

STEEL ~~STEAMER~~ MOTORSHIP.

Received at London Office

8/9/39.

State if Report has been sent on the Freeboard of the Vessel *No*State if Report is sent on the Machinery of the Vessel *Yes*Date of completion of report *5 September 1939*Port of *Newcastle on Tyne*No. *97822*Survey held at *Wallsend on Tyne*Date First Survey *11 Nov 1938*Last Survey *1st Sept.*

1939

On the (State if Machinery fitted with or without Tonnage Deck)

*Single Screw Motorship "HAV"*

State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings)

*Complete Superstructure with tonnage opening*

State Type of Erections

*File on Shell etc.*

TONNAGE under Tonnage Deck

*4470.83*CLASS *100 A1*State if with freeboard as condition of Class *Yes.*Built at *Wallsend on Tyne*

Do. of space or spaces between Tonnage Dk. and Upper Dk.

Length from fore part of stem to after part of stern post on summer L.W.L. See Sec. 3 (1a)

*L 412.25*

Breadth (greatest moulded)

*B 57.25*

Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c)

*D 38.00*

1st Longitudinal Number (L x D)

*= 15272*

2nd Numeral L x (B + D)

*= 38587*

Framing Depth "d," at middle of length. See Sec. 3 (1d)

*25.87*

Proportions—Depth to Length—Uppermost continuous deck to top of keel

*10.72*

Do. Long Bridge to top of keel

Draught Moulded

*25.11*Launched *15th July 1939* Yard No. *1567*Builders *Luan Hunter & Higham Richardson Ltd.**AKTIESELSKAPET "HAVTANK" OSLO*Owners *AKTIESELSKAPET "HAV"*Managers *HELMER STAUBO & CO*

(Where necessary to be entered in Reg. Book.)

