

15-1-30

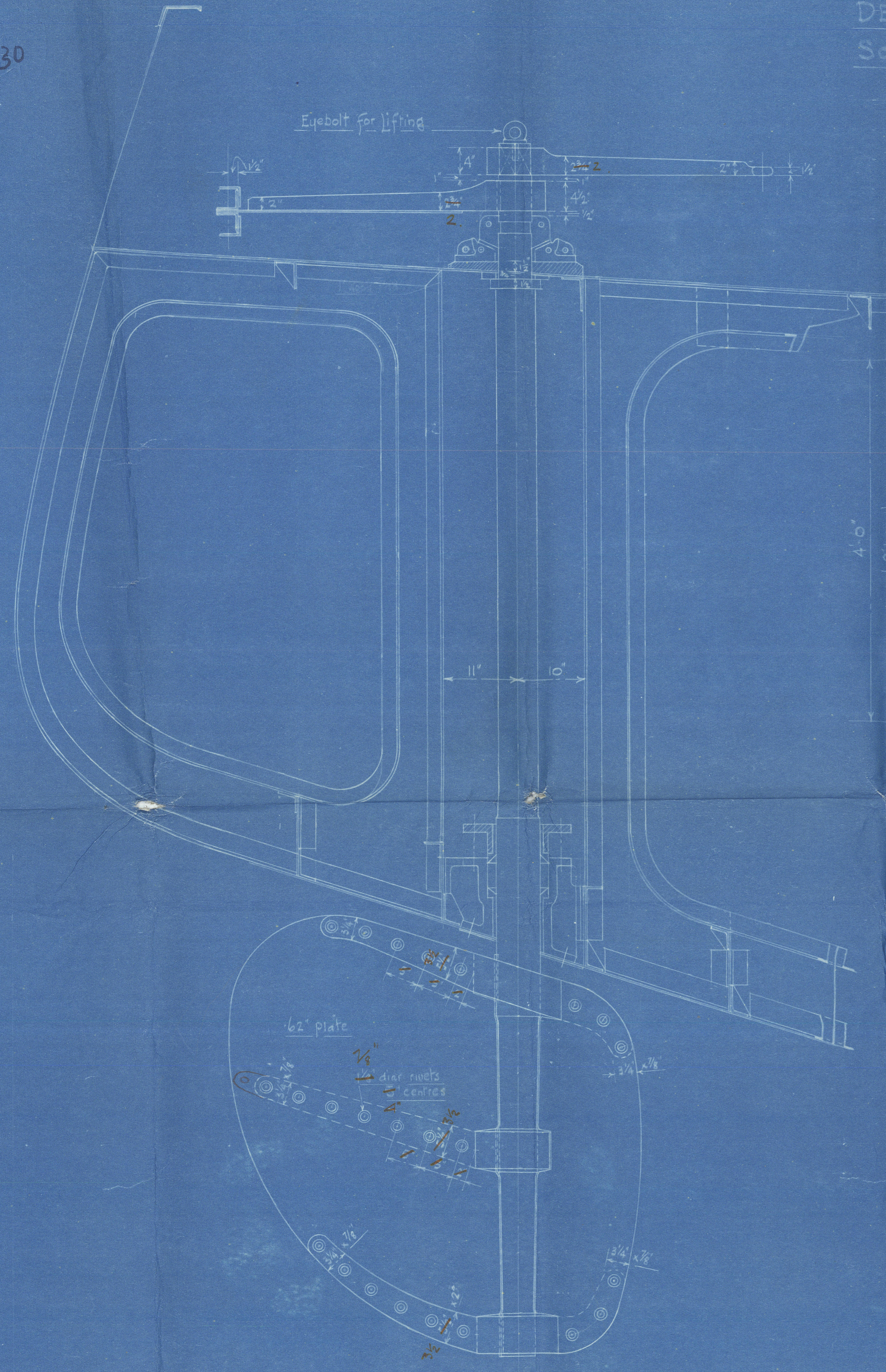
STEEL TWIN SCREW MOTOR VESSEL YARD N° 497

