

REPORT ON MACHINERY.

No. 9190

Received at London Office

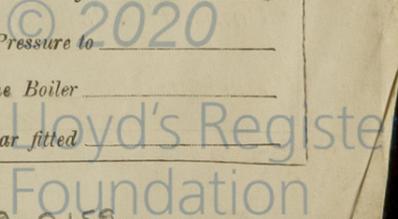
15 SEP 1924

Date of writing Report 19 When handed in at Local Office 12 4 10 Port of Belfast
 No. in Survey held at Belfast Date, First Survey 31st October, 1923 Last Survey Sept 10 1924
 Reg. Book. on the New Steel S.S. Barrington Court (Number of Visits 69)
 Master Built at Belfast By whom built Workman Clark & Co Ltd Tons Gross 4910 Net 2985
 Engines made at Belfast By whom made Workman Clark & Co Ltd (440 1/2) when made 1924
 Boilers made at Belfast By whom made Workman Clark & Co Ltd (440 1/2) when made 1924
 Registered Horse Power Owners Court Line Coy Ltd Port belonging to London
 Nom. Horse Power as per Section 28 414 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three
 Dia. of Cylinders 26, 42, 40 Length of Stroke 48 Revs. per minute 62 Dia. of Screw shaft 14.47 Material of screw shaft Steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight in the propeller boss yes
 If the liner is in more than one length are the joints burned 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 Length of stern bush 5'-0"
 Dia. of Tunnel shaft 12.98 Dia. of Crank shaft journals 13.62 Dia. of Crank pin 14.4 Size of Crank webs 8 7/8 Dia. of thrust shaft under collars 14 Dia. of screw 1 1/2 Pitch of Screw 1 1/2 No. of Blades 4 State whether moveable no Total surface 98
 No. of Feed pumps 2 Diameter of ditto 4 1/2 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Donkey Engines See List Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2 R. 2 @ 3", B.R. 2 @ 3" Spec 1 @ 1/2" In Holds, &c. No 1, 2 @ 3"; No 2, 2 @ 3"; Tunnel well 1 @ 3"
 No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 4 1/2"
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible yes
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line above
 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
 What pipes are carried through the bunkers Bilge suction How are they protected Wood casings
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platform

BOILERS, &c.—(Letter for record no) Manufacturers of Steel W. Beardmore & Co Ltd
 Total Heating Surface of Boilers 4017 1/2 Is Forced Draft fitted no No. and Description of Boilers 3 single Ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 320 lbs Date of test 24-6-24 No. of Certificate 340
 Can each boiler be worked separately yes Area of fire grate in each boiler 66.125 No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 5.94 Pressure to which they are adjusted 1085 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 2'-6" Mean dia. of boilers 15'-6" Length 11'-0" Material of shell plates Steel
 Thickness 1 1/4" Range of tensile strength 28 & 32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R. long. seams T.R.D.S.
 Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/16" Lap of plates or width of butt straps 18 7/8"
 Per centages of strength of longitudinal joint 85.9 Working pressure of shell by rules 181.5 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring 2 @ 3" x 2 @ 3" No. and Description of Furnaces in each boiler 3 of 3 corr Material Steel Outside diameter 4'-1 1/4"
 Length of plain part 19" Thickness of plates 37" Description of longitudinal joint weld No. of strengthening rings yes
 Working pressure of furnace by the rules 184.2 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/2" Back 1 1/2" Top 1 1/2" Bottom 1 1/2"
 Pitch of stays to ditto: Sides 8 x 9" Back 9 1/2 x 9 1/2" Top 8 x 10" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 186.3 lbs
 Material of stays Iron Area at smallest part 1.43:2.03 Area supported by each stay 84.4 Working pressure by rules 180 lbs End plates in steam space; Material Steel Thickness 1 3/16" Pitch of stays 19 1/4 x 21 1/2" How are stays secured P.N. Wash Working pressure by rules 182.5 lbs Material of stays Steel
 Area at smallest part 6.66 Area supported by each stay 38.1 Working pressure by rules 189 lbs Material of Front plates at bottom Steel
 Thickness 3/32" Material of Lower back plate Steel Thickness 3/32" Greatest pitch of stays 15 1/16 x 8" Working pressure of plate by rules 18 1/2 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 3/4" Material of tube plates Steel Thickness: Front 3/32" Back 13/16" Mean pitch of stays 11 1/8"
 Pitch across wide water spaces 11 1/4 x 8 1/4" Working pressures by rules 203 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 2 @ 9 3/4" x 3 1/4" Length as per rule 2'-10" Distance apart 10" Number and pitch of stays in each 3 @ 8"
 Working pressure by rules 185 lbs Steam dome: description of joint to shell none % of strength of joint

