MIDSHIP SECTION
SS Nº 647

SCALE ½" = 1 FOOT

Dims 404'-11 BP x 55'-3 Ex x 52 M'lo x 30 m.lo
To CLASS 100 A.1. AT LLOYDS SPECIAL SURVEY

W.F.

EQUIPMENT

LONGITUDINAL NUMBER	33219.63
SHELTER DK 2 ABOVE 1 x ½	2429.52
HOUSES &c 185.08 7.5 x ½	694.05
EQUIPMENT No.	36343.20

2 POWER ANCHORS 6¼ CWTS EX STOCK
1 " ANCHOR 4¾ " "
1 STBD'R ANCHOR 11/16 " "
1 KEDGE ANCHOR 1/2 " "
90 FATHOMS 2¼ STUD CHAIN CABLE 6¾ · 7·1
90 " 1⅛ STBD'R CHAIN
200 " 1¼ TOWLINE OR 6 STEEL WIRE
2 WRAPS @ 8 90 FATHOMS EACH OF 2¾ STEEL WIRE
2 " @ 24 90 " " 2½ " "

RIVETS IN FLAT KEEL ANGLES VERT ANGLES CONNECTING FLOORS & C.R GIRDER & C.R FRAMES SPACED 6 DIAMS CR TO CR
RIVETS IN FRAMES & ABV FRS FLOORS VERT ANGLES ON FLOORS & SIDE GIRDERS AND STIFFS & SIDE STRINGERS SPACED 4 DIAMS CR TO CR
RIVETS IN 2ND DECK ORIGINAL POOP & FCLE DK PLATING TO BEAMS SPACED 6 DIAMS CR TO CR
RIVETS IN UPPER DK & BRIDGE DK PLATING TO BEAMS & DIAMS CR TO CR
RIVETS IN BEAMS BET POOP & BRIDGE & BET BRIDGE & FCLE TO PLATING 6 DIAMS CR TO CR

BEAM — FRAME 6 x 3½ x 48
BRACKET REV FR 6 x 3½ x 48
3½ / 8½
SECTION OF DEEP FRAMING FROM PEAK TO PEAK
SCALE 3" = ONE FOOT

ADDITIONS OVER RULE
TANK FLOORS FOR LIGHT SPACES
UNDER BOILERS INTERCOSTALS AND TANK TOP PLATING UNDER BOILERS TO BE INCREASED ·05 OVER RULE
KEEL PLATES TO BE OVER LAPPED
PLATING BETWEEN BOILER CASING & SALOON HOUSE ON BRIDGE DK INCREASED ·05

PILLARS UNDER 12'-0" & UNDER 6" DIAM TO HAVE 2 ⅞ RIVETS HEADS & HEELS
PILLARS 12'-0" & UNDER 24'-0" & DIAM & UNDER 8" DIAM TO HAVE 3 ⅞ RIVETS
PILLARS 8" DIAM & OVER TO HAVE 4 ⅞ RIVETS

CENTRE STRAKE
·50 FOR ½L ⊠ ·40 AT ENDS
·56 IN B SPACE BUTTS LAPPED AND 3R
REDUCED ·02 IN LIEU OF WIDTH

SINGLE 4½ x ½ x 60 FOR ½L ⊠ ·34 AT ENDS DOUBLE IN ENGINE SPACE

CENTRE GIRDER 43 x ·30 FOR ½L ⊠ ·40 AT ENDS ·40 IN B SPACE BUTTS LAPPED AND 3R
4½ x 4½ x ·60 FOR ½L ⊠ ·34 AT ENDS

KEEL 47 x 1.00 FOR ¾L ·40 AT ENDS BUTTS LAPPED & 4R FOR ½L ⊠ 4R AT ENDS 4R BUTTS 16 WITH 1⅛ RIVETS THRO BOTTOM ANGLE & KEEL SPACED 6 DIAMS APART

