

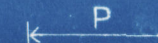




1. BOTH SIDES ARE SYMMETRICAL EXCEPT SPECIALLY DENOTED.
2. ALL SECTIONS ARE SHOWN AFT VIEW.
3. THE MEASUREMENTS IN THIS PLAN ARE SHOWN IN THE FINISHED CONDITION.
4. THE INNER SURFACE OF STERN FRAME BELOW BASS IS TO BE PAINTED BITUMASTIC SOLUTION.
5. INTERNAL OF RUDDER IS TO BE PAINTED WITH EACH ONE COAT OF BITUMASTIC SOLUTION AND ENAMEL.
6. THE SHELL OF RUDDER IS TO BE WORKED PERFECT WATER TIGHT.
7. THE RUDDER AND STERN FRAME'S WATER TIGHT COMPARTMENT ARE TO BE TESTED BY THE PRESSURE OF 1 KG./SQ. CM.
8. THE WELDING ROD USED TO THIS BUILT-UP STERN FRAME IS TO BE "LOW HYDROGEN ELECTRODE" WHICH ARE APPROVED BY "L.R."
9. FINAL MACHINING IS TO BE CARRIED OUT WHEN WELDING COMPLETED.

RUDDER NUMERALS

L (B.P)	= 47°0
d	= 3°47
V (CONTINUOUS FULL OUTPUT)	= 12°12
A = TOTAL RUDDER AREA	= 436 ^{m²}
D = DISTANCE OF CENTER GRAVITY OF AREA "A"	= 4.41
FROM THE CENTRE LINE OF THE PINTLES	
N = NUMERAL = $100 \times A \times D$	= 194
A' = RUDDER AREA ABAFT CENTRE LINE OF THE PINTLE	= 3.2 ^{m²}
D' = DISTANCE OF CENTRE OF GRAVITY OF AREA "A"	= 6.98
FROM THE CENTRE LINE OF THE PINTLE	
N' = $100 \times A' \times D' \times S$	= 178°N
L x d/A	= 370

THE RUDDER AND STERN FRAME ARE TO BE COMPLIED WITH "LR" RULE, STRENGTHENED FOR NAVY IN ICE CLASS 2.