DETAIL OF BALANCED RUDDER

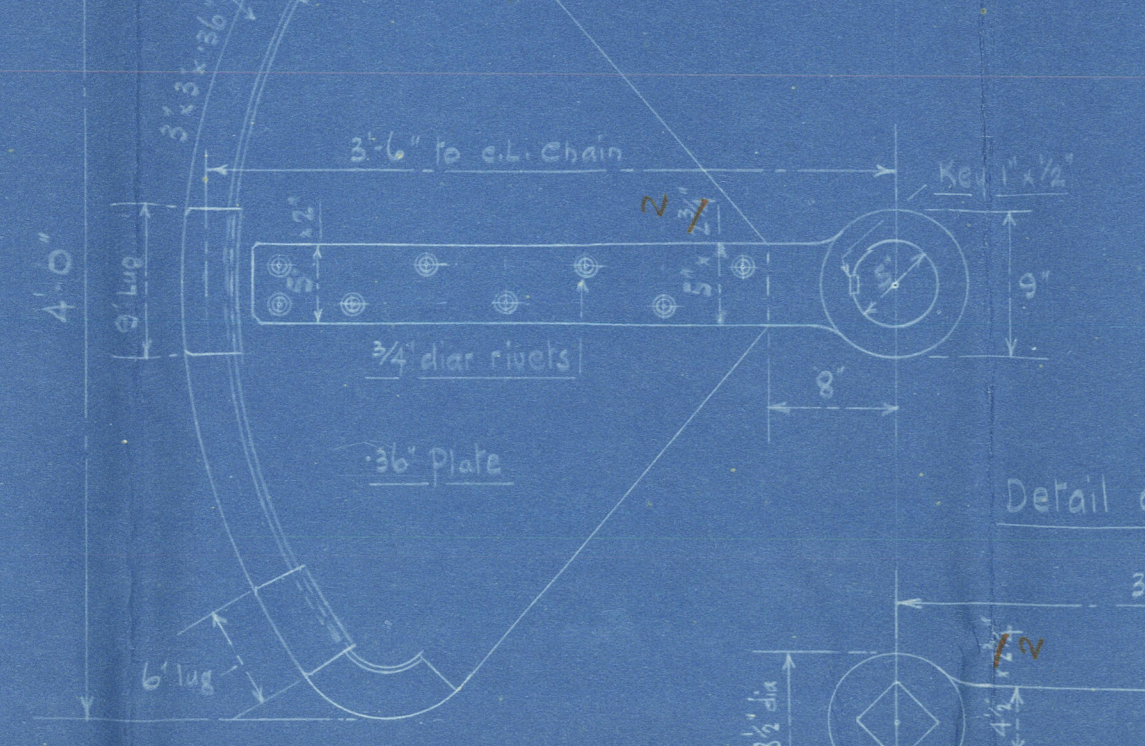
Scale 1" = 3' = ONE FOOT PLAN N° 497

Area of Rudder 21.2 sq. ft.
Pressure on Rudder at 35° at 12 knots allowing 10% slip = 3 Tons
Twisting moment on rudder head = 2.75 foot tons d = 3.5'
Bending moment on rudder = 7.6 foot tons
Combined bending & twisting moment = 14.5 " " d = 6.065" say 6 1/2" dia.

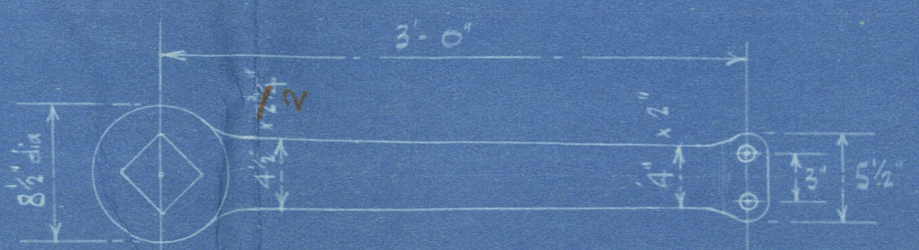
Note machined cast iron strips 2" wide
riveted to deck & 7/16" loose
collar fitted on stock to prevent
rudder jumping



