

S.S. HARPENDEN

SCALE 1" = 1 foot
DETAILS AS INDICATED

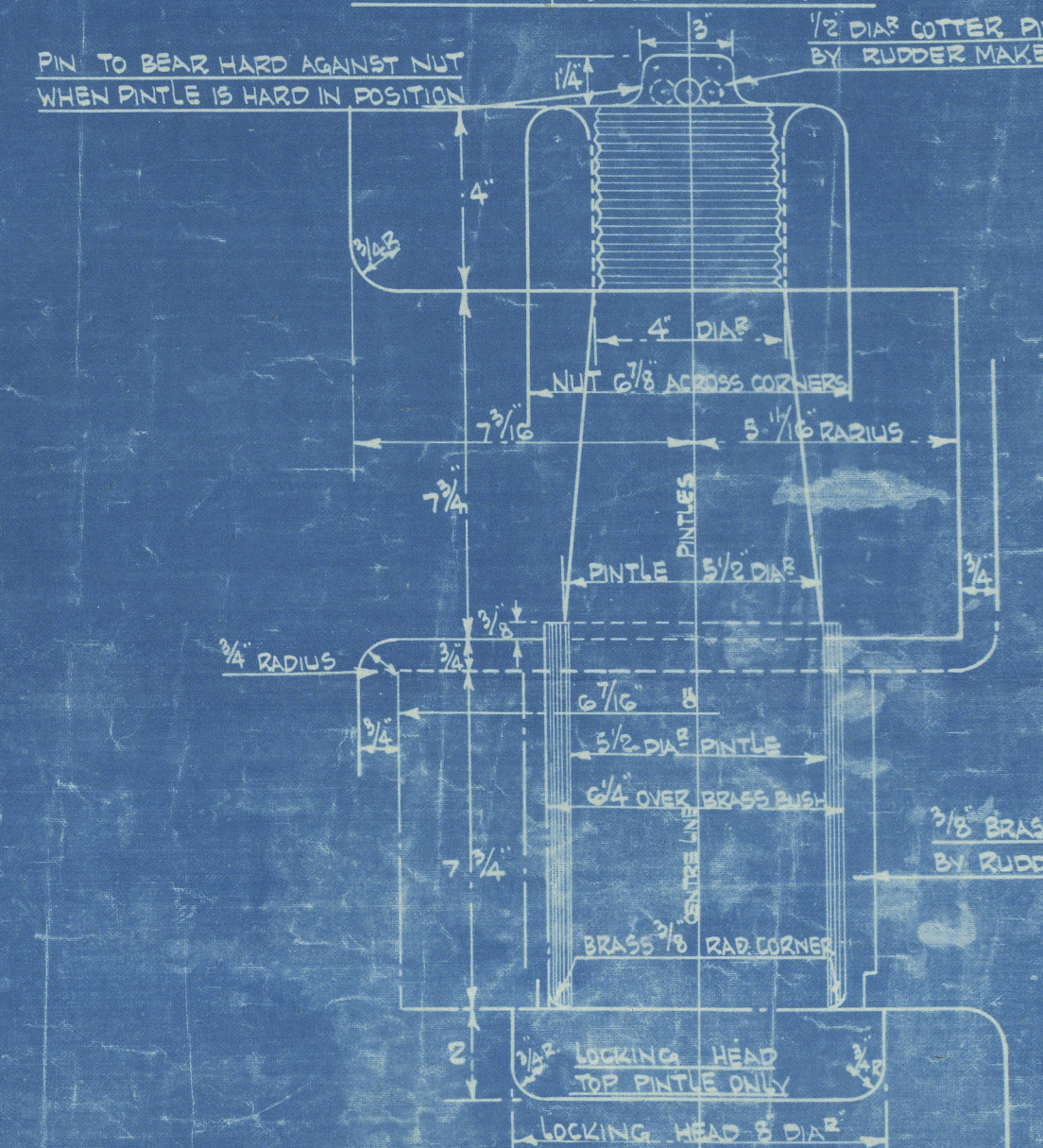
RUDDER STOCK BEST QUALITY FORGING

RUDDER FRAME - BEST QUALITY STEEL CASTING

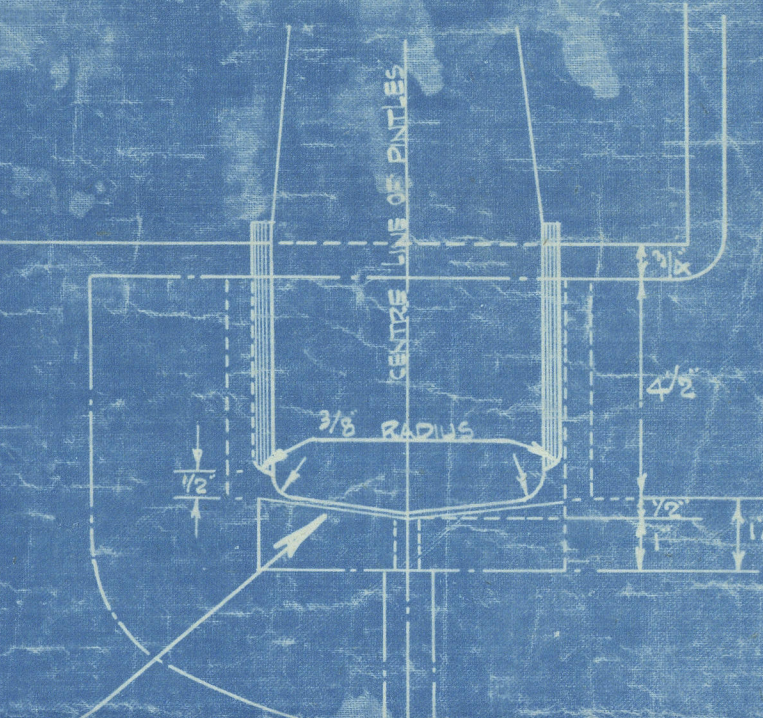
: BODY OF BOLT TO BE
LEFT 1/16 FULL TO SAVE
THREAD OF BOLT WHEN SHIPPING

DIMENSIONS: 42"X20" R.P. 30"X40" W.P. 7'X9" W.P. TO SECOND DECK 30"X9" W.P. TO UPPER DECK
TO CLIMATE 100 A.I. WITH FIBERGLASS AT WLOYDS SPECIAL SURVEY
WLOYD DEPT 20"X4" ACTUAL SHIP SPEED 10 1/2 KNOTS. (WLOYDS MIN. SPEED 10"X4" DECK 10"X4" W.P.)
TOTAL IMMERSUED AREA OF RUDDER FROM FORE SIDE OF POST 131 SQ. FT.
CENTRE OF GRAVITY OF AREA FROM CENTRE LINE OF POSTS - 4'3 1/2" FEET
A x D = 570 DIAMETER OF RUDDER STOCK = 18" DIA.
KEYWAYS ETC. TO BE CUT IN RUDDER STOCK TO PARTICULARS GIVEN
RUDDER STOCK TO BE ACCURATELY THICKED TO DIMENSIONS GIVEN
RUDDER FRAME TO BE ACCURATELY CAST TO SHIPPS AS PER DETAILS
RIVET HOLES TO BE BORED PLUMB TRUE, FRAME SIZE MUST NOT BE LESS THAN GIVEN
RUDDER NOT TO EXCEED GIVEN SCANTLING, EXCESS OVER SET WEIGHT WILL NOT BE PAID
PATTERN OF RUDDER FRAME TO BE APPROVED BY SUBSUPERVISOR DESIGNER BEFORE CASTING

NOTE:- ALL PINTLES TO BE SUPPLIED COMPLETE BY RUDDERS MAKERS. PINTLES TO BE OF STEEL MADE & EFFICIENTLY FITTED AS PER DETAILS. BRASS BUSHES MUST BE TURNED IN ONE PIECE AND PROPERLY SHUNK ON PINTLES.



