

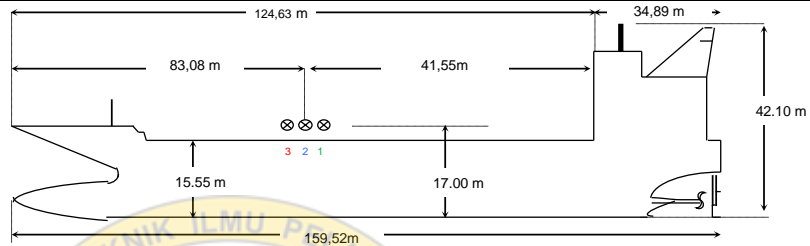
SHIP'S PARTICULARS M/T HARMONY SEVEN (EX FRONTIER HACHI)

NAME	MT HARMONY SEVEN	KEEL LAID	24TH DEC'1988
CALL SIGN	JZDQ	LAUNCHED	2ND SEP'1989
FLAG	INDONESIA	DELIVERED	2ND SEP'1989
PORT OF REGISTRY	BELAWAN	SHIPYARD	MINAMINIPPON, USUKI, JAPAN
OFFICIAL NUMBER	33031295		
IMO NUMBER	8819184		
CLASS SOCIETY	BKI		
CLASS NOTATION	OIL TANKER		
P & I CLUB	AMERICAN CLUB		

SATELLITE COMMUNICATION	
	INMARSAT SAILOR Fleet Broadband 250
E-MAIL	harmonyseven@waruna.onsatmail.com
PHONE	870773991101
FAX	870 764 900 613
TELEX	452502734
MMSI	525023213
Iridium	
FLAG : INDONESIA	EX. NAMES : Frontier Hachi

OWNERS	PT WARUNA NUSA SENTANA
OPERATORS	PT WARUNA NUSA SENTANA

PRINCIPAL DIMENSIONS	
LOA	159.52 m
LBP	150.52m
BREADTH (Extreme)	27.40 m
DEPTH (molded)	15.55 m
HEIGHT (maximum)	42.10 m
BRIDGE FRONT - BOW	124,63 m
BRIDGE FRONT - STERN	34,89 m
BRIDGE FRONT - M'FOLD	41.55m



TONNAGE	REGD	SUEZ	PANAMA
NET	18415	17256,46	17339,42
GROSS	12472	20273,17	20322,96

TANK CAPACITIES (cbm)					
CARGO TANKS (98 %)			BLST TKS (100 %)		
COT 1 -W	2762,538	SLOP P	843,489	F.P.Tk.	1025,000
COT 1 -C	2697,289	SLOP S	843,489	A.P. Tk	190,310
COT 2 -W	4612,668	TOTAL CT'S	38749,494	WBT 3-P	2444,219
COT 2 -C	4652,685	Total without slops	37062,516	WBT 3-S	2444,219
COT 3 -C	4652,251	F.W Tanks 100%			
COT 4 - W	4786,450	FW Tank (P)	161,01		
COT 4 -C	4641,159	FW Tank (S)	161,01		
COT 5 -W	3686,338	DWT-P	86,6		
COT 5 -C	4571,138	DWT-S	86,6		
		TOTAL	495,22		
		TOTAL		6103,748	

LOAD LINE INFORMATION	FREEBOARD	DRAFT	DWT
TROPICAL	4011mm	11.551m	34671mt
SUMMER	4247mm	11.315m	33748mt
WINTER	4483mm	11.079m	32831mt
NORMAL BALLAST COND	10.228m	5.33m	11924mt
Summer Displacemnet			40164mt
LIGHT WEIGHT	6096 mt	at 1.930m dft	
FWA	236 mm		
TPC @ Summer draft	38.97 mt/cm		

OTHER DETAILS			
H. Level Alarm	95%	Level gauge	NO
Overfill Alarm	98%		

MACHINERY / PROPELLER / RUDDER	
MAIN ENGINE	Mitsui B&W 6S50MC
M.C.R.	9060 BHP
N.C.R	7700 BHP
AUX. BOILER (1 set)	Hada Water Tube Boiler Evapora Rate 15000kg/hr
GENERATOR (3 sets)	450 kw X 450 v X 60 hz
EMER D.G. (1)	30 kva X 450 v X 60 hz
PROPELLER	Solid Aerofil, MAU type, 4 blades
RUDDER	Steamlined, balanced, 1 set
STEERING GEAR	Electro hydraulic type
FW GENERATOR CAP	25 ton/day

BUNKER TANKS	
FOT 1 P	318,69
FOT 1 S	318,69
FOT 2 P	630,02
FOT 2 S	630,02
TOTAL	1897,42
DOT -P	106,47
DOT -S	72,17
TOTAL	178,64

WINCHES / WINDLASS / ROPES / EMERGENCY TOWING			
	FWD	AFT	PARTICULARS
WINDLASS	2	0	EL-HYDRAULIC
WINCHES	2	2	EL-HYDRAULIC coupled with windlass
MRG ROPES	8	8	64 mm DIA X 220 MTRS
FIRE WIRE	1	1	30 mm X 70 MTRS
ANCHOR	2	0	6.78T/ 6.51T
CHAIN	2	0	62 mm DIA , 11 SHACKLES EACH

CARGO AND BALLAST PUMPING SYSTEM				
MAIN PUMPS	NO.	CAPACITY	HEAD	RPM
CARGO OIL P/P's	3	750/400 m3/hr x 100 m		
BALLAST P/P's	1	750/400 m3/hr x 100 m		

LIFE BOATS	
	2 x 30 Persons
LIFE RAFTS	
	1x6 Persons
LIFE RAFTS	
	4x15 Persons
PROV. CRANE	
	2.0 T

MANIFOLD ARRANGEMENT (400 mm / Steel)	
Distance of cargo manifold to cargo manifold	2000
Distance of cargo manifold to vpr. return manifold	2500
Distance of manifolds to ship's rail	4600
Distance of spill tray grating to centre of manifold	1250
Distance of main deck to centre of manifold	1815
Distance of main deck to top of rail	1000
Distance of top of rail to centre of manifold	800
Distance of manifold to ship side	4600
Distance of manifold from keel	17000

CARGO HOSE CRANES	
	10.0 T

PROPELLER	
Propeller Immer.:	6.65 m
Prop dia =	6.1m
Pitch =	4405 mm

FIRE FIGHTING SYSTEM	
E/RM	HALON
PUMP ROOM	HALON
CARGO/DK AREA	LOW EXPANSION FOAM, SEA WATER

IG / VAPOR EMISSION / VENTING	
BLOWER CAPACITY	3950 m3/Hrs
P/V VALVE PR./ VAC. SETTING	1400mmWG/-700mm WG
BOW THRUSTER	N/A