

MIDSHIP SECTION.

SCALE 1/2 IN. = ONE FOOT.

DIMENSIONS:- 209'-0" B.P.  $\times$  34'-3" MLD.  $\times$  13'-0" UPPER DK., 17'-0" R.Q. DK.

CLASS LLOYD'S 100 A1+ SPECIAL SURVEY.

1. FESSLE TO BE SPECIALLY STRENGTHENED FOR LOADING AND DISCHARGING WHILE READING  
 ALL DECKS "TO BE OF STEEL WITH BEAMS ON BUILT FRAME AND SUPPORTED IN HOLES BY UNDER-  
 DECK BRACKETS AND SUPPORT BRACKETS AND HOLES OTHERWISE UNDESIRABLE BY HEAVY SPACED BOLLARS  
 THE "H" HOLD TO BE SPECIALLY ARRANGED FOR THE CARRIAGE OF CARGO BINS AND ULL CARGO SPACE  
 DESIGNED FREE OF ALL PIVOTAL OBSTRUCTIONS  
 2. REINFORCING OF PLATES WITH LIPS OF ANGLES (SPECIAL) BY BOLLERS APPROVAL  
 3. RIVETING IS TO FOLLOW REQUIREMENTS, PLATE OR ANGLE, PLAIN NECK RIVETS TO BE WIDENED FORM OF CURVE PER SECTION 50, PAR 2 OBLIQUE RIVETS  
 NO TAP RIVETS WITHOUT OWNERS APPROVAL IN CASE OF OILTIGHT MAKE ALL RIV RIVETING TO BE QUINCY ANGLED, REQUIREMENTS OF SECTION 20 PAR 2  
 HYDRAULIC RIVETING TO BE ADOPTED AS EXTENSIVELY AS POSSIBLE, SEE SPECIFICATION FOR RIVETING OF STEAM, RIVETS, RIVETS, RIVETS TO BE WIDENED ON ONE  
 LAYERS REQUIREMENTS, FORWARD OR RUBBER, KEEL RUBBER STRIP 1/2" TO 1" UNDERSIDE OF KEEL FOR 50 FT

FORWARD OF STEER POST

STEER POST SOLID PILE TO BE INCREASED 8" OVER LLOYD'S REQUIREMENTS

WADSWORTH STROKE WAS INCREASED 1" IN DIAMETER OVER LLOYD'S REQUIREMENTS

CENTRE KEELSON TO BE .04" OVER LLOYD'S REQUIREMENTS. UNDER MACHINERY KEELSON PLATED TO BE .04" THICK, FITTED OVER DEPTH AND AFTER MOUNTINGS ARE BUSHED. CHIPPED PUSH WITH WHEELS OF BARS LLOYD'S ARE CURRENT FRAMES AND ALL UNUSUAL AND BOTTOM FRAMES, REVERSE FRAMES AND FLOOR MOUNTINGS.)

TO BE INCREASED .04" OVER LLOYD'S REQUIREMENTS. FLOORS IN ENGINE A BULGE ROOMS TO BE AT LEAST .04" THICK, FITTED OVERDEPTH UNDER ENGINES AND AFTER BUSHING CHIPPED PUSH WITH WHEELS OF BARS LLOYD'S KEELSON AND BURN FRAMES AND REVERSE FRAMES BUSHED ON FORCE UNDER ENGINES

AMPLE AIR AND DRAIN HOSES THROUGH ROOSTS OF FRAMES AND REVERSE FRAMES

SEE KEELSONS TO BE INCREASED .04" OVER LLOYD'S REQUIREMENTS INCLUDING MOUNTINGS IN ENGINE ROOM. ADDITIONAL INTERCOSTALS .04" THICK TO BE FITTED OVER DEPTH AND AFTER BUSHING CHIPPED PUSH

TO TOP AND EXTEND BACK TO .04" OVER LLOYD'S ALSO VERTICAL LINES

TANK TOP 1" THICK UNDER MAIN ENGINES, 1/2" ELSEWHERE IN ENGINE SPACE

" " CENTRE STRECE "OUT, MACHINERY PLATE "IN REMAINDER OF PLATING CLINDED EXCEPT IN MACHINERY SPACE

" " KEELSONS AND RATTIN TO BE DOUBLE OVERDEPTH OVER DEPTH OF BURN FRAMES

FRAMES TO BE OF BULG ANGLE SECTION, INCREASED SCANTLINGS 1/4" IN OF BURNED FRAMES

" " CUT AND BRACKETED AT TOP OF FORE AND AFT PEAK TANK, TUNNEL TOP, DEEP TANKS AND CROWN OF MACHINERY SPACE

FRAME AT HATCH END SPECIALLY STIFFENED

	LOADS	NUMERICALS
W	=	13.00 AT UPPER DECK
D	=	47.23
L x D	=	271.7
L x (B + D)	=	987.5
D	=	16.08 AT UPPER DECK
B	=	10.46 IN FORE HOLD AT DOUBLE BOTTOM
L/D	=	12.30 AT QUARTER DECK
B	=	15.50 AT BOILER ROOM
L/D	=	14.46 AT AFT HOLD QUARTER DECK
L/D	=	8.5 TO BRIDGE DECK
BRIDGE DECK COVERS 74% OF VESSELS LENGTH.		
TOTAL ERECTIONS COVER 62% OF VESSELS LENGTH.		