13 CAMBER
6 x 4 x ⅝ TEE BAR N WAY OF BRIDGE

13 CAMBER
6 x 4 x ⅝ TEE

13 CAMBER

2⅛ RIVETS IN HEADS & HEELS OF PILLARS

CORMING 8·24 ABOVE HOOD ENDS
CONCRETE HOOD ON 5 x 3 OREGON PINE 6¾ x 2½ H.P. IN WAY OF HOUSES

DK PLATING ·40 FOR ½L ⊠ TO 134 AT ENDS BUTTS LAPPED 2R FOR ½L ⊠ 1R AT ENDS

STRINGER 36 x ·54 FOR ½L ⊠ TO 35 x ·44 AT ENDS BUTTS LAPPED & 3R FORE & AFT

TEAK MARGIN

TEAK MARGIN NEXT ALL STEEL WORK

8 x 2½ x ·5 GUTTER ANGLE IN GUTTER WAY
STRINGER ANGLE 5 x 6 x ·60 FOR ½L ⊠ 5 x 3½ x ·44 AT ENDS

BEAMS 7 x 3 x 44BA ON ALT FRAMES IN WAY OF WELLS
KNEE 26 x ·54 UNDER 60·0

POOP BEAMS 9 x 3½ x 46BA ON ALT FRS KNEE 23 x 44
BRIDGE BEAMS 6 x 3 x 4 BKTS EVERY FRAME KNEE 21 x ·42
FCLE BEAMS 9½ x 3½ x 52 & 8½ x 3½ x 46BA AT ENDS ON ALT FRS KNEE 26 x ·64

KNEE 26 x ·64

1 QR GIRDERS & QR PILLARS SEE PROFILE

FRAMES 6 x 3½ x ·48 ANGLE ON SHELTER DK EACH FRAME BETWEEN POOP & BRIDGE & BET BRIDGE & FCLE

DK PLATING ·36 FOR ½L ⊠ 30 AT ENDS BUTTS LAPPED & 2R FOR ½L ⊠ 1R AT ENDS

STRINGER 6½ x ·48 FOR ½L ⊠ 35 x 44 AT ENDS REDUCED ·02 IN VIEW OF BOTH BUTTS LAPPED 3R FORE & AFT

1 STRAKE OF PLATING WORKED FLD W WAY OF HATCH

UNDER 23·0

KNEES 22 x 42

BEAMS 6½ x 3 x 40 BA ON EVERY FRAME
HALF BEAMS 6 CORMING 4½ x 3 x 42 BA KNEES 22 x 42

DEPTH TANK TOP TO 2ND DK AT SIDE 14.92
" " UPPER " 26.42
2ND DK AT CENTRE 18.99
" UPPER " 24.50
PROPORTIONS DEPTH TO L TO UPPER DK 13.49
" " BRIDGE DK 10.64

ASD MOULDED BREADTH
" DEPTH
" TRANSVERSE Nº
" LENGTH
33219.63 LONGITUDINAL Nº

FOR GIRDERS AND QR PILLARS SEE PROFILE

DECK PLATING ·34 FOR ½L ⊠ 30 AT ENDS BUTTS LAPPED & 2R FOR ½L ⊠ 1R AT ENDS

STRINGER 4½ x ·44 FOR ½L ⊠ 35 x ·44 AT ENDS BUTTS LAPPED & 3R

CORMING 9" ABOVE BEAM

BEAMS 9 x 3½ x 3½ x ·42 CHANNEL
HALF BEAMS AT CASING 11 x 3½ x 3½ x ·44 CH KNEE 30 x ·64
HATCH END BEAMS 9 x 3½ x 56 BH KNEE 30 x 54
BEAMS OVER ORIGIONAL DEEP TANK ½ x 3 x ·42 BA ON EVERY FRAME

