Rpt. 1

STEEL STEAMER ~~or MOTORSHIP~~.

Received at London Office 19 APR 1943

ADMIRALTY VESSEL

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: 26. 3. 43 Port of: Hull No. 51966.

Survey held at: Beverley & Hull Date First Survey: 30th August, 1942. Last Survey: 26th March, 1943.

On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw): steel Screw A/S Steam Trawler "Sapper" (Military Type)

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

State Type of Erections: Raised Quarter Deck & Whaleback

TONNAGE under Tonnage Deck	498.62
Do. of space or spaces between Tonnage Dk. and Upper Dk.	✓
Total	498.62
Gross Tonnage	579.79
Register Tonnage	181.53

REGISTERED DIMENSIONS.

	FEET
Length	178.15
Breadth	30.05
Depth	15.2

CLASS: +100 A1 Steam Trawler. State if with freeboard as condition of Class: No

	FEET
Length from fore part of stem to after part of stern post on summer L.W.L. See Sec. 3 (1a)	L 175'-0"
Breadth (greatest moulded)	B 30'-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 16'-0"
1st Longitudinal Number (L × D) =	2800
2nd Numeral L × (B + D) =	8050
Framing Depth "d," at middle of length. See Sec. 3 (1d)	✓
Proportions—Depth to Length—Uppermost continuous deck to top of keel	✓
Do. Long Bridge to top of keel	✓
Draught Moulded	✓

Built at: Beverley

Launched: 11th Nov 1942 Yard No. 705

Builders: Cook, Welton & Gemmell Ltd.

Owners: The Admiralty

Managers (Where necessary to be entered in Reg. Book): ✓

Residence: London.

Port of Registry: ✓

If surveyed while building, afloat, or in dry dock: Building and Afloat.

FRAMES, DOUBLE BOTTOM AND BEAMS.