	EQUIPMENT	NUMBER
L x (B + D)		= 9875
QUARTER DK	1035 x 4	= 415
BRIDGE	495 x 75 x 75	= 278.4
FCSLE	2625 x 7.5 x 75	= 147.7
		10714.1

LETTER m

3 BOWER ANCHORS EACH 23 1/2 CWT. (SPECIFIED BY OWNERS)	
1 STRAIN ANCHOR 6 CWT EX STOCK	
20 FMS 1/2" STAIN CHAIN CABLE	WEIGHT 22 1/2 CWT
60 FMS 5/8" STEEL WIRE ROPE ON REEL	
90 FMS 3/4" STEEL WIRE ROPE TOWLINE ON REEL	
50 1/2" 6 MANILLA HAWKERS 7 WARPS	
100 FMS 8" TOWLINE	
1 COL. (60 FMS) OF EUROPE 10 THREAD FOR HEAVING LINE	SPECIFIED BY OWNERS

NOTE:- SCANTLINGS GIVEN INCLUDE OWNERS INCREASES

HATCH COVERS 3" SPRUCE  
HATCH SIDE COAMINGS 150"x12" ABOVE DECK AT N<sup>0</sup>3 HATCH AND 50"x15" ABOVE DECK AT HATCHES N<sup>0</sup>12  
HATCH END COAMINGS 44" ANGLES TOP TRIMMING CARL  
HATCH DECK ANGLE 5"x5" 44"x50" CORNER ANGLES 5"x5"x44"  
HATCH STIFFENER 7"x15" 26" ON SIDS  
STAYS ON HATCH SIDS AS SHOWN BELOW ON EVERY 3<sup>RD</sup> BEAM  
HATCH WEBS 16"x36" TOP ANGLES 41"x154" DOUBLE AT 64"x12" HATCH. BOTTOM ANGLES 31"x53" 44" DOUBLE  
HATCH 16"x36" TOP 4 BOTTOM ANGLES 51"x16" 4"x2" DOUBLE (AT 91"x12") AND (31"x53"x44") AT HATCHES N<sup>0</sup>12-3.  
ALTERNATE WEBS EXTEND TO TOP OF COVERS.

IRON PROTECTION PIECES TO BE PROVIDED AT ALL HATCH CORNERS.  
3 RING PLATES ON EACH SIDE OF EACH CARGO HATCH (FOR LASHING DECK CARGO)  
COPE IRON TO SUIT NO 17 TYZACK BAR.

NO 5A TYZACK RAIL SECTION

(ABOUT 17 LBS PER FOOT RUN)

{ BULKW PLATING '50'  
STAYS 6" x 50" BULB PLATE (NOT MORE THAN 5'-0" APART).  
BULKWELD STAY CONNECTION 5'-5" x 50" SINGLE TO BULKWELD  
DECK CONNECTION. 6" x 3" x 50" DOUBLE  
WEB PLATE STAYS TO BE ARRANGED NOT MORE THAN 5'-0" FROM  
END OF BRIDGE / POLE'S BREAKS  
HOLES FOR 7/8" SHACKLES TO BE FITTED IN ALL BULKWELD STAYS  
BELTING: 8" x 8" ELM BOLTED TO  
8" x 5/2" x 5/2" x 50" CHANNEL ROUND STERN / TO 4 1/2" x  
5 1/4" FLAT IRON FACE BAR TO BE WELL CHAMFERED

SPARRING 6'x2" W.P. IN HOLDS 4 CROSS BUNKER, TWO SPARS BEING FITTED IN EACH FRAME SPACE FROM TOP OF CEILING TO UNDERSIDE OF NORMAL BEAM KNEES. HUNG VERTICALLY AND SECURED ON STEEL BATTENS 2 1/2" x 5/8" BOLTED TO MAIN FRAMES & JOGGED TO BRING FACE OF SPARRING IN LINE WITH THE FACE OF FRAM. SPACING OF STEEL BATTENS TO SURVEYORS SATISFACTION.

RADIUS OF BULGE  $3.6''$

RADIUS OF SILGE 3'6  
NO RISE OF FLOOR.

B X 40". BULB PLATE ON 6" X 4" X 3/8" T BAR  
 PLATE TAPERS AWAY AT ENDS AND BULB  
 CARRIES ROUND TO SHELL  
 LINE OF BULGE KEEL IN RELATION TO TANK MARGIN.  
 TO BE APPROVED BY OWNERS. (BULGE KEEL  
 PREFERRED INSIDE LINE OF TANK MARGIN.)

SECTION THRO' AFT HOLD AND TANK.

SECTION THRO' FORE HOLD

№ 481.

T.S.S. RATA

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Bow M' Lachlan & Co. Ltd.  
No. 481.

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Midship Section (as built)

GLASGOW REPORT No 49329.



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