SUPERHEATER. Type none Date of Approval of Plan Feb. 16 Tested by Hydraulic Pressure to 2020
 Date of Test 3. 17. 25 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
 Diameter of Safety Valve 59 Pressure to which each is adjusted 185 lbs Is Easing Gear fitted no



IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Two sets bolts & nuts for top & bottom ends of main bearings, One set coupling bolts, one set feed & ledge pump valves, Quantity of assorted bolts nuts & iron. Tail Shaft & C.T. Propeller complete. one set L.C. Rings for all pistons & piston valves.

The foregoing is a correct description,

FOR WORKMAN, CLARK & CO., LIMITED,

F. Cunningham

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1923 Oct 31, Nov 1, 13, 14, 15, 21, 23, 26, 27, Dec 12, 20, 21, 1924 Jan 16, 17, 23, 25, 29, 30, Feb 5, 11, 12, 27, 29, Mar 4, 11, 13, 18, 21, 24, 25, 31, Apr 9, 5, 16, 23, 29, May 2, 5, 8, 9, 12, 13, 14, 20, 19, 26, 28, 30, June 2, 4, 6, 17, 19, 20, 23, 24, 27, July 3, 4, 7, 9, 24 Aug 29, 30, 26, 28 Sept 3, 10. = 69
During erection on board vessel ---
Total No. of visits 69

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 5-5-M Slides 21-3-M Covers 13-3-M Pistons 13-3-M Rods 27-2-M
Connecting rods 9x4-M Crank shaft 9-5-M Thrust shaft 24-6-M Tunnel shafts 9-5-M Screw shaft 24-6-M Propeller 19-6-M
Stern tube 19-6-M Steam pipes tested 26-8-M Engine and boiler seatings 90-6-M Engines holding down bolts 25-8-M
Completion of pumping arrangements 95-8-M Boilers fixed 21-8-M Engines tried under steam 10-9-M
Completion of fitting sea connections 24-4-M Stern tube 9x4-M Screw shaft and propeller 95-4-M
Main boiler safety valves adjusted 3-9-M Thickness of adjusting washers 90h P 5/16 S 1/16, C 13h P 5/16 S 1/16, S 13h P 1/16 S 1/32
Material of Crank shaft Steel Identification Mark on Do. 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 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
Material of Tunnel shafts Steel Identification Marks on Do. 6805, 6806 Material of Screw shafts Steel Identification Marks on Do. 6485, 6486
Material of Steam Pipes S.D. Steel Test pressure 540 lbs M'

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case yes. If so, state name of vessel Arlington Court

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Machinery of this vessel has been built under Special Survey. Materials & workmanship good, hydraulic tests satisfactory. The whole of the machinery has been satisfactorily installed & fixed in the vessel & tried under steam & is in good & safe working condition & eligible in my opinion to be classed & have records ✕ L.M.C. 9-24 Tail shaft C.L. & St.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.24. CL.

Independent pumps:
2 Ballast duplex 8" x 10" x 10"; 1 Centrifugal circulating Hp 11" suction x 3-3" dia impeller. 1 Evaporator feed duplex 3 1/2" x 2 1/4" x 3 1/2"; 1 General service duplex 8" x 6" x 8"; 2 Decis feed pps 4" x 9 1/2" x 21"

The amount of Entry Fee ... £ 5 : 0 : 0 :
Special Electric Light ... £ 87 : 2 : 0 :
Donkey Boiler Fee ... £ 15 : 0 : 0 :
Travelling Expenses (if any) £ ✓ : :
When applied for, 8/9/1924
When received, 15/9/24

William Butler
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 19 SEP 1924
Assigned L.M.C. 9.24
C.L.

