

































AUXILIARY CONSUMERS	FLOW	m ³ /h	REMARKS
HPU FOR HYDRAULIC SYSTEM FOR BOWTHRUSTER, WINCHES AND CRANE	150 L/min	9	
SHAFT LINE BEARINGS		2x1.98	
SHAFT LINE FWD SEAL	2x4 L/min	2x0.24	
HPU FOR CPP	2x10 L/min	2x0.6	
HPU FOR STEERING GEAR			
REFRIGERATING CONDENSING UNIT		0.36	
TOTAL AUX. CONS.		15	
DIESEL GENERATOR PS	159 L/min	9.54	
DIESEL GENERATOR STB	159 L/min	9.54	
TOTAL DG		19.08	
TOTAL		34.08	40

	PUMP		SNDIR GLOBE VALVE		RESTRICTION ORIFICE		FLOW ALARM LOW
	ELECTRIC MOTOR		SNDIR GLOBE VALVE - ANGLED		THREADED PLUG		REMOTE CONTROL
	HEAT EXCHANGER		CHECK VALVE			NC	NORMALLY CLOSED
	SEABOX STRAINER		THERMOREGULATING VALVE		FLANGE CONNECTION		
	CYCLONE SEPARATOR		ELECTRIC ACTUATED VALVE		PIPE CROSSOVER		
	Y-TYPE STRAINER		PRESSURE GAUGE COCK		PIPE BRANCH		PRESSURE REDUCING VALVE INTERNAL PILOT
	GLOBE VALVE		REDUCTION PIECE		PIPE FLOW DIRECTION		
	BALL VALVE		PIPE PENETRATION		PRESSURE INDICATOR		
	BUTTERFLY VALVE		PIPE SOCKET		TEMPERATURE INDICATOR		
	GATE VALVE		SUCTION FUNNEL		FLOW SWITCH		


EQUIPMENT TABLE			
ITEM	DESCRIPTION	CHARACTERISTICS	REMARKS
E256101	A.C.UNIT COOLING EL. PUMP	Q=20 m³/h (88 GPM), P=1.5 KW	
E256102	SPRAY NOZZLE	TF FULL CONE 90°, 2" BSP MALE, ST. STEEL	
E256103	SPRAY NOZZLE	TF FULL CONE 90°, 1 1/2" BSP MALE, ST. STEEL	
E256104	CYCLONE FILTER		THORNDON BEARINGS
	SW SERVICE COOLING PUMP	Q=10 m³/h; H=2 bar; P=4.5 KW; 60 HZ; 600 V	

TESTS TABLE			
ITEM	DESIGN PRESSURE (bar)	IN WORKSHOP (bar)	ON BOARD (bar)
SUCTION PIPES	1	1.5	1.5
DISCHARGE PIPES	2.5	3.75	3.75
AERATING PIPES	ATMOSPHERIC	WORKING CONDITION	ATMOSPHERIC

MTU CONNECTIONS			
ITEM	DESCRIPTION	SIZE	REMARKS
20.010	RAW WATER OUTLET	ND 150	-
20.014	INLET CONNECTION, RAW WATER PUMP	ND 150	-
20.018	FLINGING SCREW, SEA WATER PUMP	-	-
20.028	OUTLET CONNECTION, PREHEATING LINE	ND 20	-
20.029	INLET CONNECTION, PREHEATING LINE	ND 20	-
20.051	OVERFLOW LINE	ND 40	-
20.096	RAW WATER OUTLET TO GEARBOX OIL HEAT EXCHANGER	ND 40	-
20.191	VENT LINE CONNECTION COOLANT TO RAW WATER HEAT EXCHANGER	ND 8	-
20.238	DRAIN, SEA WATER PUMP	-	-

CCGS PRIVATE ROBERTSON V.C

AF1	14.11.12	UPDATED COOLING TO SHAFT SEAL BEARINGS	TP	FP	BF
AF4	29/04/12	AS FITTED	TK	FD	BF
Rev	Date	Description	Perform	Check	Appr.

CLIENT CANADIAN COAST GUARD  IRVING IRVING SHIPBUILDING INC. P.O. Box 5110, 3059 Barrington Street, Halifax NS, Canada - www.ircs3k.com Tel: 902.423.9271 Fax: 902.429.4610	Title: COOLING WATER SYSTEM	
	MID-SHORE PATROL VESSEL	
	Scale: ITS Drawn by: M. Sander Checked by: S. Hargrave Dwg. date: 25/06/2011	Size: A0 Project No: 0094
	Contract No: E7045-000001-002NO2	AF6094-25600-01 © IRVING SHIPBUILDING INC.