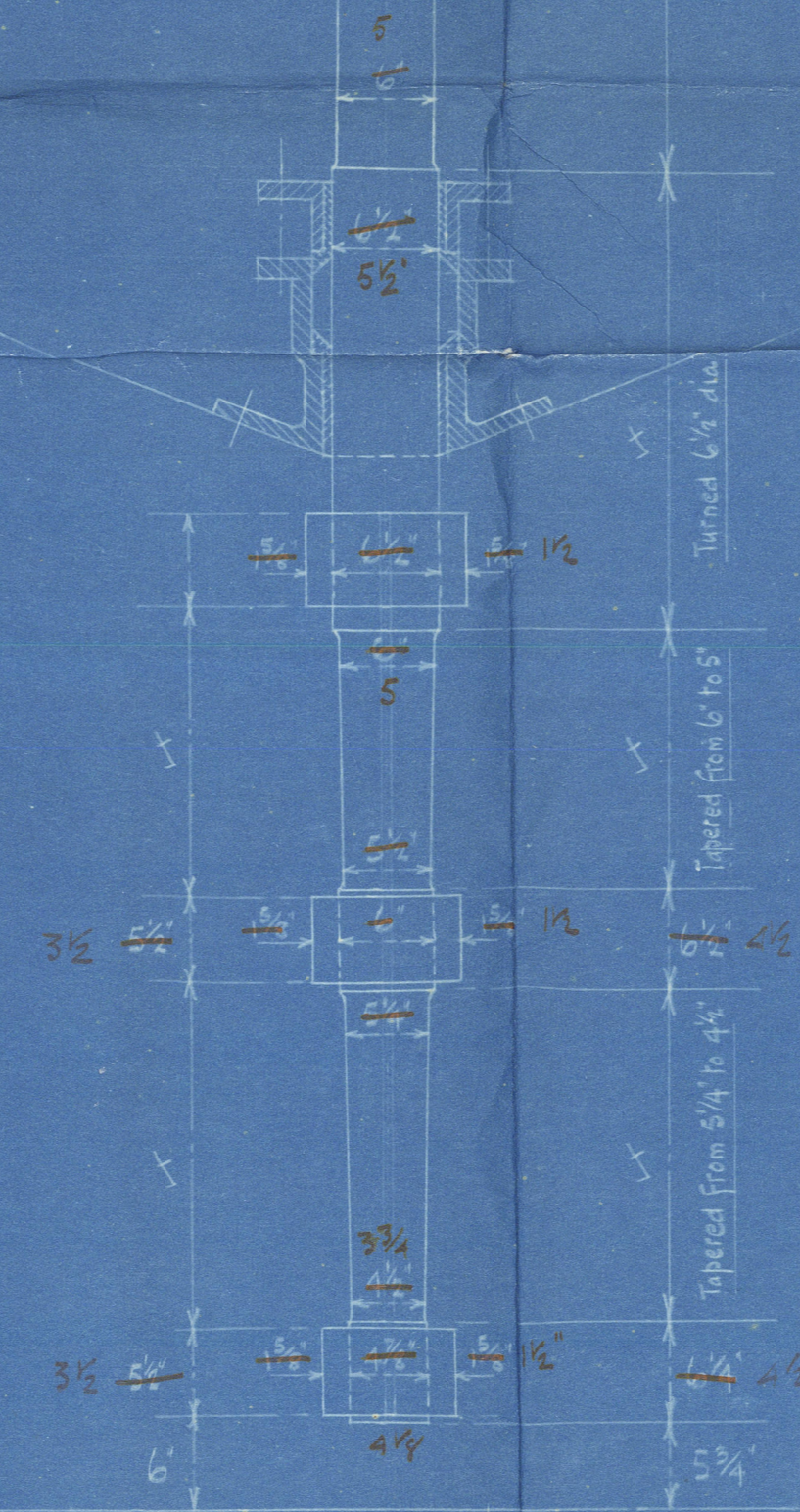
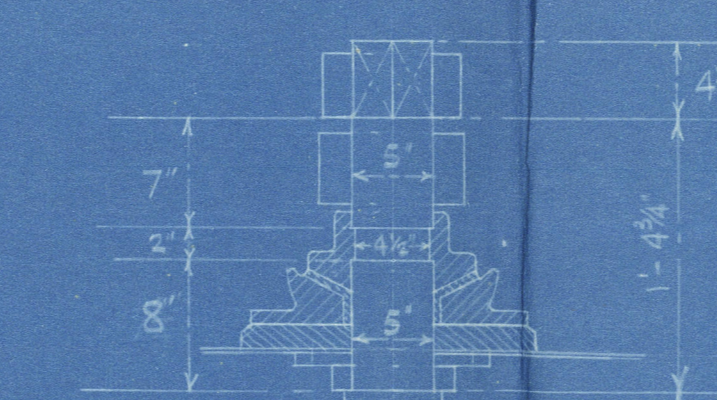
