



DAMEN ASD TUG[®] 2411 "TORDO"

GENERAL

| | |
|-----------------|---|
| YARD NUMBER | 512291 |
| DELIVERY DATE | May 2016 |
| BASIC FUNCTIONS | Towing, mooring, fire-fighting and pollution control. |
| CLASSIFICATION | Lloyd's Register * 100 A1 Tug [*] LMC UMS IWS |
| OWNER | SAAM S.A. Chile |

DIMENSIONS

| | |
|------------------------|---------|
| LENGTH O.A. | 24.47 m |
| BEAM O.A. | 11.33 m |
| DEPTH AT SIDES | 4.60 m |
| DRAUGHT AFT | 5.35 m |
| DISPLACEMENT (APPROX.) | 490 ton |

TANK CAPACITIES

| | |
|-----------------|---------------------|
| FUEL OIL | 68.2 m ³ |
| FRESH WATER | 8.8 m ³ |
| FOAM | 6.3 m ³ |
| DISPERSANT | 3.1 m ³ |
| LUBRICATION OIL | 4.8 m ³ |
| BILGE WATER | 1.9 m ³ |
| SEWAGE | 3.1 m ³ |
| DIRTY OIL | 2.9 m ³ |

PERFORMANCES (TRIALS):

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|---------------------|--------------|
| BOLLARD PULL AHEAD | 70.0 ton (m) |
| BOLLARD PULL ASTERN | 67.1 ton (m) |
| SPEED | 13.5 knots |

PROPULSION SYSTEM

| | |
|--------------------|---------------------------------|
| MAIN ENGINES | 2x Caterpillar 3516C TA HD/D |
| TOTAL POWER | 4200 bkW (5632 bhp) at 1600 rpm |
| AZIMUTH THRUSTERS | Rolls Royce US 255 |
| PROPELLER DIAMETER | 2600 mm fixed pitch |
| FORCED VENTILATION | 30.000 m ³ /hr |

AUXILIARY EQUIPMENT

| | |
|-----------------------|--|
| MAIN GENERATOR SETS | 2x Caterpillar C4.4 TA, 86 kVA, 230/400V, 50Hz |
| GEN. SERVICE PUMP | 2x Sterling AKHK 5101, 20 m ³ /hr at 14 m.w.g. |
| BILGE WATER SEPERATOR | Facet CPS 2.5 BV MK III, 0.5 m ³ /hr. |
| FUEL OIL HEADER PUMPS | 2x Sterling R 35/40, 3.4 m ³ /hr at 4 bar |
| FUEL OIL FILTERS | 2x Westfalia purifier OTC-2-02-137 |
| SEWAGE TREATM. PLANT | Hamann Super Mini Plus |
| OIL POLLUTION CONTROL | Dispersant pump set with 2 spray booms |
| FIFI SYSTEM | Diesel driven (Caterpillar C-09 Acert) pump of 600 m ³ /hr + one manual controlled monitor. |

