

Rpt. 1

RECEIVED  
12 FEB 1952

## STEEL STEAMER OR MOTORSHIP.

11 FEB 1952

Received at London Office

SECTION

No. 859

No. 3048

State if Report has been sent on the Freeboard of the Vessel Yes.

State if Report is sent on the Machinery of the Vessel Yes.

Date of completion of report 8th February, 1952. Port of M A L M Ö

Survey held at M A L M Ö Date First Survey 2nd May, 1951 Last Survey 29th January, 1952.

On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw) M/T "H A V E R U" Machinery fitted aft.

State Type (Full Steading, Complete Superstructure with or without Tonnage Openings) Full Scantling. State Type of Erections Poop, bridge, focle.

TONNAGE under } 9.406.48  
Tonnage Deck ... }Do. of space or spaces }  
between Tonnage Dk. }  
and Upper Dk. }

Total

Gross Tonnage 10.490.87

Register Tonnage 6.164.60

CLASS +100A1 Carrying State if with freeboard }  
Petroleum in Bulk. as condition of Class } No.Length from fore part of stem to after part of stern }  
post on summer L.W.L. See Sec. 3 (1a) } L 500.0'

Breadth (greatest moulded) } B 63.0'

Depth, at middle of length from top of keel to top }  
of beam at side of uppermost continuous }  
deck. See Sec. 3 (1c) } D 38.9'

1st Longitudinal Number (L x D) = 18750

2nd Numeral L x (B + D) = 50250

Framing Depth "d," at middle of length. See }  
Sec. 3 (1d) } 12.99Proportions—Depth to Length—Uppermost con- }  
tinuous deck to top of keel }  
Do. Long Bridge to }  
top of keel }

Draught Moulded 29'-9 3/4"

Built at M A L M Ö

Launched 12th Nov., 1951 Yard No. 319

Builders Kockums Mek. Verkstads A/B

Owners A/S Havtor

Managers P. Meyer  
(Where necessary to be entered in Reg. Book)

Residence O S L O

Port of Registry O S L O

If surveyed while building, afloat, or in dry dock

Yes.

## REGISTERED DIMENSIONS.

FEET

Length 512.9'

Breadth 63.2'

Depth 38.9'

## 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.
FRAMES, Spacing amidships.....	Longitudinal	✓	Bracket Floors, Frame .....		
" " from 1/2 length amidships to } Collision bulkhead..... }	Framing	✓	" " Reversed Frame.....		
" " in E.R. 820		✓	" " Vertical Struts .....		
" " in peaks 610		✓	Centre Girder, depth and thickness amidships E.R. 1240x.54		✓
" " in Deep Tank fwd. 685		✓	" " top Angles None E.W.T. & B. ✓		✓
SIDE FRAMING.	See report 1*	✓	" " bottom Angles None		
Frame Amidships, Angle, [ or [			Side Girders, No. each side and thickness.....	4 .75-.44	✓
" " Extends up to.....			Margin Plate depth (excl. of flange) and thickness .....		
Reversed Frame Amidships, Angle .....			" " Vertical Angle to Tank side Bracket abaft 1/2 len. from stem .....	Tank top level at sides.	✓
" " Extends up to .....			" " Vertical Angle to Tank side Bracket from forward 1/2 len. from stem to Panting Area .....		
Depth of Framing Girder.....			" " Gussets, spacing and scantling abaft 1/2 len. from stem.....		
Frames in Uppermost Continuous 'tween } Decks, Angle, [ or [ .....			" " Gussets, spacing and scantling from forward 1/2 len. from stem to Panting Area .....		
" " Second 'tween Decks, Angle, [ or [			Tank Side Brackets, height above base line at toe of Frame and thickness		
" " Third " " " "			INNER BOTTOM PLATING.		
" " from 1/2 len. for'd. to 15% len. from Stem .....			Breadth and thickness of Middle Line Strake... 2040x.57		✓
" " in Peaks, Angle or [			Thickness of remainder in Holds..... 1.18-.57		✓
Diameter and Spacing of Rivets through Frame and Shell Plating amidships .....			Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E.R. & B. space and framing in Bunkers and Boiler Room .....	Yes.	✓
State if Frame Joggled.....			BEAMS.		
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved? .....	As per approved	✓	Uppermost Continuous Deck, amidships in Wells, Angle, [ or [ .....		
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved? .....	plan	✓	" " in way of Bridge, Angle, [ or [ .....		
SINGLE BOTTOM.			Spacing .....		
Floors, Depth and thickness at mid-line in Holds.....			Second Deck, amidships, Angle, [ or [		
Height of Brackets at side above base line at toe of frame.....			Spacing .....		
Middle Line Keelson, on Floors, Angles, [ or [			Third Deck, amidships, Angle, [ or [		
" " Through Plate or Inter-costal Plate .....	As per approved	✓	Spacing.....	See report 1*	✓
" " Foundation Plate on Floors .....	plan	✓	Fourth Deck, amidships, Angle, [ or [		
" " Flat Plate Keel Angles			Spacing.....		
Side Keelsons, No. each side.....			Poop Deck, Angle, [ or [		
" " thickness of Inter-costal Plate...			Spacing.....		
" " Angles .....			Bridge Deck, Angle, [ or [		
DOUBLE BOTTOM.			Spacing.....		
Solid Floors, thickness and spacing in E.R. 54-.44-820 m/m			Forecastle Deck, Angle, [ or [		
" " Are Frame and Reversed Frame joggled? .....	Floors E.W.T. & B.	✓	Spacing.....		
Bracket Floors, breadth and thickness at middle line .....					
" " breadth and thickness at margin plate.....					



