

Rpt. 4.

REPORT ON MACHINERY.

No. 6236

14 FEB 1931

Received at London Office

Date of writing Report JAN. 15th 1931 When handed in at Local Office JAN. 15th 1931 Port of PHILADELPHIANo. in Survey held at CHESTER, PA.
Reg. Book.Date, First Survey JUL. 14th Last Survey DEC. 27th 1930

on the S. S. "COMET"

(Number of Visits 33.)
Tons Gross 9153
Net 5583
When built 1930

Master — Built at CHESTER, By whom built SUN S. B. & D. D. CO. 128

Engines made at CHESTER, By whom made Do. when made 1930.

Boilers made at Do. By whom made Do. when made 1930.

Registered Horse Power Owners STANDARD TRANSPORTATION CO. Port belonging to NEW YORK.

Nom. Horse Power as per Section 28 742. Is Refrigerating Machinery fitted for cargo purposes NO. Is Electric Light fitted YES.

ENGINES, &c.—Description of Engines **QUADRUPLE EXPANSION** No. of Cylinders 4 No. of Cranks 4
Dia. of Cylinders 27, 39, 56, 82 Length of Stroke 54 Revs. per minute 75 Dia. of Screw shaft as per rule 16.5 as fitted 17.4 Material of screw shaft O.H. STEEL
Is the screw shaft fitted with a continuous liner the whole length of the stern tube YES Is the after end of the liner made water tight
in the propeller boss YES If the liner is in more than one length are the joints burned — 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 — Length of stern bush 6'-10"
Dia. of Tunnel shaft as per rule 14.91 as fitted 15.34 Dia. of Crank shaft journals as per rule 15.66 as fitted 16 Dia. of Crank pin 16 1/2 Size of Crank webs 11 1/4 Dia. of thrust shaft under
collars 16 Dia. of screw 19'-4" Pitch of Screw 17'-0" No. of Blades 4 State whether moveable YES Total surface 112.25 sq ft
No. of Feed pumps — Diameter of ditto — Stroke — Can one be overhauled while the other is at work } NO ATTACHED PUMPS.
No. of Bilge pumps — Diameter of ditto — Stroke — Can one be overhauled while the other is at work }
No. of Donkey Engines 3 Sizes of Pumps 7'x6"x10" H.D. 7'x6"x10" 14'x10"x12" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 2 @ 3 1/2, 1 @ 4" FIRE ROOM 2 @ 3 1/2 In Holds, &c. FORE PK. 1 @ 3", N.A. HOLD 2 @ 1 1/2", FORE P. PUMP
ROOM 1 @ 3", CHAIN LOCKER 1 @ 3", FORE P. COFF. 1 @ 3", AFTER COFF. 1 @ 3", AFT. PK. 1 @ 3", INNER BOT. COFF. 1 @ 3"
No. of Bilge Injections 1 sizes 12" Connected to condenser, or to circulating pump YES Is a separate Donkey Suction fitted in Engine room & size 2 @ 5"
Are all the bilge suction pipes fitted with roses YES Are the roses in Engine room always accessible YES Are the sluices on Engine room bulkheads always accessible NONE
Are all connections with the sea direct on the skin of the ship YES Are they Valves or Cocks VALVES
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YES Are the Discharge Pipes above or below the deep water line ABOVE
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel YES Are the Blow Off Cocks fitted with a spigot and brass covering plate YES
What pipes are carried through the bunkers 1-3" SUCTION FROM COFFERDAM How are they protected —
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges YES
Is the Screw Shaft Tunnel watertight NONE Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record Y) Manufacturers of Steel LUKENS STEEL CO. COATESVILLE, PA.
Total Heating Surface of Boilers 10558 sq ft Is Forced Draft fitted YES No. and Description of Boilers 3 SINGLE-ENDED "SCOTCH"
Working Pressure 220 lbs. Tested by hydraulic pressure to 380 lbs. Date of test 7.10.30 No. of Certificate 653, 654, 655
Can each boiler be worked separately YES Area of fire grate in each boiler OIL BURNING No. and Description of Safety Valves to
each boiler TWO - 4" Area of each valve 12.56 sq in Pressure to which they are adjusted 220 lbs. Are they fitted with easing gear YES
Smallest distance between boilers or uptakes and bunkers 7'-4" Mean dia. of boilers 16'-6" Length 12'-1 1/2" Material of shell plates STEEL
Thickness 1 3/4" Range of tensile strength 63000-73000 Are the shell plates welded or flanged NO Descrip. of riveting: cir. seams D.R. LAP
long. seams D.B. STRAPS Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 4 3/32" Lap of plates or width of butt straps 2'-1 3/4"
Per centages of strength of longitudinal joint rivets 97.1 plate 82.5 Working pressure of shell by rules 229 lbs. Size of manhole in shell 12" x 16"
Size of compensating ring 39 x 34 1/2 x 1 3/4 No. and Description of Furnaces in each boiler 3 MORISON Material STEEL Outside diameter 52 9/32"
Length of plain part top — bottom — Thickness of plates crown 49 bottom 64 Description of longitudinal joint WELDED No. of strengthening rings —
Working pressure of furnace by the rules 228 Combustion chamber plates: Material STEEL Thickness: Sides 25/32 Back 13/16 Top 25/32 Bottom 1 1/16
Pitch of stays to ditto: Sides 7-77 x 7-77 Back 8 1/2 x 7 3/8 Top 9 x 8 1/2 If stays are fitted with nuts or riveted heads RIVETED Working pressure by rules 238
Material of stays W./RON Area at smallest part 1.997 Area supported by each stay 60.38 Working pressure by rules 244 End plates in steam space:
Material STEEL Thickness 1 1/4" Pitch of stays 17 x 18 1/4 How are stays secured DO. NUTS Working pressure by rules 234 Material of stays STEEL
Area at smallest part 7.669 Area supported by each stay 310.25 Working pressure by rules 248 Material of Front plates at bottom STEEL
Thickness 1 1/16 Material of Lower back plate STEEL Thickness 1 1/16 Greatest pitch of stays 13 1/32 x 7 Working pressure of plate by rules 247
Diameter of tubes 2 1/2 Pitch of tubes 33 1/4 x 3 1/2 Material of tube plates STEEL Thickness: Front 1 1/16 Back 27/32 Mean pitch of stays 11"
Pitch across wide water spaces 13 1/32 Working pressures by rules 244 Girders to Chamber tops: Material STEEL Depth and
thickness of girder at centre 11 3/8 x 2 Length as per rule 3'-4" Distance apart 9" Number and pitch of stays in each 4 @ 8 1/2"
Working pressure by rules 297 Steam dome: description of joint to shell NONE % of strength of joint
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type NONE Date of Approval of Plan Tested by Hydraulic Pressure to
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? —