KNEE 30 x ·64

KNEE 24 x ·46

STEM 10½ x ·54 PROPELLOR POST 10½ x 4½ RUDDER POST
FRAMES 6 x 3½ x HP SPACED 26" APART FRAMES IN REV FRAMES 6 x 3½ x 46 TO UPPER & 2ND DECK ALTERNATELY
FCLE REV FRAMES IN PEAKS 3 x 3½ x 38 4½ FLANGE FORE & AFT
FRAMES IN DOUBLE BOTTOM 3½ x 3½ x 40 TO 38 DOUBLED 3½ x 3½ x 40 TO 38 · 5 IN B SPACE
REV FRS AND UNDER BOILER STOOLS
MIDSHIP BULKHEAD FRAMES 6 x 6 x 5 SINGLE
MIDSHIP BULKHEAD 38 TO 30 AT LOWER DK · 26 IN TWEEN DK
BRACKET TOP & BOTTOM NO SEMI-BOX BEAMS STIFFENERS
BRACKET TANK ANGLE (SINGLE) 6 x 6 x 50 DK ANGLE (SINGLE) ACCORDING TO DEPTH
TUNNEL PLATING 36 · 46 UNDER HATCHES STIFF 3½ x ½ x 48
AFTER HOODS OF PLATING ON PROPELLOR POST TO BE
BOSS PLATES ·44 BUTTS LAPPED V&R
RIVETS IN FLOORS & CROSS TIE PLATES TO FRAMES IN FRAMES & SHELL PLATING OF KEEL OF DOUBLE BOTTOM
THAN 5½ DIAMS APART
RIVETS CONNECTING FRS TO SHELL PLATING SPACED 6 DIAMS
" IN 3R BUTTS OF OUTSIDE PLATING & STRINGER PLATES
" " 4R " " " "
" IN LANDINGS OF OUTSIDE PLATING FORD AND AFT
RIVETS IN BUTTS OF DK PLATING MARGIN PLATE & GUNWALE ANGLE EDGES & BUTTS OF BHD PLATING
RIVETS CONTINUED AT SIDE

0·½ PROPELLOR POST CONNECTED TO DK PLATING
KEELS 6 x 3½ x 38 SPACED 24 APART FORMING 6 GIRDER
ALL TO UPPER DK IN AFT PEAK ALT TO 2ND DECK
REV FRS OVER ORIGIONAL DEEP TANK 4 x 3½ x 48 ON ALT FRS WITH 30 EXT TO DK
FROM ⅜ L FORWARD DOUBLE IN E ROOM TO BEYOND 2 WT

1 BAT STIFFS 9½ x 3½ x ·50 BA SPACED 30 APART
4 x 3 x 34 BETWEEN 2ND & UPPER DECKS
3½ x 3½ x ·36 COLLISION AND OTHER BHDS

SPACED 4·4 APART 8·0 UNDER HATCHES
SAME THICKNESS AS STRAKES AMIDSHIP

AFT PEAK SPACED 5 DIAMS APART
BEFORE 3 BL SPACED 4" MORE
36 DIAMS AT AFT PEAK & ORIGIONAL DEEP TANK
3½ DIAMS CR TO CR
4 " " " "
SPACED 4 DIAMS CR TO CR
INNER BOTTOM PLATING 4 DIAMS CR TO CR
4½ DIAMS CR TO CR ON EDGES OF DK PLATING

TWO SIDE STRINGERS IN FORE HOLD ONLY

INNER BOTTOM PLATING
·40 FOR ½L TO 36 AT ENDS
·48 IN ENG SP · 56 IN B SPACE
BUTTS LAPPED 2R 1R ENDS

GUSSET ANGLES 3½ x 3½ x ·5 ON EVERY 3RD FRAME FORE & AFT 6 x 3½ x ·60 IN FORE HOLD 6 FLANGE TO TANK TOP WITH 8 RIVETS THRO TANK & 2 THRO MARGIN

PILLARS 4 DIAMS INCREASED PER KNEES AT ENDS AS PER RULE

REV FRAMES 3½ x 3½ x 40 FOR ½L
·40 UNDER ENGINES
5·6 x 56 SINGLE FOR ½L 3½ x ½ x 34 AT ENDS
5·1 x 18"
1·00 AS ·40 FOR ½L ·36 ENDS ·30 IN B SP
INT ·40 FOR ½L ·36 ENDS ·30 IN B SP
INT ANGLE 30 AT ENDS FLANGED
BOTTOM 3½ x 3½ x ·47 6 IN BOILER ROOM ON TOP
24" x 18"
ROOM TO BEYOND 2ND WT IN UNDER BOILER STOOLS
SINGLE ANGLE 3 x 3½ x ·46 IN FLOOR FROM COLLN BHD TO FWD END OF ENG ROOM RIVETS IN 2½ FLANGE 3½ x 3½ x 38 AT AFT END
FRAMES 34 x 3½ x 40 FOR ½L
FRAMES

