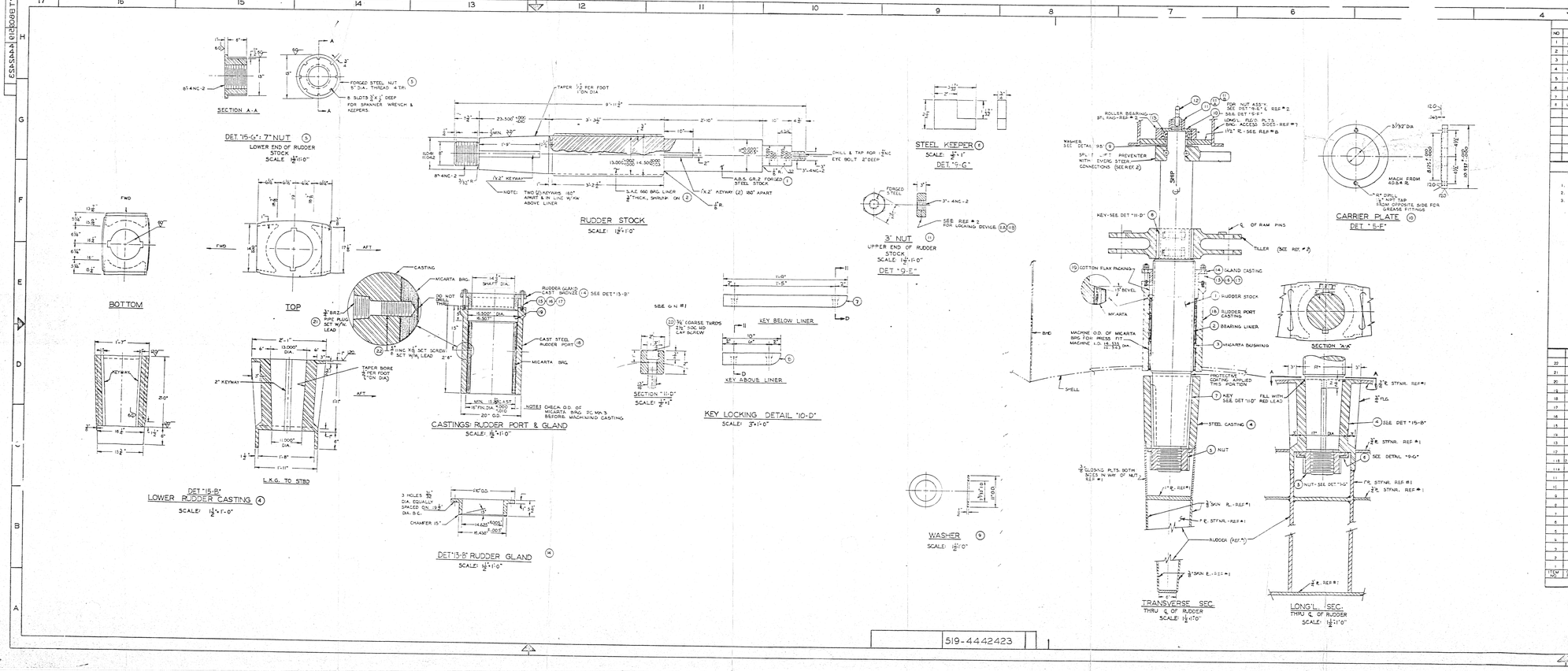
SHT 5 OF 22



519-4442423

REFERENCES

NO	TITLE	MARKING NUMBER MK	MARKING NUMBER
1	RUDDER DETAILS	0.4.0	519-4.4.42.42.72
2	STEERING MECH. DETAIL	0.4.6	519-4.4.42.42.0
3	LONG'L FRAMING - AFT. BHD 55	0.0.2	10-1.4.4.2.2.6.9
4	MAIN DECK PLATING & BEAMS	0.2.b	10-1.4.4.2.3.7
5	TRANSVERSE BHDS.	0.1.4	1-1.4.2.4.4.2.3.7.8
6	LONG'L BHDS.	0.1.3	1-1.4.4.4.2.3.7.9
7	TRANSVERSE FRAMING - AFT. FR. 24	0.0.3.A	10-1.4.4.2.3.6.7
8	LONG'L FRAMING AFT OF BHD 55	0.0.2	10-1.4.4.2.3.9.B

REVISIONS

ZONE	LTR	DESCRIPTION	DRAWN	TECH	CHKRD	TECH	DATE	APPRD
		THIS DRAWING DEVELOPED FROM NAVSHIPS DRAWING NO. 519-4.3.3.2.6.6.9 APPROVED BY ABS. C.H. FILE REF. 1.B.6.0. OF 4-2.3.1.2 BY L. SCHOTTKEFER						

GENERAL NOTES

1. FILLET RADIUS OF KEYS & KEY WAYS SHALL BE IN ACCORDANCE WITH CURRENT ABS RULES.
2. PREHEAT ALL CASTINGS TO 300°F PRIOR TO WELDING.
3. ALL CASTINGS TO BE STRESS RELIEVED BEFORE MACHINING.

