

Rpt. 9

Date of writing report 7-11-58

Survey held at Glasgow

Received London

No. of visits 31

Port Glasgow

First date 6-8-58

Last date 3-12-58

No. 89407

# REPORT OF PERIODICAL SURVEYS & REPAIRS OF MACHINERY

No. in R.B. 59623 Name **TWIN S.S. "EMPIRE SHEARWATER"** Gross tons 4285 Date of build 1945  
Owners **Ministry of Transport & Civil Aviation Managers European Ferries Ltd** Port of Registry **Dover**  
Engines made 1945 By **Geo. Clark (1938) Ltd** Type **T. 8 cyl**  
No. of Main Engines 2 No. of Screws 2  
No. of Main Boilers 2 WTB.W.P. 225 lb  
No. of Aux./Donkey Boilers — W.P. —  
Surveyed Afloat or in Dry Dock **Afloat and in Dry Dock**  
Nature of Survey **Classification**  
Was Damage Report issued? **No** Int. Cert. **Yes**  
Last Report (For Head Office only)

Records of Survey & Special Notations as per Register Book

Hull	Machinery
<b>T.S. Transport Ferry</b>	
<b>LF. for GH</b>	<b>OF</b>

The condition of any of the following items is to be described as "good" only when the part has been examined, found or placed in good condition, and is considered to be acceptable until the due date of the next Periodical Examination. Where it is considered that re-examination or repairs should be effected before the due date of the next Periodical Examination a distinguishing mark thus † should be inserted against the item and the circumstances and action recommended described fully under "defects and repairs". At part or complete Special Surveys those items which are not applicable to the ship should be cancelled with a black line; this need not be done when the machinery is on a continuous survey basis. When any part has been subjected to pressure test this should be stated. Engine parts when referred to by numbers should be counted from forward.

DOCKING Propellers (2) <b>good</b>	Wear Down of Stern Bushes <b>Port 6/1000 Star 3/1000</b>	Glands (2) <b>good</b>	Sea Connections <b>good</b>
Fastenings <b>good</b>	Has Screwshaft Tube been drawn? <b>Yes - both</b>	Date of Examination <b>8-8-58</b>	Has Shaft been changed? <b>No</b>
Has Shaft now fitted been previously used? <b>—</b>	Has Shaft now examined/fitted a continuous liner? <b>no</b>	Approved oil gland? <b>Yes</b>	
MAIN ENGINES (Recip. Steam or I.O.)	PORT	STARBOARD	
1 Cyls., Covers, Pistons & Rods	<b>all good</b>	<b>all good</b>	
2 Valves & Gears	<b>all good</b>	<b>all good</b>	
3 Connecting Rods, Top Ends & Guides	<b>all good</b>	<b>all good</b>	
4 Crankpins & Bearings	<b>all good</b>	<b>all good</b>	
5 Journals & Bearings	<b>all good</b>	<b>all good</b>	
<del>MAIN ENGINE DRIVEN AIR COMPRESSORS</del>			
<del>1 Cyls., Covers, Pistons &amp; Rods</del>			
<del>2 Connecting Rods &amp; Top Ends</del>			
<del>3 Crankpins &amp; Bearings</del>			
<del>4 Journals &amp; Bearings</del>			
<del>5 Coolers &amp; Safety Devices</del>			
<del>MAIN ENGINE DRIVEN SCAVENGE PUMPS</del>			
<del>1 Cyls., Covers, Pistons &amp; Rods</del>			
<del>2 Connecting Rods &amp; Top Ends</del>			
<del>3 Crankpins &amp; Bearings</del>			
<del>4 Journals &amp; Bearings</del>			
<del>5 Lovers</del>			
<del>SCAVENGE BLOWERS</del>			
<del>SUPERCHARGERS</del>			
<del>MAIN TURBINES</del>			
<del>18 Casings, Rotors, Blading, Bearings &amp; Thrusts</del>			
<del>19 EXHAUST STEAM TURBINES (WITH RECIP. ENGINES)</del>			
<del>20 STEAM COMPRESSORS</del>			
<del>21 CLUTCHES &amp; HYDRAULIC COUPLINGS</del>			
<del>22 REDUCTION GEARING</del>			
23 THRUST BLOCKS, SHAFTS & BEARINGS	<b>good</b>	<b>good</b>	
24 INTERMEDIATE SHAFTS & BEARINGS	<b>good</b>	<b>good</b>	
25 HOLDING DOWN BOLTS & CHOCKS	<b>good</b>	<b>good</b>	
26 CONDENSERS (MAIN & <del>—</del> )	<b>main-good-water tested</b>	<b>main-good-water tested</b>	
27 STEAM REHEATERS	<b>Deteller Condenser - good</b>		
28 DE-SUPERHEATERS	<b>good</b>	<b>good</b>	
29 STOP & MANOEUVRING VALVES			
30 <del>MAIN ENGINE DRIVEN PUMPS</del>			
31 <del>CRANKCASE DOORS &amp; EXPLOSION RELIEF DEVICES</del>			

## OPINION OF MACHINERY AND RECOMMENDATIONS

The machinery of this vessel so far as now seen is in safe working condition and eligible in my opinion to be classed in the Register Book + LMC with records of E.S. 12/58, MBS 10/58, TS (OG) 10/58 & SPS 10/58. (See Rpt 8 of 12/58)

