6.8.02

No 147.

MIDSHIP SECTION.

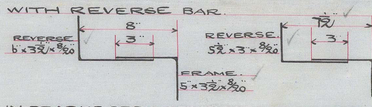
SCALE ½ INCH TO ONE FOOT.

NUMERALS.		
½ BREADTH	=	19.75
½ GIRTH	=	40.75
DEPTH	=	24.07
		84.57
		7.00
FRAMING NUMERAL.		77.57
		277.33
PLATING NUMERAL.		21512.49

DEPTHS TO LENGTH UPPER DK. = 11.52
" " " MAIN DK. = 16.25
BREADTH TO LENGTH. = 7.02

FRAMES SPACED 24" APART.

FRAMES OUTSIDE CELLULAR BOTTOM 5"×3"×8/20 FOR 3/5 L AMIDS TO 7/20 AT ENDS TO FORM 7/20 GIRDER WITH REVERSE BAR TO EXTEND FROM MARGIN PLATE TO THE UPPER MOST DECK. FRAMES IN No 2 & No 3 HOLDS 5"×3½"×8/20 FOR 3/5 L AMIDS TO 7/20 AT ENDS TO FORM 8" GIRDER. WITH REVERSE BAR.



IN PEAKS ORDINARY FRAME TO BE USED.
FRAME 5"×3"×7/20 REVERSE 3½"×3"×8/20.
FRAME INSIDE CELLULAR BOTTOM.
3"×3"×8/20 FOR 3/5 L AMIDS TO 7/20 AT ENDS.
FRAME IN CELLULAR BOTTOM TO BE DOUBLED BETWEEN COLLISION BULKHEAD & 3/5 L FORWARD.
FRAMES IN AFTER PEAK EXTEND TO POOP DECK; - FRAME TO BE DOUBLED TO MAIN DECK HEIGHT.
BULKHEAD FRAMES DOUBLE 5"×3"×8/20
WEB FRAMES FITTED AS PER PROFILE.
REVERSE BARS OUTSIDE CELLULAR BOTTOM IN WAY OF 12½" GIRDERS 5½"×3"×8/20 FOR 3/5 L AMIDS TO 7/20 AT ENDS EXTENDING ALTERNATELY TO THE UPPER DECK & TO TOP OF ANGLE BAR ON MAIN DECK; - IN FORECASTLE EXTENDING TO F'CLE & MAIN DECK & BRIDGE ALTERNATELY; - IN POOP ALL TO UPPER DECK.
REVERSE BAR IN WAY OF 8" GIRDER 6"×3½"×8/20 FOR 3/5 L AMIDS TO 7/20 AT ENDS EXTENDING ALL TO UPPER DECK.
REVERSE BARS INSIDE CELLULAR BOTTOM 3½"×3"×8/20.
REVERSE BARS IN CELLULAR BOTTOM UNDER E.& B. SPACES TO BE DOUBLED FROM MARGIN PLATE TO MARGIN PLATE IN BOILER SPACE 3½"×3"×½" FRAME 5"×3"×8/20 DOUBLE.
FLOOR PLATE IN CELLULAR BOTTOM 7/20 DOUBLE.
" " UNDER BOILER SPACE 9/16 IRON.
" " ATENDS OF VESSEL 7/20 IN PEAKS.
FLOOR PLATE IN AFT. PEAK TO EXTEND TO A SUFFICIENT HEIGHT ABOVE STERN TUBE.
TRANSOM PLATE 9/20
TANK INTERCOSTAL PLATES 7/20 IN HOLDS & ENGINE SPACE
" " " 9/16 IRON IN BOILER SPACE
& EXTRA INTERCOSTAL PLATES EACH SIDE IN WAY OF ENGINES.

CENTRE GIRDER 38"×19/20 INCREASED TO 39" 13/32" 15 IN BOILER SPACE.
BUTTS DOUBLE STRAPPED & TREBLE RIVETTED.

CENTRE GIRDER WATER TIGHT WHERE SHEWN ON PROFILE.

CENTRE GIRDER TOP ANGLES 4"×4"×9/20
" " " 4"×4"×13/16
IRON UNDER BOILER.
CENTRE GIRDER BOTTOM ANGLES 5½"×4"×9/20

STEM 10"×2½" REDUCED TO 8"×2½" AT TOP. FORGED IRON.
STERN FRAME 10"×5½" REDUCED AT TOP AS PER RULE.- FORGED IRON.
RUDDER 7¼" DIA; ½" INCREASED TO 7¾" AS PER SPECIFICATION.
PINTLE 3½" DIA.

