

Rpt. 4c

Date of writing report Dec. 18, 1957 Received London 19 MAY 1958 Port Baltimore No. 11353  
Survey held at Sparrows Point, Md. No. of visits 4 First date Oct. 23, '57 Last date Dec. 13th, '57

# FIRST ENTRY REPORT ON AUXILIARY INTERNAL COMBUSTION ENGINES

Name of Ship S.S. "GULFQUEEN" Owners Black Steamships, Inc.  
Or Contract No. if name unknown). (Or Consignees)  
Ship Built at Sparrows Point, Md. by Bethlehem Sparrows Pt. Shipyard Inc. 1957 Yard No. 4553  
Auxiliary Engines 2 Gas Turbines made at Columbus, Ind. by Cummins Diesel Eng., Inc. 1957 Eng. Nos. 185887  
Total No. of sets and description (including type name) One 6 Cyl. - 4 Stroke SA Valve in head 225 HP Full Diesel. H.R.I.P.S.-600  
INTERNAL COMBUSTION RECIPROCATING ENGINES. No. of cylinders per engine 6 Dia. of cylinders 5-125 Stroke 6"  
2 or 4 stroke cycle 4 Maximum approved BHP 225 at 1800 RPM Corresponding MIP 132.5 P.S.I. Maximum pressure 1050 P.S.I.  
Fuel Diesel Oil Are cylinders arranged in Vee or other special formation? No. In Line If so, No. of  
crankshafts per engine - Is engine of opposed piston type? No. No. and type of mechanically driven scavenge pumps or blowers  
per engine - No. of exhaust gas driven blowers or superchargers per engine One Is welded construction  
used for: Bedplate? No Entablature? No Total Internal volume of crankcase (if 20 cu. ft. or over) - No. and total area of  
crankcase explosion relief devices - Are flame guards or traps fitted? Yes Cooling medium for: Cylinders Water  
Pistons - No. of attached pumps: F.W. cooling 1 S.W. cooling 1 Lubricating oil 1 How is engine started? Electric motor

SHAFTING. Is a damper or damper fitted? Yes No. of main bearings 7 Are bearings of ball or roller type? No Distance between  
inner edges of bearings in way of cranks 6" Crankshaft: Cast, semi-solid. Material of crankshaft Forged Steel Approved  
minimum tensile strength 121,000 lbs. Dia. of pins 3.125" Journals 4.5" Breadth of webs at mid throw - Axial  
thickness - If shrunk, radial thickness around eyeholes - Dia. of flywheel 24" Weight - Are balance  
weights fitted? - Total weight - Rad. of gyration - Dia. of flywheel shaft -  
Has each engine been tested in shop? Yes How long at full power? 2 Hours Was it tested with driven machinery attached? Yes Was the  
governing tested and found satisfactory? Yes Date of approval of torsional vibration characteristics (for engines of 150 BHP and over) August, 1952  
Date of approval of shafting August, 1952 Identification marks on shafting 10 A 156  
Particulars of driven machinery 100 K.W. Synchronous Generator.

Port and No. of Certificate for Starting Air Receivers

AUXILIARY GAS TURBINES. BHP per set At RPM of output shaft. Open or closed cycle?  
Arrangement of turbines. HP drives at RPM HP gas inlet temp. pressure  
IP " at " IP " " " " " "  
(A small diagram should be attached showing gas cycle) LP " at " LP " " " " " "  
No. of air compressors per set Centrifugal or axial flow type? Material of turbine blades  
Material of compressor blades No. of air coolers per set No. of heat exchangers per set How are  
turbines started? Are the turbines operated in conjunction with free piston gas generators?  
Total No. of free piston gas generators Dia. of working pistons Dia. of compressor pistons No. of double strokes  
per minute at full power Gas delivery pressure Gas delivery temperature  
Have the turbines and attached equipment been tested in shop? How long at full power? Were they tested with driven machinery  
attached? Particulars of gearing  
Date of approval of plans Identification marks Particulars of driven machinery

ELECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over Examination & testing carried out satisfactorily at Baltimore.  
For generators under 100 Kw., has Makers' Certificate been obtained? Are Certificates attached? New York, October, 1957.