DECK LAY-OUT

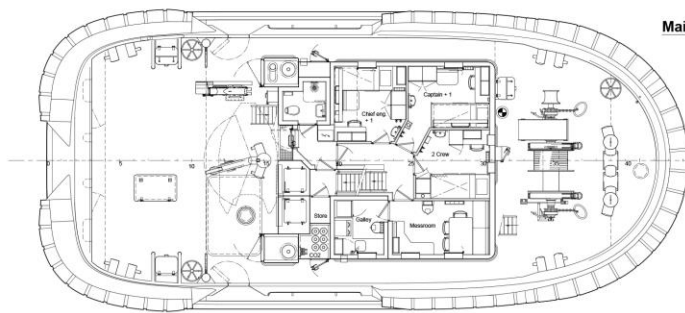
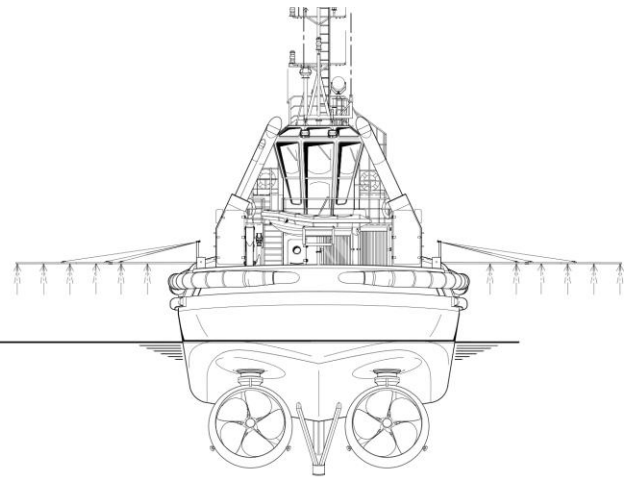
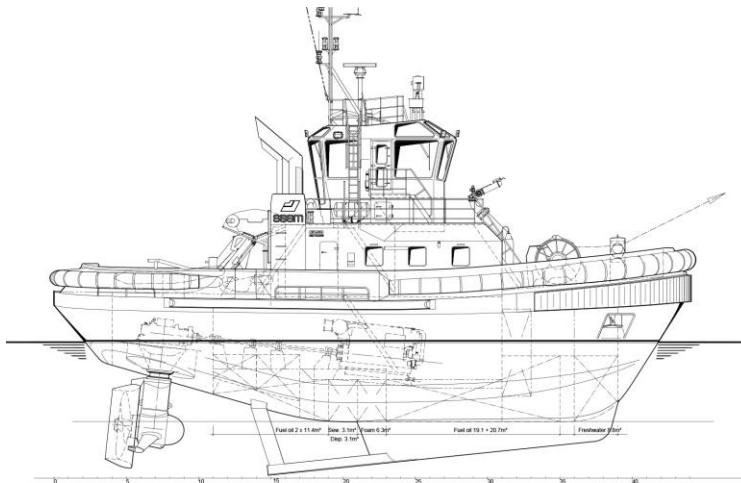
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|---------------------|--|
| ANCHOR | 2x 360 kg Pool (High Holding Power) |
| ANCHOR/TOWING WINCH | Hydraulically two speed split drum and warping head 33 ton up to 11 m/min, reduced pull up to 51 m/min, 150 ton brake on second layer, with line pull and line length measurement system. |
| CAPSTAN | Electrically driven, 5 ton at 15 m/min. |
| DECK CRANE | Heila HLM 10-3S, 0.8 ton at 10.36 m with winch. |
| TOWING HOOK | Mampaey SWL 100 ton |
| WORKBOAT | Narwhal WB 400 with 25 HP outboard motor. |
| FENDERING | Cylinder + block bow fender with waterspray, D-fender at sides, cylinder fender at transom corners |

ACCOMMODATION

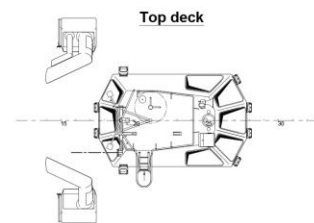
Air-conditioned and heated accommodation spaces for 4+2 persons, consisting of two single cabins, each with a fold-down topbunk, one double crew cabin, galley, mess room and sanitary spaces.

NAUTICAL AND COMMUNICATION EQUIPMENT

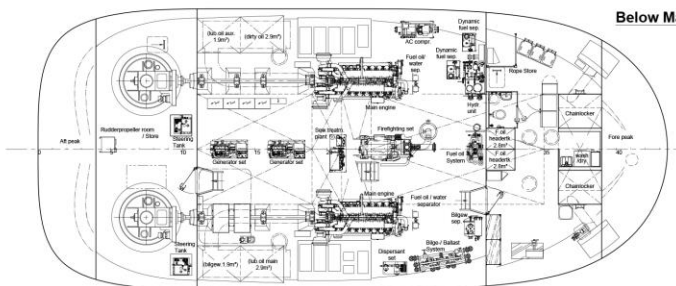
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| SEARCH LIGHT | Pesch, 1000 W |
| RADAR SYSTEM | JRC, JMA-5212-4BB |
| SATELLITE COMPASS | Furuno SC-50 |
| AUTOPILOT | Robertson AP-70 |
| GPS | Furuno GP-150 |
| ECHOSOUNDER | Furuno LS-6100 |
| SPEED LOG | Furuno DS-80, doppler type. |
| VHF | 2x Sailor Compact 6222 |
| SSB | Furuno FS1575, 150 W |
| INMARSAT | 1x Furuno Felcom 19 Mini-C with LRIT |
| NAVTEX | Furuno NX-700 |
| AIS | Furuno FA-150 |
| EPIRB/SART | Jotron, Tron-40S / Jotron, Tronsart 20 |



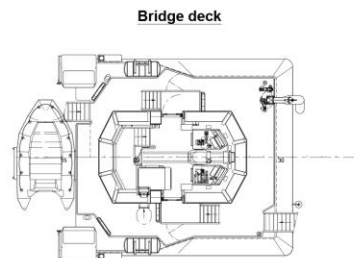
Main deck



Top deck



Below Main deck



Bridge deck

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"TORDO"

DAMEN

DAMEN SHIPYARDS GORINCHEM

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