64 x 64 FOR ½L ⊠ TO 48 ENDS BUTTS LAPPED & 4R FOR ½L ⊠ 3R AT ENDS
64 x 64 FOR ½L ⊠ TO 48 ENDS BUTTS LAPPED & 4R FOR ½L ⊠ 3R AT ENDS
64 x 64 FOR ½L ⊠ TO 48 ENDS BUTTS LAPPED & 4R FOR ½L ⊠ 3R AT ENDS
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64 x 64 FOR ½L ⊠ TO 48 AT ENDS BUTTS LAPPED & 4R FOR ½L ⊠ 3R AT ENDS

A B C D E

MIDSHIP THICKNESS CARRIED TO COLLISION BULKHEAD
SHELL PLATING REDUCED ·04 IN WAY OF DOUBLE BOTTOM WHERE ·54 TO ·64
WT FLOORS TO HAVE STIFFS BETWEEN GIRDERS WHERE DISTANCE EXCEEDS 6·0 BOTTOM FWD STRENGTHENED AS PER RULE

N
86 x ·68 FOR ½L ⊠ TO ·46 AFT END ·46 FWD BUTTS LAPPED & 4R FOR ½L ⊠ 3R AT ENDS

5/4 LAP 4½ IN WAY OF ORIGINAL POOP & FCLE

6⅞ RIVETS
5/4 LAP IN WAY OF ORIGINAL POOP & FCLE
STRINGER ANGLES 5 x 6 x ·70 TO ·0 IN WELLS
SINGLE ANGLE 5 x 6 x ·45

M
44 x 64 FOR ½L ⊠ TO ·46 AFT AND ·46 FWD BUTTS LAPPED AND 4R FOR ½L ⊠ 3R AT ENDS

L
47 x ·62 FOR ½L ⊠ TO 44 AT ENDS BUTTS LAPPED & 3R FORE & AFT

5/4 LAP

K
63 x ·62 FOR ½L ⊠ TO 44 AT ENDS BUTTS LAPPED & 3R FORE & AFT

5/4 LAP
STRINGER ANG 3½ x 3·6 x ·48 FOR ½L ⊠ ·44 AT ENDS 3½ x 3 x 4R FOR ½L ⊠ ·44 AT ENDS 3½ FLANGE TO DECK

J
66 x ·62 FOR ½L ⊠ ·44 AT ENDS BUTTS LAPPED & 3R FORE AND AFT

5/4 LAP

H
66 x ·62 FOR ½L ⊠ ·44 AT ENDS BUTTS LAPPED AND 3R FORE & AFT = ·66 TO ·48

5/4 LAP

G
66 x ·62 FOR ½L ⊠ ·44 AT ENDS BUTTS LAPPED & 3R FORE & AFT = ·66 TO ·48

5/4 LAP

F
66 x ·64 FOR ½L ⊠ ·48 AT ENDS BUTTS 4R FOR ½L ⊠ 3R AT ENDS

F G & H STRAKES INCREASED ·04 IN LIEU OF SIDE STRINGER FOR ½L ⊠ AT AFTER END & ⊠ IN G BRACKET HEIGHT CONTINUED AFT.

SINGLE ANGLE 5 x 5 x ·52 FROM COLLN BHD TO AFT END OF ENG ROOM 11⅛ RIVETS IN EACH 5 FLANGE HYDRAULIC RIVETED
THRD MARGINS 3½ x 3½ x ·48 AT AFT END

BILGE KEEL 10 x ·45
TEE 6 x 4 x ·45 FOR 150 FEET

MARGIN PLATE 34 x ·48 FOR ½L ·48 ENDS ·68 IN B SP FLANGED TO SHELL WITH 4 FLANGE BUTTS LAPPED & 3R

NOTE WHERE BUTTS OF SHELL PLATING OVER ·42 BROAD ADD'L ROW OF RIVETS TO BE FITTED OVER RULE WITH RIVETS IN OUTER ROWS 4½ DIAMS APART 4 DIAM IN INNER ROW

647
Vessel as built

D.B. 12/8/13

Lloyd's Register Foundation

Russell & Co. No. 647.

Midship Section of Ship as built

S.S. "Seiyo Maru"

Greenock Report. No. 16520

LLOYDS REGISTER OF SHIPPING
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LONDON.

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