

## STEEL STEAMER OR MOTORSHIP.

Received at London Office

30 AUG 1959

Rpt. 1

FROM ACCTS.

5/9

FROM ADMIN/F

19/9

LANS RECD

Date of completion of report

28.7.60

Port of Helsinki

Survey held at Helsinki

Date First Survey 28.10.57

Last Survey 15.6.

1960.

On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw)

Triple screw diesel electric icebreaker "MOSKVA"

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

Full scantling

State Type of Erections Forecastle

Tonnage under Tonnage Deck ...

CLASS

+100 A 1

State if with freeboard as condition of Class

Built at Helsinki

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)

116,58

Launched 10.1.1959

Yard No. 365

Total

Breadth (greatest moulded)

24,5

Builders Wärtsilä-koncernen AB, Sandvikens Skeppsdocka.

Gross Tonnage

9427,34

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

14,0

Owners U.S.S.R.

Register Tonnage

1st Longitudinal Number (L x D)

Managers

(Where necessary to be entered in Reg. Book)

Residence

Port of Registry Murmansk

If surveyed while building, afloat, or in dry dock

While building

## REGISTERED DIMENSIONS.

FEET

112,4 m

pp

24,5 m

th

14,0 m

## FRAMES, DOUBLE BOTTOM AND BEAMS.

	mm INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.	mm INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
FRAMES, Spacing <del>amidships</del>	800, intermediate		Bracket Floors, Frame	
" " <del>from length amidships to</del>	frames also		" " Reversed Frame	
" " <del>common bulkhead</del>	fitted giving		" " Vertical Struts	
" " <del>at peaks</del>	400 mm spacing.		Centre Girder, depth and thickness amidships	2200 x 13-15
MID FRAMING.			" " top Angles	welded
Frame Amidships, Angle, <del>port</del> <b>I</b>	350x16+80x25		" " bottom Angles	welded
" " Extends up to	Lowest deck and in		Side Girders, No. each side and thickness	5 x (11-20)
<del>Reversed Frame Amidships, Angle</del>	conjunction with 3		Margin Plate depth (excl. of flange) and thickness	
" " <del>Extends up to</del>	deep icestrings		" " Vertical Angle to Tank side	
Depth of Framing Girder <del>(STRINGER)</del>	700		Bracket abaft 1/4 len. from stem	
Frames in Uppermost Continuous 'tween	250x90x14		" " Vertical Angle to Tank side	
Decks, Angle, <del>port</del> <b>I</b>			Bracket from forward 1/4 len. from stem to Panting Area	Tanktop plating extends to shell and welded thereto.
" " Second 'tween Decks, <del>Angle</del> <b>I</b>	300x16+50x20 and		" " Gussets, spacing and scantling abaft 1/4 len. from stem	
" " ditto intermediate frames.			" " Gussets, spacing and scantling from forward 1/4 len. from stem to Panting Area	
" " <del>Thick</del>	400x20+70x30 and		Tank Side Brackets, height above base line at toe of Frame and thickness	
" " from 1/4 len. for'd. to 15% len. from			INNER BOTTOM PLATING.	
" " Stem ditto intermediate frames.	450x20+90x30 and		Breadth and thickness of <del>INNER BOTTOM PLATING</del>	13
" " in Peaks, Angle <del>port</del> <b>I</b>			Thickness of remainder in Holds	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	welded		Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. <del>port</del> space and framing in <del>BRACKET AND BOLLER ROOM</del>	yes
State if Frame Joggled	no		BEAMS.	
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	yes		Uppermost Continuous Deck, amidships <del>Angle</del> <b>I</b>	200x100x14
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	yes		" " <del>in way of Bridge Angle</del> <b>I</b>	
SINGLE BOTTOM.			" " <del>in way of Bridge Angle</del> <b>I</b>	
Floors, Depth and thickness at mid-line in Holds			Spacing	Every frame (800)
Height of Brackets at side above base line at toe of frame			Second Deck, amidships, Angle <del>port</del> <b>I</b>	200x100x14
Middle Line Keelson, on Floors, Angles, <del>C or I</del>			Spacing	Every frame (800)
" " Through Plate or Intercoastal Plate			Third Deck, amidships, Angle, <del>port</del> <b>I</b>	200x100x14
" " Foundation Plate on Floors			Spacing	Every frame and int.frame (400)
" " Flat Plate Keel Angles			<del>Fourth Deck, amidships, Angle</del> <b>I</b>	
Side Keelsons, No. each side			Spacing	
" " thickness of Intercoastal Plate			<del>Fifth Deck, amidships, Angle</del> <b>I</b>	
" " Angles			Spacing	
DOUBLE BOTTOM.			<del>Bridge Deck, amidships, Angle</del> <b>I</b>	
Solid Floors, thickness and spacing	11-15 800		Spacing	
" " Are Frame and Reversed Frame joggled?	no		Forecastle Deck, Angle, <del>port</del> <b>I</b>	200x100x14
Bracket Floors, breadth and thickness at middle line			Spacing	Every frame (800)
" " breadth and thickness at margin plate				

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## PILLARS AND DECKS.

