

Rpt. 9

Date of writing report 28.11.60
Survey held at Piraeus

Received London
No. of visits 16

Port Piraeus No. 8813
First date 23.6.60 Last date 27.10.60

REPORT OF PERIODICAL SURVEYS & REPAIRS OF MACHINERY

No. in R.B. 90642 S.S. Name "MANDO" Gross tons Date of build 1930-5
Owners Michael Pyliaros, Fotius Managers Port of Registry Piraeus
Engines made Hsg. By Helsingors Skibs. & Msk. Type T 3 Cy.
No. of Main Engines 1 No. of Screws 1
No. of Main Boilers 2SB W.P. 200lbs.Spt.
No. of Aux./Donkey Boilers W.P.
Surveyed Afloat or in Dry Dock Both
Nature of Survey ES & Conversion to Diesel
Was Damage Report issued? No. Int. Cert.? Yes.
Last Report (For Head Office only)

Hull		Machinery	
+100A1		+LMC	
with freeboard		ES	4,57
(Dr)SS	2,57	MBS	3,60
DS	3,60	TS OG	3,60

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 thus † 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 counted from forward.

Now. DOCKING Propellers Good. Wear Down of Stern Bushes Oil tight Oil Glands Good. Sea Connections Good.
Fastenings Good. Has Screwshaft Tubeshaft been drawn? No. Date of Examination Has Shaft been changed?
Has Shaft now fitted been previously used? Has Shaft now examined/fitted a continuous liner? Approved oil gland?
MAIN ENGINES (Recip. Steam or I.C.) PORT STARBOARD
1 Cyls., Covers, Pistons & Rods
2 Valves & Gears
3 Connecting Rods, Top Ends & Guides Side Centre
4 Crankpins & Bearings Side Centre
5 Journals & Bearings
MAIN ENGINE DRIVEN AIR COMPRESSORS
6 Cyls., Covers, Pistons & Rods
7 Connecting Rods & Top Ends
8 Crankpins & Bearings
9 Journals & Bearings
10 Coolers & Safety Devices
MAIN ENGINE DRIVEN SCAVENGE PUMPS
11 Cyls., Covers, Pistons & Rods
12 Connecting Rods & Top Ends
13 Crankpins & Bearings
14 Journals & Bearings
15 Levers
SCAVENGE BLOWERS
17 SUPERCHARGERS
MAIN TURBINES
18 Casings, Rotors, Blading, Bearings & Thrusts
EXHAUST STEAM TURBINES (WITH RECIP. ENGINES)
STEAM COMPRESSORS
CLUTCHES & HYDRAULIC COUPLINGS
REDUCTION GEARING
THRUST BLOCKS, SHAFTS & BEARINGS Good.
INTERMEDIATE SHAFTS & BEARINGS Good.
HOLDING DOWN BOLTS & CHOCKS Good.
CONDENSERS (MAIN & AUX.)
STEAM RE-HEATERS
DE-SUPERHEATERS
STOP & MANOEUVRING VALVES
MAIN ENGINE DRIVEN PUMPS Please see Rpt. 4b No. 8813
CRANKCASE DOORS & EXPLOSION RELIEF DEVICES Have Main Engines been tested working and manoeuvring? Yes.

OPINION OF MACHINERY AND RECOMMENDATIONS The Machinery of this vessel is eligible in my opinion to have notation of +LMC "Class contemplated", subject to (1) the electrical installation being altered to rule requirements (2) efficient provision made for first charging air receivers at earliest opportunity and (3) bilge pumping being re-examined and dealt with as found necessary on vessels return to Piraeus (about the end of November, 1960). (Main engine not to be operated continuously between 138 and 164 r.p.m.)

Date of Committee TUESDAY - 2 MAY 1961
Decision See Rpt. 8839

32 Essential Independent Pumps (Identify by position) Bilge & Ball pump (p.s.aft ER); Ball pump(p.s.fwd.ER); Compressor cooling pump(s.s.ER); Fuel oil transfer hand pump(p.s.f.ER)- All Good.