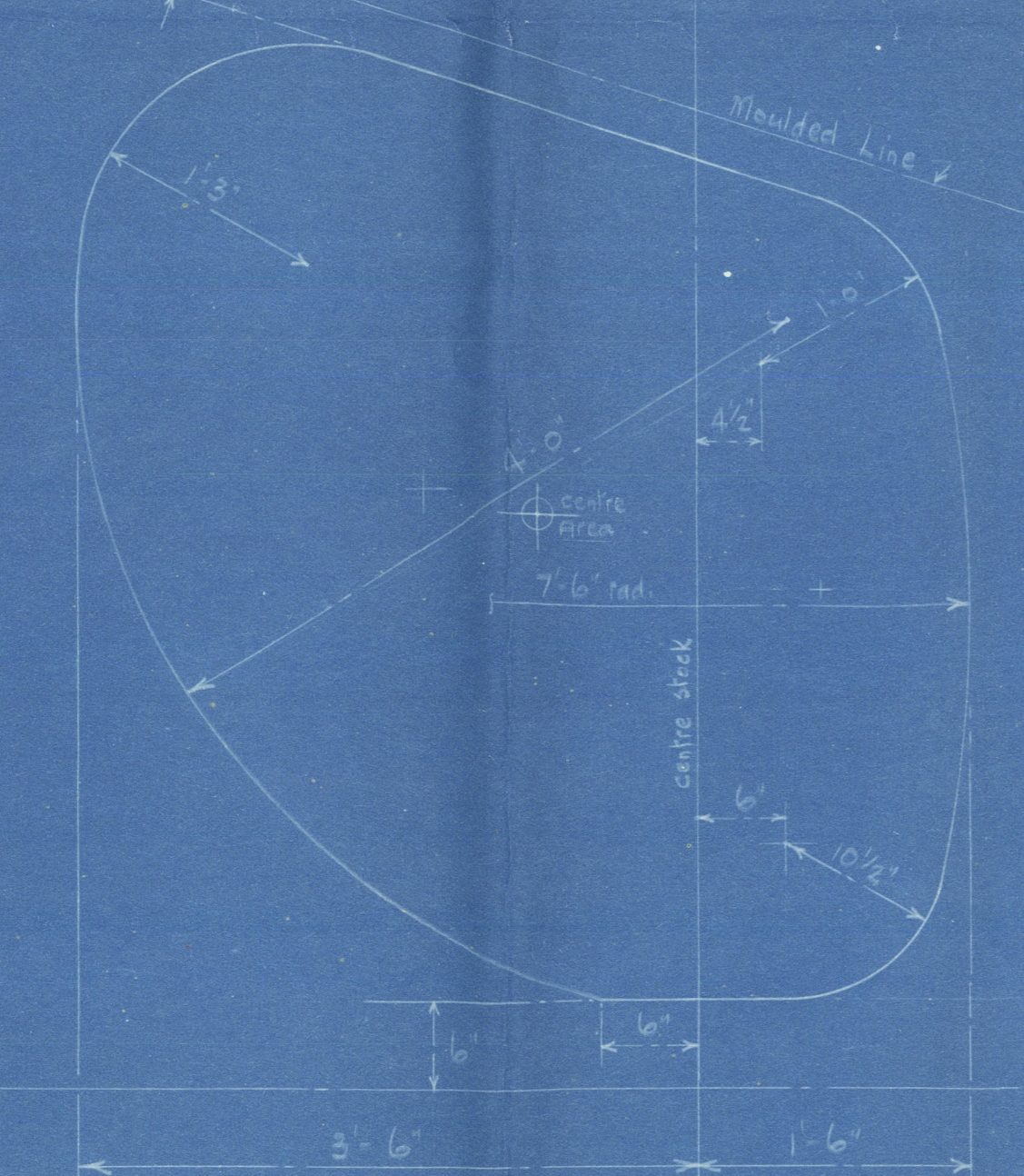
Detail of Quadrant



