



SRAB

NEW BUILDINGS

3 x 8.400 DWT OIL/CHEMICAL TANKER – MAIN DETAILS

Built in Turkey, Eregli Ship yard 1 st vessel delivery –end 2008/2009

Class:BV * HULL*MACHINERY, OIL&CHEMICAL TANKER ESP, UNRESTRICTED NAVIGATION,*AUT-UMS, CLEAN SHIP, MON SHAFT, ICE CLASS 1A, IG, MANOVR; AVM-APS, IMO II, VCS, INWATERSURVEY.

DWT: 8400
LOA: 123,25 m
LPP: 115,97 m
BREADTH: 17,2 m
DRAUGHT: 6,7 m
SPEED: abt 14 kn (85-90 % MCR)
CONS: abt 14,4 mtons/ 24 h IF 380
Main engine: MAK 8M32C rating 4000 KW/600rpm
One flexible PTO/PTI shaft coupling
Propeller is of variable pitch type.
Aux eng: 3 x 585 KW
Bow thruster is hydraulic driven from FRAMO system 430 kw

CARGO & BALLAST TANK:

Double side/double bottom:

Ballast tanks constructed with L shape

Cargo tanks made with center corrugated bulkhead STB /PS wing tanks

Each tank has it's own manifold valve (12 segregations) 6 " connection ANSI 150

Vessel is equipped with stern line 12 " connection

Vessel has vapor return on manifold

Marine Line coated cargo tanks

Total volume at (100%): abt 9374 cbm

Tank configuration: cargo tanks is divided in 12 tanks + 2 slop tanks on deck

Asymmetric loading for cargo tanks is allowed

Discharge capacity 1400 m3 with 4 pumps simultaneous

Drop line is placed so circulation of cargo is possible

Super strip system is installed in addition of normal cargo pump stripping function.



CARGO PUMPS:

FRAMO system is used

12 pcs FRAMO hydraulically driven, single stage, submerged deep well pumps, type SD150 with capacity 350 cbm/h at 110 mlc, gravity 0,8 and viscosity 1,0 cst.

2 pcs FRAMO, type SD 100 with capacity 100 cbm/h for cargo/slop tanks on deck.

CARGO HEATING:

Each cargo tank has heating coils DN 50 and hot water as heating media.

The system keeps cargo temperature about 66 C and heating up the cargo from 44 C to 66 C in 96 hrs when sea temperature is 0 C and the air temperature is -10C.

Heat exchanger for Primary system (Thermal oil) and Secondary system for full segregation of cargo area to engine room.

Secondary system will be a mix of anti freeze and fresh water.

Working temp max on secondary system is 120 C.

This system is constructed for full segregation of coils. Can be drained and blinded of for certain cargos which needs this.

TANK DRYING SYSTEM:

Vessel is equipped with a fixed tank drying system with a capacity of 12000 m3 free air.

Drying unit is equipped with a 100 kw heater as well.

Two portable tank venting fans of 3000 m3 each will also be provided.

TANK CLEANING:

Two fixed tank cleaning machines in each cargo tank.

Additional hatch for portable cleaning machine is installed on main deck.

Four tanks can be washed simultaneous with 80 C

Water flow is 15 m3 / h from each machine.

CARGO HANDLING EQUIPMENT:

-Vapor return system is installed

-PV valves is off non oscillation type.

-Cargo Manifold Crane: SWL 5 tons on 16 m.

-Inert Gas Generator

-Nitrogen for padding capacity 5 % ullage in all cargo tanks simultaneously

-Level measuring of cargo tanks is of radar type. (SAAB)

-ODME with max flow 100m3/h

-Chemical discharge pipe is installed

-Gas detection system in ballast tanks



TANK CAPACITIES:

-Ballast capacity:	abt 3800 cbm
-Capacity of fuel oil tanks:	abt 382 cbm
-Capacity of diesel tanks:	abt 64 cbm
-Lub oil tanks	abt 64 cbm
-Fresh water tanks (Drinking)	abt 45 cbm
-Fresh water tanks (Technical)	abt 235 cbm
-Sewage tank	abt 5.3 cbm
-Grey water tank	abt 12.8 cbm
-Bilge water tank	abt 16.3 cbm

MANOUVER and COMMUNICATION EQUIPMENT

- Steering gear is of rotary vane type
- Rudder is flap type full balance rudder
- Bow thruster is with fixed blades hydraulically driven
- Bridge is off closed type with maneuver pulpits on bridge wings
- Radars is of full ARPA type S band and X band inter switch is installed
- Double ice search lights
- Communication is Fleet 77 and V sat for data and voice calls.
- Radio communication equipment is installed for unrestricted area
- Mooring equipment is electro hydraulic type two winches on poop deck
One spring winch on fore castle and two windlass.
- Mooring equipment is according to OCIMF

FIRE & LIFE SAVING EQUIPMENT:

- Free fall boat is constructed for 19 persons.
- Rescue boat is normal rescue boat type.
- Life raft type is one throw overboard 20 person one is davit launch type 20 persons and one on forecastle for 6 persons

ACCOMODATION:

- Cargo Control is located in wheelhouse.
- Accommodation will accommodate 17 crew and one pilot in individual cabins with Toilet and shower.
- Hospital is built in according to Class rules.
- Accommodation is built up by panel system for highest noise reduction and comfort.
- Heating and cooling of accommodation will be carried out by a single pipe system from a central unit. Design temp is +35 C summer and -25C winter for air handling unit. System is made for recirculation of air in accommodation.



MACHINERY :

- Main engine MAK 8M32C 4000kw
- Propeller ZF CP KH-1200 (Variable pitch propeller)
- Gear box ZF Marine transmission ZFW 83100NC PTO4
- Combined Shaft gen / take me home motor AVK of 1400 kw
- Thermal heaters oil fired of 2320 kw each
- Thermal heater exhaust type of 600kw
- Aux engines 3 * MAN D2842 585 kw each
- Air compressors starting air * 2 Working air * 2 99 m3 each.
- Working air system has air dryer installed.
- Evaporator with 15 m3 capacity
- Automation system is computer based for engine control and alarms
- Engine room is protected by CO2 and local fire application system (Sprinkler)
- Deck is protected by fixed foam system with 5 monitors on deck.

GENERAL:

Vessel will have portable cargo hoses according to charter requirements.

Tank washing system will have fixed chemical injection pump installed for highest possible tank cleaning efficiency.

Each cargo tank has "steaming pipe" installed to be used when needed.

Vessel will be equipped with possibility for inerting off cargo piping system and ballast tanks if required.

Vessels is constructed for full segregation of grey and black water to be able to store this when in port.

Manifold is installed for discharge of sewage(black water) on deck if required.