33 Bilge, Ballast & Oil Fuel Suction Lines, Fittings & Controls Good except bilge.

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

35 Fresh Water Coolers 36 Lub. Oil Coolers Good(New) 37 Heaters (state service)

38 Independent Air Compressors, Coolers & Safety Devices Good (New)

39 Air Receivers & Safety devices—Main Good (New) 40 Auxiliary Good.

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

42 Evaporators 43 Have Evaporator Safety Valves been tested under steam?

44 Steering Machinery Good. 45 Windlass Good. 46 Fire Extinguishing Arrangements Good.

AUXILIARY ENGINES (Identify by position) Port & Stbd. 60 kw diesel engine - Good.
Small emergency diesel - Good.

PROPULSION		ELECTRICAL EQUIPMENT	
PORT	STARBOARD		AUXILIARY EQUIPMENT
a Generators			Generators & Governors Good.
b Exciters			
c Air Coolers			
d Motors		m Motors	Good.
e Air Coolers			
f Control Gear, Cables, etc.		n Switchboards & Fittings	Good.
g Insulation Resistance		o Circuit Breakers	Good.
h Insulating Oil Test		p Cables	Good.
i Overspeed Governors		q Insulation Resistance	Good.
j Magnetic Couplings		r Steering Gear Generators and Motors	
k Air Gap		s Navigation Light Indicators	Good.

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

MAIN AUXILIARY, DONKEY or PRESS

Superheaters

Safety Valves

Mountings, Doors & Fastenings

Safety Valves Adjusted to (Sat. Spt.

Boiler Securing Arrangements

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? Forced Circulating Pumps

Have Saturated Steam Pipes in cylindrical boiler smoke boxes been examined as required by Rules? Funnel

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)

Conversion from steam to motor ship

The steam engine, boilers, auxiliaries and steam and feed water piping removed in their entirety.

New seatings for main engine and auxiliaries constructed in accordance with the approved plans and secretary's letters.

A new 5 cylinders, 2 stroke single acting diesel engine NOHAB Type MI-5, cylinders 345 mm. bore and 580 mm. stroke of 840 BHP at 280 R.P.M. the main engine constructed under the supervision of the society's surveyors Gothenburg. (Please see Gothenburg Rpt.4b No.26015 for particulars), has now been fitted.

The existing thrust and intermediate shafting already in the vessel retained.

All stbd. side shipside sea injections in way of the engine room were removed and shipside plating efficiently closed. There now remains only two injections from the sea on the port side which are retained for use together with existing valves for the new piping arrangements.

Existing sea valves examined and found in order.

Cont/...

Survey fees £ 55.10. 0

Late Fees 24. 0. 0

Damage fee

Expenses... 12. 0. 0

Date when A/c rendered 7.1.61

LEAVE THIS SPACE BLANK

Class contemplated.
Boeking.
Machinery Survey held as stated in this Report.
Submitted and is eligible to be closed
+ L.M.C. with record ES (with stat) subject
as this report when all sub requirements
are complied with.

on the S.S./M.S. "MANDO"

A new C.I. propeller now fitted to the existing tailshaft, the fit of the propeller seen without and with the key and the propeller not witnessed hardened up.

Two main air receivers and the L.O. cooler supplied by the engine builders and reported on Gothenburg Rpt.4b No.26015.

Two 60 kw. diesel generating sets together with their own air starting bottles fitted, these sets being reconditioned units and have particulars as follows:-

Diesel engines, Ruston and Hornsby Size 3 Type VCR.

Port unit:- No.201705, crankcase relief devices fitted.

Crankshaft marks:- RB 5958 3VCR 235 13P 16343.

Connecting rods:- LLOYDS AS 3547A 28.3.40.

Air receiver No.E 2294 Plate 5/6".

W.T. 40 ATS W.P. 20 ATS

Date of test 16.9.41

British patent No.306:660.

Port Generator:- Laurence Scott. 100V 600 amps 60 kw. Gen. 100429 reconditioned.

Stbd. auxiliary diesel unit.

Engine No.201706. Crankcase explosion relief devices fitted.

Crankshaft marks, R.B. 4612 3VCR 235 13.P.16344.

