

- NOTES:**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH YANMAR DRAWINGS.
 2. GENERAL ARRANGEMENT DRG. NO. E3-SS04-3600 COOLING WATER SYSTEM.
 3. ALUMINUM DEVICES WITH ADJUSTABLE AND VISUAL SIGNALS TO BE FITTED IN CASE OF EXCESSIVE COOLING WATER TEMPERATURE.
 4. FLEXIBLE TUBE LENGTHS BETWEEN ENGINES & PIPING TO BE OF APPROVED TYPE & TUBE FITTED WITH EFFECTIVE GASKETS.
 5. S.W. COOLING PIPES TO BE M.S. HOT-DIPPED GALV. SCH.80.
 6. S.W. COOLING PIPES TO BE M.S. HOT-DIPPED GALV. SCH.80.
 7. PIPES PASSING THROUGH TANK SPACE TO BE SCH.80.
 8. VALVES & PIPE CONNECTIONS MARKED * TO BE INSTALLED AT OR NEAR RECOMMENDED BY MANUFACTURER.
 9. F.W. SYSTEM IS TO BE TREATED WITH ANTI-RUST INHIBITOR AGENT AS RECOMMENDED BY MANUFACTURER.
 10. PUMPS INLET & OUTLET TO BE FITTED WITH COMPOUND & PRESSURE GAUGES.
 11. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH CATERPILLAR DRAWINGS.
 12. COOLING WATER SYSTEM DRG. NO. 075177-3412-3 - MAIN GENSET.
 13. COOLING WATER SYSTEM DRG. NO. 075177-3412B1-3 - B/T ENGINE.

L.T. F.W. STAND-BY PUMP : (CARRIED ON BOARD AS SPARE)
- STAND-BY COOLING PUMPS
* - CONNECTION TO BE NEAR SIDE VALVE

H.T. F.W. STAND-BY PUMP : (CARRIED ON BOARD AS SPARE)
- STAND-BY COOLING PUMPS
* - CONNECTION TO BE NEAR SIDE VALVE

NO.	SIZE	DESCRIPTION	QTY	MATERIAL	REMARK
BB-R5	350A	S.W. STRAINER	2	M.S. GALV. BOX S.S. SCREEN	CALLED OUT ON DRG. NO. C4232A/P-1
BB-R6	150A	S.W. STRAINER	1	M.S. GALV. BOX S.S. SCREEN	CALLED OUT ON DRG. NO. C4232A/P-1
BB-V1	350A	BUTTERFLY VALVE	2	CAST STEEL	CALLED OUT ON DRG. NO. C4232A/P-1
BB-V2	350A	BUTTERFLY VALVE	2	CAST IRON	CALLED OUT ON DRG. NO. C4232A/P-1
BB-V3	150A	ANGLE VALVE	1	CAST STEEL	CALLED OUT ON DRG. NO. C4232A/P-1

NO.	SIZE	DESCRIPTION	QTY	MATERIAL	REMARK
V20	150A	ANGLE S.D.N.R. VALVE	2	CAST STEEL	
V20A	125A	ANGLE S.D.N.R. VALVE	1	CAST STEEL	
V21	80A	ANGLE S.D.N.R. VALVE	1	CAST STEEL	
V22	65A	ANGLE S.D.N.R. VALVE	2	CAST STEEL	
V23	40A	ANGLE S.D.N.R. VALVE	2	CAST STEEL	
V24	150A	CHECK VALVE	5	CAST IRON	
V25	100A	CHECK VALVE	3	CAST IRON	
V26	200A	ANGLE S.D.N.R. VALVE	1	CAST IRON	
V27	50A	S.D.N.R. VALVE	-	CAST IRON	
V28	65A	GATE VALVE	2	CAST IRON	
V29	25A	GATE VALVE	2	CAST IRON	
V30	50A	ANGLE S.D.N.R. VALVE	5	CAST STEEL	
V31	15A	GATE VALVE	2	CAST IRON	

