenger certificates: UK CI IV & VI (95 pax with 5 crew) & VIA (50 pax with 5 crew)

**Recent Work Carried out:**

Re-engined, new gearboxes and high lift rudders in 2005.

09

Leirna



Type: Ro - Ro vehicle and passenger ferry  
 Official number: 721710  
 MMSI: 232003597  
 IMO: 9050199  
 Year introduced: 1992  
 Builder: Ferguson, Port Glasgow  
 Normal route: Lerwick / Bressay  
 Alternative routes: None  
 Max. Passenger capacity: 124  
 Vehicle capacity (PCUs): 19  
 Number of crew: 4/5  
 Commercial Vehicles: 1  
 Length OA: 32.45 m  
 Beam: 10.7 m  
 Depth: 3.69 m  
 Max Draft: 1.998 m  
 DWT: 169.7 T  
 Displ. @ max draft: 420T  
 GT: 420 T  
 NT: 126 T  
 Main Engines: 2 x Mitsubishi S6B3-T2MPTAW-13  
 Total power: 2 x 640 kW  
 Propulsion: 2 x Voith Schneider units  
 Estimated operating hours: 144,900  
 Speed: 9.5 kts  
 Fuel consumption: 34 l/hr  
 Classification: MCA  
 Passenger certificates: UK CI IV (124 pax summer or 113 winter with 5 crew 80 pax with 4 crew)

#### Recent Work Carried out:

Re-engined 2013

10

Linga



Type: Ro - Ro vehicle and passenger ferry  
 Official number: 905270  
 MMSI: 235003893  
 IMO: 9242170  
 Year introduced: 2002  
 Builder: Stocznia Polnocna, Gdansk  
 Normal route: Laxo (or Vidlin)/ Symbister  
 Alternative routes: Gutcher / Belmont / Hamars Ness, Toft / Ulsta , Vidlin / Skerries, Lerwick / Skerries, Lerwick / Bressay, West Burrafirth / Papa Stour  
 Max. Passenger capacity: 95  
 Vehicle capacity (PCUs): 18  
 Commercial Vehicles: 1  
 Number of crew: 5  
 Length OA: 36.21 m  
 Beam: 10.8 m  
 Depth: 4.6 m  
 Max Draft: 3.19 m  
 DWT: 139 T  
 Displ. @ max draft: 636.5 T  
 GT: 658 T  
 NT: 197 T  
 Main Engines: 3 x Mitsubishi MPTKF gensets  
 Total power: 2 x 460 kW diesel electric  
 Propulsion: 2 x Azimuth thrusters  
 Estimated operating hours: 82,000  
 Speed: 10 kts  
 Fuel consumption: 150 l/hr  
 Classification: Lloyd's & MCA  
 Passenger certificates: EU B restricted - 95 passengers

**Recent Work Carried out:**

Buoyancy altered to comply with Stockholm Agreement 2011.

**11 New Advance**



Type: Workboat  
 Official number: 729345  
 MMSI: 232003607  
 IMO: 9086813  
 Year introduced: 1996  
 Builder: Richardson's Stromness  
 Normal route: Walls / Foula  
 Alternative routes: Grutness / Fair Isle, West Burrafirth / Papa Stour but unlikely to be used elsewhere.  
 Max. Passenger capacity: 12  
 Vehicle capacity (PCUs): 1  
 Commercial Vehicles: 0  
 Freight: 10 T  
 Number of crew: 3/4  
 Length OA: 9.75 m  
 Beam: 4.05 m  
 Depth: 2.31 m  
 Max Draft: 1.72 m  
 DWT: 21T  
 Displ. @ max draft:  
 GT: 21.35 T  
 RT: 6.95 T  
 Main Engines: 2 x Caterpillar 3304B  
 Total power: 2 x 63 kW  
 Propulsion: Twin propellers and rudders  
 Estimated operating hours: 12,000  
 Speed: 8 kts  
 Fuel consumption: 29 l/hr  
 Classification: MCA Workboat  
 Passenger certificates: Cargo Ship