Residence *OSLO*Port of Registry *OSLO*

If surveyed while building, afloat, or in dry dock

*While Building*

## FRAMES, DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
acing amidships	30	✓	Bracket Floors, Frame	7 3/4 .36	✓
150 FR			" " Reversed Frame	6 3 .36	✓
from 1/2 length amidships to Collision bulkhead	29 to 24	✓	" " Vertical Struts	8 x 3 1/2 x 3 1/2 .42	✓
in peaks	24	✓	Centre Girder, depth and thickness amidships	43 1/2 .54	✓
ING.			" " top Angles	Double 3 1/2 3 1/2 .48	✓
idships, Angle, E or F	7 3 1/2 .46	✓	" " bottom Angles	5 5 .53	✓
Extends up to	Shell etc. on alt. fr.	✓	Side Girders, No. each side and thickness	One .38	✓
Frame Amidships, Angle	10 4 .50	✓	Margin Plate depth (excl. of flange) and thickness	41 .54 fitted into costal	✓
Extends up to	2nd Dk.	✓	" " Vertical Angle to Tank side Bracket abaft 1/2 len. from stem	9 welded to floors, throat 21 inside & outside Double bottom	✓
raming Girder	13 1/2	✓	" " Vertical Angle to Tank side Bracket from forward 1/2 len. from stem to Panting Area		✓
Uppermost Continuous 'tween Decks, Angle, E or F	7 3 1/2 .46	✓	" " Gussets, spacing and scantling abaft 1/2 len. from stem	Bussert continuous as per plan.	✓
Second 'tween Decks, Angle, E or F	5 3 1/2 .36	✓	" " Gussets, spacing and scantling from forward 1/2 len. from stem to Panting Area		✓
135 to 143 REV. FR.	10 4 .62	✓	Tank Side Brackets, height above base line at toe of Frame and thickness	70 1/2 .45	✓
Third " " " "	7 3 1/2 .46	✓	INNER BOTTOM PLATING.		
144 to 160 fr	15 x 4 x 4 .62	✓	Breadth and thickness of Middle Line Strake	53 1/2 .51 after hold	✓
161 to 175 fr	7 3 .34	✓	Thickness of remainder in Holds	48 .51 fore hold	✓
176 to 190 fr	8 3 .34	✓	Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Tanker and Boiler Room?	43	✓
191 to 205 fr	6 3 1/2 .37	✓	BEAMS.		
206 to 220 fr	8 3 .34	✓	Uppermost Continuous Deck, amidships in Way, Angle, E or F	6 3 .33	✓
221 to 235 fr	6 3 .34	✓	" " in way of Bridge, Angle, E or F	32	✓
236 to 250 fr	7 3 .34	✓	Spacing	CONNECTING LUGS 3 1/2 LONG	✓
251 to 265 fr	7 3 .34	✓	Second Deck, amidships, Angle, E or F	6 3 .42	✓
266 to 280 fr	7 3 .34	✓	Spacing	OPEN BEAM AS ABOVE BUT LUGS 8 7/8 CENTRES	✓
281 to 295 fr	7 3 .34	✓	Third Deck, amidships, Angle, E or F		✓
296 to 310 fr	7 3 .34	✓	Spacing		✓
311 to 325 fr	7 3 .34	✓	Fourth Deck, amidships, Angle, E or F		✓
326 to 340 fr	7 3 .34	✓	Spacing		✓
341 to 355 fr	7 3 .34	✓	Poop Deck, Angle, E or F		✓
356 to 370 fr	7 3 .34	✓	Spacing		✓
371 to 385 fr	7 3 .34	✓	Bridge Deck, Angle, E or F		✓
386 to 400 fr	7 3 .34	✓	Spacing		✓
401 to 415 fr	7 3 .34	✓	Forecastle Deck, Angle, E or F	8 3 .38	✓
416 to 430 fr	7 3 .34	✓	Spacing	24	✓
431 to 445 fr	7 3 .34	✓			
446 to 460 fr	7 3 .34	✓			
461 to 475 fr	7 3 .34	✓			
476 to 490 fr	7 3 .34	✓			
491 to 505 fr	7 3 .34	✓			
506 to 520 fr	7 3 .34	✓			
521 to 535 fr	7 3 .34	✓			
536 to 550 fr	7 3 .34	✓			
551 to 565 fr	7 3 .34	✓			
566 to 580 fr	7 3 .34	✓			
581 to 595 fr	7 3 .34	✓			
596 to 610 fr	7 3 .34	✓			
611 to 625 fr	7 3 .34	✓			
626 to 640 fr	7 3 .34	✓			
641 to 655 fr	7 3 .34	✓			
656 to 670 fr	7 3 .34	✓			
671 to 685 fr	7 3 .34	✓			
686 to 700 fr	7 3 .34	✓			
701 to 715 fr	7 3 .34	✓			
716 to 730 fr	7 3 .34	✓			
731 to 745 fr	7 3 .34	✓			
746 to 760 fr	7 3 .34	✓			
761 to 775 fr	7 3 .34	✓			
776 to 790 fr	7 3 .34	✓			
791 to 805 fr	7 3 .34	✓			
806 to 820 fr	7 3 .34	✓			
821 to 835 fr	7 3 .34	✓			
836 to 850 fr	7 3 .34	✓			
851 to 865 fr	7 3 .34	✓			
866 to 880 fr	7 3 .34	✓			
881 to 895 fr	7 3 .34	✓			
896 to 910 fr	7 3 .34	✓			
911 to 925 fr	7 3 .34	✓			
926 to 940 fr	7 3 .34	✓			
941 to 955 fr	7 3 .34	✓			
956 to 970 fr	7 3 .34	✓			
971 to 985 fr	7 3 .34	✓			
986 to 1000 fr	7 3 .34	✓			