# 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.	Number of Certificate.
<b>PILLARS, NO. OF ROWS.</b>		1	6x3 1/2 x 3/8 ✓					53418
Longtl. bulkhead stiffers. 2-3		1	6x4x3/8 ✓	Stringer Plate, breadth and thickness in way of Bridge				53328
XX in Main Decks, Size and Spacing		4	8x4x7/16 ✓	Thickness of Plating abreast Deck openings in way of Wells		.32	.36 ✓	53346
" " " " "		5	8x4x 1/2 ✓	Thickness of Plating abreast Deck openings in way of Bridge				Rpt. 1*
" " " " "		6	9x4x 1/2 ✓	Thickness of Plating within line of openings		.34	.36 ✓	
" in Hold " " "		7	9x4x.56 ✓	If Sheathed, material and thickness				
" " " " "		8-11	215x9x190x15 ✓	<b>Third Deck.</b>				
" " " " "		12	220x10x190x16 ✓	Stringer Plate, breadth and thickness				
" " " " "		13	250x10.5x210x16 ✓	If Plated, state thickness				
" " " " "		14	250x10.5x210x16 ✓	<b>Fourth Deck.</b>				
<b>Centre Line Bulkhead Stiffeners and Spacing</b>				Stringer Plate, breadth and thickness				
Plating, thickness of			.50-.39 ✓	If Plated, state thickness				
<b>STRINGERS AND DECKS.</b>				<b>Poop Deck.</b>				
<b>Uppermost Continuous Deck.</b>				Stringer Plate, breadth and thickness		.34 ✓		
Stringer Plate, breadth and thickness in Wells			2141m/m .80 ✓	Plating, Sheathing, material and thickness		2 1/2" Oregon pine ✓		
" " " " in way of Bridge & at poop front			.92 ✓	<b>Bridge Deck.</b>				
" Angle in Wells			E.W. to shell ✓	Stringer Plate, breadth and thickness		.40 ✓		
Thickness of Plating abreast Deck openings in way of Wells			.72/.54 ✓	Plating, Sheathing, material and thickness		.36 ✓		
Thickness of Plating abreast Deck openings in way of Bridge			1.02 ✓	<b>Forecastle Deck.</b>				
Thickness of Plating within line of openings			.72-.54 ✓	Stringer Plate, breadth and thickness		.38 ✓		
If Sheathed, material and thickness				Plating, Sheathing, material and thickness		.50 under windlass .64 in way of Harb .36-.38 ✓		
<b>Second Deck.</b>								
Stringer Plate, breadth and thickness in Wells			.40-.36 ✓					

# SHELL PLATING.

SCANTLINGS.					RIVETING.				
STRAKES.	AS IN VESSEL.				EDGES.		BUTTS.		
	AMIDSHIPS.		FORWARD.	AFT.	SINGLE OR DOUBLE.	RIVETS. Diam. Spacing cr. to cr.	No. of Rows of Rivets.	RIVETS.	
	Breadth.	Thickness.	Thickness.	Thickness.				Diam.	Spacing cr. to cr.
Flat Plate Keel	2040	.96	.96	.85 .83					
" Dblg. (if any)	-	-	-	-					
Bottom Plating, No. of Strakes		.72 ✓	.81	.50 .54 .52					
Bilge Plating, No. of Strakes L. bilge.		.82 ✓	.64	.73 ✓					
Side Plating, No. of Strakes		.66 ✓	.50	.50					
Upper Deck, Sheer-strake in Wells	2220	.97	.56	.50					
Upper Deck, Sheer-strake in Bridge & poop front.		1.10 ✓							
Strake below Sheer-strake in Wells		.66 ✓	.50	.50					
Strake below Sheer-strake in Bridge		.66 ✓							
Poop Side Plating			.48	.42					
Bridge Side Plating		.44 ✓							
Forecastle Side Plating			.44						

# WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel— 12 ✓							
Extending to Upper Deck (Sec. 3 c) 12 to upper deck.							
,, Deck next below —							
As per Rule —							
		Plating Thickness.	STIFFENERS.				
			VERTICAL.		HORIZONTAL.		
			Scantlings.	Spacing.	Scantlings.	Spacing.	
Centre tanks		✓	✓	3 webs as			
MIDSHIP BULKH'D. Upper		51-34	appr. ✓			Corrugated	
Side tanks		✓	✓	1 web as			
,, Second		51-34	appr. ✓			Bulkheads. ✓	
,, Third							
,, Hold				6x4x7/16 ✓			
COLLISION		✓	✓	8x4x 1/2 ✓	800 ✓	Fore peak tank	
,, (in Hold)		51-29	7x4x 1/2 ✓			top Deep tank	
AFTER PEAK		✓	72 ✓	5x3x5/16 800 ✓		top stringer	
,,		46-28				6x4x 1/2 ✓	
						7x4x7/16 ✓	

# FORGINGS AND CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar				Flat plate keel
STEM				Plate as approved
STERN FRAME	Propeller Post			Cast As per Motala Steelapp. plan Verktstad
	Rudder			Forg. 270 ✓
Speed of Vessel				14 1/2 knots.
RUDDER—Type				Simplex balanced
" A x D. x	100			1262 m <sup>3</sup>
" Diam. of head				296 ✓
" Mainpiece at top pintle				
" " heel				
" how constructed				
" double or single plate coupling, vertical or horizontal				.59 ✓

# STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)

Bisco (England), Worth Steel (U.S.A.), Ferrostasl, Degerfors Jernverk, Motala Verktstad, Bethlehem Steel.

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



Lloyd's Register  
Foundation



EQUIPMENT No. 52816 ✓													LETTER f + ✓		ANCHORS.		
Any Departure from approved Plans to be Noted.	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.					
	53418	1st Bower	87	0	0	✓			61	17	2	0	✓	85 5/6	Byers Improved	Per W. Stone ✓	Sunderland 24.2.49
	53328	2nd "	86	2	7	✓			61	17	2	0	✓	85 5/6	" " Type.	" "	" " 20.1.49
	53346	3rd "	86	2	0	✓			61	17	2	0	✓	85 5/6	" "	" "	" " 28.1.49
		Collective weight	260	0	7												
	53036	Stream	26	2	0	✓	7	1 20	26	0	0	0		26 1/2	Cast steel Rodger	" "	Sunderland J. Hibbs 27.10.48

CHAIN CABLES.										HAWSERS 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.	
	Fathoms	Diam.	Tons.	Tons.	Cwts.	qrs.	lbs.	Cwts.	Fathoms	Diam.					Fathoms	Ins.	Tons.	Fathoms	Ins.
708	551	2 1/4	129540 kgs.	181356 kgs.	42598			1040			C.S.	Ramnäs Bruks Ramnäs A/B.	19.4.51 W.A.O.	TOWLINE	238	5 1/2	84.4	130	5 1/2
														HAWSERS & WARPS	4	220	3 1/2	25.7	4 1002 3/4
Iron Stream Chain or Steel Wire	220	5	70.9						120	5									

Steering Gear, Type (Power or hand) Asea Electric ✓ Alternative Means of Steering Asea Electric ✓

Steering Chains (Size and Test) - Windlass Pusness A/S ✓ Boats 4 (2 motor & 2 ord)

in Holds, thickness and material - Cargo Battens, thickness, material and spacing -

Hatchways.—(Upper Deck) Focle deck steel coaming 11 m/m. ✓ Steel cover .36 ✓

Focle deck. ✓ Tanks 10 m/m. ✓ Thickness of Hatches " " .46 ✓

Hatchways No. 1 (Fwd.) 3425x3400 No. 2 1525x1070 No. 3 - No. 4 - No. 5 - No. 6 -

er of Shifting Beams } -

or Fore and Afters }

Builder's Signature

KOCKUMS  
MEKANISKA VERK  
Torsås  
Hurtshede  
Rune Burdén

**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. (Motorship) ✓

(b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo. (Oil tanker) ✓ 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).