	Inches in Ship.	Any Departure from Approved Plans to be Noted.
FRAMES, Spacing amidships	21" ✓	
„ „ from ⅗ length amidships to Collision bulkhead	17" ✓	
„ „ in peaks	FP 17" ✓ AP 20" ✓	
SIDE FRAMING.		
Frame Amidships, ~~Angle, ⊏ or~~ [	5½" x 3" x .38" B.A. ✓ .42" in E.B. spaces.	
„ „ Extends up to	Deck ✓	
Reversed Frame Amidships, Angle	3" x 3" x .38" O.A. ✓	
„ „ Extends ~~up to~~	Across floors. ✓	
Depth of Framing Girder	5½" ✓	
Frames in Uppermost Continuous 'tween Decks, Angle, [or [		
„ „ Second 'tween Decks, Angle, [or [		
„ „ Third „ „ „ „		
„ from ½ len. for'd. to 15% len. from Stem		
„ in Peaks, ~~Angle or~~ [	5½" x 3" x .38 B.A. ✓	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	¾" - 5¼" ✓	
State if Frame Joggled	No ✓	
Are the scantlings and arrangements in the Panting Area in accordance with ~~the Rules and/or~~ as approved?	Lower deck stringer and beams. Bilge keelson Yes ✓	
Are the scantlings and arrangements in way of the Bottom Forward in accordance with ~~the Rules and/or~~ as approved?	Closer frame spacing and riveting. Yes. ✓	
SINGLE BOTTOM.		
Floors, Depth and thickness at mid-line in Holds	19" x .40 ✓ .44 E&B Spaces. ✓	
Height of Brackets at side above base line at toe of frame	None. ✓	
Middle Line Keelson, on Floors, ~~Angles,~~ [~~or [~~	15" x 4" x 4" x 36.47 LBS CHANNEL ✓	
„ „ „ Through Plate or Intercostal Plate		
„ „ „ Foundation Plate on Floors		
„ „ „ Flat Plate Keel Angles		
Side Keelsons, No. each side: one L	5" x 4" x .50" ✓ .54 in Boiler space.	
„ „ thickness of Intercostal Plate		
„ „ Angles		
DOUBLE BOTTOM.		
Solid Floors, thickness and spacing		
„ „ Are Frame and Reversed Frame joggled?		
Bracket Floors, breadth and thickness at middle line		
„ „ breadth and thickness at margin plate		
Bracket Floors, Frame		
„ „ Reversed Frame		
„ „ Vertical Struts		
Centre Girder, depth and thickness amidships		
„ „ top Angles		
„ „ bottom Angles		
Side Girders, No. each side and thickness		
Margin Plate depth (excl. of flange) and thickness		
„ „ Vertical Angle to Tank side Bracket abaft ¼ len. from stem		
„ „ Vertical Angle to Tank side Bracket from forward ¼ len. from stem to Panting Area		
„ „ Gussets, spacing and scantling abaft ¼ len. from stem		
„ „ Gussets, spacing and scantling from forward ¼ len. from stem to Panting Area		
Tank Side Brackets, height above base line at toe of Frame and thickness		
INNER BOTTOM PLATING.		
Breadth and thickness of Middle Line Strake		
Thickness of remainder in Holds		
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?		
BEAMS.		
Uppermost Continuous Deck (R.Q. Dk.), amidships ~~in Wells, Angle, ⊏ or~~ [	7" x 3" x .40" B.A. ✓	FRS 51, 52, 53 & 54 ✓
„ „ ~~in way of Bridge,~~ Angle, ~~[or [~~	6" x 3" x .38" O.A.	ELSEWHERE ✓
Spacing	EVERY FRAME ✓	
LOWER ~~Second~~ Deck, AFT ~~amidships~~, Angle, ~~[or [~~	5" x 3" x .30" O.A. ✓	
Spacing	EVERY FRAME	
LOWER ~~Third~~ Deck, FORD. ~~amidships~~, Angle, ~~[or [~~	5" x 3" x .34" O.A. FRS 61-78 & 89-98 ✓ 5" x 3" x .36" O.A. FRS - 80-86 ✓	
Spacing	EVERY FRAME EXCEPT. 89-98 ALTERNATE FRAMES. ✓	
Fourth Deck, amidships, Angle, [or [		
Spacing		
Poop Deck, Angle, [or [		
Spacing		
Bridge Deck, Angle, [or [		
Spacing		
WHALEBACK ~~Forecastle Deck~~, Angle, ~~[or [~~	5" x 3" x .40" O.A. ✓	
Spacing	30"	

(MADE IN ENGLAND.)

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PILLARS AND DECKS.

	Inches in Ship.	Any Departure from Approved Plans to be Noted.
PILLARS, No. of Rows	Two	
„ in 'tween Decks, Ford, Size and Spacing	3" DIA – AS APPROVED	
„ „ „ „	✓	
„ in ~~Holds~~ „ CROSS BUNKER	3" DIA – „	
„ „ STORE ROOM: FORD:	3" „ „	
F & A ~~Centre Line~~ Bulkhead. (IN CROSS BUNKER) Stiffeners and Spacing FRS. 40–55	7"×3"×.40 [; SPACED 42"	
Plating, thickness of	.26"	
STRINGERS AND DECKS. Uppermost Continuous Deck. Stringer Plate, breadth and thickness in Wells	72"×.34"–.31"	
„ „ „ „ in way of GALLOWS ~~Bridge~~	.38	
„ Angle in Wells	$3\frac{1}{2}$"×3"×.40"	
Thickness of Plating abreast Deck openings in way of ~~Wells~~ CASINGS	.38" – .31"	
Thickness of Plating abreast Deck openings in way of Bridge	✓	
Thickness of Plating within line of openings	.36" – .31"	
~~If~~ Sheathed, over accom., material and thickness	$2\frac{1}{2}$" DOUGLAS FIR	
R.Q. ~~Second~~ Deck. Stringer Plate, breadth and thickness in Wells	.34" – .31" .38" IN WAY OF GALLOWS	
Stringer Plate, breadth and thickness in way of Bridge	✓	
Thickness of Plating abreast Deck openings in way of ~~Wells~~ CASINGS	.38" – .31"	
Thickness of Plating abreast Deck openings in way of Bridge	✓	
Thickness of Plating within line of openings	.31"	
~~If~~ Sheathed, over accom., material and thickness	$2\frac{1}{2}$" DOUGLAS FIR	
LOWER ~~Third~~ Deck. FORD. (PLATED ATHWARTSHIPS) Stringer Plate, breadth and thickness	.26"	
If Plated, state thickness	.26"	
LOWER ~~Fourth~~ Deck. AFT. Stringer Plate, breadth and thickness	.30"	
If Plated, state thickness	.30"	
STORE FLAT FORWARD ~~Poop Deck.~~ TIE ~~Stringer~~ Plate, breadth and thickness	15"×.30"	
Plating, Sheathing, material and thickness		
Bridge Deck. Stringer Plate, breadth and thickness		
Plating, Sheathing, material and thickness		
WHALEBACK ~~Forecastle~~ Deck. Stringer Plate, breadth and thickness	.30"	
Plating, Sheathing, material and thickness	.30"	

