





Port & Starb. main circulating pumps, Starb. aft bilge pumps, Port & Starb. bilge pumps, Port & Starb. air pumps, Port & Starb. lubricating oil pumps, Port & Starb. oil fuel pumps, Port & Starb. oil fuel pressure pumps, Port & Starb. oil fuel suction lines, fittings & controls, Port & Starb. emergency pump, Starb. lub. oil cooler, Starb. emergency pump.

32 Have the remaining Piping Arrangements & Fittings in the machinery space been examined as considered necessary? yes

33 Fresh Water Coolers good 36 Lub. Oil Coolers good 37 Heaters (state service) water feed good

38 Independent Air Compressors, Coolers & Safety Devices good 39 Air Receivers & Safety Devices good 40 Auxiliary good +

41 Oil Fuel Tanks (Not forming part of hull structure) good 42 Evaporators good 43 Have Evaporator Safety Valves been tested under steam? yes

44 Steering Machinery good 45 Windlass good 46 Fire Extinguishing Arrangements good +

#### AUXILIARY ENGINES (Identify by position)

Port & Starb. oil engine governor general sets - Port 100 HP steam engine generator sets - Port & Starb. steam engine driven main circulating pumps - Emergency generator set (30 KW)

PROPULSION	PORT	STARBOARD	ELECTRICAL EQUIPMENT	AUXILIARY EQUIPMENT
Generators			Generators & Governors	<u>good</u> <u>+</u>
Exciters			Motors	<u>good</u> <u>+</u>
Air Coolers			Switchboards & Fittings	<u>good</u>
Motors			Circuit Breakers	<u>good</u>
Air Coolers			Cables	<u>good</u>
Control Gear, Cables, etc.			Insulation Resistance	<u>good</u>
Insulation Resistance			Steering Gear, Compressors & Motors	<u>good</u>
Insulating Oil Test			Navigation Light Indicators	<u>good</u>
Overspeed Governors				
Magnetic Couplings				
Air Gap				

#### BOILERS OPENED UP & EXAMINED (Identify by position and state latest date of internal examination of each boiler)

MAIN Port fwd. 20.9.55. Centre fwd. 20.9.55. Starb. fwd. 18.9.55. Port aft. 15.9.55. Starb. aft. 18.9.55.

Superheaters good

Safety Valves good

Mountings, Doors & Fastenings good

Safety Valves Adjusted to Sat. 20.5 kg/cm<sup>2</sup> (all fire boilers)

Boiler Securing Arrangements good

#### EXAMINATION & TESTING OF STEAM PIPES (State material)

Main Steel good Auxiliary (over 3 in. bore) Steel good

Wear & Corrosion? ✓ Have Saturated Pipes in cylindrical boiler smoke boxes been tested? ✓

#### PARTICULARS OF DEFECTS & REPAIRS, ETC. (Damage repairs should be detailed separate from wear and tear repairs; state what action has been taken regarding items which are subjects of class)

wear and tear

Main engines: Port & Starboard

HP turbine rotor blading all reaction section and 1<sup>st</sup> row impulse found wasted and worn, now have been renewed.

HP turbine casing blading found wasted and worn, now have been renewed.

All rotor bearings found white metal worn have been renewed.

The reduction main gear wheel teeth found worn and wasted now satisfactory re-cut and its pinions are herewith attached.

HP-IP-LP have been renewed with tested material - the certificates are herewith attached.

All pinion bearings and gear wheel bearings found white metal worn renewed.

HP-IP-LP rotors dynamic balancing carried out.

The reduction main gear wheel static balancing carried out.

(Please see continuation sheet)

Survey fees (WILL BE SENT LATER ON)

Damage fee

Expenses

Date when A/c rendered

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S.S. "IRPINIA."

Auxiliary: air pumps. (Port & Starb) Hydraulic lines found scored now have been bored out. Piston ring renewed - feed pump (outboard) the hydraulic lines found worn now have been renewed.

Auxiliary feed pump: the slide valve steam chest found worn has been renewed and new slide valve fitted.

Steam engine driven main circulating pump (Starb) crankshaft skinned up and main bearings renewed. LP cylinder bored out. new piston fitted. HP slide valve lines bored out and new slide valve fitted.

Steam engine driven main circulating pump (Port) the crankshaft found cracked in way of crank web, now has been replaced by spare (no marks found) the main bearings renewed. HP-LP cylinders bored out and new piston fitted.

Starb. general service pump the steam cylinders bored out and new piston fitted. Steering gear steam engine the slide valve lines bored out and new slide valve fitted.

Boilers Centre fwd. the furnaces crown found to be down slightly now have been satisfactory repaired. fwd. centre - aft Port and aft Starboard: safety valves assembly has been replaced by new (some parts found wasted).

All boilers superheaters found wasted now have been renewed with tested material.

Some corrosion found on water side furnaces, top and bottom drums, now have been welded up.

Some remaining mountings studs found wasted have been renewed.

