

12
4 JAN 1960
13679
Rpt 9
Date of writing report 9/12/59
Survey held at SINGAPORE
Received London
No. of sheets 16
Port SINGAPORE
Date 28/10/59
Last date 8/10/59
REPORT OF PERIODICAL SURVEYS & REPAIRS OF MACHINERY

008935 "DRUPA"
Owner SHELL PETROLEUM CO. LTD.
Engines made 8-1939 By MASCH, AUGSBURG-NURNBERG
No. of Main Engines 1 No. of Screws 1
No. of Main Boilers - W.P. -
No. of Aux/Donkey Boilers 1 W.P. 180 lb.
Surveyed Absest or in Dry Dock Both -
Nature of Survey Dkg. TSCL, ABS, CS & RPR
Was Damage Report issued? No Int. Cert. Yes
This Report (For Head Office only)
Gross tonnage 8102 Date of build 8-1939
Port of Registry LONDON
Type - Oil Eng. 4 SA 8Cy.
Records of Survey & Special Notations as per Register Book
+10000 oil tanker.
+LMC CS 8/57
DBS 9/58
TSCL 9/58N
SPS 8/57
Mchy Aft.

Yes Now
The condition of any of the following items is to be described as "good" only when the part has been examined, found or placed in good condition, and is considered to be acceptable until the due date of the next Periodical Examination. Where it is considered that re-examination or repairs should be effected before the due date of the next Periodical Examination a distinguishing mark (such as a cross) should be inserted against the item and the circumstances and action recommended described fully under "defects and repairs". At part or complete Special Surveys those items which are not applicable to the ship should be cancelled with a black line; this need not be done when the machinery is on a continuous survey basis. When any part has been subjected to pressure test this should be stated. Engine parts when referred to by numbers should be equated from forward.

DOCKING Propellers Good
Fastenings Good
Has Shaft now fitted been previously used? Yes
MAIN ENGINES
Cyls., Covers, Pistons & Rods Nos. 1, 2, 3, 4, 5, 6, 7, & 8 - Good.
Valves & Gears Nos. 1, 2, 3, 4, 5, 6, 7 & 8 - Good.
Connecting Rods, Top Ends & Guides Nos. 1, 3, & 7 - Good.
Crankpins & Bearings Nos. 1, 2, & 7 - Good
Journals & Bearings Nos. 1, 2, 3, 7 & 8 - Good.
MAIN ENGINE DRIVEN AIR COMPRESSORS
Cyls., Covers, Pistons & Rods
Connecting Rods & Top Ends
Crankpins & Bearings
Journals & Bearings
Coolers & Safety Devices
MAIN ENGINE DRIVEN SCAVENGE PUMPS
Cyls., Covers, Pistons & Rods
Connecting Rods & Top Ends
Crankpins & Bearings
Journals & Bearings
Levers
SCAVENGE BLOWERS
SUPERCHARGING Arrangements Nos. 3, 5, 6 & 7 - Good.
MAIN TURBINES
Cyls., Covers, Blading, Bearings & Turbine
EXHAUST STEAM TURBINES (WITH RECIP. ENGINES)
STEAM COMPRESSORS
CLUTCHES & HYDRAULIC COUPLINGS
REDUCTION GEARING
THRUST BLOCKS, SHAFTS & BEARINGS
INTERMEDIATE SHAFTS & BEARINGS
HOLDING DOWN BOLTS & CROCKERS
CONDENSERS (MAIN & AUX.)
STEAM RE-HEATERS
DE-SUPERHEATERS
STOP & MANOEUVRING VALVES
MAIN ENGINE DRIVEN PUMPS Sanitary Pump - Good.
CRANKCASE DOORS & EXPLOSION RELIEF DEVICES

OPINION OF MACHINERY AND RECOMMENDATIONS The machinery of this vessel, so far as now seen, is in safe working condition and eligible in my opinion, to remain as classed with fresh records of TSCL 10/59 and ABS 12/59 now and CS (with date) when the survey has been completed subject to Main Engine Nos. 3 and 7 cylinder covers (Metalock repaired in way exhaust valve pockets) being re-examined by the end of June, 1960 (6 mns limit).

Date of Committee TUESDAY 19 JAN 1960
Decision As now subject
TSCL 10/59 ABS 12/59
40m. 4.57. T. (MADE AND PRINTED IN ENGLAND)
© 2020
Bldg.
Engineer's Register
Foundation
003038-003045-0172(112)

32 Essential Independent Pumps (Identify by position) Aft Feed Pump - Good. Aft P.O. Pump - Good. Diesel Oil Transfer Pump - Good. H.V.F. Transfer Pump - Good. Fuel valve Cooling Pump - Good.

33 Bilge, Ballast & Oil Fuel Suction Lines, Fittings & Controls

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

35 Fresh Water Coolers P.C.W. - Good (Tested) Lub. Oil Coolers Good (Tested) 37 Heaters (state service) Forward & Aft H.V.F. - Good (Tested)

38 Independent Air Compressors, Coolers & Safety Devices Diesel driven - Good.

39 Air Receivers & Safety devices - Main Upper - Good.

40 Auxiliary

41 Oil Fuel Tanks (Not forming part of hull structure)

42 Evaporators

43 Have Evaporator Safety Valves been tested under steam?

44 Steering Machinery

45 Windlass

46 Fire Extinguishing Arrangements

AUXILIARY ENGINES (Identify by position) Air Compressor Diesel Engine - Good. Diesel generator engine - Good.

