

The NavTug®FlatTop is a powerful handy sized multipurpose anchor handling and assistance tug with a large flat deck area. It's main scope of service is the assistance in any offshore and nearshore construction sites as well as anchor-handling assistance for cable-laying vessels.



GENERAL

GENERAL:

NAME: NavTug® FlatTop "Torsten"
 YARD: SanMar Ltd., Turkey

MAIN PARTICULARS

BOLLARD PULL: 50 t
 SPEED: 12,5 kn
 DECK LOAD: 10t/m² (main deck)
 ENDURANCE: 20 days
 TONNAGE: 371 GT
 CLASSIFICATION: GL X100 A5 E RSA(200) IW AH
 Tug XMC AUT
 FLAG: Netherlands

MAIN DIMENSIONS

LENGTH, o.a.: 31,5 m
 BEAM, moulded: 11,5 m
 BEAM, o.a.: 12 m
 T BL, 25% Stores: 2,45 m
 T BL, DWL: 2,75 m
 T BL, max LoadLine: 3,00 m
 T max LoadLine +skeg: 3,35 m
 DEPTH Main Deck aft: 3,80 m
 DEPTH Main Deck fore: 4,70 m
 HEIGHT Top Deck, BL: 10,50 m
 AIRDRAUGHT @DWL: 14,80 m
 EYE-LEVEL @DWL: 7,00 m

CAPACITIES

FUEL OIL MGO bunker: 138 m³
 FUEL OIL MGO day: 22 m³
 FRESH WATER: 31 m³
 SEWAGE: 22 m³
 LUBE OIL: 1,4 m³
 SLUDGE: 2,7 m³
 HYDRAULIC OIL: 2 x 1,4 m³
 BALLAST: 79 m³

ACCOMMODATION:

ON MAIN DECK

- Changing area, lockers
- mess room with seats for 6 persons, small pantry
- 1 public toilet
- LSA equipment cabinet

BELOW MAIN DECK

- 4 single cabins with 2x shared toilet and shower.
 - 1 Cabin for 2 persons + pull-down extra bed, with toilet and shower
 - Pantry
 - Provision store with freezer, refrigerator, dry provision locker and shelves
 - HVAC-cabinet
 - 1x housekeeping locker
 - Lounge with Sofa, table, locker, TV
- ### PANTRY EQUIPMENT
- 1x 4-hotplate electric cooker ceran field type with storm rails
 - Vent hood
 - 1x domestic size stove
 - 1x microwave with grill function
 - 1x double bowl stainless steel sink
 - Lot of cupboards, plate racks and workbench
 - coffee maker, water cooker, toaster
 - locker, freezer, refrigerator

FIRE PROTECTION AND FIGHTING

- Fire extinguishing system type NOVEC in engine room with release station on deck
- Number of 6kg portable powder extinguishers
- Portable CO2 extinguishers for main switchboard and wheelhouse
- 1x EEBD escape set in accommodation
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- 1x firemens outfit
- Fire main and a number of hydrants with hoses

LIFE SAVING EQUIPMENT

- 2x inflatable liferafts for 12 persons
- 6x lifebuoys with self-igniting lights, lifelines and smoke signals
- 12x lifejackets with light and whistle
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- 12x immersion suits
- 12x thermal protection aids
- 1x Jason Cradle
- Pyrotechnics as per rules
- 1x MED approved inflatable rubber type MoB-boat for 6 persons with 40HP outboard diesel engine and equipment with lifting davit
- 1x line throwing apparatus

ANCHOR AND MOORING EQUIPMENT

ANCHOR EQUIPMENT

- 2x hydraulic vertical anchor winch, Data
- 1x combined hydraulic winch
- 2x HHP anchor D'Hone stowed in anchor pockets
- 2x chain cables K2 studlink, galvanized, stowed in chain locker
- 2x chain stopper
- 2x chain quick release on main deck

MOORING EQUIPMENT

- 3x mooring rope 120m with 60kN BL
- 2x 20m Polyprop/ Power Plait □40mm
- 2x 40m Polyprop/ Power Plait □40mm
- 2x 60m Polyprop/ Power Plait □40mm

TOWING AND ANCHOR HANDLING EQUIPMENT

The towing equipment is designed according to Noble Denton Rules for a bollard pull of 45t.

- 1x hydraulic independent double drum combined anchor handling and towing winch, Kraajeveld
 - o 25/10t, 20/40m/min on 3rd layer (Towing)
 - o 50/15t pull, 10/25m/min on 3rd layer (Anchor h.)
 - o break force 130t
 - o 2-speed gear/ motor
 - o 2x750m wire, 46mm dia
- 2x towing hook SWL 45t with pneumatic release from local and wheelhouse
- manual tow pins/ plug sleeves aft
- 2x hydraulic Tugger Winch with 5t@10m/min with wire 100m 22mm dia, Kraajeveld
- 1x hydraulic tow pins and shark jaw unit SWL 80t (bow), Data
- 4x manual tow pins/ plug sleeves (bow)
- bow and stern roller 6,5m clear opening 1,0m dia, SWL 120t

DECK CRANE

One fully GL approved marine deck crane knuckle boom type is mounted on the fwd deck area on portside. (Promac /HS-Marine AKC 185 HE4)

- SWL 12t@10,0m
- maximum outreach 15m
- local controls and radio remote control
- winch operation 5t (single fall)

NAUTICAL EQUIPMENT

The vessel is equipped with nautical equipment according to GMDSS A2 plus extra equipment.

- 2x VHF DSC Class A with handheld, gooseneck and footswitch, (Sailor 6222)
- 3x secondary station for VHF (Sailor 6204) (CPT, Messroom, Lounge)
- 1x VHF (Sailor RT2048)
- 1x MF/HF 150W SSB DSC (Sailor 6310)
- 1x Inmarsat C GMDSS system (Sailor 6110 Mini-C)
- 2x DGPS (Furuno GP150)
- 1x AIS class A with pilot plug (Furuno FA-150)
- 2x Radar with ATA function and AIS overlay (Furuno FAR2117 black box version)
- 1x Fleet Broadband 150 with LAN connection box (Thrane&Thrane)
- 1x ECDIS (Sodena G 19")
- 1x Auto-Pilot + Tiller (Sperry Marine)
- 1x Gyro Compass with NMEA port (Sperry Marine Gyro Navigat X MKII)
- 1x Satellite-Compass with NMEA port (Furuno SC50)
- 1x Rate of turn indicator with NMEA port
- 1x NavTex digital (Furuno NX700B)
- 2x portable VHF GMDSS emergency liferaft radio(Sailor SP3520 VHF)
- 3x portable VHF non-certified with spiral cable microphone
- 1x SART (Sailor)
- 1x EPIRB (Sailor SE406-II)
- 1x Echosounder (Furuno FE-700)

MACHINERY

MAIN ENGINES:	2x CAT 3512B HD 1425kW @1600rpm resilient mounted
GEARBOX:	2x Reintjes WAF 763 on cast resin
SHAFT LUB/COOL:	2x closed stern tube with closed circuit water cooling, rubber bearings
PROPELLERS:	2x fixed pitched propellers, □ 2,0m, 5 blades, Piening
NOZZLES:	2x high efficiency type suitable also for backwards operation
STEERING GEAR:	2x twin blade rudders and steering gear (Data)
AUXILARY:	2x 250kW power-pack with 120kW hydraulic and 96kWe alternator (MAN-Lindenberg)
PORT GENSET:	1x approx. 40kWe
BOW THRUSTER:	1x 200 kW hydraulic (Schottel)