

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office
 Date of writing Report 19 When handed in at Local Office 17.5.1943 Port of Glasgow 19 MAY 1943
 No. in Survey held at Glasgow Date, First Survey 26.2.1943 Last Survey 11.5.1943
 Reg. Book 37505 on the s/s. "Empire Favour" (Number of Visits 24)
 Tons { Gross 7056
 Net 4917
 Built at Dundee By whom built Caledon S.B. & F. Co. Ltd Yard No. 441 When built 1945
 Engines made at Glasgow By whom made Duncan Stewart & Co. Ltd Engine No. 217 When made 1943
 Boilers made at Dundee By whom made Caledon S.B. & F. Co. Ltd Boiler No. B.S. 100 When made 1945
 Registered Horse Power 2500 Owners Ministry of War Transport Port belonging to Dundee
 Nom. Horse Power as per Rule 510 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute
 Dia. of Cylinders 24½"-39"-70" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 14¾" Crank pin dia. 14¾" Mid. length breadth 22" Thickness parallel to axis 9"
 as fitted 14¾" Crank webs shrunk Mid. length thickness 9" Thickness around eye-hole 6¾"
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as fitted
 as fitted
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule Is the { tube } shaft fitted with a continuous liner {
 as fitted
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the
 as fitted propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive
 If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube
 at If so, state type Length of Bearing in Stern Bush next to and supporting propeller
 Propeller, dia. Pitch No. of Blades Material whether Moveable Total Developed Surface sq. feet
 Feed Pumps worked from the Main Engines, No. none Diameter - Stroke - Can one be overhauled while the other is at work -
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 27" Can one be overhauled while the other is at work yes
 Feed { No. and size Pumps connected to the { No. and size
 Pumps { How driven Main Bilge Line { How driven
 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps:—In Engine and Boiler Room
 In Pump Room In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
 Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Overboard Discharges above or below the deep water line
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
 What Pipes pass through the bunkers How are they protected
 What pipes pass through the deep tanks Have they been tested as per Rule
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
 compartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers
 Which Boilers are fitted with Forced Draft Which Boilers are fitted with Superheaters
 No. and Description of Boilers Working Pressure
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?
 IS A DONKEY BOILER FITTED? If so, is a report now forwarded?
 Can the donkey boiler be used for domestic purposes only
 PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers
 (If not state date of approval)
 Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied only as per list attached
 State the principal additional spare gear supplied

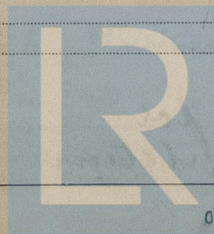
The foregoing is a correct description.

DUNCAN STEWART & CO. LTD.

Frank B. Hendley

Director

Manufacturer.



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Lloyd's Register
Foundation

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During progress of work in shops -- { 1942 Feb 26 Jun 8 Sep 9 Oct 9 23 Nov 10 Dec 22 1943 Jan 19 22 Feb 1 5 17 23 Mar 1 10 19 24 Apr 2 13 31 29 May 3 4 11 }
Dates of Survey while building {
During erection on board vessel --- {
Total No. of visits 24

Replace MP-24-3 -43
Dates of Examination of principal parts - Cylinders HP & LP 5-2-43 Slides 1-2-43 Covers 9-9-42
Pistons 9-9-42 Piston Rods 19-3-43 Connecting rods 23-2-43
Crank shaft 17-2-43 Thrust shaft Intermediate shafts
Tube shaft Screw shaft Propeller
Stern tube Engine and boiler seatings Engines holding down bolts
Completion of fitting sea connections
Completion of pumping arrangements Boilers fixed Engines tried under steam
Main boiler safety valves adjusted Thickness of adjusting washers
Crank shaft material J. steel Identification Mark L 11385 * Thrust shaft material Identification Mark
Intermediate shafts, material Identification Marks 17-2-43 Tube shaft, material Identification Mark
Screw shaft, material Identification Mark Steam Pipes, material Test pressure Date of Test
Is an installation fitted for burning oil fuel Is the flash point of the oil to be used over 150° F.
Have the requirements of the Rules for the use of oil as fuel been complied with
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with
Is this machinery duplicate of a previous case yes If so, state name of vessel Armistead, United States L. A. No. 519. GL Rep. No. 66911
General Remarks (State quality of workmanship, opinions as to class, &c.)