PARTS LIST

ITEM NO	QTY PER UNIT	QTY PER GROUP	PART NO	SYMBOL	DESCRIPTION	MAT'L	SPEC NO	REMARKS	GA	UNIT WT.	NET WT.
22	12				SET SCREW 5/8"DIA x1¼NC x1-1/4" LG	STEEL		SOCKET HD. CUP PT.			
21	12				PIPE PLUG 3/4"IPS. CTSK. HD.	BRONZE		"			
20	8				CAP SCREW SOC HD. 5/8"-11NC x2-1/2" LG	STAINLESS STEEL					
19	18.1.7				PACKING .750	COTTON FLAX	COM'L	TALLOW IMPREGNATED			
18	1				RUDDER PORT	CAST STEEL	ABS RULES		1/9	10.48	
17	3				JAM NUT HEX. 7/8" 9NC	ASTM A194					
16	3				HEX. HD. NUT 7/8" 9NC	ASTM A194					
15	3				STUD 7/8"-9NC x8" LG	ASTM A193		THD. FULL LENGTH			
14	1				RUDDER GLAND	CAST BRONZE	COM'L	14.625" I.D.	3/9	.139	
13	1				ROLLER CARRIER BEARING 11.023"O.D.	COM'L	COM'L	TORTURTUX P. PRI 5030-1-33-P-2 SELF ALIGNMENT THRUST	5/9	.39	
12	1				PIN BOLT 1½"-6NC THD W/3½" LG SHANK	SAE1-STL					
11A	12.2.1.F				WIRE 1/16"DIA.	STAINLESS STEEL	COM'L	FOR LOCK NO. CAP SCREW PC. 11A			
11	2				CAP SCREW HEX HD. 1½" DIA.x3½"-2-1/2" LG	ALLOY STEEL					
10	1				NUT HEX HD. 3"-8NC 2-3" THICK	CAST STEEL	ABS RULES				
10	1				CARRIER PLATE 1"THK	STEEL	ABS RULES	DRILL & TAP FOR GREASE FITTING			
9	1				WASHER FLAT 1½" THK	STEEL	ABS RULES	CUT FROM PLATE			
8	12				KEY 3"x2"x10" LG.	STEEL	GRADE 1 ABS RULES	KEY ABOVE LINER			
7	2				KEY 3"x2"x11-8" LG.	FORGED STEEL	GRADE 1 ABS RULES	KEY BELOW LINER			
6	2				STEEL KEEPER	STEEL	ABS RULES				
5	1				NUT	FORGED STEEL	GRADE 2 ABS RULES	8 SLOTS 3/4"x1-1/2" DEEP FOR SPANNER WRENCH			
4	1				RUDDER CASTING	CAST STEEL	ABS RULES		1/9	1477	
3	1				BUSHING 4"OD x 4"ID" 1.D x 24½" LG	MICARTA		2.233" +-.004	3/9	30	
2	1				BEARING LINER	BRONZE	SAE 660		3/9	279	
1	1				RUDDER STOCK GP 2	FORGED STEEL	ABS RULES		5/9	3380	

WEIGHT & CENTER OF GRAVITY BLOCK

WEIGHT GROUP	WEIGHT LBS	LCG ABOV BLT	LCG FWD OF ⊗	LCG AFT OF ⊗	TRANSVERSE POST	TRANSVERSE STBD
11/9	23/15	12.75	—	52.57	—	—
3/9	42.98	13.06	—	10.33	—	—

CONTR NO C 62-6
MARINETTE MARINE CORP MARINETTE WISCONSIN
CONTRACTOR CARD NO 049
DESIGN 21.0 5-2-62
DRAWN 21.0 5-2-62
CHECKED 0.1.1 5-2-62

DEPARTMENT OF THE NAVY
NAVAL SHIPS SYSTEM COMMAND
WASHINGTON 25, D.C.
108 FT. HARBOR TUG (ARS) TYPE
RUDDER STOCK & BEARING SUPPORT

SHIP MODEL NO. MOD. NAVSHIPS DRAWING NO. SIZE
H 80064 519-4442423
SCALE: AS NOTED
SHEET 1 OF 1