

TRD 1443

Rpt. 17 (b)

7 AUG 1958

Date of writing Report 8.7.58.

Received London

Port Liverpool.

No. 149787

Survey held at

No. of visits

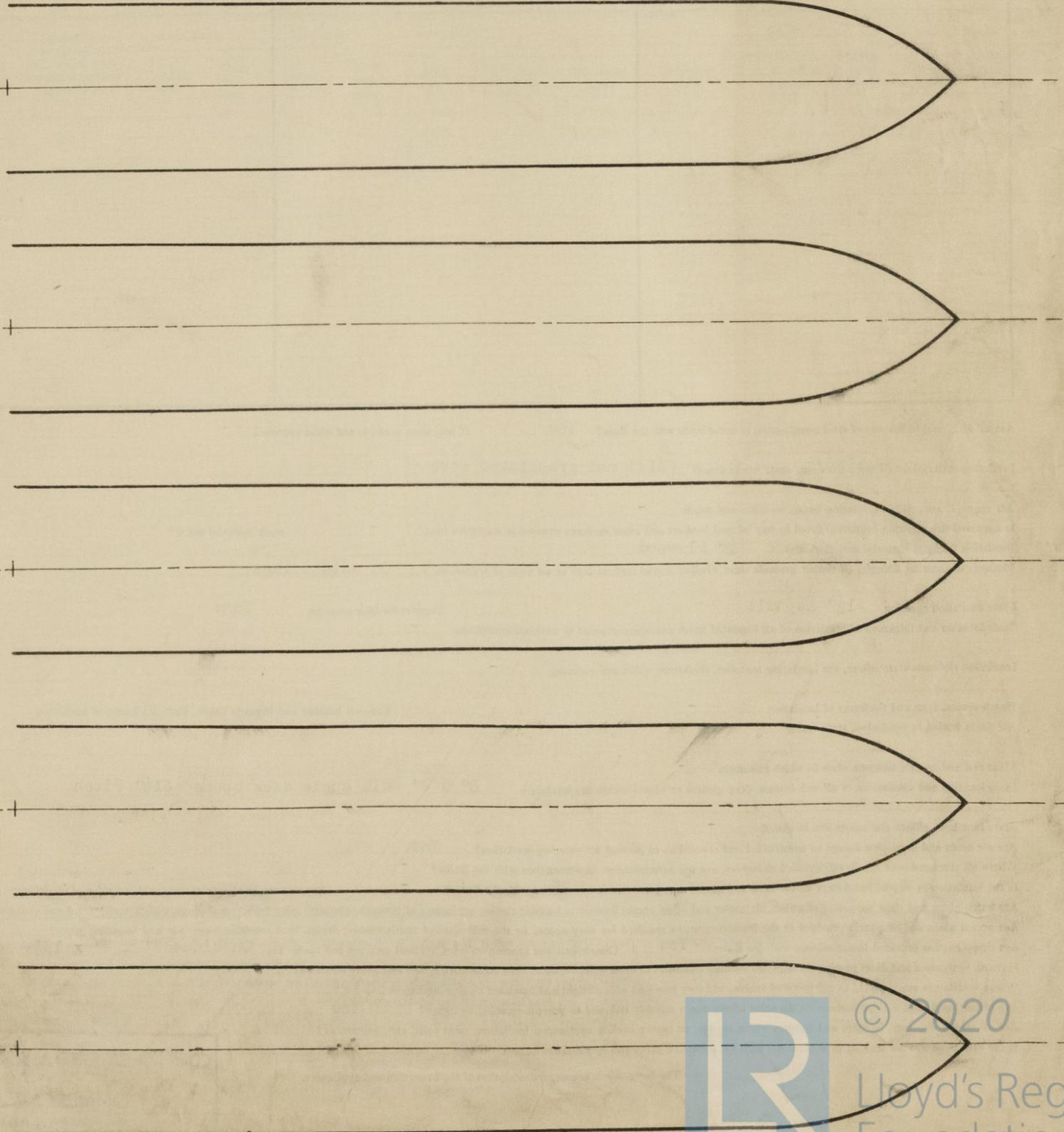
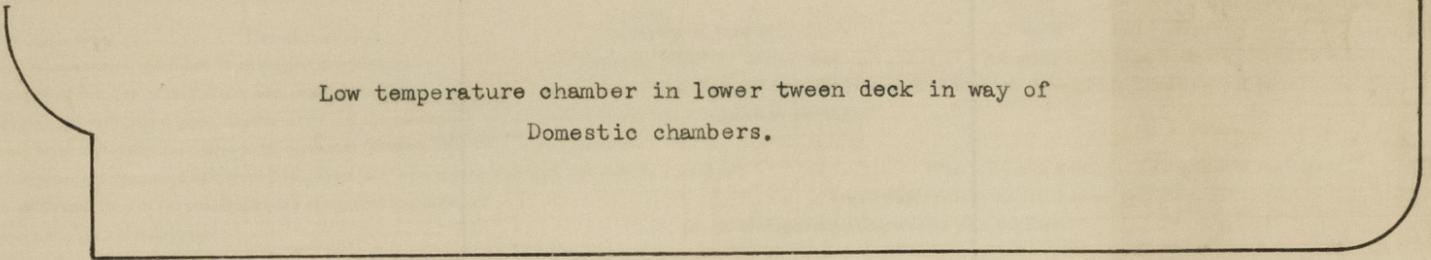
First date 9.6.1958