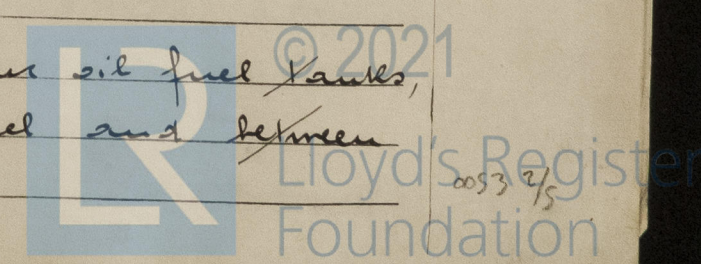
All boilers internally feed pipes (main and auxiliary) removed from bottom side and fitted at top side.

The two 100 HP generator overhauled, commutators skinned up and fitted in good order. Other minor repairs satisfactory carried out.

#### NO DONE FOR ALTERATION

At this time fitted in:

N° 1 hold fresh water tanks, N° 3 hold four oil fuel tanks, N° 4 hold port and starb. at side of tunnel and between of tunnel fresh water tanks.





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on the

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the N. 3 double bottom fresh water connections require to be deleted from the feed pumps suction.

In starb. side engine room an oil fuel daily service tank for the oil engine generator sets now fitted.

The pumping and piping arrangements now fitted were carried out as requirements of the Rules and approved plans.

In addition to the existing pumps now fitted:

Engines room:

after starboard: Bilge pump. electric driven. 3 tons/h.

Domestic refrigerated and standby circulating oil engine pump. electric driven - 2 tons/h.

D.R. steam pump for domestic refiq. and standby oil engines circulating. (removed from refiq. machy. circulation)

Starboard. forward:

fire and sanitary pump. electric driven. 50 tons/h.

Boilers room:

Port fwd. D.R. steam pump for diesel oil transfer. (removed from refiq. machy. line circulating).

Port fwd. diesel oil transfer pump. electric driven 2000 l/h.

The above pumps were fitted as Rules requirements except the fwd. port boilers room diesel oil transfer pump which require the electric motor remote control to be fitted outside of boilers room.

In the starboard oil engines room an emergency oil engine. air compressor set fitted and satisfactorily tried.

In starb. side engine room an injection sea valve fitted for oil engines circulating.

The refrigerating machinery and appliances (after engines room) now have been removed and fitted in this space:

Two 90 Kw (280 BHP) oil engine generator sets (Port & starboard). for particulars please see F.E. report herewith attached and Secretary's letter dated 25<sup>th</sup> 8. 55. On completion these sets were tried at full load (90 Kw) and found the generator temperatures rise slightly above required by Rules and recommended to the additional mechanical ventilation to be increased and to have <sup>fitted</sup> additional resistance connected to field regulator for limiting the field current to 25 Amp. maximum.

The electric cables, switch gear, instruments, for these sets



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have been fitted as per approved plans and Rules requirements.

In consequence of the above alteration the Port flat 50 Kw steam generator and Port flat 100 Kw steam generator sets have been removed.

The following electrical installation have now been removed and replaced as per approved plans and Rules requirements:

- 1) main switchboard
- 2) main distribution cables except those for mitches
- 3) section boards and distribution fuses
- 4) navigation light distribution board
- 5) Lighting and power cables installation in engines room and boilers room.
- 6) emergency lighting and power installation
- 7) accommodation lighting installation
- 8) accommodation ventilating fans installation
- 9) domestic power installation

The emergency switchboard have been altered as per approved plan.

A fluorescent lighting installation has now been fitted in accordance as per plan herewith attached.

The 20 KVA set, cables, switches and fuses, fluorescent lamps and instruments are in accordance with the requirement of the Rules.

To complete survey for classification the following require to be dealt with:

- 1) Port and starboard screw shafts to be drawn in and examined.
- 2) Main engines emergency stop automatic steam valves to be tried by lubricating oil line systems pressure.
- 3) the N. 3 D.B. fresh water connections to be deleted from the feed pumps suction.
- 4) aux. air receivers safety devices of 10 Kg/cm<sup>2</sup> to be replaced and to fit a proper to 30 Kg/cm<sup>2</sup>.
- 5) Engines room, boilers room portable extinguishers to be fitted.
- 6) Boilers safety valves hand controls to be placed in order.



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- 1) Bilge suction of N 1-2-3-H holds, chain locker to be tried. ✓
- 8) Port fwd. boilers room diesel oil transfer pump electric motor remote control to be fitted outside boilers room. ✓
- 9) all four generators parallel to be tried. ✓
- 10) Emergency generator set to be examined under full working condition. ✓
- 11) Emergency bilge pump to be tried being supplied by emergency generator. ✓
- 12) the electric motor driven ventilating fans for oil engine generators require to be increased in speed. ✓
- 13) the electric motor driven ventilating fan for engines room, placed in the funnel space require to be fitted a speed regulator connected to shunt field. ✓

The owners stated that the above items will be carried out at Naples where the vessel is now proceeding, except the item N 1. screw shafts for which <sup>the owners</sup> could not give a date as to when could be examined.

The Naples' Surveyor has been duly informed.

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