

AZIMUTH STERN DRIVE TUG 2913

“ARCANGEL SAN RAFAEL”

GENERAL

Yard number	513102
Delivery date	May 2017
Basic functions	Push-pull, towing, mooring and fire-fighting operations
Classification	I * HULL • MACH Escort Tug Unrestricted Navigation AUT UMS INWATERSURVEY Fire-Fighting Ship 1 (without water spray)
Flag	Panama
Owner	Meyers Group

DIMENSIONS

Length overall	29.10 m
Beam overall	13.23 m
Depth at sides	5.35 m
Draught aft	5.70 m
Displacement (98% consumables)	780 t

TANK CAPACITIES

Fuel oil	186.7 m ³
Fresh water	17.2 m ³
Sewage	5.2 m ³
Lubrication oil	4.4 m ³
Dirty oil	2.7 m ³
Sludge	2.4 m ³
Bilge water	5.1 m ³
Foam	9.1 m ³
Hydraulic oil	0.36 m ³

PERFORMANCES

Bollard pull ahead	81.9 t
Bollard pull astern	77.4 t
Speed ahead	13.7 kn
Speed astern	13.4 kn

PROPULSION SYSTEM

Main engines	2x Caterpillar 3516C TA HD/D
Total power	5050 bkW (6772 bhp) at 1800 rpm
Thrusters	2x Rolls Royce US255 P30 FP
Slipping clutches	Rolls Royce 'built in' type
Propeller	2800 mm
Forced ventilation	40.000 m ³ /h

AUXILIARY EQUIPMENT

Generator sets	2x Caterpillar C7.1 TA, 230/400 V, 125 kVA, 50 Hz
General service pumps	2x Sterling AKHA 6101 each 34 m ³ /h
Fuel pumps	Sterling AKHA 5101 and AOHA 3101
Fuel oil purifier	Westfalia OTC 3-02-137, 1740 l/h
Bilge water separator	Facet 0.5 m ³ /h
Cooling system	Box cooling + anti-growth system
Fresh water pressure set	Sterling HBK 111 / AOHA 3101
Hydraulic system	Double main engine driven pumps
Sewage treatment plant	Hamann Supermini Plus
Fifi set	Diesel driven pump 2400 m ³ /h (FIFI 1)
Fifi monitors	2x 1200 m ³ /h, water/foam

DECK LAY-OUT

Anchor	2x 495 kg Pool (High Holding Power)
Anchor/towing winch	Hydraulically driven two speed winch with double drum and warping head, pull 38 ton at 11.4 m/min, slack rope speed 35 m/min, 200 ton brake
Capstan	5 ton at 15 m/min
Crane + winch	Heila HLM 20-3S + 2000 kg winch
Towing winch aft	Hydraulically driven two speed winch, pull 38 ton at 12 m/min on second layer, reduced pull up to 38 m/min on second layer, 200 ton brake
Towing hook aft	Mampae Disc type 100 ton
Workboat	1x 4-meter inflatable workboat with 25 hp outboard engine
Fendering	D-fender at sides, cylinder fender at transom corners, D-fender at stern, cylinder bow fender and W-block fender with water spray.

ACCOMMODATION

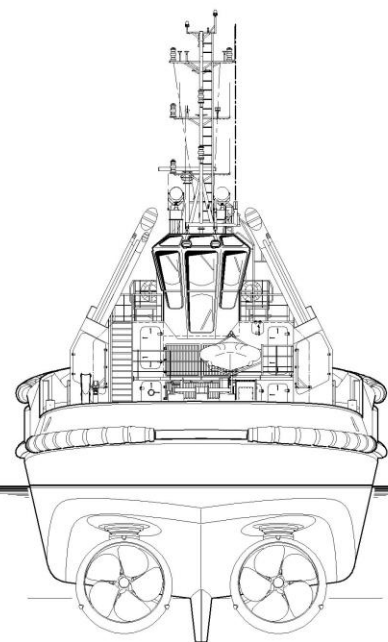
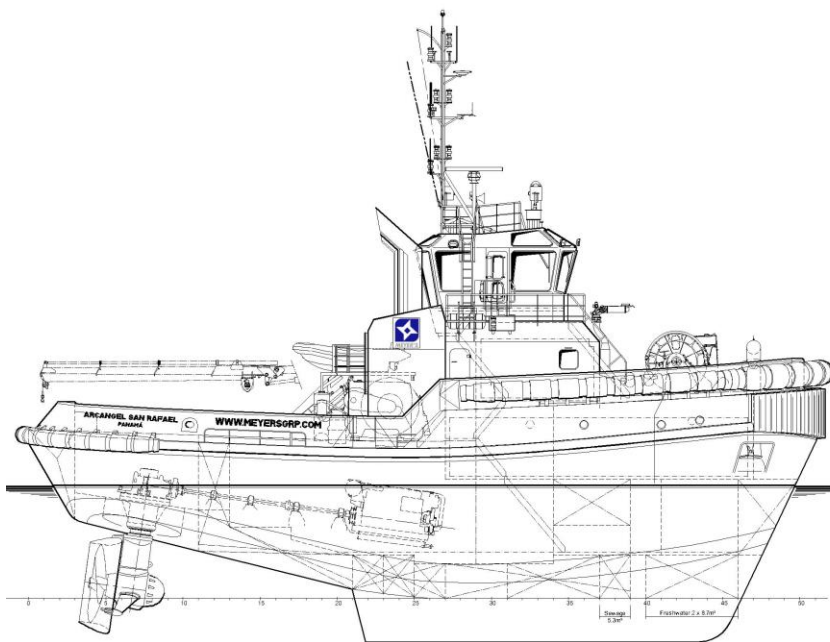
For 10 persons, insulated and finished with durable modern linings, acoustical ceiling in the wheelhouse, floating floors and air-conditioned. With 6 cabins, galley, mess/dayroom, switchboard room, dry store, changing room, store, engineer's workshop and sanitary facilities.

