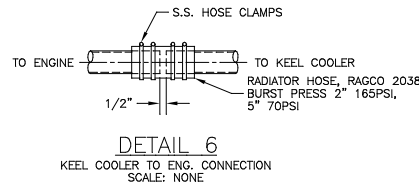
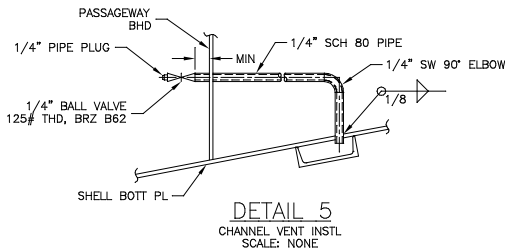
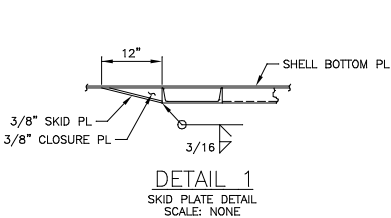
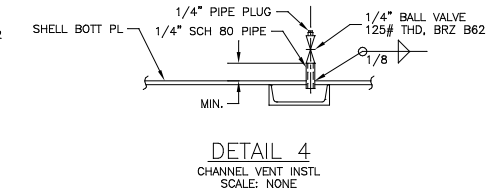
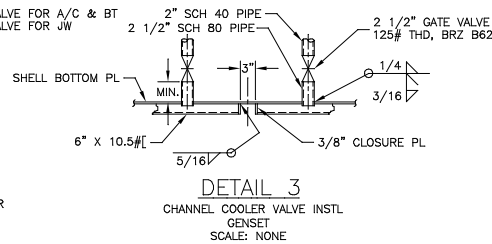
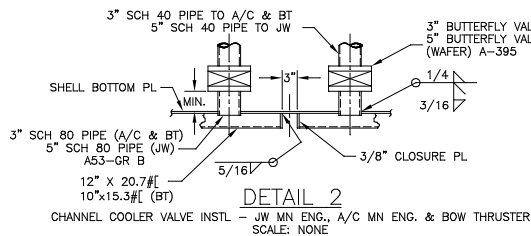


GENERAL NOTES

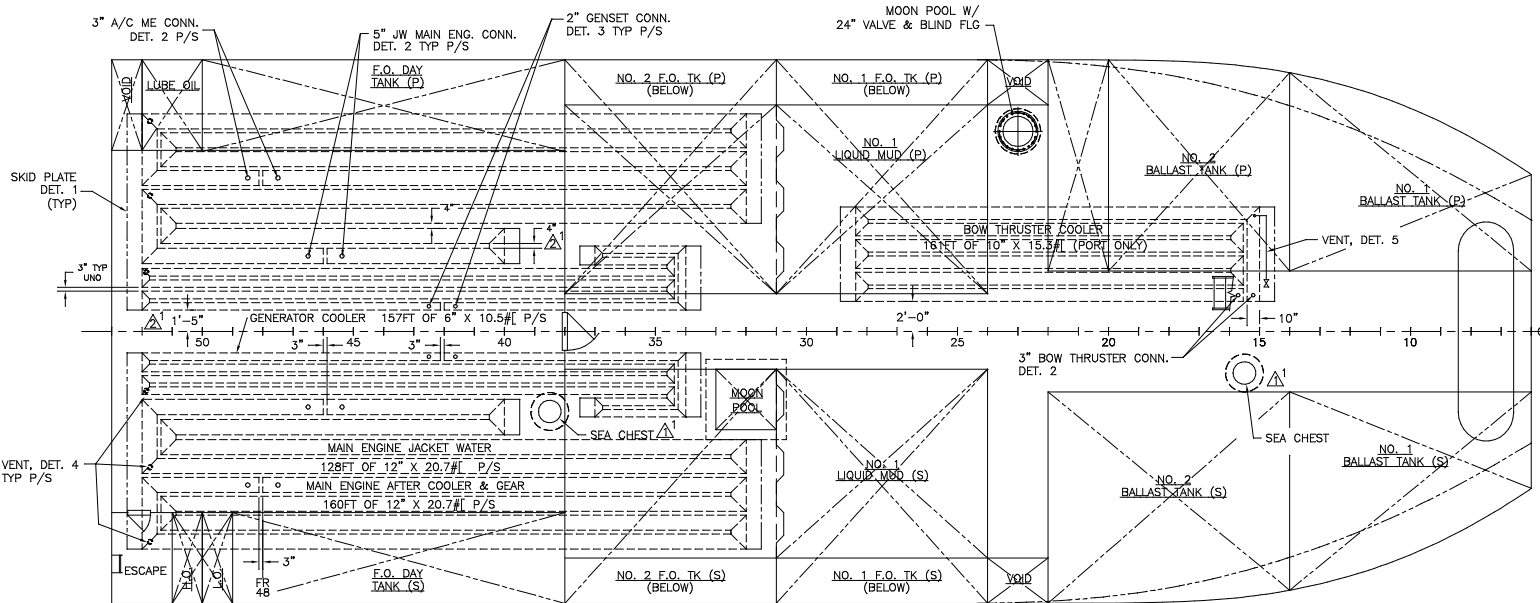
1. ALL EXPANSION TANKS TO BE EQUIPPED WITH AUTOMATIC SIGHT GAUGE, VENT, FILL AND LOW LEVEL ALARM.
2. VENT ALL HIGH SPOTS IN KEEL COOLERS WITH 1/4" BALL VALVE & PLUG (CRANE NO. 1 125# ASTM B62 BRZ) (SEE DETS 4& 5).
3. SUPPLY SURGE & VENT LINES ON ALL SYSTEMS.
4. ALL SHELL PENETRATIONS SHALL BE WELDED FULL PENETRATION.
5. SEE ENGINE MANUFACTURE DRAWINGS FOR ADDITIONAL INFORMATION.
6. LOCATE ALL EXPANSION TANKS AS HIGH AS POSSIBLE IN ENGINE & PUMP ROOM.
7. ALL PIPE TO BE SCH 40 ASTM A-53, GRADE B BLK EXCEPT AS NOTED.
8. ALL WELD FITTINGS TO BE SCH 40 ASTM A-234 WPB.
9. ALL THREADED FITTINGS TO BE IRON ASTM A-197, 300#.
10. 1/4" PIPE COUPLINGS FOR VENTS TO BE STEEL 2000# ASTM A-105.
11. ALL BLANKING PLATES TO BE 3/8" THK.
12. HIGH SPOT OF COOLERS TO BE PIPED TO ENGINE ROOM W/1/4" SCH 80 PIPE ASTM A53, GRADE B BLK.
13. TEMP. BELOW 220°F PRESSURE BELOW 10 PSI CLASS II.



