

REPORT ON OIL ENGINE MACHINERY.

No 32996

Received at London Office

NOV 2 1940

of writing Report

When handed in at Local Office 25 Oct 1940 Port of

Sunderland.

Date, First Survey 17 Apr

Last Survey 24 Oct 1940

Number of Visits 79

in Survey held at

g. Book.

Single
on the ~~Twin~~ Screw vessel

"FULTALA"

Tons Gross 5051
Net 2828

uilt at Sunderland

By whom built Wm. Beard & Sons Ld.

Yard No. 664 When built 1940.

Engines made at Sunderland

By whom made Wm. Beard & Sons Ld.

Engine No. 664 When made 1940.

Boilers made at Annan

By whom made Lanchester & Co (Annan) Ld.

Boiler No. When made 1940

Horse Power 2500

Owners British India S. N. Co Ld.

Port belonging to London.

Horse Power as per Rule 516.

Is Refrigerating Machinery fitted for cargo purposes

No. Is Electric Light fitted Yes.

for which vessel is intended

ENGINES, &c. Type of Engines

Approved piston and air injection 4 stroke cycle 2

Single or double acting Single

um pressure in cylinders 548 lbs/sq in

Diameter of cylinders 600 in Length of stroke 940 in

No. of cylinders 3 No. of cranks 3 (3 throws)

Indicated Pressure 88 lbs/sq in

Weight 940 in Lower 1340 in

Is there a bearing between each crank 3 throws.

bearings, adjacent to the Crank, measured from inner edge to inner edge

F. 2300 in F. 53 1/4 in

Kind of fuel used

Revolutions per minute 108

Flywheel dia.

A. 2400 in A. 5 1/2 in

Means of ignition

ft. Solid forged

as per Rule

as fitted 418 in Crank pin dia. 450 in

Mid. length breadth 650 in

as fitted 418 in

as fitted 450 in

Intermediate Shafts, diameter 341 in

Thrust Shaft, diameter at collars 450 in

as fitted 450 in

as fitted 392 in

Screw Shaft, diameter 392 in

Is the shaft fitted with a continuous liner Yes.

as per Rule

as fitted 18.0 in

as fitted 21.5 in

Is the after end of the liner made watertight in the

as fitted

as fitted 13.5 in

as fitted 16.75 in

one length.

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AIR RECEIVERS: - Have they been made under survey

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

1. Propeller, 1 cylinder liner & jacket complete, 1 main pin head, 24 piston rings, 4 fuel valves complete, 1 N.R. Starting air valve, 1 cyl. relief valve, 4 Scavenge pump Suct. & del. Valve 1/2 discs, 1 fuel pump body complete with ram guide, Suct. & del. Chambers, 12 hoses for upper piston cooling service, 1 Set. Shroud 1 set coupling bolts, 1 set valve for each size main windpt. Pumped head, 1 set Chain for Camshaft drive.

The foregoing is a correct description.

WILLIAM DOXFORD & SONS, Limited.

W. H. Keller

Manufacturer.

Director

Dates of Survey while building: During progress of work in shops - 40. Apr. 17, 22, 28, 29, 30. May. 3, 8, 9, 14, 16, 20. June 3, 7, 12, 11, 13, 17, 19. July. 1, 8, 9, 11, 12, 15, 17, 18, 19, 22, 23, 25, 29, 30. Aug. 1, 5, 6, 7, 8, 9, 12, 14, 16, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30. Sep. 5, 9, 10, 12, 13, 16, 17, 18, 19, 20, 23, 24, 25, 26. Oct. 1, 7, 9, 10, 14, 15, 16, 18, 21, 22, 24. Total No. of visits 79

Dates of Examination of principal parts - Cylinders 12/7/40 17/7/40 Covers 1/8/40 1/8/40 Pistons 9/8/40 Rods 9/8/40 Connecting rods 7/8/40

Crank shaft 4/9/40 (G.S.) Flywheel shaft 20 crank Thrust shaft 20 crank Intermediate shafts 8/8/40 Tube shaft 1/8/40

Screw shaft 23/8/40 Propeller 1/8/40 Stern tube 9/4/40 Engine seatings (Bank top) Engines holding down bolts 14/10/40

Completion of fitting sea connections 6/8/40 Completion of pumping arrangements 22/10/40 Engines tried under working conditions 21/10/40

Crank shaft, Material Ingot Steel Identification Mark S.O. 136 A.J. 2 4/9/40. Flywheel shaft, Material 20 crank Identification Mark 1/8/40.

Thrust shaft, Material 20 crank Identification Mark 1/8/40. Intermediate shafts, Material Ingot Steel Identification Marks Nos 650, 651, 652, 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.

Tube shaft, Material 1/8/40 Identification Mark 1/8/40. Screw shaft, Material Ingot Steel Identification Mark 1/8/40.

Identification Marks on Air Receivers No 20544 LLOYD TEST 800 lbs. N.P. 600 lbs. L.C.D. 21/5/40

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes.

Description of fire extinguishing apparatus fitted 1 1/2 dia 4.1. perforated pipe for steam led around E.R. & B. Room 4 2944. Thomas Contain

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No.

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Not desired.

Is this machinery duplicate of a previous case No. If so, state name of vessel M/V "DERWENTHALL".

General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been built under Special Survey in accordance with the rules of the Society & the approved plans.

The materials & workmanship are good. It has been securely fitted on board the vessel & tried under working conditions alongside quay with satisfactory results.

The two donkey boilers have also been securely fixed on board, & to burn oil fuel (F.P. above 150° F) Section 20 of the rules has been complied with, Safety valves of boilers adjusted to working pressure in accordance with rule requirements.

The machinery is eligible, in my opinion, to have notation L.M.C. 10.40 (oil Eng.) T.S. (CL) 2 D.B. 120 H.P.

The amount of Entry Fee .. £ 6 : When applied for, 28 OCT 1940

Special ... £ 100 : 16 : When received, 30 OCT 1940

Donkey Boiler Fee .. £ 12 : 12 : Travelling Expenses (if any) £ : : Committee's Minute

Assigned + L.M.C. 10.40 oil Eng. 2 D.B. - 120 H.P.

J. T. Fraser.

Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation