

REPORT ON OIL ENGINE MACHINERY

No. 18413.

17 JUN 1925

Dundee 8338

Received at London Office

Date of writing Report 2/6 1925 When handed in at Local Office 9/6/1 1925 Port of Greenock

No. in Survey held at Greenock Date, First Survey 11th September, 1924 Last Survey 11th June 1925

on the Single } Screw vessels MV "Achelchief" Tons { Gross
Twin } Net

Master Built at Dundee By whom built Baldou 1867 Yard No. 294 When built 1925

Engines made at Greenock By whom made John & Nicaid Ltd Engine No. 116 When made 1925

Monkey Boilers made at ditto By whom made John & Nicaid Ltd Boiler No. 116 When made 1925

Indicated Horse Power 2895 Owners British Indus Co Ltd (Ings) Port belonging to Liverpool

Consumption of Oil per Rule (824) 709 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Type of Engines Burmeister & Wain (2 sets) 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 500 No. of cylinders 12 No. of cranks 12 Diameter of cylinders 630 mm

Stroke 57 3/16 1300 mm Revolutions per minute 110 Means of ignition Compression Kind of fuel used Diesel

Is there a bearing between each crank yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 892 mm

Distance between centres of main bearings 1250 Is a flywheel fitted yes Diameter of crank shaft journals as per Rule 403.3
as fitted 415 mm

Diameter of crank pins 415 mm Breadth of crank webs as per Rule 650 mm Thickness of ditto as per Rule 270 mm
as fitted 650 mm as fitted 270 mm

Diameter of flywheel shaft as per Rule 415 mm Diameter of tunnel shaft as per Rule 1126 Diameter of thrust shaft as per Rule 11.8
as fitted 415 mm as fitted 11314 as fitted 12 3/8

Diameter of screw shaft as per Rule 12.386 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes
as fitted 13

Is the after end of the liner made watertight in the propeller boss If the liner is in more than one length are the joints burned

Does the liner do 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

Are liners fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil yes

Is an outer gland fitted to stern tube Length of stern bush 52 Diameter of propeller 13.3

Diameter of propeller 11.0 No. of blades 4 state whether moveable no Total surface 524 square feet

Method of reversing air Is a governor or other arrangement fitted to prevent racing of the engine when disconnected yes Thickness of cylinder liners 46-36 mm

Are the cylinders fitted with safety valves yes Means of lubrication forced Are the exhaust pipes and silencers water cooled or lagged with insulating material lagged

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

No. of cooling water pumps 2 Is the sea suction provided with an efficient strainer which can be cleared

No. of bilge pumps fitted to the main engines none Diameter of ditto — Stroke —

Can they be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines 2 How driven steam

Diameters of pumps 9'8" x 12" + 4'4" x 9" No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room —

No. of ballast pumps one How driven steam Sizes of pumps 9'8" x 12"

Is a ballast pump fitted with a direct suction from the engine room bilges State size — Is a separate auxiliary pump suction fitted in —

Room and size — Are all the bilge suction pipes fitted with roses Are the roses in Engine Room always accessible

Are sluices on Engine Room bulkheads always accessible Are all connections with the sea direct on the skin of the ship

Are they closed by valves or cocks Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates

Are the discharge pipes above or below the deep water line Are they each fitted with a discharge valve always accessible on the plating of the vessel

Are pipes, cocks, valves and pumps in connection with the machinery accessible at all times Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges

Is the screw shaft tunnel watertight Is it fitted with a watertight door

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

No. of main air compressors 2 No. of stages 3 Diameters 600-540-148 mm Stroke 180 mm Driven by main engine

No. of auxiliary air compressors one No. of stages 2 Diameters 400-350 mm Stroke 260 mm Driven by steam

No. of small auxiliary air compressors one No. of stages 2 Diameters 34-106 mm Stroke 80 Driven by steam

No. of scavenging air pumps — Diameter — Stroke — Driven by —

Are the crank shafts of auxiliary Diesel Engine crank shafts as per Rule Are the air compressors and their coolers made so as to be easy of access yes
as fitted

RECEIVERS:—No. of high pressure air receivers 4 Internal diameter 2 at 342.2 at 295 Cubic capacity of each 2 at 200 litres 2 at 150 litres

Material SDS Seamless, lap welded or riveted longitudinal joint Seamless Range of tensile strength 26-30

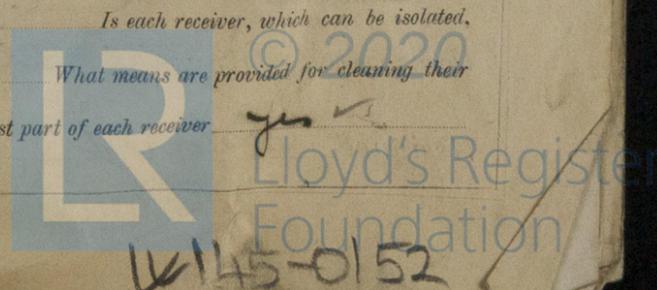
Working pressure by Rules 1000 No. of starting air receivers 2 Internal diameter 6-4 1/16

Cubic capacity 650 CF Material Steel Seamless, lap welded or riveted longitudinal joint TR. O. B. S.

