

Rpt. 4b

## REPORT ON OIL ENGINE MACHINERY.

No. 18047

Date of writing Report 15 May 1928 When handed in at Local Office 10 Port of HAMBURG  
No. in Survey held at TIEL Date, First Survey 28 JAN. 1927 Last Survey 20 APRIL 1928  
Reg. Book. Number of Visits 108

Single  
on the Twin  
Triple  
Quadruple

"PACIFIC GROVE"

Gross 7114  
Tons Net 4316

Built at TIEL By whom built DEUTSCHE WERKE A.G. Yard No. 213 When built 1928.  
Engines made at TIEL By whom made DEUTSCHE WERKE A.G. Engine No. 213 When made 1928.  
Donkey Boilers made at TREISER LAUTERN By whom made TREISER LAUTERN Boiler No. 8844 When made 1928.  
Brake Horse Power 2 x 2100 Owners TRANS OCEANIC S.S. CO. Port belonging to LONDON.  
Nom. Horse Power as per Rule 1014. Is Refrigerating Machinery fitted for cargo purposes yes. Is Electric Light fitted yes.  
Trade for which vessel is intended WEST COAST AMERICA.

IL ENGINES, &c. Type of Engines 2 Diesel Oil eng. Type Deutche Werke 2 or 4 stroke cycle 4. Single or double acting single.  
Maximum pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 750 mm. Length of stroke 1200 mm. No. of cylinders 2 x 6 = 12 No. of cranks 2 x 6 = 12.  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1045 mm. Is there a bearing between each crank yes.  
Revolutions per minute 117. Flywheel dia. 2770 mm. Weight 19260 mm. Means of ignition Diesel Pump. Kind of fuel used Diesel Gas Oil.  
Crank Shaft, dia. of journals as per Rule 453 mm. Crank pin dia. 460 mm. Crank Webs Mid. length breadth 1100 mm. Thickness parallel to axis 340 mm.  
as fitted 460 mm. Mid. length thickness 310 mm. Thickness around eye hole 320 mm.  
Flywheel Shaft, diameter as per Rule 453 mm. Intermediate Shafts, diameter as per Rule 320 mm. Thrust Shaft, diameter at collar as per Rule 370 mm.  
as fitted 460-370 mm. as fitted 320 mm. as fitted 370 mm.  
Tube Shaft, diameter as per Rule 175 mm. Screw Shaft, diameter as per Rule 353 mm. Is the shaft fitted with a continuous liner yes.  
as fitted 175 mm. as fitted 353 mm. as fitted 13.1 mm. Is the after end of the liner made watertight in the  
propeller boss yes. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner.  
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. Is an approved Oil Gland or other appliance fitted at the after  
end of the tube shaft. Length of Bearing in Stern Bush next to and supporting propeller 1910 mm.  
Propeller, dia. 4200 mm. Pitch 3900 mm. No. of blades 4 Material Iron. Whether Movable no. Total Developed Surface 5639 m<sup>2</sup> sq. feet.  
Method of reversing Engines direct. Is a governor or other arrangement fitted to prevent racing of the engine when declassified yes. Means of lubrication  
Lubes. Thickness of cylinder liners 48 mm. Are the cylinders fitted with safety valves yes. Are the exhaust pipes and silencers water cooled or lagged with  
non-conducting material yes. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine.  
Cooling Water Pumps, No. 2. Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes.  
Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work  
Pumps connected to the Main Bilge Line No. and Size 2 - 2 cyl. 150 mm diam. 200 mm stroke. 1 - 2 cyl. 250 mm diam. 320 mm stroke.  
How driven electric. electric.  
Ballast Pumps, No. and size 1 - 2 cyl. 250 mm diam. 320 mm stroke. Lubricating Oil Pumps, including Spare Pump, No. and size 3 - rotary typ. 40 ltr per hour.  
Are two independent means arranged for circulating water through the Oil Cooler. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
Pumps, No. and size: In Machinery Spaces 4 of 80 mm - from Well 2 of 80 mm from Suct. Keel 1 of 50 mm - from Pannel 3 of 80 mm inside diam.  
In Holds, etc. from fore peak 1 of 125 mm - fore ship 6 of 80 mm - aft ship 3 of 80 mm - after Peak 1 of 125 mm - Cofferdam 4 of 80 mm inside diam.  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 - 2 of 140 mm - 1 of 130 mm.  
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes. Are the Bilge Suctions in the Machinery Spaces  
and from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes.  
Are all Sea Connections fitted direct on the skin of the ship yes. Are they fitted with Valves or Cocks Valve and Cocks.  
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes. Are the Overboard Discharges above or below the deep water line above & below.  
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.  
That pipes pass through the bunks Duct. Seal. How are they protected.  
That pipes pass through the deep tanks Have they been tested as per Rule.