NAUTICAL AND COMMUNICATION EQUIPMENT

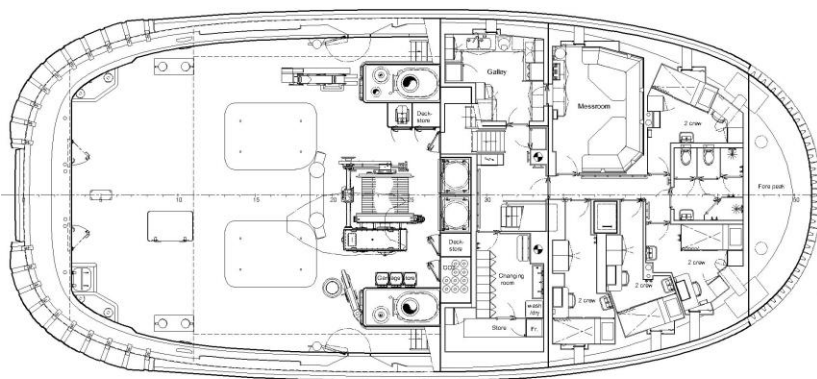
Searchlights	2x Xenon 450 W (FIFI 1)
Radar system	Furuno FAR-2117 with 19" LCD screen
Speedlog	Furuno DS-80
Compass	Magnetic Kottler
Autopilot	Simrad AP-70
GPS	Furuno GP-170
Echosounder	Furuno LS-6100
VHF	2x Sailor Compact 6222, 25 W
VHF hand-held	2x Jotron Tron TR-20
SSB	Furuno FS-1575
Inmarsat	2x Furuno Felcom 18
Navtex	Furuno NX-700A
AIS	Furuno FA-150
EPIRB	Jotron Tron-60S
Sart	Jotron Tron Sart 20
Anemometer	Windsonic OMC 115

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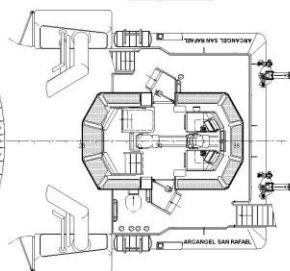
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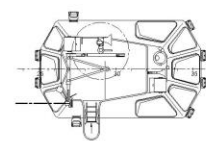
Main deck



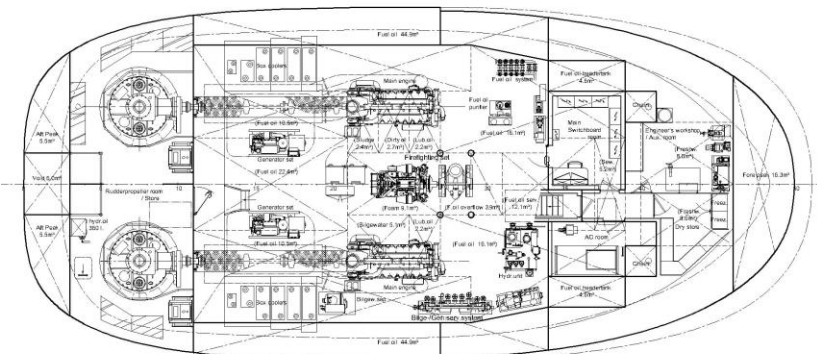
Bridge deck



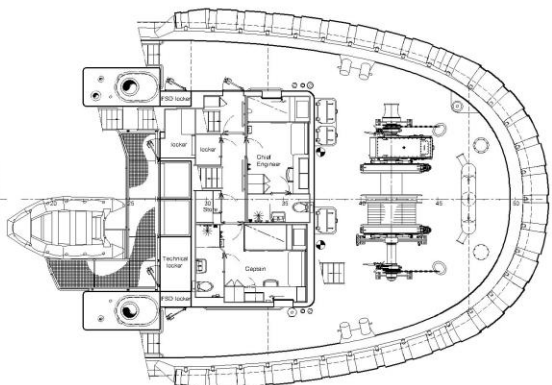
Top deck



Below Main deck



Forecastle deck



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