**Recent Work Carried out:**

None

12	Snolda	<div> </div> <div> <p>Type: Stern loading vehicle and freight ferry</p> <p>Official number: 399394</p> <p>MMSI: 23200360 8</p> <p>IMO: 8302090</p> <p>Year introduced: 1983</p> <p>Builder: Sigbjorn Iverson, Norway</p> <p>Normal route: West Burrafirth / Papa Stour</p> <p>Alternative routes: Grutness / Fair Isle, Vidlin / Skerries, Lerwick / Skerries</p> <p>Max. Passenger capacity: 12</p> <p>Vehicle capacity (PCUs): 6</p> <p>Commercial Vehicles: 0</p> <p>Freight: 115 T</p> <p>Number of crew: 4</p> <p>Length OA: 24.4 m</p> <p>Beam: 7.0 m</p> <p>Depth: 3.8 m</p> <p>Max Draft: 3.362 m</p> <p>DWT: 150.6 T</p> <p>Displ. @ max draft: 292.9 T</p> <p>GT: 130.6 T</p> <p>RT: 49.56 T</p> <p>Main Engine: 1 x Volvo Penta D30A M5</p> <p>Total power: 1 x 445 kW @ 1,350 rpm</p> <p>Propulsion: Single propeller &amp; rudder</p> <p>Estimated operating hours: 97,000</p> <p>Speed: 9 kts</p> <p>Fuel consumption: 101 l/hr</p> <p>Classification: MCA</p> <p>Passenger certificates: Class VIIIA</p> </div> <div> <p><b>Recent Work Carried out:</b></p> </div> <div> <p>Re-engined in 2003</p> </div>
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The table below sets out the Shetland Islands Council fleet; the year in which each vessel was built; the scheduled replacement date (based on a 20 year lifespan); and comments on any problems or issues associated with the vessel.

<b>Vessel</b>	<b>Year Built</b>	<b>Scheduled Replacement Date (based on 20 years)</b>	<b>Comment</b>
Bigga	1991	2011	Vessel is beyond scheduled replacement date. Car capacity at peak times can be an issue and her cargo deadweight is restricted.
Dagalien	2004	2023	
Daggri	2004	2023	
Filla	2003	2023	
Fivla	1985	2005	Vessel is beyond her scheduled replacement date. Car capacity at peak times can be an issue.
Geira	1988	2008	Vessel is beyond her scheduled replacement date. Car capacity at peak times can be an issue.
Good Shepherd IV	1986	2006	Vessel is beyond her scheduled replacement date. The Good Shepherd IV also has limited manoeuvrability due to her single screw, whilst speed and passenger comfort are an issue on what is a very open and exposed route. The vessel also has a limited passenger and vehicle capacity.
Hendra	1982	2002	Vessel is beyond her scheduled replacement date. Car capacity at peak times can be an issue.
Leirna	1992	2012	Vessel is beyond her scheduled replacement date. Car capacity at peak times can be an issue. There are also seen to be some constraints in terms of power when operating in inclement weather.
Linga	2002	2022	The Linga is slightly more difficult to maintain and operate than some of the other vessels in the fleet (see sections below). The vessel can also be difficult to drive and significant crew training is required. Car capacity at peak times can be an issue.
New Advance	1996	2016	
Snolda	1983	2003	Vessel is beyond her scheduled replacement date, and is single screwed. Passenger capacity at peak times can be an issue.