DETAIL OF ALL RUDDER GUDGEONS
(EXCEPT BOTTOM GUDGEON)



DETAIL OF BOTTOM GUDGEON & BEARING-PINTLE
SCALE 1/4" FULL SIZE
DETAILS NOT INDICATED SIMILAR TO SKETCH ABOVE

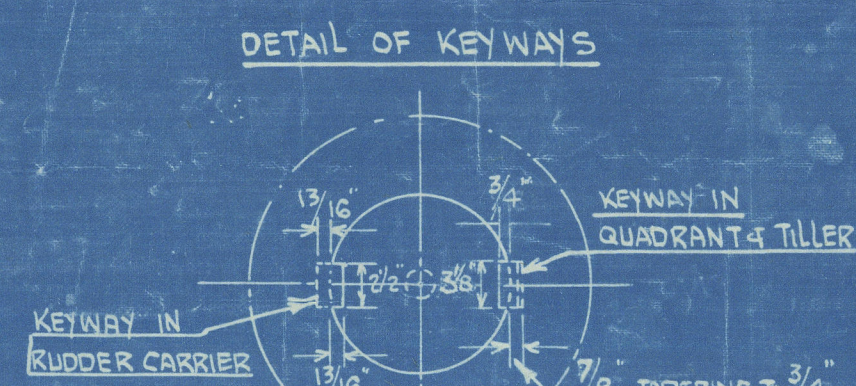
SECTION THRO TOP BUDDER ARM

SECTION THRU RUDDER IN WAY OF WRAPPED PLATE

SECTION THRO' BOTTOM RUDDER AREA

ELEVATION OF RUDDER
WITH STAR⁶⁰ PLATE OFF

BASE LINE DE SHIP



NOTE:- KEYWAYS CUT SQUARE ENDED
CORNERS NOT TO EXCEED $\frac{1}{4}$ RAD
DEPTH OF KEYS MEASURED
AT SIDES OF KEYWAY.

HEIGHT OF DECK ABOVE BASE LINE OF SHIP - $32'-7\frac{3}{8}"$
 HEIGHT OF RUDDER STOCK ABOVE DECK - $2'-5\frac{3}{4}"$
 TOTAL LENGTH OF RUDDER ABOVE BASE LINE - $36'-1\frac{1}{8}"$
 HEIGHT TO BOTTOM OF RUDDER STOCK. - $20'-6\frac{1}{2}"$
 TOTAL LENGTH OF RUDDER STOCK - $15'-6\frac{5}{8}"$

WT. CAST IRON STUFFING BOX.
LITHGOWS PATTERN NO 907
WITH SOLE MODIFIED TO SUIT
SHIPPING HOLE (11-9/16 O.D.S)
SOLE FITTED STEEL TO STEEL
SPIGOT "FITTED" TO TOP PLATE ALL ROUND

NOTE:- WHEN FLOATING RUDDER SLIGHT CLEARANCE TO BE LEFT BETWEEN BOTTOM OF BOTTOM PINTLE & BEARING DISC TO ENSURE THAT CARRIER IS BEARING ENTIRE WEIGHT OF RUDDER

CONSTRUCTION NOTE - RUBBER FRAME TO BE WOUND ON TOP OF BOTTOM PLATE. ALL INSIDE SURFACES OF RUBBER TO BE COATED WITH BUTADIENUS SOLUTION. CORE MIXTURE TO BE FILLED IN THE FOUR COMPARTMENTS TO TOP PLATE LEVEL. TOP PLATE WOUND IN POSITION. INIMIZE RUBBER JOINTED COMPARTS & SEAMS COULDED BUTADIENUS SOLUTION. POWRED INTO EACH COMPARTMENT UNTIL BAL. CLOSING DISCS WELDED INTO FILLING HOLES & RILLET WELD ROUNO LEAVING EVE. WRAPPER PLATES FITTED IN POSITION & WOUND AS INDICATED.

9.

Copy of approved plan of.
Lithgow's Steam Line.
Rudder

Empire Star.
by
Harpenden

GLASGOW REPORT No.

64800
~~64913~~

Bharatgal

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Foundation