This ship has been built under Special Survey in conformity with the Society's Rules & Regulations Secretary's letters. The scantlings & arrang. of the ship are as given in the report & as shown amended on the appr. plans now forwd. All modifications or additions to the original appr. arrang. during construction have been indicated on the plans & have been appr. as being in accordance with or by standards equivalent to the Rule Requirements. The plans of Midship Section & Profile Decks showing the ship as built now forwd. herewith, have been checked with the appr. arrang. found in order. The material & workmanship are good. All cargo oil tanks cofferdams, oil fuel tanks & Daily oil tanks, deep tank forwd., all compartments in double bottom under motor space tanks & Fresh Water Tanks aft have been tested by water pressure as required by Rules. The tanks & Watertight bulkheads clear of tanks & Cofferdams & shell plating of engine room have been

hose tested. The freeboard markings have been verified & cut in on the vessel's sides. The Steering Gear & windlass have been tested under working conditions with satisfactory results. Undocked 29.1.52.

Freeboard

The amount of Entry Fee..... Kr. : 720:-

Special Survey Fee..... Kr. 24980:-

Travelling Expenses, if any ..... Kr. : 6:50 19

(Special notations, where part of class, to be stated.)

I am of opinion the Vessel should be Classed +100A1 Carrying Petroleum in Bulk.

State whether the Vessel has been built under Special Survey Yes.

Signature James K. Young  
Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to M.A.L.M.O. Date of issue 10/3/52

Committee's Minute

Character assigned

+100A1 "Carrying Petroleum in bulk"

1,52 Ann.  
Lloyd's A.N.C.P.

+ LMC 1,52 Oil Eng.  
C.L.  
20B 180 lb.

Note for S.R.L.



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.)

Plans as built are forwarded herewith:—

Midship Section

Profile & Decks.

W.T. Bulkheads

Rudder

Sternframe.

Approved plans will be forwarded you with the First Entry Report on the last sister-vessels Messrs. Kockums Yard No. 348.

PARTICULARS OF ELECTRIC WELDING (if employed) Seams & Butts of shell, deck, stringers, tank top & Bulkhead plating are Butt welded, angle of "Vee" about 50°. All remaining connections are as per approved plan.

Electrodes O.K. 50.52. Asea Z 12. O.K. Rapid Fusarc electrode seams.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book

Longtl. framing, electrically welded, cruiser stern, mch. aft. Carrying Petroleum in Bulk, D.F., E.S.D., Gyro, Radar.

RADAR Equipment (State if fitted) Yes.

State Type or Pattern No. C.R. 101 Serial 511

State } Maker Radio-Marine Corp. of  
Name } and/or  
of } Supplier America.

Particulars of Drop Test of Cast Steel Anchors, viz.:—  
Weight, Surveyor's Initials, Number of Certificate, Date of Test.

1st Bower	49 cwts.	2 qrs.	6 lbs.	A.E.G. 596	20.8.48.	Anchor Head.
2nd "	49 "	1 "	7 "	A.E.G. 587	10.8.48	" "
3rd "	49 "	2 "	21 "	A.E.G. 586	10.8.48	" "

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 95.0 ft., R.Q.D. ft., Bridge 39.1 ft., Forecastle 67.2 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 A K T Extreme Breadth over Belting 63'-1.94 (Circ. 1611) Over-all Length 533'-3" (Circ. 1703)

No. and Material of Decks 1 deck & 2nd deck clear of cargo tanks steel.

Parts of Bottom of Vessel coated with cement or approved composition Cement in peaks & fresh water tanks above A.P.T. also in well at aft. end of E.R.

Particulars of composition (if fitted) and of approval

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,			Fore peak tank,	26.0	173
Double bottom, under Engines and Boilers,			After peak tank,	34.3	171
Double bottom, if under Engines only,	75	151	Deep tank, aft, Cross Bunker	8.9	485
Double bottom, if under Boilers only,			Deep tank, forward, (for Bunker O.F)	34.0	604
Double bottom, forward,			Other tanks, if fitted, Above A.P.T.		131
Total length (if continuous) and Capacity.			(If necessary furnish further information by sketch.)		

Order for Special Survey No. 171

Date 12.4.1949

Dates of Surveys held while building

2.10.17.23.24/5, 13.15.26/6.5.10.13.17.30.31/7, 3.4.9.14.15.21.29.30/8, 4.5.6.10.12.14.21.25.28/9, 3.4.6.9.11.22.23.24.26.27.29.30.31/10, 1.2.3.5.6.7.8.9.12.14.15.16.30/11, 10.12.17.27.28/12-51, 3.7.10.11.14.22, 23.24.25.26.29/1-1952.

Total No. of Visits 73

Lloyd's Register Foundation