PROPULSION	PORT	STARBOARD	ELECTRICAL EQUIPMENT	AUXILIARY EQUIPMENT
Generators			Generators & Governors	
Exciters				
Air Coolers			Motors	
Motors			Switchboards & Fittings	
Air Coolers			Circuit Breakers	
Control Gear, Cables, etc.			Cables	
Insulation Resistance			Insulation Resistance	
Insulating Oil Test			Steering Gear Generators and Motors	
Over-speed Governors			Navigation Light Indicators	
Magnetic Couplings				
Air Gap				

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

MAIN AUXILIARY 7/11/59 - Good

Superheaters None Fitted

Safety Valves Good

Mountings, Doors & Fastenings Good

Safety Valves Adjusted to 180 lbs.

Boiler Securing Arrangements Good.

Main Economisers Exhaust Gas Heated Economisers

Steam Heated Steam Generators Steam Generator Safety Valves Adjusted to

Were Oil Burning System & Remote Controls examined working in accordance with Rules? Yes Forced Circulating Pumps

Have Saturated Steam Pipes in cylindrical boiler smoke boxes been examined as required by Rules? None Fitted Good.

EXAMINATION & TESTING OF STEAM PIPES (State material)

Main Auxiliary (over 3 in. bore)

Were Copper Pipes annealed? 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)

Repairs (Wear and Tear)

Screw shaft & Stern bush Screw shaft liner slightly tapered, now machined true and stern bush rewooded to close fit.

Main Engine No. 2 cylinder liner in excess of maximum wear limits and several fractures apparent at approximately mid-height. Previously used liner, within wear limits, together with extension piece now fitted.

No. 3 cylinder cover fractured in way of exhaust valve pocket, fracture now repaired by Metalock and cover refitted. It is therefore recommended No. 3 cylinder cover be re-examined by end of June, 1960 (6 mns limit).

No. 4 cylinder liner in excess of maximum wear limits, new liner, extension piece and cover now fitted, stamping particulars as follows:-

Cover - L.R. P4203 Lloyds No. 36081 Nwc W.T. 75 lbs. 19-3-59.

Liner - Tested 70 Kg. 24-6-59.

Extension piece - Lloyds No. 19114 Test 35 lbs.

Cont. Sheet 2

Survey fee \$650

TSOL \$150

ABS \$120

Repairs \$125

Damage fee

Expenses \$ 25

Date when A/c rendered 28/12/59

Rpt. 9a

Port of

Continuation of Report No. 13679 dated 9/12/59

on the

M.V. "DRUPA"

Sheet 2.

No. 5 liner in excess of maximum wear limits and fracture apparent at approximately mid-height. Previously used liner together with extension piece and within wear limits, now fitted.

No. 6 cylinder liner in excess of maximum wear limits. Previously used liner, together with extension piece, and within wear limits, now fitted.

No. 7 cylinder liner in excess of maximum limits. Previously used spare liner and extension piece, within wear limits, now fitted. Cylinder cover fractured in way of exhaust valve pocket, fracture now repaired by Metalock. Spigot fitting on bottom of cover wasted and partially broken away. Spigot now machined away completely and steel spigot plate made and fitted, the plate being secured to cover by counter sunk head screws. Before fitting steel plate, a light jointing material was fitted between base of cover and steel spigot plate and repair found satisfactory under working conditions. (see attached Drawing No. E 475 for detail of repair). It is recommended the Metalock repair to this cover be re-examined by the end of June, 1960 (6 mos limit).

No. 8 cylinder liner in excess of maximum wear limits, liner and cylinder cover now renewed. Stampings noted as follows:-

Liner - Lloyds No. 19125 29-12-49.

Cover - L.R. P4165 Lloyds No. 36080 Nwc W.T. 75 lbs 9-3-59.

The metal of the cylinder blocks of all units, in way of spigot recess, was found graphitised and broken away to a varying degree in each case. All cylinder blocks have now been machined to good metal and good quality cast iron rings made by the Singapore Harbour Board and satisfactorily fitted as per attached Drawing No. E /475. On completion all repairs were examined under working conditions and found satisfactory. It is submitted this repair be accepted as permanent, as the work and time involved to effect subsequent examination would be considerable.

All pistons and piston rod palm coupling faces pitted to varying extent in way of telescopic pipe, all now machined true and satisfactorily refitted.

No. 1 unit top end bearings metal cracked and loose, bearings now remetalled and satisfactorily refitted.

No. 2 unit crankpin bearing bolts appeared slightly stretched, spare bolts now fitted.

No. 3 unit top end bearings metal cracked and loose, bearings remetalled and satisfactorily refitted.

No. 7 unit top end bearings metal cracked and loose, bearings remetalled and refitted. Crosshead pins severely ridged, pins now machined true.

Attached Sanitary Pump Scrolls severely worn, now renewed.

Aft Fuel Oil Pump Steam cylinder ridged and tapered, cylinder now machined and new piston fitted.

H.V.F. Transfer Pump Bucket rods severely worn, now renewed.

Fuel Valve Cooling Pump Stator, rotor and driving shaft and bearings severely worn, all now renewed.

Auxiliary Boiler A total of 17 wasted combustion chamber partition stays renewed. Other minor wear and tear repairs effected.