		Notes to Ship. mm	Any Departure from Approved Plans to be Noted.	Notes to Ship. mm	Any Departure from Approved Plans to be Noted.	Number of Certificates.
<b>PILLARS, No. of Rows</b> .....						35
"	2 Rows in 'tween Decks, Size and Spacing	Ø 150x12	See			35
"	3 " 2 rows " "	Ø 150x12	Plans			35
"	E. Rooms 3 rows in Halls " " "	Ø 216x12				
"	" " " " "					
<b>Centre Line Bulkhead.</b> Stiffeners and Spacing (in peaks only)		T-150x90x10x12				
Spacing 800						
Plating, thickness of		20+10				
<b>STRINGERS AND DECKS.</b>						
<b>Uppermost Continuous Deck.</b> Stringer Plate, breadth and thickness in Wells		1600x14	xNT			
<del>Stringer Plate, breadth and thickness in way of Bridge</del>						
" Angle in Wells		welded				
Thickness of Plating abreast Deck openings in way of Wells		12	xNT			
Thickness of Plating abreast Deck openings in way of Bridge						
Thickness of Plating within line of openings		10				
<del>If Sheathed, material and thickness</del>						
<b>Second Deck.</b> Stringer Plate, breadth and thickness in Wells		1600x14	xNT			
Stringer Plate, breadth and thickness in way of Bridge						
Thickness of Plating abreast Deck openings in way of Wells						
Thickness of Plating abreast Deck openings in way of Bridge						
Thickness of Plating within line of openings						
If Sheathed, material and thickness						
<b>Third Deck.</b> Stringer Plate, breadth and thickness				12	x NT	55/2
If Plated, state thickness						894
<b>Fourth Deck.</b> Stringer Plate, breadth and thickness						
If Plated, state thickness						
<b>Poop Deck.</b> Stringer Plate, breadth and thickness						Steering
Plating, Sheathing, material and thickness						Steering
<b>Bridge Deck.</b> Stringer Plate, breadth and thickness						Ceiling
Plating, Sheathing, material and thickness						Cargo
<b>Forecastle Deck.</b> Stringer Plate, breadth and thickness		1600x12	xNT			Size of
Plating, Sheathing, material and thickness		10+9				Number and

## SHELL PLATING.

SCANTLINGS.					RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.		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.	
Flat Plate Keel.....	2000	25	48	35	x NT							
„ Dblg. (if any).....	-											
Bottom Plating, No. of Strakes.....	B	21	54	35-40	x NT							
Bilge Plating, No. of Strakes.....	D E	25 35	54	45	x NT							
Side Plating, No. of Strakes.....	F G H I	35 40 40 35	54 54 54 38	45 45 45 38	x NT							
Upper Deck, Sheer- strake in Wells.....	M	20	28	38	x NT							
Upper Deck, Sheer- strake in Bridge ...												
Strake below Sheer- strake in Wells.....	L	35	38	38	x NT							
Strake below Sheer- strake in Bridge ...												
Poop Side Plating.....												
Bridge Side Plating.....												
Forecastle Side Plating	N	24	15		x NT							

## WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel—	18.
Extending to Upper Deck (Sec. 3 c)	10
„ Deck next below	10
As per Rule	6

## FORGINGS AND CASTINGS.

	Casting or Forging.	Seantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted
STEM	Steel Casting	580x 480	Dalsbruk	X
STEM	"	410x 590		X
STEM	"	400x 500		X
RUDDER—Type	Steel Casting	18.3	Dr. 365.50.4	
"	"	19.3	Dalsbruk	
"	Forging	540 mm		X
"	Steel Casting	350x 300mm		X
"	"	270x 300mm		
"	Steel Casting			
"	"	120-80		
"	Horizontal			

## STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture) Plates from Hüttenwerk Oberhausen AG, Dortmund-Hörder Hüttenunion AG and Redcar Steel works and Rolling mills. - Profils from Mannesmann-Hüttenwerke AG, The Steel Company of Scotland, Hüttenwerk Oberhausen AG, Colvilles Ltd., Glasgow, Britannia Works Middlesbrough, South Durham Steel & Iron Co. Ltd. and Nordbotten Järnverk AB

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



EQUIPMENT No. 4673

LETTER e +

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.				
356	1st Bower	4568						64,132				4155	Stockless Hall	Dalsbruks	Dalsbruk 17.12.59
357	2nd "	4573						64,173				4155	"	Järnverk	Lindqvist
358	3rd "	4622						64,475				4155	"		
	Collective weight	13763													
	Stream														

CHAIN CABLES. with Kenter shackles

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.	
	Length.	Diam.	Statutory.	Breaking.	Supplied.	Per Rule.	Length.	Diam.					Length.	Cir.		Length.	Cir.
55/277	744	5/68	126,4	176,8	74125		550	65	Stock link	Dalsbruks Järnverk	Dalsbruk 27.5.59 Lindqvist	TOWLINE	500	188		720	8 1/4 110
894		68	126,4	176,8	1232	Kenter joining shackles				J.D.Theille	Dortmund 6.8.58 Grimberg	HAWSERS & WARPS	4x150	26		4x150	26
													2x185	89		200	22 1/8 55
													4x185	70			
													1x220	127			