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes.  
Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one  
compartment to another yes. Is the Shaft Tunnel watertight yes. Is it fitted with a watertight door yes. worked from oyl. platform  
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.  
Main Air Compressors, No. 2 No. of stages 3 Diameters 700/620/160 Stroke 660 mm. Driven by main engines.  
Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 350/295/95 Stroke 220 mm. Driven by electric motor.  
Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 110/40 mm. Stroke 140 mm. Driven by Diesel motor with  
arrangement. Driven by arrangement.

Exhausting Air Pumps, No. Diameter Stroke Driven by  
Auxiliary Engines crank shafts, diameter as per Rule 197 mm. as fitted 200 mm.  
AIR RECEIVERS: Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes.  
Can the internal surfaces of the receivers be examined yes. What means are provided for cleaning their inner surfaces manhole & approved covers.  
Is there a drain arrangement fitted at the lowest part of each receiver yes.  
High Pressure Air Receivers, No. 7-3 Cubic capacity of each 200 ltr - 100 ltr internal diameter 290 mm - 290 mm thickness 14 mm - 14 mm  
Seamless, lap welded or riveted longitudinal joint seamless Material S. M. Steel Range of tensile strength 55-60 kg/cm<sup>2</sup> Working pressure by Rules 9.5 kg/cm<sup>2</sup>  
Starting Air Receivers, No. 5 Total cubic capacity 20 ltr. Internal diameter 1000 mm. thickness 3.5 mm.  
Seamless, lap welded or riveted longitudinal joint seamless Material S. M. Steel. Range of tensile strength 45-50 kg/cm<sup>2</sup> Working pressure by Rules 6.2 kg/cm<sup>2</sup>.

W112-0133



IS A DONKEY BOILER FITTED?

yes ✓

If so, is a report now forwarded?

yes ✓

PLANS. Are approved plans forwarded herewith for Shafting

Hy. Rep. 17971 ✓

Receivers

Hy. Rep. 17971 ✓

Separate Tanks

Hy. Rep. 17971 ✓

Donkey Boilers

Hy. Rep. 17971 ✓

General Pumping Arrangements

Hy. Rep. 17971 ✓

Oil Fuel Burning Arrangements

SPARE GEAR

All spare articles as required for Section 6 of the Rules for the Construction and Survey for Diesel Engines and their Auxiliaries (1927/28) have been supplied.

The foregoing is a correct description.

Deutsche Werke Kiel

Aktiengesellschaft

Manufacturer.

Dates of Survey while building

During progress of work in shops -  
During erection on board vessel - -  
Total No. of visits