SPARE GEAR. State the articles supplied:— AS PER RULE.

ADDITIONAL. PROPELLER SHAFT, 1-PROP. BLADE WITH STUDS & NUTS, SECTION OF CRANKSHAFT, CON. ROD BOTTOM END BUSHES, CON. ROD TOP END BUSHES, H.P. VALVE STEM, L.P. VALVE STEM, H.P. PISTON ROD, L.P. PISTON ROD, 1-ECCENTRIC STRAP COMPLETE, SET ECCENTRIC ROD BOXES COMPLETE, 1-SET OF H.P. SET OF 1st L.P. SET OF 2nd L.P. SET OF L.P. PISTON PACKING RINGS & SPRINGS, METALLIC GLAND PACKING RINGS FOR PISTON RODS AND VALVE STEMS. SAFETY VALVE SPRINGS, BOILER & CONDENSER TUBES, ETC.

The foregoing is a correct description,

C. R. Howorth

Manufacturer.

SUN SHIPBUILDING & DRY DOCK CO.

1930.
Dates of Survey { During progress of work in shops -- JUL. 14. 21. 30. AUG. 1. 8. 27. 28. SEP. 11. 12. 14. 26. OCT. 3. 13. 17. 21. 23. 28. 29. NOV. 7. 8. 11.
while building { During erection on board vessel -- NOV. 14. 17. 20. 24. 25. 28. DEC. 3. 9. 10. 18. 23. 27.
Total No. of visits 33.

Is the approved plan of main boiler forwarded herewith YES.

„ „ „ donkey „ „ „

Dates of Examination of principal parts—Cylinders 17.10.30 Slides 12.9.30 Covers 17.10.30 Pistons 21.10.30 Rods 26.9.30
Connecting rods 3.11.30 Crank shaft 11.9.30 Thrust shaft 28.10.30 Tunnel shaft 3.10.30 Screw shaft 29.10.30 Propeller 29.10.30
Stern tube 25.11.30 Steam pipes tested 9.12.30 Engine and boiler seatings 28.10.30 Engines holding down bolts 20.11.30
Completion of pumping arrangements 18.12.30 Boilers fixed 10.12.30 Engines tried under steam 27.12.30
Completion of fitting sea connections 17.11.30 Stern tube 25.11.30 Screw shaft and propeller 3.12.30
Main boiler safety valves adjusted 23.12.30 Thickness of adjusting washers —
Material of Crank shaft STEEL Identification Mark on Do. 1214 L.N. 14.10.30 Material of Thrust shaft STEEL Identification Mark on Do. 1214 L.N. 14.10.30
Material of Tunnel shaft STEEL Identification Marks on Do. 1124 L.N. 14.10.30 Material of Screw shaft STEEL Identification Marks on Do. 1118 L.N. 14.10.30
Material of Steam Pipes STEEL Test pressure 660 lbs. ✓

Is an installation fitted for burning oil fuel YES. ✓

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

Have the requirements of Section 49 of the Rules been complied with YES. ✓

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.)

THE ENGINES AND BOILERS HAVE BEEN BUILT UNDER SPECIAL SURVEY, THE MATERIALS AND WORKMANSHIP ARE OF GOOD DESCRIPTION, HYDRAULIC TESTS SATISFACTORY, ALL BUILT IN ACCORDANCE WITH THE APPROVED PLANS, THEY HAVE BEEN FITTED ON BOARD IN A SATISFACTORY MANNER, BOILERS' SAFETY VALVES ADJUSTED UNDER STEAM TO 220 lbs. PER SQ. INCH. ON COMPLETION THE ENGINES WERE TRIED OUT UNDER FULL WORKING CONDITIONS AND FOUND SATISFACTORY. IN OUR OPINION THEY ARE ELIGIBLE FOR THE RECORD OF LMC 12.30

The amount of Entry Fee \$ 30.00
Special ... \$ 560.00
Donkey Boiler Fee ... £
Travelling Expenses (if any) \$ 30.00

When applied for,

23rd Jan. 1931

When received,

27.2.1931

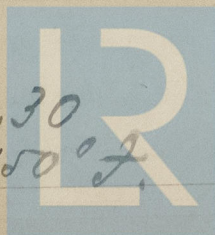
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned + LMC. 12.30

Filled for oil fuel 12.30
Fl. about 150°F.

CERTIFICATE WRITTEN



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