01	Summary	<p><b>Bigga and Geira</b> are on Bluemull Sound serving Unst, Yell and Fetlar.</p> <p>Bigga is the shift vessel which operates for an 18 hr day 7 days a week, she operates by herself after 1745 hrs serving Unst, Yell and Fetlar. The hull design of the Bigga limits her cargo deadweight. By running the fuel tanks down, more cargo can be carried.</p> <p><b>Geira</b> is based in Fetlar and operates a split shift system working from 0655hrs to 1200hrs in summer (0655 to 0925 in winter) and 1430hrs to 1800hrs during the day Tuesday to Friday. The vessel has programmed life extension work in 2017/18, anticipated to be in the region of £1 million. The work will cover the generators, fire proof doors, deck coverings, bridge equipment replacement and replacement of bulkhead linings and steelwork integrity and corrosion survey.</p> <p>Mondays are the maintenance and drill days so this can lead to capacity problems as only one vessel operates for much of the day.</p> <p><b>Note:</b> Bigga and Geira previously operated on Yell Sound but were cascaded when the Daggri and Dagalien were brought into service.</p> <p><b>Hendra and Linga</b> operate the Laxo (or Vidlin) to Symbister service. Hendra operates Monday to Friday and Linga operates the shift vessel service 18 hrs per day, 7 days a week.</p> <p>Mondays and Wednesdays are the maintenance and drill days when one sailing at lunchtime is missed which may cause some backup with only one vessel operating at that time. This is similar to the weekends when only a single vessel is in operation.</p> <p><b>Hendra</b> has programmed life extension work for 2019/20, with an indicative budget of £1 million. The work will cover the generators, fire proof doors, deck coverings, bridge equipment replacement and replacement of bulkhead linings and steelwork integrity and corrosion survey.</p> <p><b>Linga</b> with her 2X Azimuth thrusters is difficult to drive when going through tidal streams but has good manoeuvrability at terminals. Masters and Mates are well trained but it can be a lengthy process until they are fully competent to operate her.</p> <p>The Power Management System on board will not be supported after 2018 and investigations are being commissioned to explore converting the vessel to Direct Drive with a dedicated engine for each of the 2 thrusters. The possible conversion has a budget for investigation and design of £100k in 2015/16, with the work itself scheduled for 2016/17 at an indicative cost of £2 million.</p> <p><b>Leirna</b> with her 2 X 640 KW Voiths has moderate power and can deal with most weather. At times the crew use springs to assist in berthing and departure. Masters and Mates do need training to manoeuvre her but this takes only about a week from novice to operational.</p> <p>Life extension work for the <b>Leirna</b> is scheduled for 2017/18 at an indicative cost of £800k. This will cover the generators, ballast tank steelwork, bulkhead linings and steelwork integrity and corrosion survey</p> <p><b>Good Shepherd IV</b> has only a single propeller and no thrusters so is hard to manoeuvre and due to her size is also pretty uncomfortable in bad weather. She is slow and can only carry 12 pax and small cars craned onto the hatch covers.</p> <p>Work required: Pipework replacement. This work has not yet been costed or budgeted as there is an intention to replace the vessel. Some replacement of the worst sections is being carried out as part of the annual overhaul when revenue budgets allow.</p> <p><b>Snolda</b> has reasonably good manoeuvrability (even though she only has one propeller) mainly due to the fact that she has a bow thruster to assist in berthing. Snolda only carries 12 passengers due to insufficient watertight subdivisions below the water line and is thus classed as a "non-international voyage cargo ship" or in other words a class VIIIA vessel.</p> <p>The relief vessel Fivla needs the same life extension work as Geira, with £500k budgeted in each of 2015/16 and 16/17.</p> <p>Problems have recently been discovered with rot in the timber beams and frames in the cargo hold on <b>New Advance</b>. The MCA has imposed a restriction on the weight of deck cargo and are</p>
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		insisting on repair of these by the end of 2015 at a cost of £30 - 40k but this has not been budgeted. Also the wheelhouse windows need replaced at a cost of c£10k.
02	Fuel	<p>All vessels in the fleet appear to be using MGO fuel and have passed all emission checks for certificate issue. Nevertheless if a vessel's engines are already using MGO (MDA) or LSMGO then they can also use ULSMGO without any issues/machinery modifications.</p> <p>LNG is even cleaner, but would require extensive modifications to the engines to be able to use it. Some OEM engine manufacturers have developed/designed some engines to run purely on LNG, but this is as far as the author is aware is only for new-builds, not conversions/retrofits as it would be too expensive, especially if the vessel is old. The capital expense would not justify the return, plus there would likely be a need to set up LNG storage shoreside or arrange for tanker deliveries.</p>
03	Challenges	<p>Daggri, Dagalien, Filla, Good Shepherd, Linga, Leirna, New Advance and Snolda have passenger accommodation on or above the vehicle deck. The only remaining vessels which have passenger accommodation below deck are Bigga, Fivla, Geira and Hendra.</p> <p>The regulations with regards to the situation of accommodation are set out below:</p> <p><b>SSC 220</b></p> <p>In ro-ro passenger ships, constructed before 1 July 1997, all access doors or hatchways to spaces below the ro-ro deck, which may be used at sea, are to have sills or coamings not less than 380 mm in height above the ro-ro deck, and are to be provided with doors or covers considered weather-tight in relation to their position, <u>refer to SOLAS regulation II-1/20-2 (94/95 Amendments)</u>.</p> <p>The ro-ro deck, referred to in the preceding paragraph is the deck above which the stern, bow or side doors are fitted, or the first deck above the load waterline.</p> <p>And:</p> <p><b>MEANS OF ESCAPE: Passenger Ships, Cargo ships and tankers (LS regulations 68, 84, and 101 and SS regulation 44)</b></p> <p><b>Accommodation below the weather deck.</b></p> <p>The two means of escape from each group of accommodation spaces situated between main bulkheads below the weather deck should be stairways as widely separated as possible. One stairway should provide direct access to the embarkation deck or higher deck and the other stairway should lead to the deck over or higher deck which provides access to the embarkation deck by means of internal stairways and/or doors in the boundaries of the deckhouses and the external ladders. However, if this is not practicable, the stairway which leads to the deck over or higher deck may be replaced by a trunked vertical ladder which provides the same degree of access. (See also the Instructions to Surveyors on application of the Merchant Shipping (Crew Accommodation) Regulations 1997, -paragraph 2.7 refers). In certain circumstances depending on the layout of the spaces under consideration and the position of the stairway, it may be necessary to provide two trunked vertical ladders, one port and one starboard in order to provide adequate means of escape from the group of spaces.</p> <p>The Council do not have exemptions as such for passenger accommodation under the car deck. However, their vessels, built pre 1<sup>st</sup> July 1998, have "grandfather rights" to continue to operate with equivalent conditions under UK legislation which allows passenger accommodation under the vehicle deck. These vessels are surveyed against standards and conditions of the Merchant Shipping (Passenger Ships on Domestic Voyages) Regulations 2000 by the UK administration (MCA). The vessels comply with this legislation by way of 2 means of escape, etc so do not require a formal exemption. These vessels could be excluded from operation in other EU Member States. When the Council specifies new build vessels, they must comply with EU legislation, which does not allow accommodation for passengers or crew below the weather deck.</p>
04	Question 1.	<b><i>Berthing issues at each port for each vessel that serves them (e.g. tides, wind directions / speed etc.)</i></b>