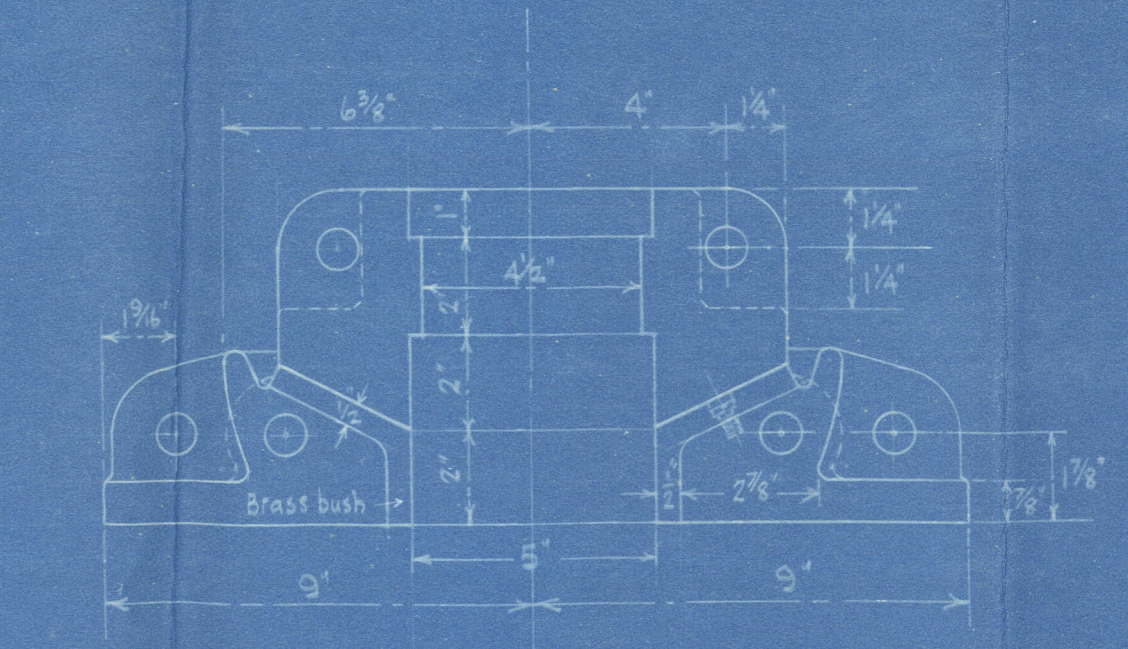
Detail of Spare Tiller



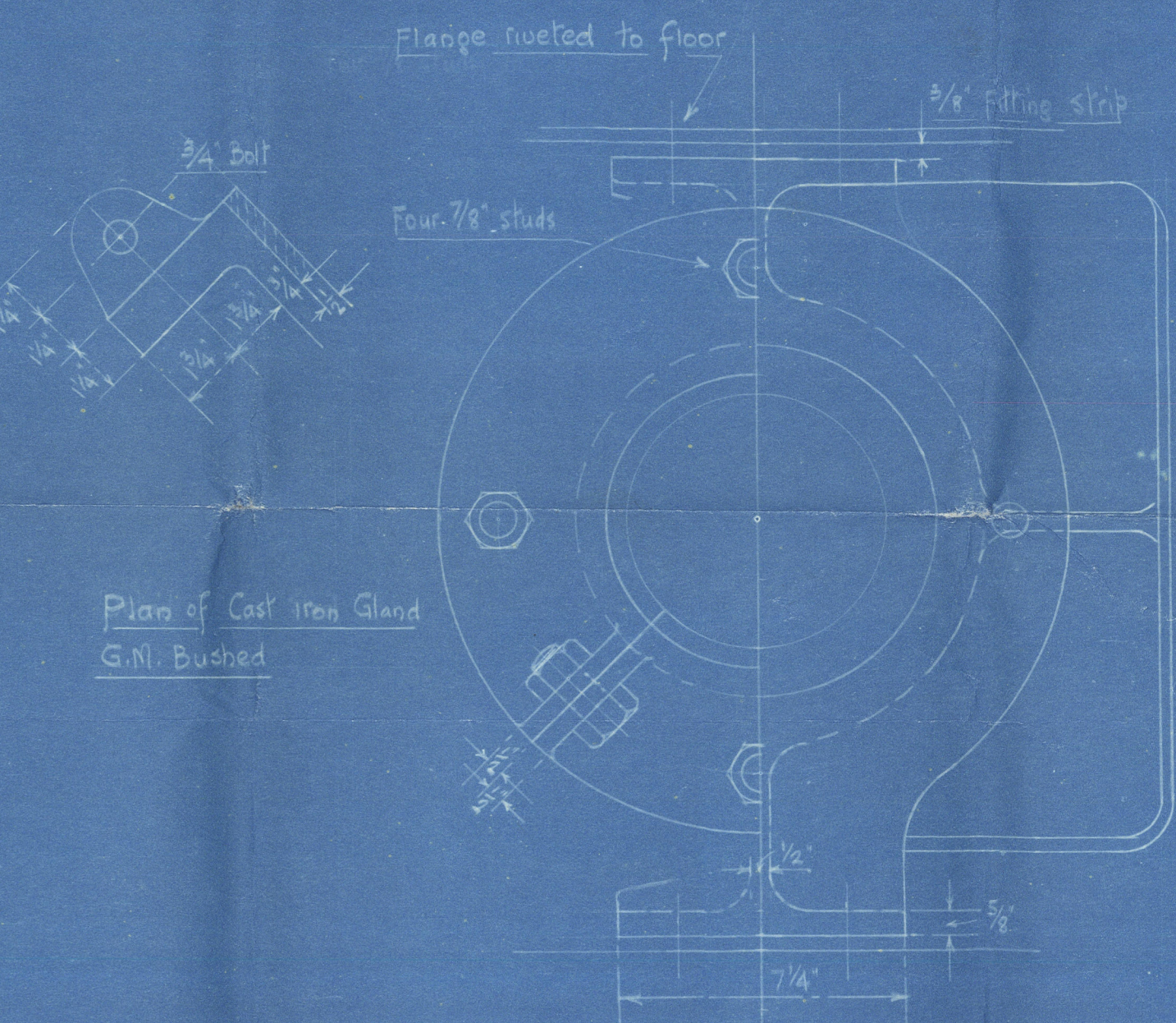