* In addition, all the original identification marks are stamped on each forging, as per reports attached.
The materials and workmanship are good.
The engines have been constructed under special survey and in accordance with the M.S. specification. Upon satisfactory completion of fitting in the vessel and of trials they will, in my opinion, be eligible for classification and the record L.M.C. (with date).

All the requirements of the specification for engines working with superheated steam have been complied with except that insulation under cylinders has been omitted to enable them to be lifted for transport. Insulation to be fitted after erection in the vessel.

These engines will be stored at the L.M.S. London Road Mineral Station, Glasgow.

For installation of this machinery see Dundee report No. 9497
Thrust, Intermediate and Screw shafting see Newcastle-on-Tyne report No. 103008. also London letter of the 9/11/45.
G. S. Murdoch Glasgow - 1945

The amount of Entry Fee ... £ 6 : : When applied for, 18 MAY 1943
Special ... £ 50 : 5 : :
+ SPECIFICATION FEE
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : :
When received, 19

Committee's Minute GLASGOW 18 MAY 1943 20 NOV 1945

Assigned Refused for completion 18/9

S. L. Davis
Engineer Surveyor to Lloyd's Register of Shipping.

GLASGOW REPORT No.

67087

DUNCAN STEWART & CO. LD LIST OF SPARES FOR ENGINE N° 146.217				
DESCRIPTION	DRAWING N°	ITEM	N° OFF	REMARKS
MAIN BEARING BOLTS WITH FEATHER.	4A	C	2	
MAIN BEARING BOLT NUTS TOP BRIGHT.	4A	D	2	
MAIN BEARING BOLT NUTS BOTTOM BLACK.	4A	E	2	
CONNECTING ROD, BOTTOM END BUSH TOP HALF.	8	B	1	
CONNECTING ROD, BOTTOM END BUSH BOTTOM HALF.	8	C	1	
CONNECTING ROD, BOTTOM END BOLTS.	8	D	2	
CONNECTING ROD, BOTTOM END BOLT NUTS.	8	E	2	
CONNECTING ROD, SET PINS 5/8 DIA. AS DETAILED.	8	G	2	
CONNECTING ROD, BOTTOM END LINERS.	8	J	2 SETS	BRASS & TIN.
CONNECTING ROD, TOP END LINERS.	8	K	2 SETS	BRASS & TIN
CONNECTING ROD, TOP END HALF BUSH.	8	L	2	
CONNECTING ROD BOLTS, TOP END.	8	N	2	
CONNECTING ROD, TOP END BOLT NUTS.	8	O	2	
JUNK RING STUDS & NUTS WITH SPLIT PIN.	9	K	6	
JUNK RING STUD WASHERS.	9	L	6	
H.P. COVER STUDS & NUTS.	9	M	3	
M.P. & L.P. COVER STUDS & NUTS.	9	N	3	
RINGS FOR H.P. PISTON.	9	V	1 SET	SUPPLIED BY CAMPBELL & BANKS.
M.P. CASING COVER STUDS & BRIGHT NUTS.	9A	G	3	
H.P. CASING COVER STUDS & BRIGHT NUTS.	9A	H	3	
H.P. PISTON VALVE PACKING RINGS, TOP.	10	E	1 SET.	SUPPLIED BY CAMPBELL & BANKS.
H.P. PISTON VALVE PACKING RINGS, BOTTOM.	10	F	1 SET.	SUPPLIED BY CAMPBELL & BANKS.
KINGHORN VALVES FOR AIR PUMP.	12	E	6 SETS	
KINGHORN VALVES FOR BILGE PUMP VALVE CHESTS.	16	J	2 SETS	To accompany 1st entry report
VALVE SEAT FOR BILGE PUMP VALVE CHESTS.	16	K	2	
VALVE GUARD FOR BILGE PUMP VALVE CHESTS.	16	L	2	
VALVE STUD WITH NUT & SPLIT PIN FOR BILGE PUMP CHESTS.	16	M	2	
METALLIC PACKING FOR PISTON RODS.	-	-	1 SET OF	UNITED STATES WEARING PARTS METALLIC PACKING CO.
T&K TYPE MECHANICAL LUBRICATORS	-	-	5 SIGHT FEED GLASSES 1 FILLING GLASS.	J & W KIRKHAM, LTD