

Rpt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 6978.

11 FEB 1926

Date of writing Report 21st Jan 26 When handed in at Local Office Feb 5th 26 Port of Trieste
 No. in Survey held at Trieste Date of Survey Oct 6, 1924 Last Survey Jan 13 1926
 Reg. Book. 20767 on the Single Trieste GIULIA Tons Gross 5921
 Built at Monfalcone By whom built cantieri Navale Triestino Yard No. 138 When built 1926
 Engines made at Trieste By whom made Stabilimento Tecnico Triestino Engine No. 5012 When made 1926
 Donkey Boilers made at Roman By whom made Bochian & Son Boiler No. 9566 When made 1925
 Brake Horse Power 1000 Owners Carulich Soc. S. di Nav. Port belonging to Trieste
 Nom. Horse Power as per Rule 652 Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

OIL ENGINES, &c. Type of Engines Burmeister Main Diesel 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinder 35 kg/cm² No. of cylinders 8 Diameter of cylinders 140 No. of cranks 8 Length of stroke 1500
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1004 Is there a bearing between each crank yes
 Revolutions per minute 95 Flywheel dia. 2900 Weight 10,000 Means of ignition Comp. Air Kind of fuel used Diesel oil
 Crank Shaft, dia. of journals as per Rule 481 Crank pin dia. 482 Crank Webs 344 Mid. length breadth 310 Thickness parallel to axis 310
 Flywheel Shafts, diameter as per Rule 481 Intermediate Shafts, diameter as fitted 345 Thrust Shaft, diameter at collars as per Rule 361
 Tube Shafts, diameter as per Rule 381 Screw Shaft, diameter as fitted 388 Is the screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule 19 Thickness between bushes as fitted 17 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 yes
 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 yes
 If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft yes
 Propeller, dia. 5300 Pitch 4000 No. of blades 4 Material brass Is it a governor or other arrangement fitted to prevent racing of the engine yes Total Developed Surface 8.754 sq. feet
 Method of reversing Engines Air (Bosch) Are the cylinders fitted with safety valves yes Are the exhaust pipes yes Means of lubrication forced
 Thickness of cylinder liners 53.5/41 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine yes
 Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Bilge Pumps fitted to the Main Engines, No. 2 Diameter 160 Stroke 280 Can one be overhauled while the other is at work yes
 Pumps connected to the Main Bilge Line 1 @ 170 x 150, 1 @ 170 x 150, 1 @ 300 x 300: all duplex
 Ballast Pumps, No. and size 1 @ 300 x 300 Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 35 tons per hour
 Are two independent means arranged for circulating water through the Oil Cooler in double bottom suction, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size: In Engine and Boiler Room 4 @ 3 1/2", 1 @ 4" in isolated tank @ 3 1/2", 1 @ 4" in tank @ 3 1/2", 1 @ 4" in tank @ 3 1/2"
 In Holds, &c. 11 @ 3 1/2", 4 @ 4" in deep tank, 2 @ 3 1/2" in cofferdams

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 @ 3 1/2", 1 @ 4"
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Space yes
 Are they fitted with Valves or Cocks Both
 Are all Sea Connections fitted direct on the skin of the ship yes Are the Overboard Discharges above or below the deep water line Above
 Are they fixed sufficiently high on the ship's side to be seen without lifting the station plates yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes How are they protected yes
 What pipes pass through the bunkers yes Have they been tested as per Rule yes
 What pipes pass through the deep tanks yes

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 top platform
 If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes
 Main Air Compressors, No. one No. of stages 3 Diameters 450, 675, 150 Stroke 610 Driven by Main crank shaft
 Auxiliary Air Compressors, No. 1 each No. of stages 3 Diameters 322, 288, 79 Stroke 220 Driven by 2 cyl. aux. Diesel engines
 Small Auxiliary Air Compressors, No. one No. of stages 2 Diameters 106, 34 Stroke 80 Driven by Single cyl. steam engine
 scavenging Air Pumps, No. one Diameter 161.5 Stroke 162 Driven by yes

Auxiliary Engines crank shafts, diameter as per Rule 161.5 as fitted 162
 AIR RECEIVERS, Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes What means are provided for cleaning their inner surfaces Steam for blast bottles
 Are the internal surfaces of the receivers be examined yes Is there a drain arrangement fitted at the lowest part of each receiver yes
 High Pressure Air Receivers, No. 3 main 3 aux. Cubic capacity of each 2 @ 500 litres Internal diameter 480 thickness 20
 Seamless, lap welded or riveted longitudinal joint Seamless Material SM. steel Range of tensile strength 26-30 tons Working pressure by Rules 40.6
 Starting Air Receivers, No. 2 Total cubic capacity 4.0 m³ Internal diameter 1953 thickness 26.5
 Seamless, lap welded or riveted longitudinal joint united Material 5 Range of tensile strength 44-50.5 Working pressure by Rules 25