Last date 18.6.1958

# REFRIGERATED CARGO INSTALLATION—REPORT ON INSULATION WORK, ERECTION OF PLANT ON BOARD AND TESTS AFTER COMPLETION

No. in R.B. 13567 Name s.s. "HILARY" Gross tons 7415  
 Built at Birkenhead By whom Cammell Laird & Co. Ltd. Yard No. -  
 Owners Booth S.S. Co. Ltd. Port of Registry Liverpool.  
 Refrigerating Machinery made by J. & E. Hall Ltd. Machine Nos. No additional machinery fitted When made 4.56  
 Insulation fitted by Cork Insulation and Asbestos Co. Ltd. Total No. of Chambers 1 (Additional)  
 Total refrigerated cargo capacity measured in accordance with Society's requirements 510 cu. ft.

Position and boundaries in elevation and plan of each refrigerated cargo chamber, main and refrigerating machinery space(s), evaporator and brine rooms, and cooler houses to be shown by inserting decks and bulkheads in the diagrams. The frame numbers to be shown at each transverse bulkhead. The decks to be clearly marked in elevation and plan. Insulation to be shown by a line (preferably in colour) on the appropriate side or sides of decks and bulkheads. Oil storage tank tops and bulkheads adjoining refrigerated chamber(s) also to be shown. (If desired, a separately prepared diagram sheet may be attached by paste or staples provided the size is not greater than that below, all the required particulars are shown and the sheet is signed by the Surveyor.)



© 2020  
 Lloyd's Register  
 Foundation

INSULATION OF BOUNDARIES EXPOSED TO EXTERNAL CONDITIONS

In cols. (1) identify each chamber by position (e.g. No. 2 UTD PORT) with each of its exposed surfaces immediately below (e.g. ships side, overheading, etc.), where the size of frames etc., change on any surface, give frame Nos. (e.g. Fms. 102 to 109) applicable to each size, on separate lines. Depth of insulation in cols. (3) to exclude any air space, linings, etc.

(1) Chamber(s) and Boundary	(2) Frames, reverse frames, beams, stiffeners, etc., within insulation			(3) Depth of Insulation fitted	(1) Chamber(s) and Boundary	(2) Frames, reverse frames, beams, stiffeners, etc., within insulation			(3) Depth of Insulation fitted
	Pitch ins.	Width of face ins.	Depth ins.			Pitch ins.	Width of face ins.	Depth ins.	
Low Temp. chamber in lower tween store room spaces, Frames Nos. 49-54.									
Deck Over	-	B.A.	8	12					
Port'd B'head	-	A.L.	10	12					
Aft B'head	-	A.L.	7	9					
Port B'head	-	A.L.	10	12					
Starb'd B'head	-	A.L.	7	9					
Deck	-	-	-	7 1/2"					1 1/2" Asphalt.

refrigerating units Can each unit operate on all chambers? if not, state how connected

Where specified in the Rules, is the machinery isolated in an efficiently ventilated compartment? Report No.

For particulars of refrigerating machinery see

Diagrammatic sketch sufficient to show relative position (port or starboard, fore or aft) of each compressor, condenser, evaporator (brine cooler), condenser cooling pumps, and brine pumps.

CONDENSER COOLING PUMPS No. Capacity of each lit./min. galls/hour at head of kg./cm<sup>2</sup>. lbs/in<sup>2</sup>. B.H.P. of driving motors

Are safety valves fitted where required by the Rules? No. of sea connections

BRINE PUMPS No. Capacity of each lit./min. galls/hour at head of kg./cm<sup>2</sup>. lbs/in<sup>2</sup>. B.H.P. of driving motors

Are safety valves fitted where required by the Rules? Brine system "open" or "closed" type

If brine pipes and tanks are galvanized on brine side, is ventilation provided as per Rules?

Are thermometers fitted to brine delivery and each return pipe?

Are steel brine and refrigerant pipes, cooling grids and air cooler coils galvanized externally where required by the Rules?

