

# M/T Ternvik

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## GENERAL:

**Builder:** Shanghai Edward Shipbuilding 2001

**Class notation:** DNV + 1A1 ICE-1A Tanker for Chemicals and Oil Products ESP E0 NAV-O BIS TMON

## PARTICULARS:

**IMO no:** 9221267

**Flag:** DIS

**Call sign:** OWIS2

<b>Length over all:</b>	141,20 M
<b>Length between p.p.:</b>	133,00 M
<b>Breadth moulded:</b>	21,60 M
<b>Depth moulded:</b>	11,50 M
<b>Draught International:</b>	9,0 M
<b>Deadweight at 9.0 m:</b>	14796 Mt
<b>Gross Tonnage:</b>	9980 Mt
<b>Net Tonnage:</b>	4581 Mt
<b>Cargo tank capacity (98%):</b>	15807 cbm
<b>Deck Tank capacity (98%):</b>	172 cbm
<b>Ballast tank capacity:</b>	6112 cbm
<b>Technical Freshwater (Deck):</b>	330 cbm
<b>Technical Freshwater (Engine):</b>	30 cbm
<b>Heavy Oil:</b>	576 cbm
<b>Diesel Oil:</b>	96 cbm
<b>Fresh water (Drinking):</b>	120 cbm
<b>Speed:</b>	85% MCR, Loaded condition 14,7 knots
<b>Consumption:</b>	25 Mtons
<b>Tank configuration:</b>	2 x 7 cargo-tanks divided P&S by center bulkhead and building 7 natural segregation's of: 1217 cbm + 2134 cbm + 2781 cbm + 1793 cbm + 2838 cbm + 2240 cbm + 2805 cbm. Double skin and double bottom for clean water ballast in cargo area. Double bottom for clean water ballast in cargo area.
<b>Tank coating:</b>	Cargo and Deck tanks, Epoxy International TC 900

**Cargo pipeline:**

Cross manifold with seven 10" main stainless steel pipes, each connected to two cargo tanks, building seven natural segregation's.

**Cargo pumps:**

7 x Svanehöj electrically driven frequency controlled centrifugal pumps. Type DW 200/250-2-K, 450 m<sup>3</sup>/h at 110 m l.c. s.g. 1,0 (max 1,54). Each pumping from two tanks. 1 x Svanehöj portable hydraulically driven pump for emergency discharge, type NH 80-1- NE 70 m<sup>3</sup>/h.

**Cargo control system/closed loading:**

There is a Saab tank-radar in each cargo and deck tanks for monitoring level, temp and pressure. All Cargo handling is remote monitored by computers from the cargo control station on bridge. Cargo operation system type Norcontol Datacheif 2000. Closed loading system (acc. to SOLAS 74/8 reg. 59) by vapour return lines, high-high level alarms, temperature and pressure readout on bridge.

**Cargo heating:**

Primary and Secondary thermal oil system with Stainles Steel coils in cargo tanks, quality AISI 316 L. Cargo holding temp 70 C at 0 C sea water temperature and minus 20 C in air temperature, Heating up cargo 44 degrees ? 66 degrees 96 hours.

**Tank cleaning:**

28 fi xed single nozzle, turbine driven, and programmable multistage tank cleaning machine type Mst50-1, capacity 16.5 m<sup>3</sup>/h. 2 x Butterworth heaters 2900 KW, sea water/ freshwater capacity each 35 m<sup>3</sup>/h at delta temp. 70 degrees Celsius. 2 x technical FW tanks, 330 cbm for tank washing water. Two BLOKSMA butterworth heaters, each 62 cbm/h ? 0-80 C.

**Gas freeing:**

1 fi xed gas freeing fan type HN 900-560, 8.34 m<sup>3</sup>/s, 8120pa with thermal oil heater for the possibility to ventilate cargo tanks with hot air. 4 x portable gas freeing fans, 2 pc type jetfan 70 water driven and 2 pc type jetfan 65 air driven.

**Ballast pumps:**

2 x PG-Behrens VRF 9 / 350 G centrifugal pumps, capacity each 600 m<sup>3</sup>/h.

**Main engine:**

Wärtsilä Type 6L46C four stroke medium speed, 6300 KW / 500 rpm Running on HFO 380 cSt at 50 C

**Reduction gear:**

Wichman type SCV 105 ? P63, 130 rpm. PTO / PTI Type primary driven, mechanical coupling output 1500 KW / 1200 rpm.

**Controllable pitch propeller:**

Wärtsilä Propac type CP 130, diameter 5000 mm.

**Propulsion control system:**

Wichmatic 2

**Rudder:**

Type Shilling Mariner Rudder (Semi-spade type) 70 degrees.

**Bow thruster:**

One Brunvoll thruster type FU-63-LTC-1750-800, Eff ect 800 KW, Speed of propeller 363 rpm.

**Aux. Engines:**

3 x Catepillar 3508B / 750 KW connected to CAT generators 750 KW developing 937 KVA 60 HZ .

**Shaft generator:**

Marine Synchronous generator for PTO / PTI application, type ABB AMG 500S6, developing 1875 KVA, 60 Hz at 1200 rpm. voltage/frequency 450 V 60 HZ. Capable of being used as propulsion engine, service speed on shaft generator loaded: 7kn.

**Emergency generator:**

One DEMP/MAN diesel engine type D 2866 TE, 200 kW connected to a STAMFORD generator,170 KW, 213 kVA, 450V, 60 hz.

<b>Thermal oil boilers:</b>	2 x GESAB / HTI Thermal Oil Heater, Type TOH 2900 V 40 oilfired heaters, 2900 KW.
<b>Exhaust gas heater:</b>	Type EGH 1300 V40 HEAT EXCHANGER:2 x Intermedium heater 2900 KW N41-2PL =4000
<b>Windlass and mooring winches:</b>	Totally 6 double drums Brattvaag hydraulic mooring winches with a brake holding load of 32 tonnes. Two of these are combined anchor/mooring winches.
<b>Deck cranes:</b>	One Hose handling crane Hydralift MCV 1610-5-20Ex, length 20 meter / 5 tonnes SWL. One 1,5 ton ? 16 m slewing crane aft.
<b>Navigation equipment:</b>	Furuno Integrated Bridge System ?Voyager?: High-performance ARPA/radars, Automatic Navigation and Trackkeeping system, 2 x TRANSAS ECDIS navigation system and High-accuracy position fi xing. Furuno GMDSScommunication equipment
<b>Accommodation:</b>	Living quarters situated aft with public rooms and recreation facilities. 14 Single cabins with separate bedrooms / toilets / bathrooms.