

Rpt. 4.

# REPORT ON MACHINERY.

No. 6236  
14 FEB 1931

Received at London Office

Date of writing Report JAN. 15<sup>th</sup> 1931 When handed in at Local Office JAN. 15<sup>th</sup> 1931 Port of PHILADELPHIA

No. in Survey held at CHESTER, PA. Date, First Survey JUL. 14<sup>th</sup> Last Survey DEC. 27<sup>th</sup> 1930

Reg. Book. on the S.S. "COMET" (Number of Visits 33)

Master — Built at CHESTER By whom built SUN S. B. & D. D. CO. 128 Tons } Gross 9153  
Net 5593  
When built 1930

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

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

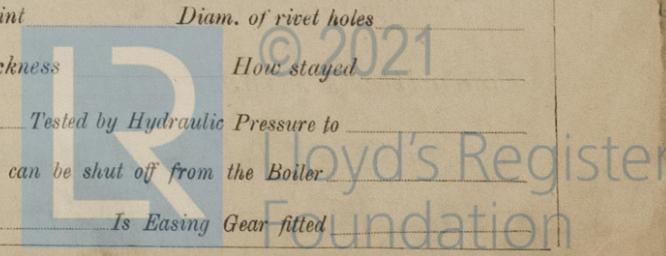
Registered Horse Power — Owners STANDARD TRANSPORTATION CO. Port belonging to NEW YORK.

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 Material of screw shaft } O.H. STEEL  
 as fitted 17.4  
 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 Dia. of Crank shaft journals as per rule 15.66 Dia. of Crank pin 16 1/2 Size of Crank webs 1 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 moceable YES Total surface 112.25 sq  
 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 7x6x10" H.D. 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", NO. 1 HOLD, 2 @ 1 1/2" FOR P. PUMP ROOM 1 @ 3", CHAIN LOCKER 1 @ 3", FOR 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 OIL 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.

**BOILERS, &c.**—(Letter for record Y) Manufacturers of Steel LUKENS STEEL CO. COATESVILLE, PA.  
 Total Heating Surface of Boilers 10558 sq 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 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'-19/16" Material of shell plates STEEL  
 Thickness 1 3/4" Range of tensile strength 63000-73000 lbs. 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 27/32" x 2" Lap of plates or width of butt straps 2'-13/4"  
 Per centages of strength of longitudinal joint rivets 97.1 Working pressure of shell by rules 229 lbs. Size of manhole in shell 12" x 16"  
 plate 82.5  
 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 7/16 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. IRON Area at smallest part 1.997 sq 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 sq Area supported by each stay 310.25 sq 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 13/32 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 13/32" 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

**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 1<sup>st</sup> L.P. SET OF 2<sup>nd</sup> 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,

*A. C. Howorth*

Manufacturer.

SUN SHIPBUILDING & DRY DOCK CO.

1930.  
Dates of Survey while building: 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.  
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.

Is the approved plan of donkey boiler forwarded herewith —

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. 898-917 Material of Thrust shaft STEEL Identification Mark on Do. 1214 L.N. 14.10  
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  
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,

23<sup>rd</sup> Jan. 1931

When received,

27.2.1931

*W. Buchanan & L. Howorth*  
Engineer Surveyors to Lloyd's Register of Shipping.

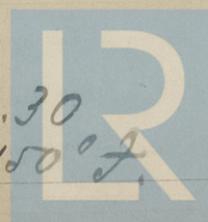
Committee's Minute

NEW YORK FEB 4 - 1931

Assigned + LMC. 12.30 Filled for oil fuel 12.30

Note: 3 S.B. Steam Pressure 220 lbs □

CERTIFICATE WRITTEN



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