ENGINES TO BE COOLED	
2	- MAIN ENGINE CAT 3508B 850HP @ 1200 RPM
2	- GENERATOR CAT 3306 170KW @ 1800 RPM
1	- BOW THRUSTER CAT 3408 480HP @ 1800 RPM

COOLER INFORMATION	
VELOCITY OF WTR MN ENG. A/C & GEAR 1.86 FT/SEC - PUMP FLOW (185 GPM)	WTR CAP. OF EA KEEL COOLER ME A/C & GEAR 245 GAL.
VELOCITY OF WTR MN ENG. JW 4.59 FT/SEC PUMP FLOW (449 GPM)	WTR CAP. OF EA KEEL COOLER MN ENG. JW 196 GAL.
VELOCITY OF WTR GEN. 2.18 FT/SEC PUMP FLOW (75 GPM)	WTR CAP. OF EA KEEL COOLER GENERATOR 72 GAL.
VELOCITY OF WTR B/T ENG. 2.45 FT/SEC PUMP FLOW (160 GPM)	WTR CAP. OF KEEL COOLER BOW THRUSTER ENG 179 GAL.

COOLER LENGTHS	
Req'd M/E A.C. & Gear CHANNEL 157FT OF 12" X 20.7#	
Req'd M/E J.W. CHANNEL 103FT OF 12" X 20.7#	
Req'd BOW THRUSTER CHANNEL 156FT OF 10" X 15.3#	
Req'd GENSET CHANNEL 153FT OF 6" X 10.5#	



2	1. CHANGED OFF CL. DIM FROM 1'-9" TO 1'-5" & ADDED 4" DIM BETWEEN [] AS NOTED.	9-4-02	CB
1	1. REVISED LOCATION OF FWD & AFT SEACHESTS.	8-15-02	CB

MASTER BOAT BUILDERS, INC.
P.O. Box 702 Boyou LaBatre, AL 36509

150'-0" x 36'-0" x 12'-0"
OSV

Drawn By: C. BRAUN	Approved By:	Scale: 1/4"=1'-0"
Half No. 354	Date: 7-17-02	

ENGINE COOLING WATER SYS

Sheet: 1 of 2	Drawing Number: P-8	Rev: 2
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PLOT 1=48
engines shown on nonplot layer