24/1-1/2-22/2-1/3-1/4-1/5-1/6-1/7-1/8-1/9-1/10-1/11-1/12-1/13-1/14-1/15-1/16-1/17-1/18-1/19-1/20-1/21-1/22-1/23-1/24-1/25-1/26-1/27-1/28-1/29-1/30-1/31-1/32-1/33-1/34-1/35-1/36-1/37-1/38-1/39-1/40-1/41-1/42-1/43-1/44-1/45-1/46-1/47-1/48-1/49-1/50-1/51-1/52-1/53-1/54-1/55-1/56-1/57-1/58-1/59-1/60-1/61-1/62-1/63-1/64-1/65-1/66-1/67-1/68-1/69-1/70-1/71-1/72-1/73-1/74-1/75-1/76-1/77-1/78-1/79-1/80-1/81-1/82-1/83-1/84-1/85-1/86-1/87-1/88-1/89-1/90-1/91-1/92-1/93-1/94-1/95-1/96-1/97-1/98-1/99-1/100-1/101-1/102-1/103-1/104-1/105-1/106-1/107-1/108-1/109-1/110-1/111-1/112-1/113-1/114-1/115-1/116-1/117-1/118-1/119-1/120-1/121-1/122-1/123-1/124-1/125-1/126-1/127-1/128-1/129-1/130-1/131-1/132-1/133-1/134-1/135-1/136-1/137-1/138-1/139-1/140-1/141-1/142-1/143-1/144-1/145-1/146-1/147-1/148-1/149-1/150-1/151-1/152-1/153-1/154-1/155-1/156-1/157-1/158-1/159-1/160-1/161-1/162-1/163-1/164-1/165-1/166-1/167-1/168-1/169-1/170-1/171-1/172-1/173-1/174-1/175-1/176-1/177-1/178-1/179-1/180-1/181-1/182-1/183-1/184-1/185-1/186-1/187-1/188-1/189-1/190-1/191-1/192-1/193-1/194-1/195-1/196-1/197-1/198-1/199-1/200-1/201-1/202-1/203-1/204-1/205-1/206-1/207-1/208-1/209-1/210-1/211-1/212-1/213-1/214-1/215-1/216-1/217-1/218-1/219-1/220-1/221-1/222-1/223-1/224-1/225-1/226-1/227-1/228-1/229-1/230-1/231-1/232-1/233-1/234-1/235-1/236-1/237-1/238-1/239-1/240-1/241-1/242-1/243-1/244-1/245-1/246-1/247-1/248-1/249-1/250-1/251-1/252-1/253-1/254-1/255-1/256-1/257-1/258-1/259-1/260-1/261-1/262-1/263-1/264-1/265-1/266-1/267-1/268-1/269-1/270-1/271-1/272-1/273-1/274-1/275-1/276-1/277-1/278-1/279-1/280-1/281-1/282-1/283-1/284-1/285-1/286-1/287-1/288-1/289-1/290-1/291-1/292-1/293-1/294-1/295-1/296-1/297-1/298-1/299-1/300-1/301-1/302-1/303-1/304-1/305-1/306-1/307-1/308-1/309-1/310-1/311-1/312-1/313-1/314-1/315-1/316-1/317-1/318-1/319-1/320-1/321-1/322-1/323-1/324-1/325-1/326-1/327-1/328-1/329-1/330-1/331-1/332-1/333-1/334-1/335-1/336-1/337-1/338-1/339-1/340-1/341-1/342-1/343-1/344-1/345-1/346-1/347-1/348-1/349-1/350-1/351-1/352-1/353-1/354-1/355-1/356-1/357-1/358-1/359-1/360-1/361-1/362-1/363-1/364-1/365-1/366-1/367-1/368-1/369-1/370-1/371-1/372-1/373-1/374-1/375-1/376-1/377-1/378-1/379-1/380-1/381-1/382-1/383-1/384-1/385-1/386-1/387-1/388-1/389-1/390-1/391-1/392-1/393-1/394-1/395-1/396-1/397-1/398-1/399-1/400-1/401-1/402-1/403-1/404-1/405-1/406-1/407-1/408-1/409-1/410-1/411-1/412-1/413-1/414-1/415-1/416-1/417-1/418-1/419-1/420-1/421-1/422-1/423-1/424-1/425-1/426-1/427-1/428-1/429-1/430-1/431-1/432-1/433-1/434-1/435-1/436-1/437-1/438-