	<p><b>Belmont:</b> Southerly, SE, SW, Force 10 and high tide makes docking difficult, easier with low water as breakwater gives more shelter.</p> <p><b>Gutcher:</b> North Easterly to SE Force 10 and high tide makes docking difficult, easier with low water as breakwater gives more shelter.</p> <p><b>Hamars Ness:</b> Sheltered from all directions. Running between Gutcher, Belmont and also Hamars Ness can see tidal waves 2 to 3 M, with SE wind when tide is flowing due to tidal lumps with wind against tide.</p> <p><b>Ulst:</b> SE to S force 9 to 10 causes difficulty in getting vessel into overnight berth.</p> <p><b>Toft:</b> NE to ESE makes it difficult to berth at force 9 and above..</p> <p>Running between Ulsta and Toft can see tidal waves 2 to 3 M in areas if wind is NW and against ebb tide.</p> <p><b>Skerries:</b> Problem is entering into harbour at Skerries if wind is from N to SE as it sets up a rough sea, this can be a bouncy crossing with Force 7 to 9 winds NW to S clockwise.</p> <p><b>Whalsay to Laxo:</b> Due to Tide against a SE wind, the crossing to Laxo becomes very uncomfortable so vessels will divert to Vidlin when necessary.</p> <p><b>Bressay to Lerwick:</b> Berthing difficult at Lerwick in N to NE force 8+. Berthing at Bressay difficult SSW to NNW force 8+.</p> <p><b>Walls to Papa Stour:</b> NW winds create a bumpy crossing and a swell builds up at the entrance and terminal at Papa Stour.</p> <p><b>Fair Isle to Grutness:</b> This one is and can be one of the roughest crossings of any due to strong tides which run between Fair Isle and Shetland Mainland and depends on Masters' knowledge of area</p> <p><b>Grutness Pier:</b> Swell problems caused by NE to SE wind.</p> <p><b><i>Overnight positioning and the reasoning for this.</i></b></p> <p>A number of factors come into play as to the choice of port to lay up overnight. Clearly the operational route / timetable and weather effects are important criteria.</p> <p>In this regard, the decision to overnight relevant vessels where they are is a historic one, often intended to meet the needs of the smallest and most fragile communities, although this can present difficulties in recruiting qualified seafarers from small communities. The decision has served SIC well in that employment has been and is provided to some remote and vulnerable Shetland communities, whilst those local communities also buy into the service and its importance.</p> <p>It should be noted that only Daggri and Dagalien have certified crew berths on board. The Linga has comfortable crew berths below M/deck alongside the ER which are not certified but usable when the vessel is alongside. In addition, Fivla, Geira, Hendra and Bigga all have rudimentary bunks below M/deck but again they are not certified under MS (crew accommodation) regulations and should not really be used.</p> <p>The location of the overnight berth is a sensitive one and ties into the much wider socio-economic position of the community, whereby there are various community dependencies tied to the first &amp; last inbound &amp; outbound services each day.</p> <p>A further advantage of having crew and vessel on the same island is that both can respond quickly to local emergencies. Being remote, the islands and islanders do not have access to some emergency response facilities and equipment. As such, the majority of emergency situations require the standby crew from the island to attend the vessel and ship sick patients off island onwards to hospital in Lerwick. Obviously, if the vessels were stationed on the mainland there would be increased response times allowing for the time taken to sail to the island.</p> <ul style="list-style-type: none"> <li>• <b>Bigga</b> Berths overnight at Gutcher - the crew are locally based.</li> <li>• <b>Geira</b> Berths overnight at Hamars Ness, a sheltered berth from all directions but only room for one vessel on a layby berth. The crew is local.</li> </ul>