PLATING UNDER WINDLASS BEING 8/20
POOP TIE PLATE 11"×9/20 BUTTS LAPPED & DOUBLE RIVETED.
BRIDGE DECK PLATED OVER WITH 7/20 STEEL BUTTS LAPPED & DOUBLE RIVETED; FORECASTLE TIE PLATE. 11"×9/20 BUTTS LAPPED & DOUBLE RIVETED.
POOP, BRIDGE & FORECASTLE DKS. 5"×3" OREGON PINE.

STRINGER PLATE 42"×8/20 ON BRIDGE TO 35"×7/20 AT ENDS OF POOP & FORECASTLE DECKS
3½"×3½"×7/20
3"×2½"×8/20

Poop deck beams 6"×8/20 bulb tee on alternate frames.
Bridge deck beams 8"×9/20 bulb tee " " "
" " half beams 7"×8/20 bulb tee " " "
Forecastle deck beams 8"×9/20 bulb tee on alternate frames
for beams exceeding 3/5 L of ☒ beam.
7"×8/20 bulb tees. for beams less than 2/3 L of ☒ beam.
4"×11/20 " " in way of windlass.

Upper deck 7/16 iron where exposed to weather
elsewhere 9/20 steel (see deck plan)
thickness of plating in way of all hatches, E & B oiler openings being increased and doubling applied at corners
thickness of plating under sheerleg increased.

STRINGER PLATE 42"×11/20 for ½ L to 9/20 at ¾ L and further reduced to 33"×8/20.
6"×7/20 bulb plate 6'-0" apart.

Upper deck 5"×3" oregon pine in way of accommodations.

ANGLE 4½"×4½"×9/20 in bridge, poop & f'cle 4"×4"×7/20

Round up 9/16
Longitudinal runner 7"×3"×8/20 channel.
Upper dk beams 6½"×3"×9/20 angle bulb on every frame for ☒ beams.
5½"×3"×8/20 " " " " for beams less than 3/5 of ☒ beam.
5½"×3"×7/20 angle — " " " " ½L
In way of No 3 hold 7"×3"×9/20 angle bulb on every frame.
In way of No 2 hold see section in way of No 2 hold.
Upper deck beams under reserve bunker 7½"×3"×11/20 angle bulb on every frame
" " hatch end beams in hatch ways (1" above on length) 10"×8/20 bulb plate with single angle 6"×4"×11/20.
Half beams 5½"×3"×8/20 angle bulb on every frame
" in No 3 hold 6"×3"×7/20 angle bulb on every frame.
Strong beam in machinery space 10½"×11/20 plate & 4½"×4"×8/20 four angles. fitted as many as practicable.

Pillars 3½"×3½"×½" hollow tube reeled for shifting boards spaced as per rule

Main deck plated over 9/20 steel or 7/16 iron. stringer plate 42"×11/20 for ½ L to 9/20 at ¾ L and further reduced to 33"×8/20
Both peak top platings 7/20 (see deck plan.) in way of No 2 & 3 holds breadth reduced to 30" & thickness increased to 13/20 & 9"×3½"×13/20 bulb angle fitted on inner edge. angles 4"×4"×9/20

Round up 9/16.
Longitudinal runner 9"×3½"×11/20 channel
Main deck beams 7½"×3"×11/20 angle bulb on every frame for ☒ beams.
6"×3"×9/20 " " " " beams less than 3/5 of ☒ beam.
6"×3"×8/20 angle — " " " " ½L
Main dk hatch end beam 10"×11/20 bulb plate with single angle 6"×4"×11/20
Half beam 6"×3"×9/20 angle bulb on every frame in way of hatch, engine & boiler openings. with casings & pillars as per Rules
Upper stringer 21"×8/20 for 3/5 L 7/20 at ends.
Bulkheads 7/20 for lower half 6/20 for upper half.
Diamond plate 30"×24"×8/20 — 7/20
Bottom & top angles 3½"×3"×8/20 double
Sparring 6"×2½"
Vertical stiffeners 5"×3"×8/20 angle 30" apart to have brackets at heel.
Horizontal " " 48" "
Collision B.H. horiz. stiffener 7"×3"×11/20 bulb angle to have brackets at sides
Engine & boiler room B.H. & hold bulkhead to have vertical web plates & sem-box stiffener 10"×11/20 bulb plate and channel bar at centre for shifting board. angle 3½"×3½"×13/20 crown plate 7/20.
Screen bulkhead 5/20
Bridge front bulkhead 7/20 coaming 8/20.
Stiffener 7"×3"×11/20 bulb angle spaced 30" apart & to have brackets at top and bottom.
Poop front bulkhead 7/20 coaming 8/20.
Stiffener 5"×3"×8/20 angle spaced 30" apart.
Shaft tunnel 7/20 to have 2" plank in hatch ways. 7/20 at ends.
Stiffener 4"×3"×8/20 4'-0" apart. 3' apart in hatch ways. Diamond plate 30"×24"×8/20 — 7/20
2' apart under deep tank. 5½"×4"×7/20
(extra stiffened to fit pillar on top.)
Tank top in hold as marked (7/20) — butts lapped & double rivetted for ½ L remainder single.
" " " " engine (9/20) & boiler spaces (9/16) butts lapped & double rivetted.
Heavy tank top centre strake 35"×9/20 for ½ L. 8/20 at ends.
9/16 iron in boiler space. margin plate 29"×9/20.
Butts lapped & double rivetted all fore & aft. " " 29"×9/16 iron in boiler space. butts lapped & double rivetted.

