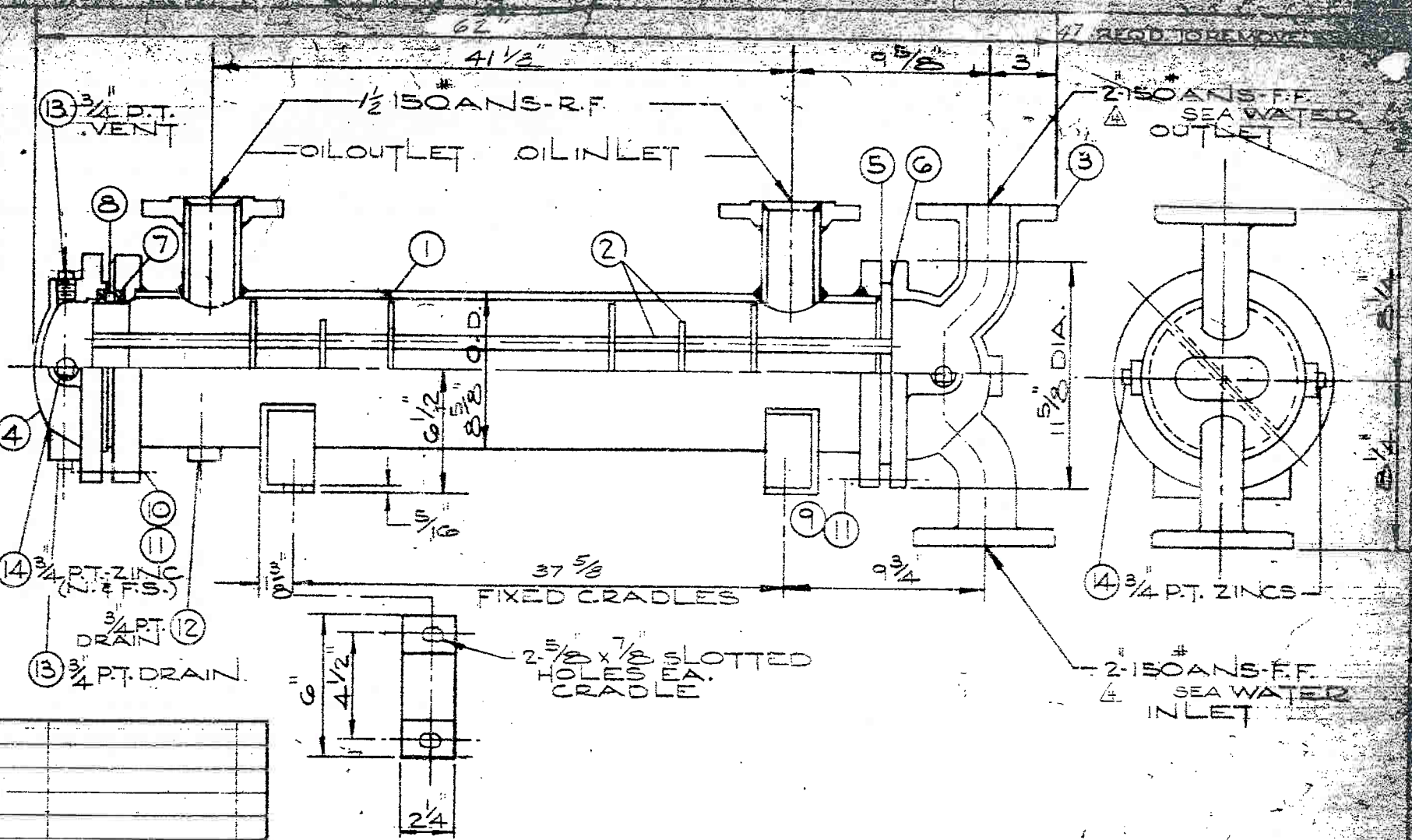


TESTING PERFORMANCE DATA		SHELL SIDE	TUBE SIDE
MATERIAL		2190 T.P. 3/4"	SEA WATER
FLOW	G.P.M.	20	35
INLET TEMPERATURE	F.	173.6	93
OUTLET TEMPERATURE	F.	130.0	123.3
VELOCITY	F.P.S.	1.2	2.6
VELOCITY THROUGH CONN'S.	F.P.S.	3.65	3.5
DESIGN PRESSURE	P.S.I.	100	125
TEST PRESSURE	P.S.I.	150	190
MAXIMUM WORKING PRESSURE	P.S.I.	100	125
PRESSURE DROP	P.S.I.	10 @ 25 GPM	1.0
NUMBER OF PASSES		ONE	TWO
COOLING SURFACE	SQ. FT.	117	
LOG. MEAN TEMP. DIFF.	F.	45.3	
OVERALL HEAT TRANSFER COEFF.		SEVICE	34.7
L.M.T.D.	B.T.U./HR. SQ. FT. °F.	CLEAN	46.3
HEAT TRANSFER CAPACITY	S.T.U. PER HOUR	134,000	