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		<ul style="list-style-type: none"> <li>• <b>Daggri and Dagalien</b> both berth overnight at Ulsta due to Toft having no breakwater and thus being too exposed. Each vessel has 5 cabins and 7 berths so do not rely entirely on local crew.</li> <li>• <b>Linga, Hendra and Filla</b> berth overnight at Symbister. Symbister is a sheltered harbour. The majority of the crews are local.</li> <li>• <b>Leirna</b> Berths overnight at Bressay. The Lerwick berth is equally suitable from an operational perspective during the majority of weathers, however due to its length, some 6M shorter than Leirna and Maryfield, it may not be suitable when experiencing strong N'ly winds. Also the Crew comes from Bressay.</li> <li>• <b>Snolda:</b> Berths overnight at West Burrafirth. All crew come from the Mainland</li> <li>• <b>Good Shepherd IV</b> is taken out of the sea onto a slip at Fair Isle. All crew stay in Fair Isle.</li> <li>• <b>New Advance</b> Operated by BK Marine Ltd. Based at Foula where she is lifted out of the water when not in use. Crewed by staff based on Foula (when on duty).</li> <li>• <b>Fivla</b> is a relief vessel so overnight port depends on service - If not in use, normally lays up at Sellaness</li> </ul> <p><b>Seagoing operational issues – e.g. wind and significant wave height limitations etc.</b></p> <p>As per section 04, Q 1 above</p> <p><b>2 Operational issues such as crewing arrangements and restrictions in this regard – i.e. how easy is it to add additional crew?</b></p> <p>Crewing: There appears to be no overmanning issues on these vessels in fact it appears that there are just enough crew to operate each vessel and service.</p> <p>If a crew member goes sick, is on leave, training or absent for other reasons, then that person has to be covered and to this end there are some “pool” sea staff employed. A lot of the leave is now fixed and the rosters are arranged in the main to negate the need for reliefs for those on planned leave. However at other times relief crew are frequently used and agency staff have been needed on occasions, especially Engineers.</p> <p><b>Appendix A – Route Distance (Nautical Miles)</b></p> <table border="1"> <thead> <tr> <th colspan="3">JOURNEY TIMES &amp; DISTANCE (Nautical Miles)</th></tr> </thead> <tbody> <tr> <td>Belmont / Gutcher</td><td>10 mins</td><td>1.1</td></tr> <tr> <td>Hamars Ness / Gutcher</td><td>25 mins</td><td>3.5</td></tr> <tr> <td>Hamars Ness / Belmont</td><td>25 mins</td><td>4</td></tr> <tr> <td>Symbister / Laxo</td><td>30 mins</td><td>5</td></tr> <tr> <td>Symbister / Vidlin</td><td>30 mins</td><td>7</td></tr> <tr> <td>Skerries / Vidlin</td><td>1 hr 30 mins</td><td>14</td></tr> <tr> <td>Skerries / Lerwick</td><td>2 hr 30 mins</td><td>23</td></tr> <tr> <td>Ulsta / Toft</td><td>20 mins</td><td>3</td></tr> <tr> <td>Bressay / Lerwick</td><td>7 mins</td><td>0.6</td></tr> <tr> <td>Papa Stour / West Burrafirth</td><td>40 mins</td><td>5</td></tr> <tr> <td>Foula / Walls (Scalloway)</td><td>2 hrs</td><td>16.5</td></tr> <tr> <td>Fair Isle / Grutness</td><td>2 hr 40 mins</td><td>25</td></tr> <tr> <td>Fair Isle / Lerwick</td><td>5 hrs</td><td>43</td></tr> </tbody> </table>	JOURNEY TIMES & DISTANCE (Nautical Miles)			Belmont / Gutcher	10 mins	1.1	Hamars Ness / Gutcher	25 mins	3.5	Hamars Ness / Belmont	25 mins	4	Symbister / Laxo	30 mins	5	Symbister / Vidlin	30 mins	7	Skerries / Vidlin	1 hr 30 mins	14	Skerries / Lerwick	2 hr 30 mins	23	Ulsta / Toft	20 mins	3	Bressay / Lerwick	7 mins	0.6	Papa Stour / West Burrafirth	40 mins	5	Foula / Walls (Scalloway)	2 hrs	16.5	Fair Isle / Grutness	2 hr 40 mins	25	Fair Isle / Lerwick	5 hrs	43
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