Connecting rods LLOYDS 108 CB 21-9-39

Air receiver, Ruston & Hornsby,

No.E 2295 Plate 5/16" W.T. 40 Ats WP 20ATS Date of test 16-9-41

British patent No.306:660

Stbd. Generator:- Lawrence Scott, Gen. No.100428 60 kw

Built 1936 reconditioned 75843.

Emergency diesel generator (new)fitted:-

Engine, LISTER DURSLEY No. 575 SL 3210 IP 18 RPM 1800, Hand starting.

Generator CROMPTON PARKINSON 6.7 kw DC Gen No.66783 115V 58 Amps, ~~XXXXXXXXXX~~.

Independent Compressor:- (ES. ER)

ATLAS DIESEL No.33057 TYPE LPKI LLOYDS TEST 5-8-51.

36 kgs/cm" (Made in Sweden)

Motor:- ASEA 110V 56A LD 17 No.4284.295

Cooling pump for independent compressor:- (s.s.ER)

Multi stage centrifugal pump. Motor W. WINKELMANN C.DOPP/MOT

No.37559 Type GNR 106/4

1450 RPM 110V 5.7 Amp LR BJ 1955.

Forward Ballast & Bilge Pump(P.S. ER)

Self priming centrifugal pump capacity 50 M³/ hour at 11.5 M head.

Manufacturers LOEWE PUMPEN FABRIC GmbH.,Luneburg.

Type KL80 Works O/N 60/40494 No.60/2048 LLOYDS TEST HAM 26.7.60 H.E.

Motor HANSA TYPE 411/2 110V 53A 5 kw G.MOT 609836.

After Ballast & Bilge pump (p.s.ER)

New Reciprocating horizontal duplex pump stated manufactured in Chekoslovakia Driven by belt from motor.

Motor:- BKB Serial No.B. 24488 110V 45.5 amps.



© 2020

Lloyd's Register Foundation

on the S.S./M.S. "MANDO"

Capacity of pump stated 35 M³/hour.

~~Windlass Motor HANSA Type 416/7 kW 60837 110V 130A~~

One daily service tank fitted forward ER flat Capacity 1200 kgs.

A semi-rotary hand pump fitted for O.F. transfer from fuel oil side deep tanks to the daily service tank.

Windlass. The original crankshaft frame and cable lifters retained, the drive now converted by fitting a shaft geared to an electric motor.

Motor:- HANSA 110V 130A 12kw Type 416/7.

Steering gear:- A new hand hydraulic steering gear fitted of local manufacture.

The hand operated emergency gear retained.

All auxiliary engines opened out and examined. All pumps not covered by Lloyds tests opened out and examined and found in good order.

Both auxiliary air bottles examined and tested hydraulically to twice thier working pressure.

Pumping arrangements altered to approved plan and tested on completion.

Safety valves of air receivers and pumps adjusted.

A short sea trial was held when main and auxiliary machinery were tested under working conditions.

Electrical installation was tested. The two 60 kw generator sets switches on the board were tested for reverse current tripping only as there was no means available to test the overboard tripping arrangements.

Steering gear and windlass tested.

The trials of main and auxiliary machinery gave satisfactory results with the exception of the following.

(1) The arrangement for first charging the air receivers was not efficient; i.e.

the small emergency diesel generating set has not sufficient power to operate the independent compressor to full pressure.

(2) The pumping of bilges by the forward centrifugal ballast and bilge pump was not very efficient, although the piping is fitted according to the approved plan.

It is considered that the pipe connection to the pump could be the reason, due to acute bends in the line.

(3) The electrical installation main wiring from the 60kw generators to the board are not of sufficient size for a full load of 60 kw.

It is submitted therefore that the machinery of this vessel be given a notation of +LMC "Class contemplated" subject to (1) the elctrical installation being altered to rule requirements at the earliest opportunity (2) Efficient provision being made for first charging air receivers and (3) bilge pumping of the forward ballast and bilge pump being re-examined and dealt with as found necessary on the vessel's return to Piraeus (about the end of November, 1960). (Main engine not to be operated continuously between 138 & 164 R.P.M.

Our rpt.4b No. 8813 & Rpt.13 No. 8813 together with copy of Gothenburg Rpt.4b No.26015 are returned herewith.



© 2020

Lloyd's Register
Foundation