## DOUBLE BOTTOM.

Solid Floors, thickness and spacing *.38 with stiffeners every 3rd*

" " Are Frame and Reversed Frame joggled? *Frames joggled Rev for not*

Bracket Floors, breadth and thickness at middle line *33 1/2 .41*

" " breadth and thickness at margin plate *not less than 33 1/2 x .41*



## PILLARS AND DECKS.

	INCHES IN SHIP.			Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.			Any Departure from Approved Plans to be Noted.
<b>PILLARS</b> , No. of Rows.....	Tubular pillars and girders as per approved plans			✓	Stringer Plate, breadth and thickness in way of Bridge .....	-			
"    in 'tween Decks, Size and Spacing.....					Thickness of Plating abreast Deck openings in way of Wells .....	.36	✓		
"    "    "    "    "					Thickness of Plating abreast Deck openings in way of Bridge .....	✓			
"    in Holds    "    "					Thickness of Plating within line of openings...	.34		✓	
"    "    "    "    "					If Sheathed, material and thickness .....	.40	IN WAY	DEEP TANK	
<b>Centre Line Bulkhead.</b>	9 x .38	bolt plate aft hold		✓	<b>Third Deck.</b>				
Stiffeners and Spacing.....	12 x .50	Space 60"		✓	Stringer Plate, breadth and thickness.....	-			
Plating, thickness of .....	.30		✓		If Plated, state thickness.....				
<b>STRINGERS AND DECKS.</b>					<b>Fourth Deck.</b>				
<b>Uppermost Continuous Deck.</b>					Stringer Plate, breadth and thickness.....	-			
Stringer Plate, breadth and thickness in Wells	60	.59	✓		If Plated, state thickness .....				
"    "    "    "    in way of Bridge	-		✓		<b>Poop Deck.</b>				
"    Angle in Wells .....	6	6	.59	✓	Stringer Plate, breadth and thickness .....	-			
Thickness of Plating abreast Deck openings in way of Wells .....	.50		✓		Plating, Sheathing, material and thickness ...				
Thickness of Plating abreast Deck openings in way of Bridge .....	-		✓		<b>Bridge Deck.</b>				
Thickness of Plating within line of openings...	.38		✓		Stringer Plate, breadth and thickness.....	-			
If Sheathed, material and thickness .....					Plating, Sheathing, material and thickness ...				
<b>Second Deck.</b>					<b>Forecastle Deck.</b>				
Stringer Plate, breadth and thickness in Wells...	66	.40	✓		Stringer Plate, breadth and thickness.....	.36		✓	
					Plating, Sheathing, material and thickness ...	.50 below windlass			
						.36	do sheathing		

## SHELL PLATING.

SCANTLINGS.					RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if jogged?			BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		SINGLE OR DOUBLE.	RIVETS.		No. OF ROWS OF RIVETS.	RIVETS.		STRAPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.			Diam.	Spacing cr. to cr.		Diam.	Spacing cr. to cr.	
	Inches.	Inches.	Inches.	Inches.		Inches.	Inches.		Inches.	Inches.		
FLAT PLATE KEEL .....	52 1/2	.78	.68	.68		Double	1	3 3/4				
„ DBLG. (if any)												
BOTTOM PLATING, No. } of Strakes ..... 4.....	A }	.59	.65, .68, .50	.50	.58 LOCALLY	"	7/8	3 1/3				
	B }		.61, .68, .50	.50	.58							"
	C }		.63, .68, .50	.50	OFF END							
	D }		.50	.50	.71 LOCALLY							
BILGE PLATING, No. of } Strakes ..... 4.....	E }	.59	.50	.56	OFF END	"	"	"			all butts need to be 60°	
	F }		F. 50	.58 LOCALLY								
	G }	.58	.46	.46	.58							
	H }	.46	.46	.46								
UPPER DECK, Sheer- strake in Wells.....	L 69	.65	.46	.46		"	"	"			bead on back.	
UPPER DECK, Sheer- strake in Bridge ...												
STRAKE BELOW Sheer- strake in Wells.....	K 75	.60	.46	.46		"	"	"				
STRAKE BELOW Sheer- strake in Bridge ...												
POOP SIDE PLATING .....												
BRIDGE SIDE PLATING ...												
FORE'C'TLE SIDE PLATING			.42			Single	3/4	3				

## WATERTIGHT BULKHEADS.

## FORGINGS and CASTINGS.

Total No. of W.T. BULKHEADS in Vessel—		76 (coll bulk 5 shaft 60 bulk 29)		Casting or Forging.		Scantlings.		Maker's Name.		Any Departure from Approved Plans to be Noted.	
Extending to Upper Deck (Sec. 3 c)		Fore peak bulkhead									
" Deck next below		6									
As per Rule											
		Plating Thickness.		STIFFENERS.							
				VERTICAL.		HORIZONTAL.					
				Scantlings.	Spacing.	Scantlings.	Spacing.				
67 b'kd											
MIDSHIP BULKH'D, Upper tween decks											
" " Second											
" " Third											
" " Holds											
COLLISION " (in Hold) 161 FR											
AFTER PEAK " " 12 FR											

STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture) *Open Hearth. ✓*  
*Colvilles Ltd. The Steel Co. of Scotland. Dorman Long & Co. Sheffield. Fordingham St. Co.*  
*Consett Iron Co. Sheringham Iron Co. South Durham & F. Co. The Lancashire St. Co. Large Sheet Iron Co.*  
 Has the Steel been tested as required by the Rules? *Yes.*

Has the Steel been tested as required by the Rules? *Yes.*

Req. 1.