How are the brine and refrigerant steel pipes connected (flanges, butt welds, screw joints, etc.)

Where brine pipes are connected by screwed couplings, are the coupling and back nut threads a good fit? What is the pipe thickness at the bottom of the thread?

Are the screw threads clear of the coupling coated as required by the Rules? Are air cooler coils parallel to or across the air stream?

Is provision made for air refreshing? if so, are the arrangements in accordance with the Rules?

Is provision made for defrosting air cooler coils and/or cooling grids in chambers?

PARTICULARS OF COOLING APPLIANCES IN EACH CHAMBER

Chamber(s)	Capacity measured in accordance with Society's requirements cu. ft.	Roof grids		Side grids		Battery coils		FANS						
		Length in ft.	No. of sections	Length in ft.	No. of sections	Length in ft.	No. of sections	Number	Maximum RPM	Minimum RPM	Cubic ft. of air per minute at maximum RPM	Static water gauge ins.	BHP of fan motor	Motor inside or outside insulated envelope
Temp. Chamber	510	-	-	-	-	550	2	1	2,500	-	600	1/2"	1/4"	External

Are all divisional bulkheads of steel construction in accordance with the Rule? Yes If not, state position and when approved

Insulating material (s) (if more than one, state where fitted) Slab and granulated cork

Air space, if any, within insulation lining, position and depth -

Is approved fire resisting insulation fitted in way of coal bunkers and other surfaces exposed to excessive heat? - State material fitted

Insulation lining(s) material and thickness 3/4" Plywood

Methods of securing lining(s) (if timber grounds state whether across face, on face or on sides of frames etc.) On welded lugs

Floor insulation covering 1 1/2" Asphalt Support for floor covering None

State location and thickness of insulation of all insulated hatch coamings exposed to external conditions.

Insulation ribbands state where, the insulating material, thickness, width and covering -

Hatch covers, type and thickness of insulation - Exposed loading and tonnage doors, state thickness of insulation -

Air ducts buried in insulation, state where -

Meat rail and/or grid hangers, state in which chambers -

State location and dimensions of all web frames, deep girders or beams within the insulation 3" x 3" Bulb angle deck beams 31 1/2" Pitch

State how hold pillars and masts are insulated -

Are air ducts and insulation linings so constructed and erected as to prevent air entering insulation? Yes

Where oil storage tanks adjoin refrigerated chambers, are the arrangements in accordance with the Rules? -

Is the insulation in way of hatchways on the tank and tunnel tops protected in accordance with the Rules? - Are screens fitted over cooling grids on sides of chambers? -

Are hatch plugs and their supports; chamber, air cooler and other access doors and frames; closing appliances of tonnage openings; bilge limbers and plugs, satisfactorily fitted and airtight? Yes

Are access plugs and/or panels provided in the insulation where required for easy access to the bilges, bilge suction roses, drains, tank manhole doors, air and sounding pipes? -

Are cargo battens provided in accordance with the Rules? Yes Dimensions and spacing on sides, vertical surfaces and tunnel top On sides 2" x 2" x 12"

Have all ventilators and ducts passing through refrigerated chambers to other compartments been made airtight and efficiently insulated? -

Where ventilators are provided to refrigerated spaces, are they provided with airtight and insulated closing appliances? Yes

Are insulation linings and air screens on the sides of chambers suitably stiffened to prevent crushing by cargo? Yes

Are all steel bolts, nuts, hangers and fixtures which support or secure cooling appliances, insulation, meat rails, etc., galvanized? Yes

Is the insulation and air ducting in accordance with the approved plans and specification? Yes

The foregoing is a correct description of the insulation and appliances.

Are air cooler fans reversible? Yes Is access to the refrigerating plant including air cooler fans and their motors, in accordance with the Rules? Yes

Can each section of air cooler coils and chamber grids be readily isolated? Yes

Where cooling pipes pass through watertight bulkheads or deckplating, are the fittings and gland packing both watertight and fire resisting? Yes

PRIMARY REFRIGERANT PIPING (not fabricated at Plant Makers Works) internal diameter and thickness of each size Suction 1 1/4" x 7 w.g. steel, 1 1/2" x 15 w.g. copper

Liquid and expansion 3/4" x 13 w.g. copper, Defrosting 3/4" x 17 w.g. copper.

Material Steel & copper How manufactured Solid drawn Pressure tests 350

Pressure tests after erection 300

kg./cm<sup>2</sup>. lbs/in<sup>2</sup>. gas or air. Brine system pressure test on completion Direct expansion.

CORK INSULATION & ASBESTOS Co. Ltd.  
130, COMMERCIAL ROAD,  
LIVERPOOL 5.  
Tel. NORTH 0555/6

© 2020  
Lloyd's Register  
Foundation  
0176 2/2