SHELL PLATING.

STRAKES.	Scantlings as in Vessel: Amidships Breadth (Inches)	Amidships Thickness (Inches)	Forward Thickness (Inches)	Aft Thickness (Inches)	Any Departure from Approved Plans to be Noted	Riveting Edges: Single or Double	Edges Rivets Diam. (Inches)	Edges Rivets Spacing cr. to cr. (Inches)	Butts: No. of Rows of Rivets	Butts Rivets Diam. (Inches)	Butts Rivets Spacing cr. to cr. (Inches)	Strapped or Lapped
GARBOARD ~~Flat Plate Keel~~	36	.52	.46	.46		DOUBLE	3/4	3	3 ROWS FOR ½ L. TO 2 ROWS	3/4	$2\frac{5}{8}$	STRAPPED
„ ~~Bilge (if any)~~ A	60	.44	.40	.40		„	„	„	2 ROWS	„	„	LAPPED
Bottom Plating, No. of Strakes 1 B	56	.44	.40	.40		„	„	„	„ „	„	„	„
Bilge Plating, No. of Strakes 1 C	56	.44	.40	.40		„	„	„	„ „	„	„	„
Side Plating, No. of Strakes 2 D	63	.44	.40	.40		„	„	„	3 ROWS FOR ½ L TO 2 ROWS	„	„	„
~~Upper Deck, Sheerstrake in Wells~~ E	57	.44	.40	.40		„	„	„	„ „	„	„	„
Upper Deck, Sheerstrake in Bridge F	48	.625	.50 (.54 ABREAST GALLOWS)	.50		„	7/8	$3\frac{1}{2}$	„ „	7/8	$3\frac{1}{8}$	STRAPPED
Strake below Sheerstrake in Wells	✓											
Strake below Sheerstrake in Bridge	✓											
Poop Side Plating	✓											
Bridge Side Plating	✓											
WHALEBACK ~~Forecastle~~ Side Plating	✓	✓	.30	✓								

WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel — 8

Extending to Upper Deck (Sec. 3 c) 4

„ Deck next below 4

As per Rule 3

For thicknesses of floor plates, i.e. bottom strakes, see approved plan.	Plating Thickness.	Stiffeners Vertical: Scantlings.	Vertical: Spacing.	Horizontal: Scantlings.	Horizontal: Spacing.
~~MIDSHIP~~ BULKH'D, ~~Upper 'tween decks~~ FRAME 55	.30"	7"×3"×.34 BA	30"	✓	✓
„ „ ~~Second~~ „ 79	.30"	6"×3"×.34" OA	24"	TO LOWER DECK	
„ 60	.30"	4×3"×.30" OA	24"	LOWER DK TO UPPER DK	
„ „ ~~Third~~ „ 68	.30"	6"×3".44" OA	$22\frac{1}{2}$"–$31\frac{1}{2}$"	TO LOWER DECK	
„ 83	.30"	„	$22\frac{1}{2}$"–30"	„	
„ „ ~~Holds~~ 87	.30"	6×3×.34 OA	24"	„	
COLLISION „ (in Hold) „ 100	.30"–.40	4×3"×.30" OA	„	✓	✓
AFTER PEAK „ „ 8	.38"	5"×3"×.36" OA	„	KEEL TO W.T. FLAT	
„ 18	.26"	$3\frac{1}{2}$"×$2\frac{1}{2}$"×.31" OA	30"	WT FLAT TO MAIN DK	
„ 1	.30"	3"×3"×.30" / 4×3"×.30" / 5×3×.30" OA	24"		

