

Rpt. 4.

## REPORT ON MACHINERY.

No. 40537

Date of writing Report 26 Oct. 1920 When handed in at Local Office 30. 10. 1920 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 10th June 1918 Last Survey 25. Oct. 1920  
Reg. Book. on the S.S. "Alvarado" (Number of Visits 69) Tons Gross Net

Master D. Davies Built at Glasgow By whom built A. J. Inglis Ltd. (327) When built 1920

Engines made at Glasgow By whom made A. J. Inglis Ltd. (442) when made 1920

Boilers made at Glasgow By whom made A. J. Inglis Ltd. (604) when made 1920

Registered Horse Power Owners Messrs MacAndrews &amp; Co. Port belonging to London

Nom. Horse Power as per Section 28 265.5 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &amp;c.—Description of Engines Triples No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 22.36.59 Length of Stroke 39 Revs. per minute 80 Dia. of Screw shaft as per rule 11.41 as fitted 11.41 Material of screw shaft 3

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 No 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 No If two

liners are fitted, is the shaft lapped or protected between the liners No Length of stern bush 4.10

Dia. of Tunnel shaft as per rule 11.41 as fitted 11.41 Dia. of Crank shaft journals as per rule 11.41 as fitted 11.41 Dia. of Crank pin 11.41 Size of Crank webs 3.6 x 7.4 Dia. of thrust shaft under

collars 12 Dia. of screw 15.9 Pitch of Screw 15.3 No. of Blades 4 State whether moveable No Total surface 74.8