Range of tensile strength 28-32 thickness 1 1/16 + 1 1/32 Working pressure by rules 376 Is each receiver, which can be isolated,

Are they fitted with a safety valve as per Rule Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their —

Internal surfaces manhole in ends Is there a drain arrangement fitted at the lowest part of each receiver yes



IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Now*

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS <i>Multitubular</i>	<i>untested</i>				
COVERS <i>Jackets</i>	<i>15. 12 24 4h</i>		<i>50</i>	<i>WGM</i>	<i>Safety factory</i>
JACKETS	<i>25. 2 25</i>		<i>50</i>	<i>WGM</i>	
PISTON WATER PASSAGES	<i>3 3 25</i>		<i>50</i>	<i>WGM</i>	
MAIN COMPRESSORS—1st STAGE	<i>15. 12 24 4h</i>		<i>2000</i>	<i>WGM</i>	
2nd	<i>22. 12 24 4h</i>		<i>500</i>	<i>WGM</i>	
3rd	<i>15. 12 24 4h</i>		<i>150</i>	<i>WGM</i>	
AIR RECEIVERS—STARTING	<i>10. 2. 25 4h</i>		<i>2000</i>	<i>WGM</i>	
INJECTION	<i>10 2 25 4h</i>		<i>2000</i>	<i>WGM</i>	
AIR PIPES	<i>3 6. 25</i>		<i>2000</i>	<i>WGM</i>	
FUEL PIPES	<i>3. 6. 25</i>		<i>2000</i>	<i>WGM</i>	
FUEL PUMPS					
SILENCER	<i>not tested</i>				
WATER JACKET					
SEPARATE FUEL TANKS	<i>27 15 25</i>		<i>9 lbs.</i>	<i>WGM</i>	

PLANS. Are approved plans forwarded herewith for shafting *Yes*
(If not, state date of approval)

Receivers *Yes*

Separate Tanks *Yes*

SPARE GEAR

The foregoing is a correct description.

For and on behalf of **JOHN G. KINCAID & COY., LIMITED.**

Manufacturer.

Robert Green Director

Dates of Survey while building

During progress of work in shops - *(1924) Sept. 11. Oct. 6. 7. 16. 20. 22. 24. 29. Nov. 3. 6. 12. 18. 24. Dec. 1. 3. 9. 11. 12. 18. 22. (1925) Jan. 9. 14. 16. 20. Feb. 3. 4. 10. 11. 16. 25. 27. Mar. 2. 3. 5. 9. 11.*

During erection on board vessel - *16. 18. 24. 25. 31. Apr. 1. 3. 8. 10. 13. 15. 20. 22. 27. 28. 29. 30. May 4. 13. 15. 19. 21. 22. 25. 27. 28. June 1. 2. 3. 8. 9. 10.*

Total No. of visits *69.*

Dates of Examination of principal parts—Cylinders *8 | 4 | 25* Covers *9 | 1 | 25* Pistons *16 | 3 | 25* Rods *3 | 2 | 25* Connecting rods *13 - 4. 2*

Crank shaft *16. 2. 25* Thrust shaft *1-6. 25* Tunnel shafts *1-6. 25* Screw shaft *22. 5. 25* Propeller *15. 5. 25* Stern tube *27. 5. 25* Engine seatings *see Dundee*

Engines holding down bolts *see Dundee* Completion of pumping arrangements *see Dundee* Engines tried under working conditions *see Dundee*

Completion of fitting sea connections *see Dundee* Stern tube *see Dundee* Screw shaft and propeller *see Dundee*

Material of crank shaft *S* Identification Mark on Do. *16. 5532/3 LLOYDS WGM* Material of thrust shaft *S* Identification Mark on Do. *13012. 499 LLOYDS WGM*

Material of tunnel shafts *S* Identification Marks on Do. *1208. 1013* Material of screw shafts *S* Identification Marks on Do. *940. 1208*

Is the flash point of the oil to be used over 150° F.

Is this machinery duplicate of a previous case *no* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *These engines have been built under special survey in accordance with the approved plans. The workmanship is of good quality. The engines have been tried on the test bed & found satisfactory. They have not been shipped to Dundee at which port they will be fitted on board. The machinery when fitted on board & tried under working conditions will be submitted in my opinion to the record of LMC with date.*

The amount of Entry Fee	£ 6	When applied for, 20
Special	£ 110	15. 6. 1925
Donkey Boiler Fee	£ 16	
AIR RESERVOIRS	£ 8	
Travelling Expenses (if any)	£	

W. Gordon-Mcnicoll
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 16 JUN 1925**

FRI. 11 SEP 1925

Assigned *Dejared*

See Durr J.E. 8538



pt. 5a. **RE**

Date of writing Report *24 Aug 1925*

No. in Survey held at *Du*

Reg. Book. *1908 on the T.S.M.V.*

Master *Bu*

Engines made at *Greenock*

Boilers made at *Greenock*

Registered Horse Power

MULTITUBULAR BOILER

Letter for record *S* Total

Boilers *2 Multitubular Eng*

No. of Certificate *Can each*

Safety valves to each boiler *Two sp*

Are they fitted with easing gear *Yes*

Smallest distance between boilers *2 1/4*

Material of shell plates

Description of riveting: *circ. seams*

Gap of plates or width of butt straps

Rules *Size of manhole in*

Boiler *Material*

Description of longitudinal joint

Plates: Material *Thickness:*

Top *If stays are fitted with*

Smallest part *Area supported by*

Pitch of stays *How are stays*

Area supported by each stay

Lower back plate *Thickness*

Pitch of tubes *Material of*

Working pressure by rules *St*

Separately *Diameter*

Boles *Pitch of rivets* *Wo*

Stiffened with rings *Distance*

Working pressure of end plates

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been tried under working conditions. They have been fitted to the approved plan, for a

Survey Fee ... £ *Pa*

Travelling Expenses (if any) £ *Pa*

© 2020 Committee's Minute Lloyd's Register Foundation