

STEEL STEAMER or MOTORSHIP.

Received at London Office OCT - 1 1937

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 29th September 1937

Port of

NEWCASTLE-ON-TYNE

No.

95474

Survey held at Walker-on-Tyne

Date First Survey

2 Dec 1936

Last Survey

28 Sept

1937

On the (State if Machinery is of Single, Twin or Triple Screw)

M. V.

"ARNDALE"

Machinery aft. Single screw.

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

Full Scantling

State Type of Erections P. B. F.

TONNAGE under Tonnage Deck... 7422.85

CLASS petroleum in bulk (State if with freeboard as condition of Class) *Yes*

LENGTH (OVERALL)

481.6

Built at Walker-on-Tyne Newcastle.

Launched 5th August 1937 Yard No. 1516

Builders Swan Hunter & Wigham Richardson Ltd.

Owners The Admiralty

Managers

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

Residence

Port of Registry London

If surveyed while building, afloat, or in dry dock

Building afloat & in dry dock

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

Total

Gross Tonnage 8296.45

Register Tonnage 4936.33

REGISTERED DIMENSIONS.

FEET.

Length 466.3

Breadth 61.9

Depth 33.95

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

Breadth (greatest moulded) B 61.75

Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) D 34.04

1st Longitudinal Number (L x D) = 15801

2nd Numeral L x (B + D) = 44466

Framing Depth "d," at middle of length. See Sec. 3 (1d) 13.63

Proportions—Depth to Length—Uppermost continuous deck to top of keel Do. Long Bridge to top of keel

Draught Moulded 27'4 1/2

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	30" in long Tanks N° 34-56		Bracket Floors, Frame	None	
" " from 1/2 length to Collision bulkhead	28 1/2" short " N° 1-2, 7-8, 9		" " Reversed Frame	None	
" " in peaks	24"		" " Vertical Struts	None	
" " machinery space	30"		Centre Girder, depth and thickness amidships	63" x 54" x 46	
SIDE FRAMING. See also Rpt 1 & 2 for particulars of double framing			" " top Angles	double 3 1/2" x 3 1/2" x 48" x 44	
Frame Amidships, Angle, E or C	11 3 1/2" x 43" No 1 Tank		" " bottom Angles	double 5" x 5" x 54" x 50	
" " Extends up to	Upper deck		Side Girders, No. each side and thickness	2 62" x 42" 50" x 42	
Frame Amidships, Angle, Machy. Space	10 3 1/2" x 40" Upper stringer & Upper dk. alt.		Margin Plate depth (excl. of flange) and thickness	54	
" " Extends up to	Upper dk. alt.		" " Vertical Angle to Tank side Bracket abaft 1/4 len. from stem	✓	
Depth of Framing Girder	9" x 10"		" " Vertical Angle to Tank side Bracket forward 1/4 len. from stem	✓	
Frames in Uppermost Continuous 'tween Decks, Angle, E or C	10 3 1/2" x 40" 8 3 1/2" x 44" alt & scarf		" " Gussets, spacing and scantling abaft 1/4 len. from stem	✓	
" " Second 'tween Decks, Angle, E or C	✓		" " Gussets, spacing and scantling forward 1/4 len. from stem	✓	
" " Third " " "	✓		Tank Side Brackets, height above base line at toe of Frame and thickness	3'3" x 46	
Framing in Peaks, Angle or C	8 3 1/2" x 46		INNER BOTTOM PLATING.		
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	7/8" - 4 7/8"		Breadth and thickness of Middle Line Strake	70" x 52	
State if Frame Joggled	Yes		Thickness of remainder in Holds	52 1 1/4 under Eng.	
PANTING ARRANGEMENTS (Sec. 7), state system and particulars	4 stringers in peaks 23 stringers 40" flat & built frame as approved ab aft peak bulkhead 3 strakes of plating increased & inter costal & double riveted frame connections as appd.		Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Bunkers and Boiler Room?	Yes	
STRENGTHENING OF BOTTOM FORWARD. State Particulars			BEAMS.		
SINGLE BOTTOM.	WEBS TO SIDE SHELL IN LONG TANKS		Uppermost Continuous Deck, amidships	Longitudinal	
Floors, Depth and thickness at mid-line in Holds	1 web at mid length of tank 60" x 42" x 6 x 3 x 46 B.A. face bar for full height		" " in way of Bridge, Angle, E or C	✓	
Height of Brackets at side above base line at toe of frame	2 webs at 1/4 length of tank between bottom transverse & lowest stringer		Spacing	✓	
Middle Line Keelson, on Floors, Angles, E or C	48" x 30" x 44" flg 5" on face		Second Deck, amidships, Angle, E or C	✓	
" " Through Plate or Intercoastal Plate	WEBS TO SIDE SHELL IN SHORT TANKS		Spacing	✓	
" " Foundation Plate on Floors	1 web at mid length of tank 48" x 30" x 44" flg 5" on face		Third Deck, amidships, Angle, E or C	✓	
" " Flat Plate Keel Angles	SIDE SHELL STRINGERS		Spacing	✓	
Side Keelsons, No. each side	lowest 30" x 42" 3 1/2" x 3 1/2" x 44" face angle		Fourth Deck, amidships, Angle, E or C	✓	
" " thickness of Intercoastal Plate	Middle 28" x 42" 3 1/2" x 3 1/2" x 44" face angle		Spacing	✓	
" " Angles	upper 26" x 42" 3 1/2" x 3 1/2" x 44" face angle		Poop Deck, Angle, E or C	9 x 3 x 42 x 40 8 x 3 x 35	
DOUBLE BOTTOM. Machinery space			Spacing	24" x 30"	
Solid Floors, thickness and spacing	42" x 62" under Eng. Every		Bridge Deck, Angle, E or C	7 3 33	
" " Are Frame and Reversed Frame joggled?	Yes		Spacing	30"	
Bracket Floors, breadth and thickness at middle line	None		Forecastle Deck, Angle, E or C	9 3 42 8 3 35	
" " breadth and thickness at margin plate	None		Spacing	27" x 24"	

