

SHIP N° 387

RUDDER FRAME

SCALE - 1/2" = ONE FOOT

FORGING-STEEL

TO PASS B.C. SURVEY & TESTS BEFORE LEAVING
MAKERS WORKS. ARMS TO BE SHRUNK ON & KEYED.

SERVICE SPEED = 11 KNOTS.
AREA OF RUDDER = 201 SQ FT.
COPG. AHEAD & RUTLES = 5.746 FEET.
A x D = 201 x 5.746 = 1155
RUDDER HEAD = 15 1/8" x 10 1/2" TANKER (ICE STIFF)
= 15 1/8" DIA. + OWNERS EXTRA
= 15 7/8" DIA.

S = .26 x 1.2 x 1.2
= .26 x 1.2 x 1.2
13.4 = 15.52 DIA + 10% TANKER & ICE STIFFENING
14 1/8 = 14 1/8 DIA + 10% AREA (OWNERS EXTRA)
15 1/8 = 15 7/8 DIA.

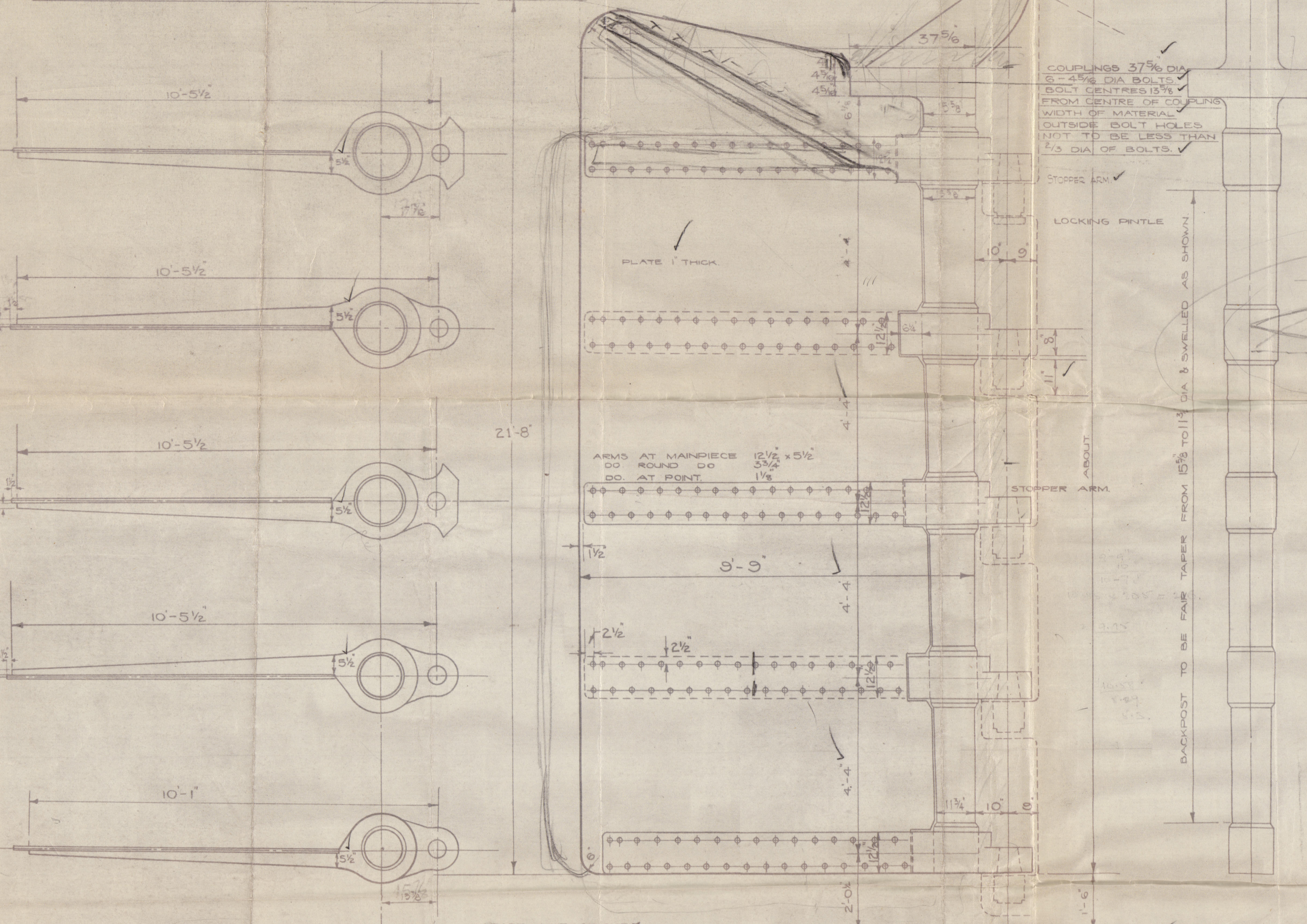
13.4 x 1.15 = 206 = 14.4
13.4 x 1.25 = 235 = 15
235 x 1.1 = 247 = 15.8

STEERING EQUIPMENT TO SUIT 15 1/8" DIA RUDDER HEAD.

RUDDER HEAD & RUDDER POST TO BE COUPLED TOGETHER BY 6 1/2" DIA FITTED BOLTS.
PORTABLE STEEL PENTLE OF TURNED STEEL TAPERED IN RUDDER ARMS.
SCREWED UP TIGHT BY NUTS & SPLIT PINS ALL SUPPLIED BY MAKERS.
CARE TO BE TAKEN THAT CENTRES OF PENTLES ARE IN LINE SO THAT THE RUDDER WILL
BE A GOOD WORKING RT. ALSO TO BE SQUARE TO BASE LINE OF SHIP.
COUPLING MACHINED & TO BE A GOOD FIT.
RUDDER PLATE & FITTED BY SHIPBUILDERS.

EXACT SPACING OF RUDDER ARMS & GAUGE FOR TURNING PENTLES WILL BE SENT LATER.
BENT GAUGE TO BE SUPPLIED TO SHIPBUILDERS OF RUDDER HEAD AFTER MAKING.
ALL MACHINING & DRILLING TO BE DONE BY MAKERS.
FORGING MAKERS TO ARRANGE FOR ANY NECESSARY ADJUSTMENT BEFORE DESPATCHING.
ANY ALTERATION TO BE NOTIFIED TO THE PURCHASER SHIPBUILDING CO LTD.
WRITTEN DIMENSIONS ONLY TO BE TAKEN.
DIMENSIONS SHOULD BE CAREFULLY WORKED TO AS WE ONLY PAY ON WEIGHTS
CALCULATED TO THESE DIMENSIONS.

RIVETS IN ARMS TO BE 1/4" DIA SPACED 4" DIA.
2 COMPLETE ROWS & COUNTERSINK ON OUTSIDE OF ARMS.
RIVETS MUST NOT BE OPPOSITE EXCEPT AT OUTER ENDS
OF ARMS.
EXTRA RIVETS BETWEEN ROWS TO SURVEYORS SATISFACTION.



DETAIL OF TOP PENTLE AND GUDGEON.

DETAIL OF PENTLES AND GUDGEONS.

BOTTOM PENTLE AND GUDGEON.

STEEL SPLIT PIN SLIGHTLY
GROOVED INTO NUT

STOPPER

3/4" BRASS
1/2" CLEARANCE
3/4" LIGNUM VITAE

5 1/2"

10 1/4"

3 1/2"

1 1/2"

1 1/2"

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1 1/2"

PLAN OF STOPPER GUDGEONS.

TOP & MIDDLE.

PLAN OF OTHER GUDGEONS.

BOTTOM EDGE TO BE CHAMFERED
SO AS TO ALLOW STOPPER TO BEAR
FOR FULL DEPTH.

RUDDER STOPPERS TO OPERATE
AT 42°

WEBS TO BE AT CENTRE OF GUDGEONS & STOPPERS.
PILLOTS MID WAY BETWEEN GUDGEONS.

WIDTH OF METAL OUTSIDE
THE BOLT HOLES NOT TO BE
LESS THAN 2 1/2" DIA
OF BOLTS.

NOTE: TOP & BOTTOM HEAD
COUPLING TO CLEAR
SWINGING ROUND TO 40°

COUPLING

SCALE 1/2" = ONE FOOT



Preliminary Rudder.

Gurness S.B. Co.

No. 287.

H. J. H. H.

SOUTHERN VENTURER.



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Lloyd's Register
Foundation

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Max Dim of Palm - $4\frac{1}{4}$ "



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Rudder
Gurnear 281

30 JUN 1944

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