FORGINGS AND CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar FLAT BAR	ROLLED	8"×2"	APPLEBY FROD:	
STEM „	„	„	„	
STERN FRAME Propeller Post	FORGED	8"×4"	FORSTER	
STERN FRAME Rudder „	„	7"×$4\frac{1}{4}$"	„	
Speed of Vessel 12 – 14 KTS.				
RUDDER—Type B.O.W.	FORGED	–	FORSTER	
„ A × D		175.40		
„ Diam. of head		$7\frac{1}{2}$" DIA		
„ Mainpiece at top pintle		$7\frac{3}{4}$"		
„ „ heel		$5\frac{3}{4}$"		
„ how constructed	3 ARMS	SHRUNK &	KEYED	
„ double ~~or single~~ plate		.34"		
„ coupling, vertical or horizontal		HORIZ.		

STEEL. Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture) Open Hearth Process.

PLATES:- Appleby-Frodingham, Dorman Long, & Consett

SECTIONS:- „ „ & Skinningrove.

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

EQUIPMENT No. .... LETTER Rule x **ANCHORS.**

Number of Certificate.	Anchors.	Weight, Ex. Stock: Cwts.	qrs.	lbs.	Weight of Stock: Cwts.	qrs.	lbs.	Test, per Certificate: Tons.	cwts.	qrs.	lbs.	Weight Required by Table 53: Cwts.	Description of Anchor.	Makers.	Where and when tested, and Superintendent.
42688	1st Bower	13	1	17	Stockless			15	3	3	0	26	Byers Improved Stockless	W. L. Byers Ltd.	Sunderland 18/11/42 R. J. Vogan
43214	2nd „	13	1	17	„			15	3	3	0		„ „	„	Sunderland 25/2/43 R. J. Vogan
	3rd „														
1953A	Collective weight KEDGE ~~Stream~~	4	0	21	–	3	4	6	12	2	0	$4\frac{1}{2}$ ex stock	Admiralty Plan Type supplied from Adm Stores.		

CHAIN CABLES.

Number of Certificate.	Length supplied (Fathoms)	Diam. (Ins.)	Test per Certificate: Statutory (Tons)	Breaking (Tons)	Weight of Chain Cable Supplied: Cwts. qrs. lbs.	Per Rule: Cwts.	Length per Table 53 (Fathoms)	Diam. (Ins.)	Description.	Makers of Cables.	Where and when tested, and Superintendent.
2238	180	$1\frac{5}{16}$	31-0-0	44-10-0	164·3·23				Stud Link	N. Hingley & Sons Ltd	Netherton 16/3/43 S. Bolton
	15	„	„	„	See letter 16·4·43				„	(No Certificates available)	
							on plan 150 fms $1\frac{5}{16}$				
~~Iron~~ Stream ~~Chain or~~ Steel Wire	150	Cir. $2\frac{1}{2}$	Supplied by Admiralty								

HAWSERS AND WARPS.

Material.	Length supplied (Fathoms)	Cir. (Ins.)	Breaking Test of Steel Wire (Tons)	Length and Size per Table 53
TOWLINE	30 / 35F	6 / 3"	Manilla fitted with SWR each end.	
HAWSERS & WARPS	150	$2\frac{1}{2}$	Admiralty pattern	
	120	$2\frac{1}{2}$	Mooring rope	
	120	$1\frac{1}{2}$	All supplied by Admiralty	
	120	4	Coir	

Steering Gear, Type (Power (STEAM) ~~or hand~~) Steam-Hydraulic Type by Donkin & Co. Ltd. Alternative Means of Steering Hand Gear

Steering Chains (Size and Test) None. Windlass (Steam) Gemmell & Frow Ltd. Boats Two – 16 ft Dinghies

Ceiling in Holds, thickness and material None. Cargo Battens, thickness, material and spacing None.