GLASGOW 10 FEB 1959

GLASGOW 16 DEC 1958

Date of Committee Decision **Assign + LMC E.S. 12-58**

**TS.09 (P.S.) 10-58 MBS 10-58 SPS 10-58**

Noted for Header

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P. Brooke  
Engineer Surveyor to Lloyd's Register of Shipping  
R.H.  
10.3.12-58

003245-003251-0181



32 Essential Independent Pumps (Identify by position) *Port and Star Main Circ, Port and Star Air, Bilge and Ballast - Good comp. 2 aft Compit.*  
*Port Ford, Port aft, Star Ford, Star aft, Feed, Port and Star OF unit pumps, P.S. OF Transfer, P.S. Ballast, P.S. Mains - Oil bilge pump, P. and S. General Service, P.S. Bilge ejectors.*  
 33 Bilge, Ballast & Oil Fuel Suction Lines, Fittings & Controls *all good*

34 Have the remaining Piping Arrangements & Fittings in the machinery space been examined as considered necessary? *Yes*  
 35 Fresh Water Coolers *36 Lub. Oil Coolers*  
 35 Independent Air Compressors, Coolers & Safety Devices *aft generator compartment - good - Fan Flat - good.*  
 39 Air Receivers & Safety devices *40 Auxiliary*  
 41 Oil Fuel Tanks (Not forming part of hull structure) *P. & S. OF sett. Tanks - good.*  
 42 Evaporators *Good - (Port Side only).*  
 43 Have Evaporator Safety Valves been tested under steam? *Yes*  
 44 Steering Machinery *Good*  
 45 Windlass *Good*  
 46 Fire Extinguishing Arrangements *Good.*

AUXILIARY ENGINES (Identify by position) *Port and Star Steam Dynamos - good.*  
*Diesel generator engine on Fan Flat - good.*  
*Diesel generator engine in aft Compartment - good.*

ELECTRICAL EQUIPMENT			
PROPULSION	PORT	STARBOARD	AUXILIARY EQUIPMENT
a Generators			Generators & Governors <i>GOOD</i>
b Exciters			
c Air Coolers			Motors <i>GOOD</i>
d Motors			
e Air Coolers			Switchboards & Fittings <i>GOOD</i>
f Control Gear, Cables, etc.			Circuit Breakers <i>GOOD</i>
g Insulation Resistance			Cables <i>GOOD</i>
h Insulating Oil Test			Insulation Resistance <i>GOOD</i>
i Overspeed Governors			Steering Gear Generators and Motors
j Magnetic Couplings			Navigation Light Indicators <i>GOOD</i>
k Air Gap			

BOILERS OPENED UP & EXAMINED (Identify by position and state latest date of internal examination of each boiler)  
 MAIN *Port - 8-8-58 - good, Star - 20-8-58 - good* ~~AUXILIARY, DONKEY or PRESS~~  
 Superheaters  
 Safety Valves *Port and Star - good*  
 Mountings, Doors & Fastenings *Port and Star - good*  
 Safety Valves Adjusted to *Sat 225 lbs - both boilers on 29-10-58.*  
 Boiler Securing Arrangements *Port and Star - good*  
 Main Economisers  
 Steam Heated Steam Generators *Steam Generator Safety Valves Adjusted to*  
 Were Oil Burning System & Remote Controls examined working in accordance with Rules? *Yes*  
 Have Saturated Steam Pipes in cylindrical boiler smoke boxes been examined as required by Rules? *Funnel Satisfactory*

EXAMINATION & TESTING OF STEAM PIPES (State material)  
 Main *Steel - good - tested to 450 lbs*  
 Auxiliary (over 3 in. bore) *Steel - good - tested to 450 lbs*  
 Were Copper Pipes annealed? *Have Saturated Pipes in cylindrical boiler smoke boxes been tested?*

PARTICULARS OF DEFECTS & REPAIRS, ETC. (Damage repairs should be detailed separate from wear and tear repairs; state what action has been taken regarding items which are subjects of class)  
*Wear and tear repairs carried out on boiler mountings, and main and auxiliary machinery.*  
*Hydraulic tests carried out on port and star. boilers.*  
*Star Evaporator blanked off complete.*  
*Port aft and star Ford steam dynamos disconnected from electrical system completely.*  
*The main engine crankshaft journals and crankpins (Port and Star) found to be somewhat corroded but they are considered to be in safe condition. It is recommended that the following note be made in the Appendix to S.R.L. :- M.E. crankshaft journals and crankpins corroded.*  
*The main engines were built under survey of the Society's Surveyors - See Sunderland Rpt. 34130.*  
*The boilers were built and the machinery and boilers installed under survey of the British Corporation Register of Shipping and Aircraft - See B.C. Rpt. 3706.*  
*Basin and Sea Trials carried out satisfactorily and witnessed.*

LEAVE THIS SPACE BLANK

Survey fees *ES. £97-0-0*  
*MBS. £42-0-0*  
*TS. £15-0-0*  
 Electrical *£37-10-0*  
*SPS £15-0-0*  
 Damage for Special attendance *£4-4-0*  
 Expenses... *£3-2-0*

Date when A/c rendered