ON-BOARD REPAIR PARTS QUANTITIES FOR ONE			
ITEM	DESCRIPTION	NO. REQD.	PART NUMBER
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

ITEM	DESCRIPTION	QTY	MAT'L	SPEC.	PART OR SIZE	PART NUMBER	REV.
14	PROTECTOR ROD 4 ZINC	4	ZINC		3/4" P.T. SIZE	3-3869-06-101-08 A	
13	PIPE PLUG	2	CU-ZN		3/4" P.T. SIZE	2-1352-06-010-01 A	
12	PIPE PLUG	1	F.S.	A105 GR. 11	3/4" P.T. SIZE	2-1355-96-901-05 A	
11	HEX NUT	48	STL.	A94 2H	1/2" 13T.P.I.	2-1225-00-902-05 A	
10	STUD BOLT	48	STL.	A93 B7	1/2" 13T.P.I.-T.F.L.	2-0125-08-901-17 A	
9	STUD BOLT	48	STL.	A93 B7	1/2" 13T.P.I.-T.F.L.	2-0125-08-901-16 A	
8	LANTERN RING	1	BRNZE			3-3353-08-100-02 A	
7	PACKING RING	2	RUBBER			3-3598-00-901-08 A	
6	GASKET	1	ASB			3-2988-08-110-67 A	
5	GASKET	1	ASB			3-2998-08-110-38 A	
4	BONNET-REV.	1	STL.	B 569 ALLOY 362		3-1052-08-85-01 C	
3	BONNET-STA.	1	STL.	B 569 ALLOY 362		3-0872-08-215-01 C	
2	BAFFLE PLT.		STL.				
1	TUBESHEETS		CU-NI	B171			
1	TUBES 60" X 1/2" B.W.G. FIN		CU-NI	B359			
2	BUNDLE ASSY.	1				4-106-08-051-001 B	
1	CRADLE		STL.	A27-NI			
1	HALF CPLG.		F.S.	A105 GR. 11			
1	NOZZ. FLG.		F.S.	A105 GR. 11			
1	NOZZ. PIPE		STL.				
1	STUFFING BOX		STL.				
1	FLANGE		STL.				
1	PIPE		STL.				
1	WELL ASSY.					4-600-08-051-001 A	



NOTE:  
1. LANTERN RING (ITEM 8) CONTAINS TELL-TALE HOLES FOR DETECTION OF LEAKAGE

VESSEL IDENT	SHIPBUILDER	SHIPBUILDER P.O. NO.	AMERICAN STANDARD CUSTOMER	AMERICAN STANDARD CUSTOMER P.O. NO.	AMERICAN STANDARD ORDER NO.	REV.	REVISIONS
USCG	485	SHIPBUILDER	AMERICAN STANDARD	AMERICAN STANDARD	AMERICAN STANDARD	1	COMP. BILL OF MAT'L. R.M.S.

50410 TANKERS HULL NO 668  
SUN SHIPBUILDING AND DRY DOCK CO.GENERAL ELECTRIC 091-20237 9-11-97-01 AND 9-11-97-02  
CHANGED "FRESH" TO SEA AND ADDED WT'S.  
IT. NO. 5, PART NO. WAS 3-299-8-08-110-67 A  
IT. NO. 6, PART NO. WAS 3-298-8-08-110-67 A  
THIS DOCUMENT CONTAINS MATERIAL AND/OR INFORMATION WHICH IS THE PROPERTY OF AMERICAN STANDARD INC. A DELIBERATE CO-MPARATION, AND SUPPLIED ONLY ON CONFIDENTIAL BASIS. NO TRANSMITTAL OR DISCLOSURE SHALL BE MADE TO ANY PERSON, FIRM OR CORPORATION WITHOUT PRIOR WRITTEN APPROVAL OF AMERICAN STANDARD INC.  
AMERICAN STANDARD  
LUBE OIL COOLER  
504608051002  
EST. WT. DRY 557.2 FLOODED 650.7  
MADE IN CHECK APVD DATE  
C 504608051002 4

DRAWING LIST & BILL OF MATERIAL

APPROVAL BY REGULATORY BODIES