Steering Gear, Type (Power ~~or hand~~) Electric hydraulic

Alternative Means of Steering

Steering Chains (Size and Test)

Windlass

Electric

Boats 4 aluminium boats and one steel motor boat

Ceiling in Holds, thickness and material

Cargo Battens, thickness, material and spacing

Cargo Hatchways.—(Upper Deck) steel boaming

11 mm

Thickness of Hatches

10 mm

Size of Hatchways No. 1 (Fwd.) 2400x3000 No. 2 2400x2400 No. 3 3200x3300 No. 4 No. 5 No. 6

Number of Shifting Beams and/or Fore and Afters

Builder's Signature

Wärmlä-kansanen A/B

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 diesel electric  
(b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo no 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).

For the positions in which oil is carried, please see the attached coloured plan No.365,C2.10H.  
- The flash point of the fuel oil used is above 150° F. In the tank No.4-C-2 (in lower tween-deck space, aft) there will be carried fuel for a helicopter.

This ship has been built under Special Survey in conformity with Society's Rules and Regulations and Secretary's letters. The scantlings and arrangements of the ship are as given on the Report and as shown on the approved plans now forwarded. The material and workmanship are good. All tanks and cofferdams throughout the entire ship have been tested as required by the Rules, and found good. The weather decks, bulkheads and W.T. doors have been tested and found good. The windlass, steering gear, bilge pumping and tank pumping arrangements have been tested and found in order. The assigned freeboards have been marked on the ship's sides, verified and cut in.

See Helsinki Surveyors letter dated 20/12/60 RSP 10/1/61.

8403 steel - (Btm side shell for whole length of ship with exception of 21 m/m thin shell & 15 m/m thick side)

The amount of Entry Fee Fmk. 1,734.50 : Fees applied for,  
Freeboard 64,600 : 19  
Special Survey Fee £ : : Received by me,  
(a corp with Survey Dept) £ : : 19  
Travelling Expenses, if any £ : : *apm*

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

I am of opinion the Vessel should be Classed +100 A 1,  
Electrically welded. Strengthened for  
Navigation in Ice. Icebreaker.

State whether the Vessel has been built under Special Survey yes

Signature

Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to this office.Date of issue 24.10.60

Committee's Minute

FRIDAY 14 OCT 1960

Character assigned

+100 A1

Strengthened for  
navigation in Ice

+LMC

ES

DBS

TS ON

6.60

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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 the Plans should be embodied.)

The requirements of Chapter D, Section 20 of the Rules, where applicable for the carriage of oil fuel having a flash point above 150° F, have been complied with.

This vessel is the first of this type.

PARTICULARS OF ELECTRIC WELDING (if employed) Completely welded.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book Arctic type icebreaker, all three screws aft, Helicopter landingdeck and hangar for two helicopters, automatic 30/60 tons towing winch, two 10 tons and two 1,5 tons deck cranes.

RADAR Equipment (State if fitted) two State Type or Pattern No. TM 909 (Decca) State Name } Maker Decca Don and/or (Russian) Supplier

Particulars of Drop Test of Cast Steel Anchors, viz.:—	299 ✓	Weight	4568	kgs.	A.L. Cert. No.	S/c 356, 17.12.59	Drop test	= 3,65 m.
Weight, Surveyor's Initials,	2995	"	4573	"	"	S/c 357, 17.12.59	"	" = 3,65 m.
Number of Certificate, Date of Test.	3040	"	4622	"	"	S/c 358, 17.12.59	"	" = 3,65 m.
	3rd "	"		"	"			

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop — ft., R.Q.D. — ft., Bridge — ft., Forecastle 44,8 m

(in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated yes

Official No. 22669 Signal Letters Extreme Breadth over Belting 24,58 m. Over-all Length 122,1 m (Circ. 1611) (Circ. 1703)

No. and Material of Decks 3, steel

Parts of Bottom of Vessel coated with cement or approved composition Sharp part of peak tanks.

Particulars of composition (if fitted) and of approval —

PARTICULARS OF WATER BALLAST:—(Comprising all tanks which may be used for Water Ballast. (Circ. 1284) See attached drawing No. 265. C2.10.H. (Wells are not to be included in the lengths of the tanks, but Cofferdums and Dry Tanks (if tested) are to be included.)

Where Fitted.	Length.	Water Capacity.	Where Fitted.	Length.	Water Capacity.
	Feet.	Tons.		Feet.	Tons.
Double bottom, aft,			Fore peak tank, (two)	21,0	468
Double bottom, under Engines and Boilers,			After peak tank, (two)	19,0	437
Double bottom, if under Engines only,			Deep tank, aft,	6,8	234
Double bottom, if under Boilers only,			Deep tank, forward,	8,0	296
Double bottom, forward,			Other tanks, if fitted,	20,8	478
Total length (if continuous) and Capacity			(If necessary furnish further information by sketch.)	20,8	442

Order for Special Survey No.

Date.

Dates of Surveys held while building

28.10.57 - 16.6.60.



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