Hold pillars spaced as 3E 5½"×3½" hollow tube from tank top to upper dk. and 6"×3½" all reeled for shifting boards extra stanchions to be fitted under dk of machinery on deck.

Tee 6"×4"×3/8". Ceiling 2½" sugi.
Double 7/20 single 7/20 hatch ways 3" single 7/20 single 7/20 flanged 7/20 increased 2/20 (9/20) for using flanged bracket
24"×18" 24"×18" 24"×18" 24"×18" 16"×15"
3½"×3½"×7/20 double for 1½ frames in engine space
3½"×3½"×7/20 single in boiler space
3½"×3½"×8/20
5'-4½" lap 12'-11" 20 5½" lap 10'-9" 20 5½-4½" lap 10'-9" 20 5½-4½" lap 11'-9" 20 5½-4½" lap 11'-9" 20 increased 1/20 for ½ L. & ☒ to 12'-9" 20

Centre girder top angles 4"×4"×9/20
" " " 4"×4"×13/16
Iron under boiler.
Centre girder bottom angles 5½"×4"×9/20

Flat plate keel 36"×7/20 for 3/5 L ☒ to 13/20 at ends. Butts lapped & treble rivetted.

Bilge keel 11"×13/20 for 3/5 L. double butt straps. 5"×3"×7/20 double, treble rivetted

Note: - two strakes next to garboard to maintain ☒ thickness forward to collision bulkhead.
Boss plate ½" thicker than midship rule thickness.
Garboard plates & the after lengths of plating connected to stern frame to be ☒ rule thickness.
Coal bunker. 5/16 platings, 1/2 stiffening angles 3½"×3½"×11/16. 5"×3"×8/20 spaced 21" apart.

Special note; foot of hold pillar in No 2 hold to be extra stiffened by increasing the thickness of inner bottom platings & inside side girders.

Bridge side 7/20
Poop & forecastle sides.
7/20 butts lapped & double riveted
15" lights in bridge.

Tyzack rail bar on top 6"×7/20 bulb plate stays with 3"×2½"×11/20 on bulwark plate.
Sides 7/20 - 3/20 in bridge
13/20 increased (1/20) at the fore & after ends of bridge.
Bulwarks 8/20 steel.

Sheerstrake 42"×13'-10"/20 increased 8/20 to 42"×15'-10"/20.

Doubling plate applied for ½ the vessel's length ☒ for long bridge & extra proportion of vessel & to get extra strength.

RIVETING NOTE.
Outside plating:
Butts of sheerstrake to be treble riveted fore & aft. with double straps
Butts of other platings to be lapped & treble riveted all fore & aft.

33"×7/20 in No 3 Hold.

Equipment

84·57 × 277·33 = 23453·80
Erection 1/8 × 135·76 (1140) × 84·57 } 1488·81 (930)
Equip. No 24942·61

2 Bower anchors 32 Cwt Et steel
1 " " 27¼ " " "
1 Stream " 10½ " " "
1 Kedge " 5·7/4 " " "
240 fms 1 13/16 stud chain cable
75 " 4¼ S.W. Tope
90 " 4 " "
180 " 7" & 180 fms 6" Manila.

MITSUBISHI DOCKYARD & ENGINE WORKS NAGASAKI
Drawn
Traced
Checked
Approved

N. Yamamoto
T. Ogio 26.6.02
G. Kawabata
D.O. No 1182
Y. Sugitani

6/8/02

BELFAST
© 2021 Lloyd's Register Foundation

Mitsu Bishi
Yard No 147
Midship Sec No.
S/S "Nigala Maru"
Nag. 278

LLOYD'S REGISTER OF SHIPPING
RECEIVED
10 AUG 1903
LONDON

LLOYD'S REGISTER OF SHIPPING
RECEIVED
14 AUG 1902
LONDON

W1548-0133

147
MIDSHIP SECTION
SCALE 2 INCH TO ONE FOOT

RETAIN

© 2021
Lloyd's Register Foundation