in Brackets
alkheads.
Diameter.
Inches.RT TANKS
bulkhead
7/8 Rivets
Single
7/8 RivetsIG TANKS
bulkhead
7/8 Rivets
Single
7/8 Rivetsapproved.
Ang
6 x 42
short
6 x 36
60" long
6 x 42
42" short
6 x 36
long

002754-002761-0174 (1/3)

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.
PILLARS, No. of Rows <i>In tanks at Centre line</i>	3 pillars at Centre line in each tank (long)		Stringer Plate, breadth and thickness in way of Bridge	✓
" in 'tween Decks, Size and Spacing	10 x 3 1/2 x 3 1/2 x 50		Thickness of Plating abreast Deck openings in way of Wells	✓
" " " " "			Thickness of Plating abreast Deck openings in way of Bridge	✓
" in Holds	1 pillar in each short tank		Thickness of Plating within line of openings	✓
" " " " "			If Sheathed, material and thickness	✓
WING Centre Line Bulkhead	9 x 3 x 40 1/2 in stiff spaced 30" apart		Third Deck.	
Stiffeners and Spacing	into 24 x 40 3/4 x 3 1/2 x 40 per angle horizontal stringer as shown		Stringer Plate, breadth and thickness	✓
Plating, thickness of	51 x 40		If Plated, state thickness	✓
Indicated Centre girder in oil tanks	4 1/2 x 42 3/4 x 3 1/2 x 40 double face angles		Fourth Deck.	
STRINGERS AND DECKS.			Stringer Plate, breadth and thickness	✓
Uppermost Continuous Deck.			If Plated, state thickness	✓
Stringer Plate, breadth and thickness in Wells	72" x 82 1/2" x 72" x 72"		Poop Deck.	
" " " " in way of Bridge	82" x 98" x 72" x 88"		Stringer Plate, breadth and thickness	38" x 38"
" Angle in Wells	7 1/2 x 72		Plating, Sheathing, material and thickness	30" x 26" where bent sheathed 2 1/2" wood deck
Thickness of Plating abreast Deck openings in way of Wells	72 through strakes		Bridge Deck.	
Thickness of Plating abreast Deck openings in way of Bridge	58 in hatch strakes		Stringer Plate, breadth and thickness	56" x 44" 42" x 44"
Thickness of Plating within line of openings	✓		Plating, Sheathing, material and thickness	30" 2 1/2" wood deck
If Sheathed, material and thickness	✓		Forecastle Deck.	
Second Deck.			Stringer Plate, breadth and thickness	36" x 38"
Stringer Plate, breadth and thickness in Wells	✓		Plating, Sheathing, material and thickness	30" 2 1/2" wood deck