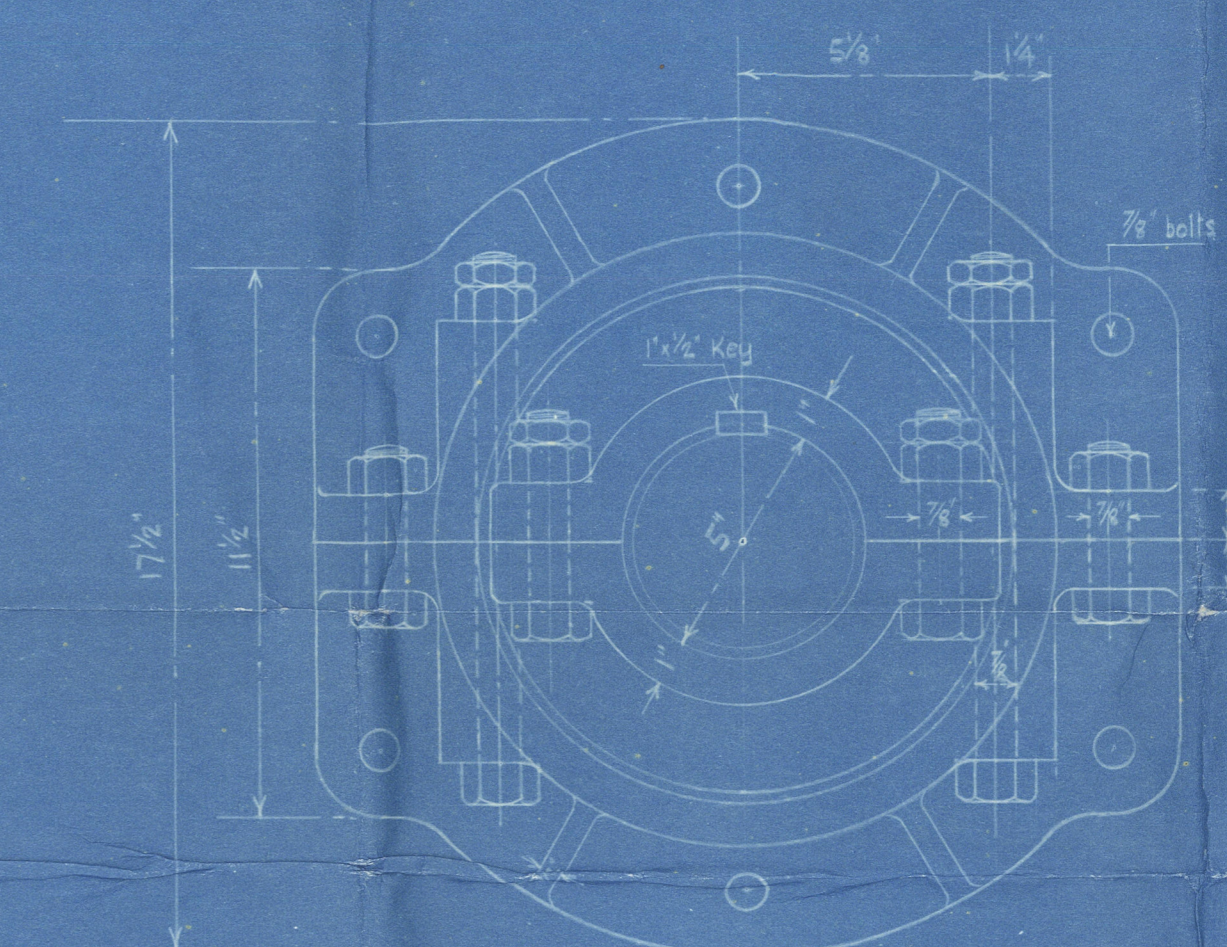
Offsets for Rudder Plate