No. of Feed pumps 2 Diameter of ditto 3 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps 2.5, 1.5, 1.5, 1.5, 1.5 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2-3.2 Strokehold 2-3 In Holds, &amp;c. 1.2, 3.4, 4.5, 5.6, 6.7, 7.8, 8.9, 9.10, 10.11, 11.12, 12.13, 13.14, 14.15, 15.16, 16.17, 17.18, 18.19, 19.20, 20.21, 21.22, 22.23, 23.24, 24.25, 25.26, 26.27, 27.28, 28.29, 29.30, 30.31, 31.32, 32.33, 33.34, 34.35, 35.36, 36.37, 37.38, 38.39, 39.40, 40.41, 41.42, 42.43, 43.44, 44.45, 45.46, 46.47, 47.48, 48.49, 49.50, 50.51, 51.52, 52.53, 53.54, 54.55, 55.56, 56.57, 57.58, 58.59, 59.60, 60.61, 61.62, 62.63, 63.64, 64.65, 65.66, 66.67, 67.68, 68.69, 69.70, 70.71, 71.72, 72.73, 73.74, 74.75, 75.76, 76.77, 77.78, 78.79, 79.80, 80.81, 81.82, 82.83, 83.84, 84.85, 85.86, 86.87, 87.88, 88.89, 89.90, 90.91, 91.92, 92.93, 93.94, 94.95, 95.96, 96.97, 97.98, 98.99, 99.100, 100.101, 101.102, 102.103, 103.104, 104.105, 105.106, 106.107, 107.108, 108.109, 109.110, 110.111, 111.112, 112.113, 113.114, 114.115, 115.116, 116.117, 117.118, 118.119, 119.120, 120.121, 121.122, 122.123, 123.124, 124.125, 125.126, 126.127, 127.128, 128.129, 129.130, 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796.797, 797.798, 798.799, 799.800, 800.801, 801.802, 802.803, 803.804, 804.805, 805.806, 806.807, 807.808, 808.809, 809.810, 810.811, 811.812, 812.813, 813.814, 814.815, 815.816, 816.817, 817.818, 818.819, 819.820, 820.821, 821.822, 822.823, 823.824, 824.825, 825.826, 826.827, 827.828, 828.829, 829.830, 830.831, 831.832, 832.833, 833.834, 834.835, 835.836, 836.837, 837.838, 838.839, 839.840, 840.841, 841.842, 842.843, 843.844, 844.845, 845.846, 846.847, 847.848, 848.849, 849.850, 850.851, 851.852, 852.853, 853.854, 854.855, 855.856, 856.857, 857.858, 858.859, 859.860, 860.861, 861.862, 862.863, 863.864, 864.865, 865.866, 866.867, 867.868, 868.869, 869.870, 870.871, 871.872, 872.873, 873.874, 874.875, 875.876, 876.877, 877.878, 878.879, 879.880, 880.881, 881.882, 882.883, 883.884, 884.885, 885.886, 886.887, 887.888, 888.889, 889.890, 890.891, 891.892, 892.893, 893.894, 894.895, 895.896, 896.897, 897.898, 898.899, 899.900, 900.901, 901.902, 902.903, 903.904, 904.905, 905.906, 906.907, 907.908, 908.909, 909.910, 910.911, 911.912, 912.913, 913.914, 914.915, 915.916, 916.917, 917.918, 918.919, 919.920, 920.921, 921.922, 922.923, 923.924, 924.925, 925.926, 926.927, 927.928, 928.929, 929.930, 930.931, 931.932, 932.933, 933.934, 934.935, 935.936, 936.937, 937.938, 938.939, 939.940, 940.941, 941.942, 942.943, 943.944, 944.945, 945.946, 946.947, 947.948, 948.949, 949.950, 950.951, 951.952, 952.953, 953.954, 954.955, 955.956, 956.957, 957.958, 958.959, 959.960, 960.961, 961.962, 962.963, 963.964, 964.965, 965.966, 966.967, 967.968, 968.969, 969.970, 970.971, 971.972, 972.973, 973.974, 974.975, 975.976, 976.977, 977.978, 978.979, 979.980, 980.981, 981.982, 982.983, 983.984, 984.985, 985.986, 986.987, 987.988, 988.989, 989.990, 990.991, 991.992, 992.993, 993.994, 994.995, 995.996, 996.997, 997.998, 998.999, 999.1000, 1000.1001, 1001.1002, 1002.1003, 1003.1004, 1004.1005, 1005.1006, 1006.1007, 1007.1008, 1008.1009, 1009.1010, 1010.1011, 1011.1012, 1012.1013, 1013.1014, 1014.1015, 1015.1016, 1016.1017, 1017.1018, 1018.1019, 1019.1020, 1020.1021, 1021.1022, 1022.1023, 1023.1024, 1024.1025, 1025.1026, 1026.1027, 1027.1028, 1028.1029, 1029.1030, 1030.1031, 1031.1032, 1032.1033, 1033.1034, 1034.1035, 1035.1036, 1036.1037, 1037.1038, 1038.1039, 1039.1040, 1040.1041, 1041.1042, 1042.1043, 1043.1044, 1044.1045, 1045.1046, 1046.1047, 1047.1048, 1048.1049, 1049.1050, 1050.1051, 1051.1052, 1052.1053, 1053.1054, 1054.1055, 1055.1056, 1056.1057, 1057.1058, 1058.1059, 1059.1060, 1060.1061, 1061.1062, 1062.1063, 1063.1064, 1064.1065, 1065.1066, 1066.1067, 1067.1068, 1068.1069, 1069.1070, 1070.1071, 1071.1072, 1072.1073, 1073.1074, 1074.1075, 1075.1076, 1076.1077, 1077.1078, 1078.1079, 1079.1080, 1080.1081, 1081.1082, 1082.1083, 1083.1084, 1084.1085, 1085.1086, 1086.1087, 1087.1088, 1088.1089, 1089.1090, 1090.1091, 1091.1092, 1092.1093, 1093.1094, 1094.1095, 1095.1096, 1096.1097, 1097.1098, 1098.1099, 1099.1100, 1100.1101, 1101.1102, 1102.1103, 1103.1104, 1104.1105, 1105.1106, 1106.1107, 1107.1108, 1108.1109, 1109.1110, 1110.1111, 1111.1112, 1112.1113, 1113.1114, 1114.1115, 1115.1116, 1116.1117, 1117.1118, 1118.1119, 1119.1120, 1120.1121, 1121.1122, 1122.1123, 1123.1124, 1124.1125, 1125.1126, 1126.1127, 1127.1128, 1128.1129, 1129.1130, 1130.1131, 1131.1132, 1132.1133, 1133.1134, 1134.1135, 1135.1136, 1136.1137, 1137.1138, 1138.1139, 1139.1140, 1140.1141, 1141.1142, 1142.1143, 1143.1144, 1144.1145, 1145.1146, 1146.1147, 1147.1148, 1148.1149, 1149.1150, 1150.1151, 1151.1152, 1152.1153, 1153.1154, 1154.1155, 1155.1156, 1156.1157, 1157.1158, 1158.1159, 1159.1160, 1160.1161, 1161.1162, 1162.1163, 1163.1164, 1164.1165, 1165.1166, 1166.1167, 1167.1168, 1168.1169, 1169.1170, 1170.1171, 1171.1172, 1172.1173, 1173.1174, 1174.1175, 1175.1176, 1176.1177, 1177.1178, 1178.1179, 1179.1180, 1180.1181, 1181.1182, 1182.1183, 1183.1184, 1184.1185, 1185.1186, 1186.1187, 1187.1188, 1188.1189, 1189.1190, 1190.1191, 1191.1192, 1192.1193, 1193.1194, 1194.1195, 1195.1196, 1196.1197, 1197.1198, 1198.1199, 1199.1200, 1200.1201, 1201.1202, 1202.1203, 1203.1204, 1204.1205, 1205.1206, 1206.1207, 1207.1208, 1208.1209, 1



IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

Yes

SPARE GEAR. State the articles supplied:— 2 Top end bolts/nuts, 2 bottom end bolts/nuts, 2 main bearing bolts, 1 set coupling bolts, 1 set feed & bilge pump valves, quantity assorted bolts & nuts, iron of various sizes.

The foregoing is a correct description,

A. & J. INGLIS LIMITED.

Peter Wacker

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1918 Jan 10-21 July 11-25-29 Aug 2-12 19-28 Nov 7 Dec 10-11-27 (1919) Jan 8 May 13 July 30-31 Aug 8  
During erection on board vessel -- Sep 17-22-28-29-30 Oct 1-9-16-15-21-23-28-30 Nov 5-10-21-28 Dec 3 (1920) Jan 27 Feb 5-13 Mar 3-15-19 Apr 7-15-30 June 10-11-17-21-29 July 5-8-12 Aug 27-30 Sep 5-6-11-9-13-15-18-21 Oct 7-20-22-24  
Total No. of visits 67

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 30'9"19 Slides 28'10"19 Covers 28'10"19 Pistons 28'10"19 Rods 28'10"19

Connecting rods 28'10"19 Crank shaft 22'9"19 Thrust shaft 29'6"20 Tunnel shafts 21'6"20 Screw shaft 10'6"20 Propeller 10'6"20

Stern tube 10'6"20 Steam pipes tested 11'18"9'20 Engine and boiler seatings 11'6"20 Engines holding down bolts 21'9"20

Completion of pumping arrangements 11'10"20 Boilers fixed 9'9"20 Engines tried under steam 11'23"10'20

Completion of fitting sea connections 5'4"20 Stern tube 5'4"20 Screw shaft and propeller 5'4"5'8"20

Main boiler safety valves adjusted 11'10"20 Thickness of adjusting washers Port Boiler P 3 3/4" Starboard Boiler P 3 3/4"

Material of Crank shaft S Identification Mark on Do. LLOYDS 2009 JD 934 M 21'6"20 Material of Thrust shaft S Identification Mark on Do. LLOYDS 2008 JD 658 M 27'6"20

Material of Tunnel shafts S Identification Marks on Do. X Material of Screw shafts S Identification Marks on Do. LLOYDS 2007 JD 697 M 10'6"20

Material of Steam Pipes Lapwelded Wrought Iron Test pressure 540 lbs.

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

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

Is this machinery duplicate of a previous case? Yes If so, state name of vessel S. S. "Almagro".

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

X Tunnel shaft 2 @ LLOYDS 2009 JD 934 M 21'6"20 3 @ LLOYDS 2009 JD 962 M 21'6"20

The Engines & Boilers of this Vessel have been built under Special Survey, the workmanship & materials are good, they have been well fitted on board tried under steam and found to work satisfactorily.

The Machinery of this Vessel is eligible in my opinion for the Record + LMC 10.20 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC. 10.20

Roll

5/11/20

APR

The amount of Entry Fee ... £ 2 : - : When applied for,

Special ... £ 33 : 5 : 2 NOV 1920

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 9/11/20 66610

Committee's Minute

Assigned + LMC 10.20.

Engineer Surveyor to Lloyd's Register of Shipping.



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