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	53	.99	.82	.82		double	1	4	Quintuple	1 1/8	5	Lapped
" DBLG. (if any)												
BOTTOM PLATING, No. of of Strakes	2 at	.65	.56	.51	.51 at ends	double	7/8	3 1/2	Quad	7/8	3 1/2	Lapped
BILGE PLATING, No. of Strakes	2 at	.66	.56	.51	.51 at ends	"	7/8	3 1/2	"	7/8	3 1/2	"
SIDE PLATING, No. of Strakes65	.56	.51	.51 at ends	"	7/8	3 1/2	"	7/8	3 1/2	"
UPPER DECK, Sheer- strake in Wells.....	63	1.08	.53	.48	.48 at ends	"	7/8	3 1/2	"	7/8	3 1/2	"
UPPER DECK, Sheer- strake in Bridge63	.53	.48	.48 at ends	"	7/8	3 1/2	"	7/8	3 1/2	"
STRAKE BELOW Sheer- strake in Wells.....		1.08 + 1.23 at ends of bridge	.53	.48	.98 + 1.18 .48 at ends	✓	✓	✓	Sextuple + Quintuple	1 1/8 + 1"	5. 4 1/2 4	"
STRAKE BELOW Sheer- strake in Bridge82	.53	.48	.48 at ends	double	1 1/8 1"	4 1/2 4	Quad	1	4	"
POOP SIDE PLATING82	.53	.48	.48 at ends	"	1	4	Quad	1	4	"
BRIDGE SIDE PLATING44				one strake	✓	✓	Trible. double + Single	3/4	2 7/8	"
FORECASTLE SIDE PLATING			.44	.49	.44	double	3/4	3	Lower - Tribble upper - double	3/4	2 5/8	"
						Single	3/4	3	Single	3/4	2 7/8	"

WATERTIGHT BULKHEADS.

WATERTIGHT BULKHEADS.					FORGINGS and CASTINGS.				
Total No. of W.T. BULKHEADS in Vessel						Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
Extending to Upper Deck (Sec. 3 c)					KEEL, Bar				
Deck next below					STEM		rolled bar	10 x 2 1/4	
As per Rule					STERN FRAME	Propeller Post	steel forging	11 1/2 x 8 3/4	double
						Rudder		11 x 8 3/4	Forge.
					Speed of Vessel			11 1/2 knots	
					RUDDER - Type			cutz type rudder	
					" A x D				
					" Diam. of head			13 3/4	
					" Mainpiece at top pintle			built up rudder as per approved plans	
					" heel				
					" how constructed			Forgings by Wilton Forge.	
					" double or single plate			double	.60
					" coupling, vertical or horizontal			horizontal coupling	
								open heart	

STEEL.

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

Consitt Iron Co., Appleby Frodingham St. Co., South Durham S & S Co., Borman Long & Co., Skinningrove S & S Co., Cargo Fleet, Lanarkshire Steel Co., Raine & Co., Colvilles Ltd.

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

"ARNDALE"

PARTICULARS OF LONGITUDINAL FRAMING.

FRAMING.		AMIDSHIPS.			ENDS.			AMIDSHIPS.			ENDS.			RIVETING.				
		In Ship.			In Ship.			Per Rule or as approved.			Per Rule or as approved.			Rivets in Longitudinal Frames.		Spacing of Rivets on each side of Transverses and Bulkheads.	Rivets in Brackets to Bulkheads.	
														Diam.	Speng.		Number.	Diameter.
		Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Inches.		Inches.	
Framing of E, L or C																		
Frames in Bridge between Decks ...																		
Frames from Uppermost Continuous Deck No. 1																		
BOTTOM SHELL " 2																		
PLATING " 3																		
" 4																		
" 5																		
" 6																		
" 7																		
" 8																		
" 9																		
g tanks { " 10		17x4x4x.48 C			17x4x4x.48 C				17x4x4x.48 C				17x4x4x.48 C	7/8 5 1/4	3 1/8" for 12R	SHORT TANKS		
" 11		"			"				"				"	"	each side in	20 bulkhead		
" 12		"			"				"				"	"	short tanks	18-7/8 Rivets		
" 13		"			"				"				"	"		20 Long		
u tanks { " 14		"			"				"				"	"	3/8" for 10R	LONG TANKS		
" 15		"			"				"				"	"	each side in	14-7/8 Rivets		
" 16		"			"				"				"	"	Long tanks	20 Long		
Amidships		30" in centre tanks.						31 3/4" in wing tanks										
At Ends		30" in centre tanks						31 3/4" in wing tanks.										
Tank Top Longitudinals																		
Bottom "																		
Longitudinals { Amidships																		
At Ends...																		
Transverses.																		
Depth and Thickness																		
Face Angles																		
Lugs to Shell*																		
Depth and Thickness		36"x.44			36"x.44				36"x.44				36"x.44					
Face Angles Single		3 1/2 3 1/2 .44			3 1/2 3 1/2 .44				3 1/2 3 1/2 .44				3 1/2 3 1/2 .44	7/8 3 1/2 4"	joggled			
Lugs to Shell*		6 6 .44			6 6 .44				6 6 .44				6 6 .44					
Depth and Thickness		54"x.48			54"x.48				54"x.48				54"x.48					
Face Angles Double		6 4 .62			9 3 1/2 .59				6 4 .62				9 3 1/2 .59					
Lugs to Shell*		6 6 .48			6 6 .48				6 6 .48				6 6 .48	7/8 4"	joggled			
Back Bars		3 1/2 x 3 1/2 x .48 for 3 spaces			3 1/2 x 3 1/2 x .48 for 3 spaces				3 1/2 x 3 1/2 x .48 for 3 spaces				3 1/2 x 3 1/2 x .48 for 3 spaces					
Brackets		7'0" x 6'3" x .48. Flg 5" to long bldg in centre tanks			Partial lugs as per appd plan to shell & long bldg in wing tanks													
Transverse Frames																		
Plate if joggled or liners.																		
Bridge Deck ...																		
Upper Antip		8 3 1/2 .42			8 3 1/2 .50				8 3 1/2 .42				8 3 1/2 .50	30"				
" wing		8 3 1/2 .45			8 3 1/2 .54				8 3 1/2 .45				8 3 1/2 .54	31 3/4"				
Second "																		
Third "																		
Beams of																		
Bridge Deck																		
Upper																		
Second																		
Third																		
Transverse Beams.																		
Plate.																		
Angles.		6x4x.63			6x4x.63				6x4x.63				6x4x.63					
In Short tanks		6x3 1/2 x.46 in			6x3 1/2 x.46 in				6x3 1/2 x.46 in				6x3 1/2 x.46 in					
Long tanks		6x4x.63 in			6x4x.63 in				6x4x.63 in				6x4x.63 in					
Short tanks		6x3 1/2 x.46 in			6x3 1/2 x.46 in				6x3 1/2 x.46 in				6x3 1/2 x.46 in					
Long tanks		6x3 1/2 x.46 in			6x3 1/2 x.46 in				6x3 1/2 x.46 in				6x3 1/2 x.46 in					