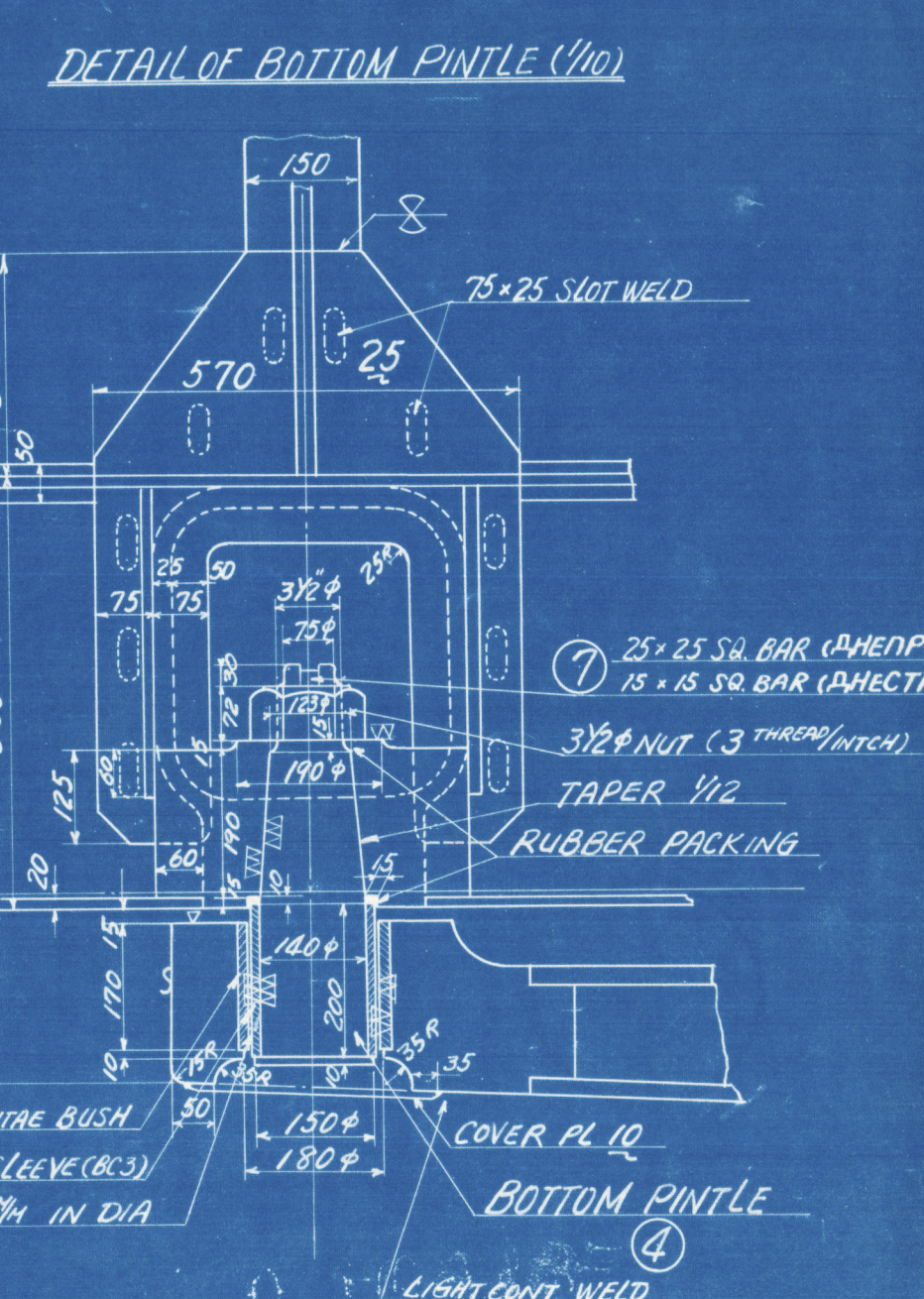
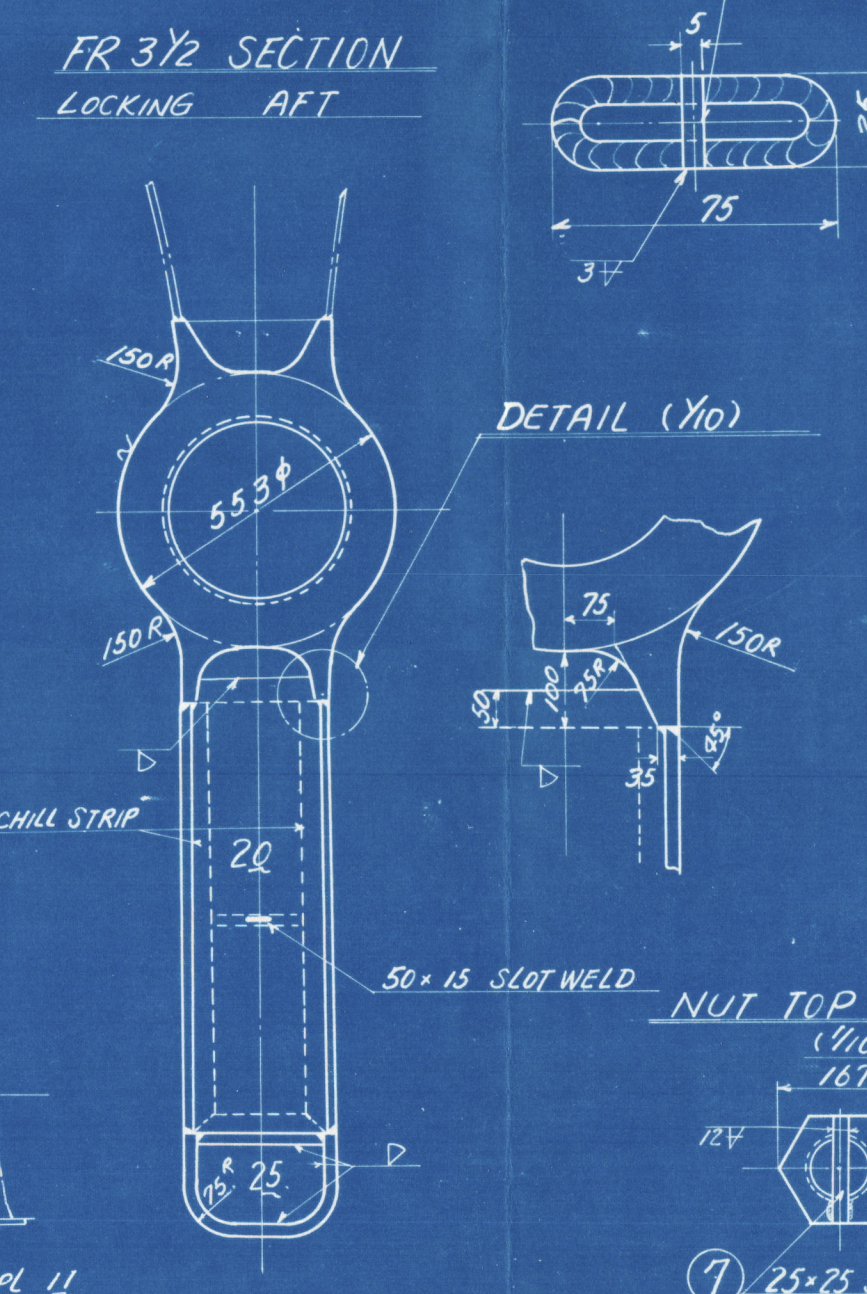
WELDING SYMBOLS.	
STAGGERED INTERMITTENT 	
CHAIN INTERMITTENT 	