NO.	SIZE	DESCRIPTION	QTY	MATERIAL	REMARK
R1		MAIN ENGINE L.T. F.W. PUMP	2	MAKERS	ENGINE MOUNTED, SEARO BRN
R2		MAIN ENGINE H.T. F.W. PUMP	2	MAKERS	ENGINE MOUNTED, SEARO BRN
R3		M/E LUB. OIL COOLER	2	MAKERS	YANMAR SUPPLY, MULTIPLE-BLEED TYPE
R4	100A	CONTROL VALVE	2	MAKERS	YANMAR SUPPLY, MAX DIRECT ACTING AUTO
R5		REPAIRER LUB. OIL COOLER	2	MAKERS	KAWASUMI SUPPLY, MULTI-TUBULAR SHEET TYPE
R6		MAIN ENGINE LUB. OIL COOLER	3	MAKERS	160mm ϕ x 22m HEAD SELF-PRIMING PUMP
R7		AUXILIARY SEA WATER COOLING PUMP	3	MAKERS	50mm ϕ x 25m HEAD
R8		STAND-BY MAIN ENGINE COOLING PUMP	2	MAKERS	VERTICAL CENTRIFUGAL IN-LINE PUMP
R9		STAND-BY MAIN ENGINE F.W. H.T. COOLING PUMP	2	MAKERS	VERTICAL CENTRIFUGAL IN-LINE PUMP
R10		MAIN ENGINE EXPANSION TANK	2	M.S.	600 litres
R11		MAIN ENGINE F.W. COOLER	2	MAKERS	ENGINE SUPPLY, COOLING SURFACE AREA 10.7m 2
R12		BOW THRUSTER ENGINE HEAT EXCHANGER	1	MAKERS	CATERPILLAR SUPPLY
R13	200A	BELL MOUNTAIN	1	MAKERS	OPENING AREA OF NOT LESS THAN 10.7m 2
R14		SIGHT GLASS	2	MAKERS	DESIGN TO BE ADVISED BY ENGINE MAKER
R15		LEVEL ALARM LOW	2	MAKERS	
R16		AHU CONDENSER UNIT	1	MAKERS	
R17		NO.1 & 2 COLD RW CONDENSER UNIT	2	MAKERS	
R18		FOR AIR COND. PACKAGE UNIT	1	MAKERS	
R19		NO.1 & 2 FRI GEARBOX L.O. COOLER	2	MAKERS	
R20		DECK EQUIPMENT HYDRAULIC POWER PACK L.O. COOLER	1	MAKERS	
R21		TOW PIN/SHAK JAW LUB. OIL COOLER	1	MAKERS	
R22		NO.1 & 2 BHS COMPRESSOR L.O. COOLER	2	MAKERS	
R23		NO.1 & 2 BOW THRUSTER L.O. COOLER	2	MAKERS	
R24	200A	STRAINER	3	MAKERS	
R25	125A	STRAINER	-	MAKERS	
R26	100A	STRAINER	3	MAKERS	
R27	65A	STRAINER	4	MAKERS	
R28	25A	ORIFICE	2	M.S. GALV	
V1	200A	BUTTERFLY VALVE	4	CAST IRON	
V2	150A	BUTTERFLY VALVE	6	CAST IRON	
V3	125A	BUTTERFLY VALVE	6	CAST IRON	
V4	100A	BUTTERFLY VALVE	14	CAST IRON	
V5	80A	BUTTERFLY VALVE	3	CAST IRON	
V5A	65A	BUTTERFLY VALVE	9	CAST IRON	
V6	65A	GLOBE VALVE	-	CAST IRON	
V7	50A	GLOBE VALVE	3	CAST IRON	
V8	40A	GLOBE VALVE	2	BRONZE	
V9	32A	GLOBE VALVE	1	BRONZE	
V10	25A	GLOBE VALVE	4	BRONZE	
V11	20A	GLOBE VALVE	2	BRONZE	
V12	125A	S.D.N.R. VALVE	8	CAST IRON	
V13	100A	S.D.N.R. VALVE	6	CAST IRON	
V14	80A	S.D.N.R. VALVE	6	CAST IRON	
V15	65A	S.D.N.R. VALVE	-	CAST IRON	
V16	40A	S.D.N.R. VALVE	1	BRONZE	
V17	32A	S.D.N.R. VALVE	1	BRONZE	
V18	25A	S.D.N.R. VALVE	4	BRONZE	
V19	20A	S.D.N.R. VALVE	2	BRONZE	

Amended - See ABS Comment P-037

APPROVED
AS AMENDED
This approval covers only ABS requirements and does not include items not required by ABS. See comments in ABS after

DATE	REV	REVISIONS	COMMENTS	BY
26.12.08	A	REVISED AS PER OWNER'S COMMENTS		PTERU
SHIP:				
60m 6000BHP DP2 Z-PELLER A.H.T.S.				
TITLE: ENGINES COOLING SYSTEM				
OWNER	DYNAMIC CITY HOLDINGS LTD. CISC			YARD NO. C01-2008-05 & 06
BUILDER	GULI JIANG SHIPBUILDING CO. LTD. CISC			
CLASS	ABS + A1 @ 74MS FRI 1, DP52, TOWING AND ANCHOR HANDLING SERVICES			
CONAN WU & ASSOCIATES				
NAVAL ARCHITECTS				
SINGAPORE				
140 TONG BUILDING, LENT 11-16, NO. 10, CHINA TREAT BUILDING, SINGAPORE 069914				
TEL: (65) 6562-1138 FAX: (65) 6562-1238 6562-0123 E-MAIL: mof@conanwu.com.sg				
TEL: (65) 21-6367980/63676046 FAX: (65) 21-6367732 E-MAIL: mof@conanwu.com.sg				
DRAWN	C.K. WONG	CHECKED	APPROVED	SCALE
PTERU				
N.T.S.				
C4232A/P-7				
REV				