The particulars of framing in peaks (if ordinary), Floors, Centre Girder, Side Girders and Margin Plate and their angle attachments, etc., to be entered in their respective places provided for on the Report Forms.

NOTE:—This slip to be pasted on the fourth page of the Report, and reference to same to be made under framing, etc., on the first page.

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.)

The approved plans (39 in number) are enclosed herewith including Profile & deck as built. The midship section (as built) has been forwarded separately.
Forging reports attached.
Kindly return approved plans for use in No 1592 ship.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book *+100 A-1 carrying petroleum in bulk*
cruiser stern, machinery aft. Longitudinal framing at bottom & deck

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.		Weight incl. pins c. 9 lbs	Surveyor Initials	No of Cert.	Date of Test.
1st Bower		60 - 0 - 7.	W.H.	6215	22.1.37.
2nd "		56 - 1 - 0.	R.L.	5240	8.1.37.
3rd "		42 - 3 - 0	W.H.	6540	9.4.37.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop *103+3.5 overhang* 106.5 ft., R.Q.D. ft., Bridge *36.0+6.5 overhang* 42.5 ft., Forecastle *44.5* ft. (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated *not joined*

No. and Material of Decks *1 dk. 2nd dk clear of cargo tanks.*

Official No. *165578*; Signal Letters *G X Z T.* Is bottom of vessel coated with cement *part. pt cem.* if not give particulars of composition
Peak tanks :- cemented
Fore tanks :- Bituminous Enamel
ATB. Coff & Eng Rm walls :- Cemented
oil bunkers :- cement filled
Pump Room :- do

PARTICULARS OF WATER BALLAST.—

Where Fitted.	*Length. Feet.	*Water Capacity. Tons.	Where Fitted.	*Length. Feet.	*Water Capacity. Tons.
Double bottom, aft,	<i>Head tank</i> <i>0.F. drain tanks</i> <i>0.F. tanks</i> 75'0"	37.0	Fore peak tank,	24' 2 1/2"	209
Double bottom, under Engines and Boilers,		4.0	After peak tank,	18' 0"	18.3
Double bottom, if under Engines only,		135.0	Deep tank, aft,		
Double bottom, if under Boilers only,	75'0"		Deep tank, forward,	33' 9"	397.
Double bottom, forward,			Other tanks, if fitted,		
		Total capacity of double bottom 176.0	(If necessary, furnish further information by sketch.)		

* The wells are not to be included in the lengths of the tanks (See Circular No. 1284).

Order for Special Survey No. *5532*

Date *16.12.36*

Dates of Surveys held while building

1936 Dec. 2. 10. 16. 18. 30. 1937 Jan. 5. 11. 13. 15. 18. Feb. 5. 9. 18. Mar. 3. 10. 22. 30. Apr. 5. 12. 19. 29. May 3. 7. 14. 18. 19. 20. 21. 25. 27. 28. 31. June 1. 2. 3. 4. 7. 8. 10. 11. 14. 15. 16. 17. 18. 28. 31. July 1. 6. 9. 12. 19. 22. 23. Aug. 5. 13. 30. Sep. 1. 9. 13. 16. 17. 24. 27. 28.

Total No. of Visits *68.*