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	12/3/25 - 4/4/25	35 kg/cm ²	60 kg/cm ²	Gob NL	Plain form turned & tried
" " COVERS	2/5/25 - 2/7/25	" " "	" " "	Gob NL	tested 3 kg/cm ² in water
" " JACKETS	25/6/25 & 2/7/25	1.5 " "	3 " "	Gob NL	
" " PISTON WATER PASSAGES	5/6/25 - 22/6/25	" " "	10 " "	Gob NL	
MAIN COMPRESSORS—1st STAGE	24/7/25 - 31/7/25	45 " "	" " "	Gob NL	
" 2nd "	24/7/25 - 31/7/25	20 " "	40 " "	Gob NL	
" 3rd "	3/7/25 - 5/8/25	65 " "	130 " "	Gob NL	water circulating
AIR RECEIVERS—STARTING	21/8/25 & 24/8/25	25 " "	39 " "	Nos 48 & 49	passages tested to 3 at
" INJECTION	25/9/24	65 " "	1850 kg/cm ²	date, test, 50	
AIR PIPES	5/8/25 - 28/12/25	25 kg/cm ²	50 & 130 kg/cm ²	Gob NL	
FUEL PIPES	4/7/25 - 4/8/25	65 " "	130 " "	Gob NL	
FUEL PUMPS	28/3/25 & 31/3/25	" " "	" " "	Gob NL	
SILENCER	14/9/25	" " "	3.5 " "	NL	Not water cooled
Exhaust WATER JACKET	26/5/25 - 5/6/25	1.5 " "	3.5 " "	TM	
SEPARATE FUEL TANKS	8/9/25 & 11/9/25	depth of tanks	15 kg/cm ²	Nos 50 & 51	date, test, 9 & 6.

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval)

Donkey Boilers

General Pumping Arrangements

Receivers

Separate Tanks

Oil Fuel Burning Arrangements

SPARE GEAR

See attached list

Stabilimento Tecnico Triestino
The foregoing is a correct description,
Fabbrica macchine S. Andrea - Trieste

Manufacturer.

DUAL CLASS

L.R. & R.I.

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

152

See attached sheet

Dates of Examination of principal parts—Cylinders 12/3/25-2/7/25 Covers 2/5/25-2/7/25 Pistons 5/6/25-22/6/25 Rods 21/5/25 Connecting rods 5/11/24-16/1/25
Crank shaft 16/2/25 Flywheel shaft 26/3/25 Thrust shaft 26/3/25 Intermediate shafts 22/10/25 Tube shaft
Screw shaft 26/3/25 Propeller 4/1/26 Stern tube 2/3/25 Engine seatings 16/9/25 Engines holding down bolts 4/1/26
Completion of fitting sea connections 2/3/25 Completion of pumping arrangements 28/11/25 Engines tried under working conditions 4/1/26
Crank shaft, Material SM light steel Identification Mark 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000
Thrust shaft, Material Identification Mark
Intermediate shafts, Material Identification Marks
Tube shaft, Material Identification Mark
Screw shaft, Material Identification Mark

Is the flash point of the oil to be used over 150° F.

Is this machinery duplicate of a previous case

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built under special survey and in accordance with the approved plans. The materials and workmanship are good. The machinery has been efficiently secured on board and on completion has been tested under full working conditions with satisfactory results. The manouvering trials have been satisfactorily carried out in accordance with the Rules. With propeller immersed and main compressor shut off, 40 revolutions was obtained with a steady pressure of blast air from two of the auxiliary engines. The machinery of this vessel is eligible in our opinion to be classed in the Register Book with notation of +LMC 1.26.

The amount of Entry Fee ... £ 722.-
Special ... £ 13,966.-
Donkey Boiler Fee ... £
Travelling Expenses (if any) ... £ 1,350.-
Sunday Fee ... £ 252.-
Committee's Minute

When applied for,

1/2/1926

When received,

16/4/1926

Assigned

TUES, 16 FEB 1926

+LMC 1.26 C.L.
Oil Engines

Engineer, Surveyor, Lloyd's Register of Shipping.

Lloyd's Register Foundation