1/439-1/440-1/441-1/442-1/443-1/444-1/445-1/446-1/447-1/448-1/449-1/450-1/451-1/452-1/453-1/454-1/455-1/456-1/457-1/458-1/459-1/460-1/461-1/462-1/463-1/464-1/465-1/466-1/467-1/468-1/469-1/470-1/471-1/472-1/473-1/474-1/475-1/476-1/477-1/478-1/479-1/480-1/481-1/482-1/483-1/484-1/485-1/486-1/487-1/488-1/489-1/490-1/491-1/492-1/493-1/494-1/495-1/496-1/497-1/498-1/499-1/500-1/501-1/502-1/503-1/504-1/505-1/506-1/507-1/508-1/509-1/510-1/511-1/512-1/513-1/514-1/515-1/516-1/517-1/518-1/519-1/520-1/521-1/522-1/523-1/524-1/525-1/526-1/527-1/528-1/529-1/530-1/531-1/532-1/533-1/534-1/535-1/536-1/537-1/538-1/539-1/540-1/541-1/542-1/543-1/544-1/545-1/546-1/547-1/548-1/549-1/550-1/551-1/552-1/553-1/554-1/555-1/556-1/557-1/558-1/559-1/560-1/561-1/562-1/563-1/564-1/565-1/566-1/567-1/568-1/569-1/570-1/571-1/572-1/573-1/574-1/575-1/576-1/577-1/578-1/579-1/580-1/581-1/582-1/583-1/584-1/585-1/586-1/587-1/588-1/589-1/590-1/591-1/592-1/593-1/594-1/595-1/596-1/597-1/598-1/599-1/600-1/601-1/602-1/603-1/604-1/605-1/606-1/607-1/608-1/609-1/610-1/611-1/612-1/613-1/614-1/615-1/616-1/617-1/618-1/619-1/620-1/621-1/622-1/623-1/624-1/625-1/626-1/627-1/628-1/629-1/630-1/631-1/632-1/633-1/634-1/635-1/636-1/637-1/638-1/639-1/640-1/641-1/642-1/643-1/644-1/645-1/646-1/647-1/648-1/649-1/650-1/651-1/652-1/653-1/654-1/655-1/656-1/657-1/658-1/659-1/660-1/661-1/662-1/663-1/664-1/665-1/666-1/667-1/668-1/669-1/670-1/671-1/672-1/673-1/674-1/675-1/676-1/677-1/678-1/679-1/680-1/681-1/682-1/683-1/684-1/685-1/686-1/687-1/688-1/689-1/690-1/691-1/692-1/693-1/694-1/695-1/696-1/697-1/698-1/699-1/700-1/701-1/702-1/703-1/704-1/705-1/706-1/707-1/708-1/709-1/710-1/711-1/712-1/713-1/714-1/715-1/716-1/717-1/718-1/719-1/720-1/721-1/722-1/723-1/724-1/725-1/726-1/727-1/728-1/729-1/730-1/731-1/732-1/733-1/734-1/735-1/736-1/737-1/738-1/739-1/740-1/741-1/742-1/743-1/744-1/745-1/746-1/747-1/748-1/749-1/750-1/751-1/752-1/753-1/754-1/755-1/756-1/757-1/758-1/759-1/760-1/761-1/762-1/763-1/764-1/765-1/766-1/767-1/768-1/769-1/770-1/771-1/772-1/773-1/774-1/775-1/776-1/777-1/778-1/779-1/780-1/781-1/782-1/783-1/784-1/785-1/786-1/787-1/788-1/789-1/790-1/791-1/792-1/793-1/794-1/795-1/796-1/797-1/798-1/799-1/800-1/801-1/802-1/803-1/804-1/805-1/806-1/807-1/808-1/809-1/810-1/811-1/812-1/813-1/814-1/815-1/816-1/817-1/818-1/819-1/820-1/821-1/822-1/823-1/824-1/825-1/826-1/827-1/828-1/829-1/830-1/831-1/832-1/833-1/834-1/835-1/836-1/837-1/838-1/839-1/840-1/841-1/842-1/843-1/844-1/845-1/846-1/847-1/848-1/849-1/850-1/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