No. 558

for Ak. H.  
(manager)  
of approx 51

may be Specie

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No. 1567

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To the Secretary  
Lloyd

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EQUIPMENT No 39504										LETTER at		ANCHORS.			
Number of Certificate.	Anchors.	WEIGHT, EX. STOCK.			WEIGHT OF STOCK.			TEST, PER CERTIFICATE.				WEIGHT REQUIRED BY TABLE 53.	Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Cwts.			
38743	1st Bower ...	68	1	0	✓	✓	✓	52	15	2	14	✓	Byers Improved	-	Sunderland J. H. Butler
38755	2nd „ ...	68	0	7	✓	✓	✓	52	15	2	14	✓	Shelley		4/4/39 „
38756	3rd „ ...	58	2	21	✓	✓	✓	47	12	2	0	✓	„		12/4/39 „
	Collective weight.				✓	✓	✓					✓			
98230	Stream .....	19	0	18	✓	✓	✓	20	1	3	14	✓	Ordinary forged M. iron	J Taylor & Sons	13/4/39 Rotherham J. A. Hall

CHAIN CABLES.										HAWERS AND WARPS.				
Number of Certificate.	Length and size supplied.	Test per Certificate.		WEIGHT OF CHAIN CABLE.		Length and Size per Table 53.		Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and Size supplied.	Breaking Test of Steel Wire.	Length and Size per Table 53.
	Length. Diam.	Statu- tory.	Break- ing.	Supplied.	Per Rule.	Length. Diam.						Length. Cir.	Tons.	Length. Cir.
	Fathoms. Ins.	Tons.	Tons.	Cwts. qrs. lbs.	Cwts.	Fathoms. Ins.						Fathoms. Ins.		Fathoms. Ins.
109521	270 5/8	2	✓	100 5/8	141 1/8	580	1	12	STUD LINK J. Taylor & Sons	Pesterton	TOWLINE	120	4 3/4	60.6
									TAYCO Brinley Hill	15/3/39 R. J. Pagen	HAWERS & WARPS	90	2 3/4	15.2
												90	2 3/4	15.2
												90	2 1/2	11.8
												90	2 1/2	11.8

Steering Gear, Type (Power or hand)	Steam. Wilson Pirrie (Dundee)	Alternative Means of Steering	Blocks & wire tackle worked by	
Steering Chains (Size and Test)	Telenor	Windlass	Steam efficient (Blake Chapman)	
Ceiling in Holds, thickness and material	2 1/2 wood	Cargo Battens, thickness, material and spacing	6 x 2" wood 9" spacing	
Cargo Hatchways.—(Upper Deck)	Boarding 2' 6" Ends 44 Sides 58 x 50	Thickness of Hatches	3" wood	
Size of Hatchways No. 1 (Fwd.)	30' 9" x 22' 0"	No. 2	40' 0" x 22' 0"	
	No. 3	35' 0" x 22' 0"	No. 4	40' 0" x 22' 0"
	No. 5	30' 0" x 22' 0"	No. 6	
Number of Shifting Beams	dp. 1-5 / dp. 2-7 / dp. 3-6 / dp. 4-7 / dp. 5-5			
and/or Fore and Afters				
FOR SWAN, HUNTER, & WIGHAM RICHARDSON, L.				
Builder's Signature				

Chief Draughtsman.	
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GENERAL DECLARATION. It should be stated (a) whether the vessel (if not a motorship) is fitted for the carriage and burning of oil used as fuel	
(b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo	The positions in which oil is carried as fuel or cargo should be indicated, together with the flash point (where required to be inserted in the Notation).
The vessel has been built in accordance with the approved plans and the Secretary's letter and conforms with the rules of the Society for the class contemplated.	
The Freeboards have been assigned by the Ports of Call and have been verified as per verification from previously forwarded.	
The D. B. tanks, peak tanks, wing tanks in No. 5 hold and the forward deep tank have been tested to rule requirements. The weather decks, tunnel and W.T. bulkheads have been hose tested. The tunnel W.T. door operated & found in order.	
The double bottom tanks, (except No. 1) wing tanks and forward deep tank have been fitted for the carriage of oil fuel and the requirements of section 20 of the rules have been carried out.	
The forward deep tank has been fitted for carrying Vegetable Oil.	
The workmanship and materials are good.	