$L = 1.4 \sqrt{t}$

ANOTHER SIDE
FACING SIDE

DEGREE OF FINISHING	
~	SMOOTH SURFACE
∇	ROUGH FINISH
∇∇	MEDIUM "
∇∇∇	FINE "



NOTE

APR. 18, 1959 FINISHED PLAN	MANUF. NO.	NO. WANTED	DATE	REMARK

APPROVED BY EL R IN CHARGE YES

✓ MARKED MATERIALS AS TO BE CARBON CONTENT ≤ 0.23%

2	27	GREASE CUP	BRASS				
1	26	65" ROUND BAR	FORGED STEEL				
1	25	65" -	-				
1	20	BOTTOM BEARING	CAST STEEL		230		TO BE TESTED BY "L.R."
1	23	NECK BEARING	CAST STEEL		250		
1	22	BOSS	CAST STEEL		750		
2	21	DRAIN PLUG	BRONZE (BC*)				
13	20	ZINC PLATE	23" x 50" x 300" ZINC				
2	19	LOCKING NUT SET BOLT	MILD STEEL				
1	18	LOCKING NUT SET PIECE	MILD STEEL				
1	17	LOCKING NUT	FORGED STEEL				
2	16	LOCKING PIECE WITH NUT WITH SPLIT PIN	MILD STEEL				
1	15	LOCKING PIECE	MILD STEEL				
6	14	COUPLING BOLT SPLIT PIN	MILD STEEL				TO BE TESTED BY "L.R."
6	13	COUPLING BOLT & NUT SET BOLT	FORGED STEEL				
8	12	COUPLING BOLT & NUT SET BOLT	MILD STEEL				
4	11	ZINC PLATE (FOR NECK BEARING)	ZINC				
4	10	BEARING BUSH & SET BOLT BUSH (FOR NECK BEARING)	MILD STEEL				
1	9	SLAVE (FOR NECK BEARING)	BRASS (BSCS)				
1	8	LOCKING BOLT (FOR BOTTOM PINTLE)	BRONZE (BC3)				
1	7	BUSH (FOR BOTTOM PINTLE)	MILD STEEL				
1	6	SLEEVE (FOR BOTTOM PINTLE)	LIGUAMVITAE				
1	5	BOTTOM PINTLE & NUT	BRONZE (BC3)				
1	4	LOWER CASTING	FORGED STEEL				
1	3	UPPER CASTING	CAST STEEL		245		TO BE TESTED BY "L.R."
1	2	UPPER STOCK	CAST STEEL		165		
1	1	UPPER STOCK	P100V RUCAT FORGED STEEL		690		

BLANK NO. 2E MNS	PART NO.	NAME OF PART	MATERIAL	UNIT WEIGHT KG	REMARK

АНЕП
АНЕОП

1/2 "SUDDIMPORT" MOSCOW U.S.S.R.
 G.T. 500 TONS TUNA FISHING BOAT

RUDDER AND STERN FRAME

(STRENGTHENED FOR NAVIGATION IN ICE CLASS B)

SCALE 1/15

HITACHI SHIPBUILDING & ENGINEERING CO. LTD.
 MUKAISHIMA SHIPYARD
 DESIGNING SECTION

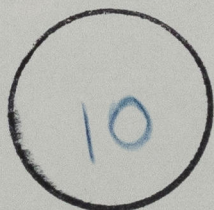
DRAWN BY K. Kijima
 CHECKED BY M. Inagawa
 REVIEWED BY N. Kusata
 CHIEF OF SECT A. Yamagata

DATE APR. 18, 1959
 MANUF. NO.
 CODE NO.
 NO. 2E MNS

RELATED SECTION
 SHEET NO.
 DRAWING NO.
 FINAL - 14

CERTIFIED COPY OF APPROVED PLAN	
PLACE OF APPROVAL	Kobe
DATE	2-10-58
CERTIFIED BY	M. H. Hensley
DATE	7/5/59.

RECORDS DEPT.,
LONDON.



Kobe Rnt. No.	FE 6491
Port of Registry.	MUKAISHIMA
Name of Ship	DNEPR
Title of Plan	RUDDER AND STERN FRAME



M.V. "DNEPR"



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Lloyd's Register
Foundation

010089-010095-0150