Cargo Hatchways.—(Upper Deck) None. Thickness of Hatches ✓

Size of Hatchways No. 1 (Fwd.) ✓ No. 2 ✓ No. 3 ✓ No. 4 ✓ No. 5 ✓ No. 6 ✓

Number of Shifting Beams and/or Fore and Afters ✓

Builder's Signature [Stamp: COOK, WELTON & GEMMELL LTD. SHIPBUILDERS GROVE HILL, BEVERLEY.] R. D. Campey 22/3/43

21"

17"

FP 17"
AP 20

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* No

(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).*

This vessel has been built in accordance with the approved plans and specification, and the materials and workmanship are good. The after peak and side tanks aft, and the fresh water and reserve feed tanks have been tested to Rule requirements. The bottom has been flooded from frames 8 to 55, 68 to 79, & 81 to 100 and all shell plating clear of the tanks has been hose tested. The decks, casings, skylights, escape hatches, W.T. doors, windlass, steering gear and arrangements have been tested. All found satisfactory.

The amount of Entry Fee ... £	19 · 7 · 4
Classification & Supervision of Admiralty Specification / Special Survey Fee ... £	178 - 0 - 0
Travelling Expenses, if any ... £	

Fees applied for, 16 APL 1943 19 ...; Received by me ... 19 ...

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

I am of opinion the Vessel should be Classed +100 A1 STEAM TRAWLER "FOR GOVERNMENT SERVICE"

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

Signature A. W. B. Edwards.
Surveyor to Lloyd's Register of Shipping.

Certificate ~~to~~ be sent to Hull Date of issue 10/5/43

Committee's Minute WED. 28 APR 1943

Character assigned +100A1 Steam Trawler For Government Service

Lloyds A & CP

Ack Hull

The Surveyors are requested not to write on or below the Committee's Minutes.

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 are being retained for reference in dealing with sister vessels; copies of the plans are in the Wokingham Office.
An Echo sounding device has been fitted.
Forging reports are forwarded herewith.

PARTICULARS OF ELECTRIC WELDING (*if employed*) Lower deck plating electric welded at sides of vessel and at ends. Approved electrodes used.

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

✠ 100 A1 Steam Trawler "For Government Service".
E.S.D. See Rpt on El. Equipmt

Particulars of **Drop Test** of Cast Steel Anchors, viz. :— Weight, Surveyor's Initials, Number of Certificate, Date of Test.					
1st Bower ANCHOR HEAD	7 cwt. 2 qrs. 1 lb	G.G.Y.	42688	30/5/41	4034
2nd „	" " 7 " 1 " 9 "	A.E.G.	43214	20/11/42	4587
3rd „	✓				

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ✓ ft., R.Q.D. 92·25 ft., Bridge ✓ ft., ~~Forecastle~~ Whaleback 34·0 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 ✓ Extreme Breadth over Belting (Circ. 1611) ✓ Over-all Length (Circ. 1703) 193'0" ✓

No. and Material of Decks 1 dk. Steel.

Parts of Bottom of Vessel coated with cement or approved composition Cement in bunkers, E & B spaces, F & A Peak Tanks and Chain locker; with Bituminous solution above cement. Bitumen Enamel in F.W. 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) *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,	✓	✓
Double bottom, under Engines and Boilers,			After peak tank,	11·6'	7 ✓
Double bottom, if under Engines only,			Deep tank, aft,		
Double bottom, if under Boilers only,			Deep tank, forward,		
Double bottom, forward,			Other tanks, if fitted,		
Total length (if continuous) and Capacity			(If necessary furnish further information by sketch.)		

Order for Special Survey No. 3315.
Date 1/4/42.

Dates of Surveys held while building:
1942. Aug. 20, 21, 24, Sept. 1, 18, 24, 30. Oct 6, 27, Nov. 3, 6, 9, 11.
1943. Mar. 2, 4, 8, 10, 11, 15, 16, 18, 24, 26,

Total No. of Visits 23.

For S.S.O.F. see H.M.S. Grenadier (Hul 51932)