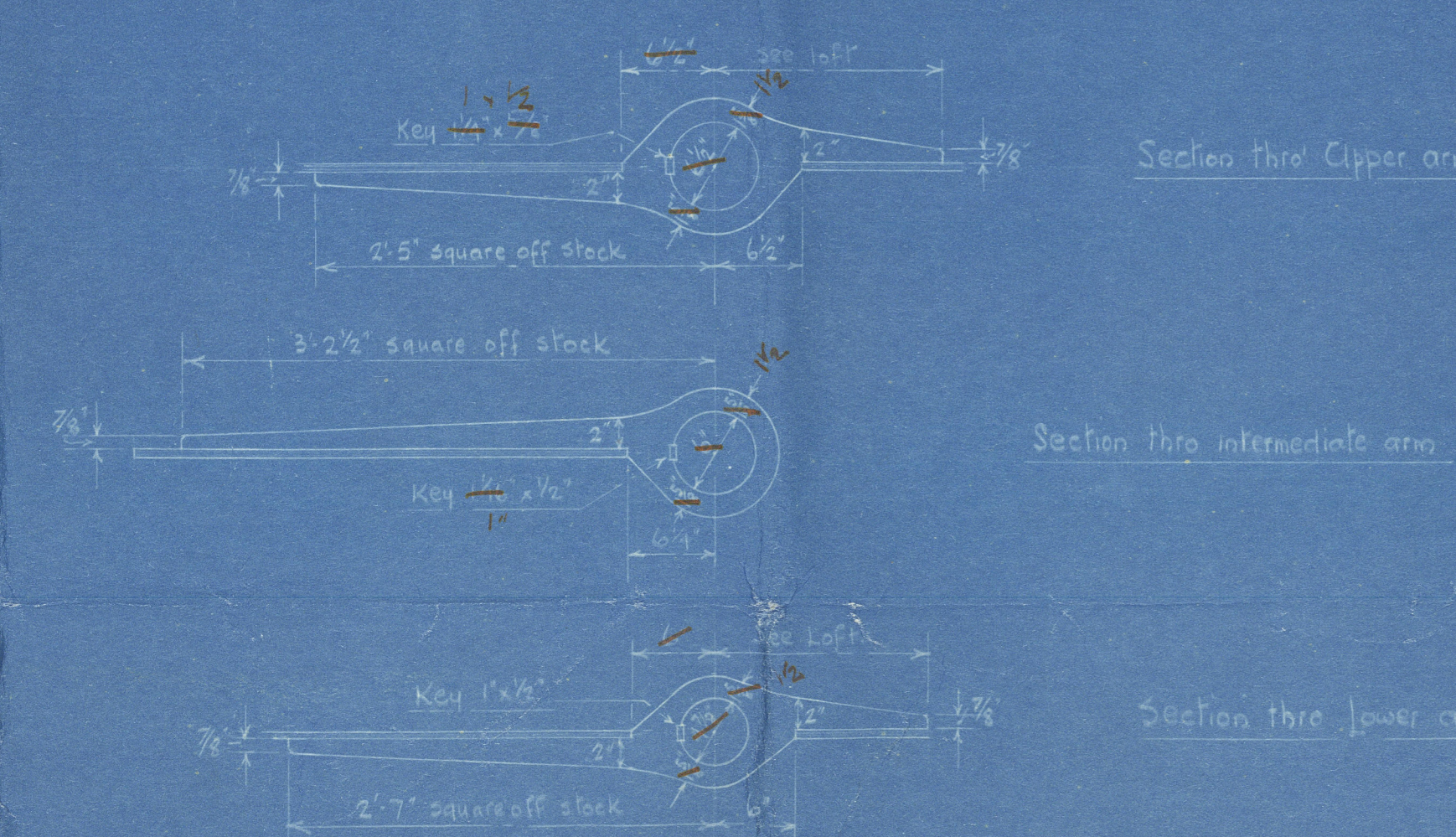
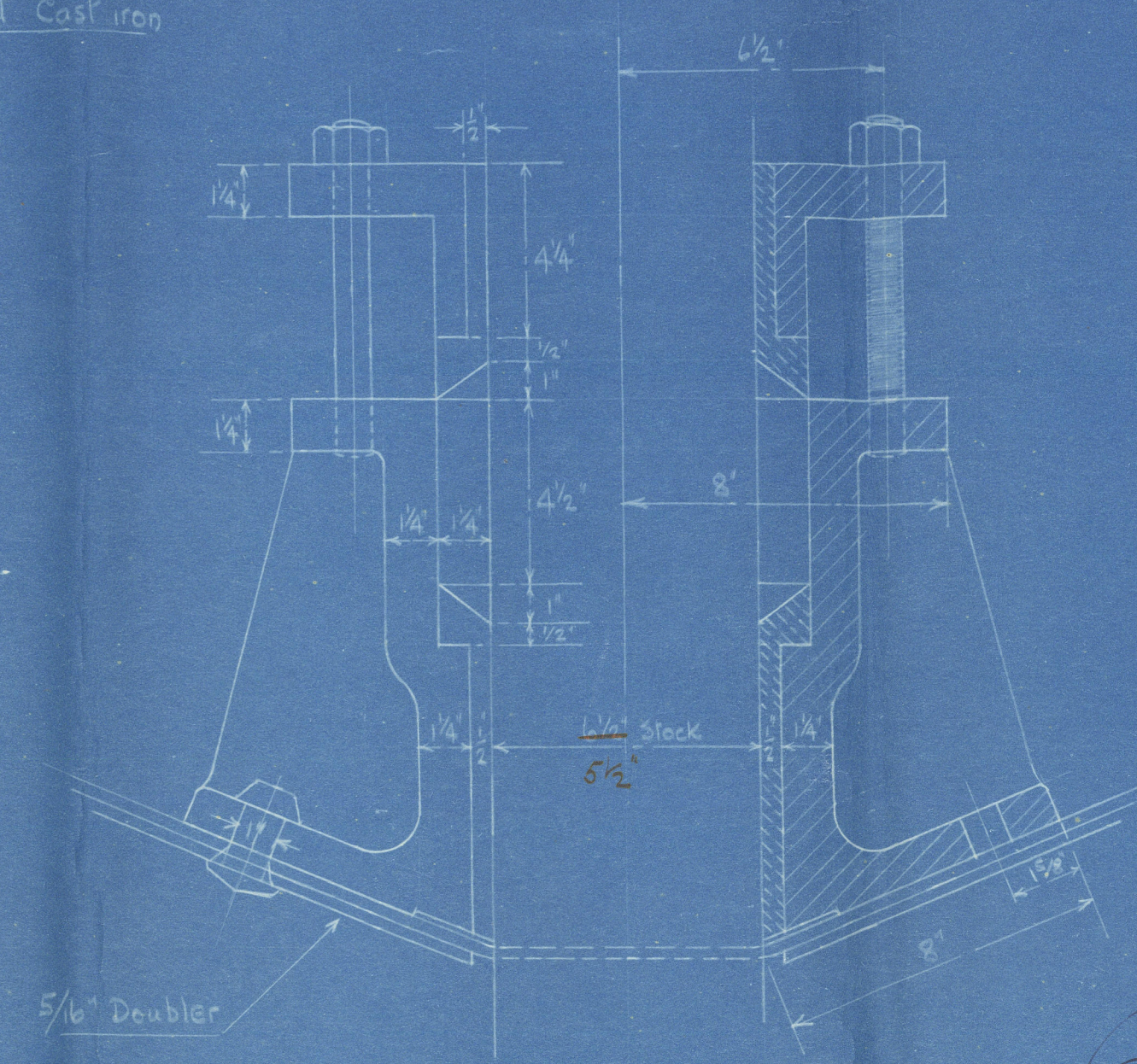
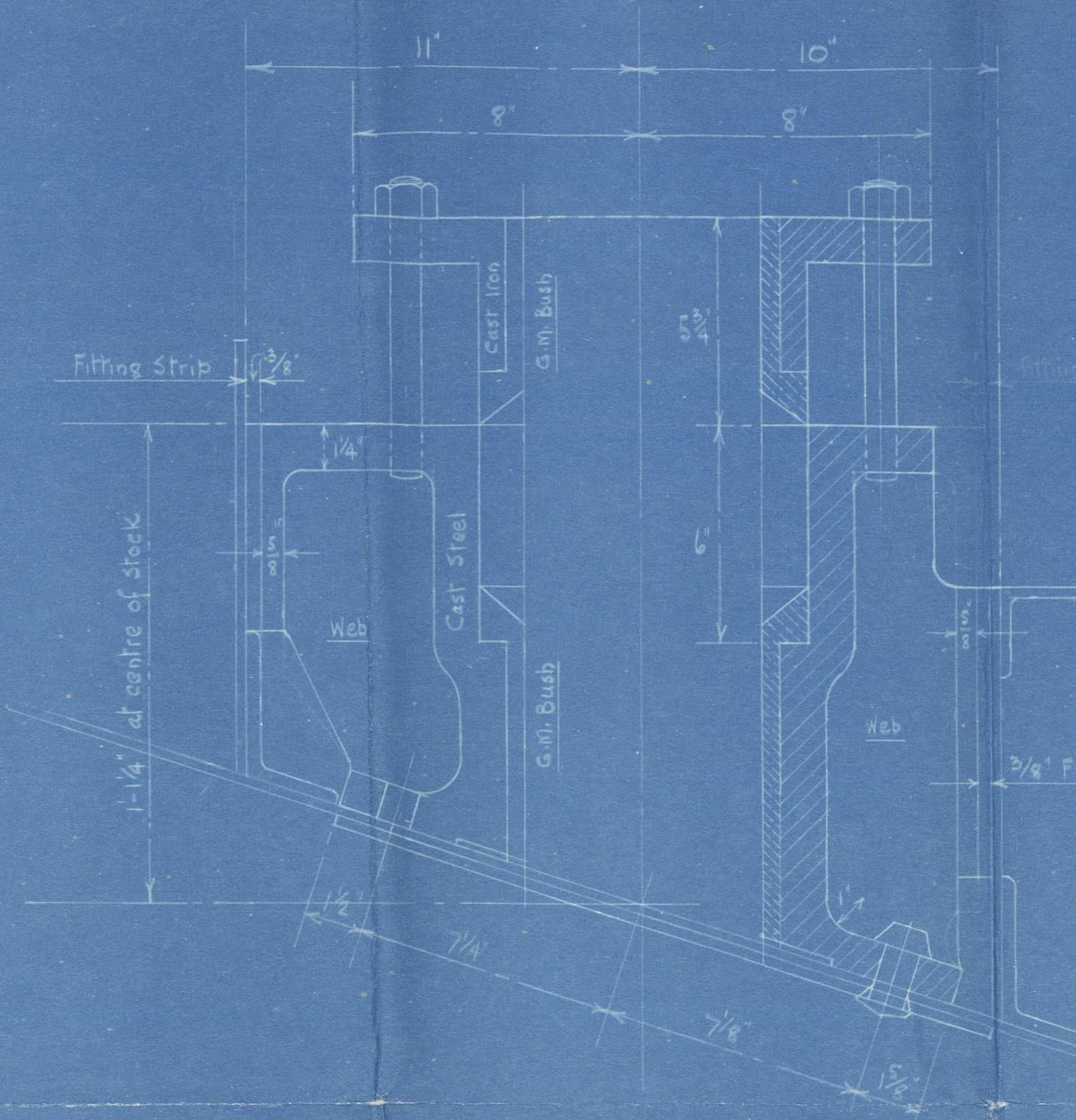
Note These dimensions to be given later
from mould of



Detail of Rudder Carrier at Deck
Scale 3\"/>



Detail of Stuffing Box & Gland
Scale 3\"/>



Balanced Rudder.

J. Cruikshank & Co.

Lava No 497

S. S. *Sir Charles Orr*

LIVERPOOL.

Report No. *97350*



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Lloyd's Register
Foundation

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