The amount of Entry Fee .....	£ 9 : 0 : 0	Fees applied for,	(Special notations, where part of class, to be stated.)
Special Survey Fee....	£ 326 : 11 : 0	Received by me,	
Travelling Expenses, if any £	:	14/9/39	
State whether the Vessel has been built under Special Survey		Yes	
Certificate to be sent to		Date of issue	29/11/39
Committee's Minute			
Character assigned			

TUE 17 OCT 1939	
+100A1	
With freeboard	
Carrying oil 27. above 150 ft. in D.T.	
Lloyd's arch.	
note st. plat. & bulk of shell plat. dec. weld.	
Lloyd's Register	
Foundation	
W174-0058(2/2)	



GENERAL REMARKS—(The Surveyor should state the Number of Report and Name of any Sister Vessel. Plans showing Vessel as built should be forwarded and a List of the Plans should be embodied.)

et sketch is forwarded showing the deflections of the deep tank bulkheads during testing operations in accordance with the Secretary's letter dated 18/11/38. The results were considered satisfactory. The shell butts, deck, tank top, bulkhead and tunnel plating also other items were electrically welded.

et copy of the midship section and profile as built are forwarded. together with forging and casting certificates.

PARTICULARS OF ELECTRIC WELDING (if employed) The rules for the application of electric arc welding were applied for welding the shell butts, deck, tank top, bulkhead and tunnel plating also for the connections of the deck beams and brackets, bulkhead stiffeners and the double bottom tank side connections. Butt welds were used to an angle of 60° and back runs applied. The electrodes used were of approved types Chromax, Bresta and Quasi-arc T type. Many other parts and fittings such as casings ventilators and masts were of welded construction.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book. Brainer stem. Butts of shell also decks electrically welded on plating. Butts of shell plating electrically welded.

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	39.3.12	EE	357	15/7/38
	2nd "	39.3.14	GB	30133	28/6/38
	3rd "	33.2.20	WH	3805	24/12/37

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop — ft., R.Q.D. — ft., Bridge — ft., Forecastle 34 ft. (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated.

Official No. Signal Letters L.K.H.H. Extreme Breadth over Belting 38' 1 1/2" Over-all Length 432' 4" No. and Material of Decks 2 decks steel 1 KK 1 Sh AK Parts of Bottom of Vessel coated with cement or approved composition Thick cement in fore & after peaks & tunnel well. Cement used on D.B. tank. Particulars of composition (if fitted) and of approval Hold bilge bitumastic composition.

PARTICULARS OF WATER BALLAST:—(Comprising all tanks which may be used for Water Ballast. (Circ. 1284) Wells are not to be included in the lengths of the tanks, but Cofferdams and Dry Tanks (if tested) are to be included.)

Where Fitted.	Length. Feet.	Water Capacity. Tons.	Where Fitted.	Length. Feet.	Water Capacity. Tons.
Double bottom, aft, 7037-67	75' 0"	248	Fore peak tank,	22' 0"	150
Double bottom, under Engines and Boilers,			After peak tank,	23' 3"	198
Double bottom, if under Engines only,	50' 0"	340	Deep tank, aft,		
Double bottom, if under Boilers only,			Deep tank, forward,	25' 0"	1046
Double bottom, forward, m lites	180' 75"	635	Other tanks, if fitted, WING TANKS AT TUNNEL SIDES	42' 6"	317
Total length (if continuous) and Capacity	305' 75"	1223	(If necessary, furnish further information by sketch.)	20-37 FRS	

Order for Special Survey No. 5580

Date 16/12/38

Dates of Surveys held while building

1938 Nov. 11, 18, 23, 24, 28, 29. Dec. 2, 13, 14, 20, 23, 28. Jan. 4, 5, 9, 10, 13, 17, 23, 26, 27, 31. Feb. 2, 3, 6, 7, 8, 9, 13, 14, 15, 17, 20, 22, 23, 27. Mar. 1, 2, 3, 6, 8, 10, 14, 15, 16, 20, 21, 23, 27, 28, 29, 31. Apr. 3, 4, 6, 12, 13, 24, 27, 28. May 1, 5, 8, 10, 11, 18, 22, 26, 30. June 2, 5, 6, 8, 12, 27, 29. July 3, 4, 5, 6, 7, 10, 11, 13, 14, 15, 31. Aug. 1, 3, 8, 11, 14, 15, 16, 17, 21, 22, 23, 24, 28. Sep. 1.

Total No. of Visits 104.