The foregoing description is correct and the particulars are as approved for torsional vibration characteristics (strike out words not applicable)

Manufacturer

Is this machinery duplicate of a previous case? YES If so, which? GULFKING RPT NO. 11295

GENERAL REMARKS. State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letters.  
State quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.  
The Engine was built in accordance with approved plans & Secretary's letters, but not examined during Manufacture  
by the Society's Surveyors. Examination carried out by American Bureau of Shipping & United States Coast Guard.  
Prior to installation the unit was opened out & examined, the workmanship & material appeared good. Under full  
load conditions, the unit conformed to all the rule requirements.  
In our opinion, this generating set is eligible to be fitted on a classed vessel.

Survey Fee \$75.00 NP  
Expenses  
Date when a/c rendered Mar. 25, 1958

Engineer Surveyor to Lloyd's Register

Declaration to be signed by Surveyor at fitting-out Port:— The above described machinery has been fitted on board the GULFQUEEN  
at BALTIMORE in a proper manner and found satisfactory when tested on the (date) Nov 27, 1957 under full working conditions.

Engineer Surveyor to Lloyd's Register



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FIRST ENTRY REPORT ON AUXILIARY STEAM TURBINE OR STEAM RECIPROCATING ENGINES

Name of Ship S.S. "GULFQUEEN" Owners Blacksteam Ships, Inc.  
 (Or Contract No. if name unknown) (Or Consignees)  
 Ship Built at Sparrows Point, Maryland by Bethlehem Sparrows Point Shipyard, Inc. when 1957 Yard No. 4553  
 Auxiliary turbines or engines made at Columbus, Ind. by Cummins Diesel Engine, Inc. when 1957 Eng. Nos. 185887  
 Total No. of sets and description One 6 Cyl. - 4 Stroke SA Valve in head 225 H.P. Full Diesel H.R.I.P.S.- 600

STEAM TURBINES. No. of turbines per set BHP per set Steam pressure Steam temperature  
 Type of turbines  
 Particulars of gearing  
 RPM of turbine shaft(s) PCD of pinion(s) PCD of wheels(s) Material of  
 pinion(s) Material of wheel rim(s) Has rotor been dynamically balanced? Diameter of rotor  
 shaft at bearings Does the set Include a steam condenser? Is an emergency governor fitted? No. and purpose of  
 attached pumps Has the set been tested in the shop? If so, for how long at full  
 power? Was the governing tested and found satisfactory? Was the set tested with driven machinery attached?  
 Identification marks Particulars of driven machinery

STEAM RECIPROCATING ENGINES. BHP of each at RPM Steam pressure  
 Dia. of cylinders Stroke Dia. of crankshaft journals Pins Material of  
 crankshaft Is crankcase enclosed? If so, is the internal volume 20 cu. ft. or over? No. and total area of crankcase  
 explosion relief devices fitted? Are the bearings forced lubricated? No. and Purpose of attached pumps  
 Is a Governor Fitted? Identification Marks  
 Particulars of Driven Machinery

ELECTRIC GENERATORS. Port and No. of Certificate for generators of 100 Kw. and over  
 For generators under 100 Kw., has Makers' Certificate been obtained? Are Certificates attached?

The foregoing description is correct.

Is this machinery duplicate of a previous case? If so, which?

GENERAL REMARKS. State if the machinery has been constructed under special survey in accordance with the Rules, approved plans and Secretary's letter  
 State quality of materials and workmanship. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible

Survey Fee  
 Expenses  
 Date when a/c rendered

Engineer Surveyor to Lloyd's Register

Declaration to be signed by Surveyor at fitting-out Port — The above described machinery has been fitted on board the  
 at in a proper manner and found satisfactory when tested on the (date) under full working  
 conditions.