

DMS Challenger

58 M - 3000 BHP - MPSV

Vessel Specifications



Vessel Specifications

Registration

Year built / builder	2004 / Fujian Mawei Shipbuilding Ltd., China
Flag / Port of registry	Marshall Islands / Majuro
Class	ABS, +A1, fire-fighting vessel class 1, offshore support vessel, E +AMS
Managers	Topaz Marine

Dimensions

Length overall	57.5 m
Breadth moulded	13.8 m
Depth moulded	5.5 m
Draft	4.5 m
Deadweight	1350 t
Registered tonnage	GRT 1387 t / NRT 416 t

Machinery

Main engines	3000 bhp - 2 x 1500 bhp @ 1800 rpm, Caterpillar 3512B
Propulsion	Fixed-pitch 360° Azimuths SRP 1010FR, Schottel
Bow thrusters	1 x Schottel STT330LK CPP, electric motor drive, 343 kw, 5 t thrust
Main generator	3 x Caterpillar 3408, 280 kw each, 415 v / 50 Hz / 3 ph, diesel driven
Emergency generator	1 x 65 kw 415 v / 50 Hz / 3 ph, diesel driven
Oily water separator	1.0 m ³ / hr with 15 ppm alarm, make: Hamworthy
Sewage treatment plant	1 x 50 person capacity, make: Hamworthy ST-4A

Deck crane

Starboard side	Sormec Marine Telescopic Boom Crane – M460/3S Maximum outreach in horizontal position: 36.5 m radius SWL 5 tons @ 36.5 meters working radius SWL 10 tons @ 23 meters working radius SWL 18 tons @ 7.5 meters working radius
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Capacities 100%

Fuel oil	451 m ³
Fresh water	199 m ³
Water ballast / drill water	363 m ³
Liquid mud	162 m ³
Bulk cement	187 m ³ (4 x 1650 ft ³)
Lube oil	5.3 m ³
Dispersant / foam	13.5 m ³ each
Freezer and cooler	15 m ³ and 8 m ³
Clear deck area	376 m ²
Deck cargo capacity	500 t @ 7 t / m ²

Transfer rates

Fuel oil	1 x 150 m ³ / hr @ 75 m head
Fresh water	1 x 100 m ³ / hr @ 75 m head
Drill water	1 x 100 m ³ / hr @ 75 m head
Liquid mud	2 x 75 m ³ / hr @ 75 m head
Cement system / bulk	2 x 13 m ³ / min, 5.6 kg / cm ² (80 psi) working pressure

Performance

Max speed	12 knots
Service speed	10 knots

Towing / anchor handling / mooring

Anchor windlass	1 x electro hydraulic with 2 cable lifters and 2 warping drums Make: South China Marine
Anchor chain	1 x 192.5 m & 1 x 220 m x 34 mm diameter, grade U2 stud link chains
Anchors	2 x 1590 kg high-holding power
Capstan	2 x 5 t @ 15 m / min electro hydraulic

Vessel Specifications

Navigation and communication

Inmarsat C	2 x Furuno RC 1800 T
GMDSS	Furuno FM-8500, Area A3
X-band radars	1 x Furuno FR 1510, 1 x Furuno FR 2125
GPS plotter	1 x Furuno GP-80
AIS	1 x Furuno FA 100
Autopilot	1 x Anschutz Keil
Navtex receiver	1 x Furuno NX 500
Gyro compass	1 x Raytheon Standard 20
Magnetic compass	1 x Classen & Plath
Communications: data / fax / phone	1 x Sailor / Mini M TT 3064A
MF / HF SSB Radio	1 x Furuno FS 2575e
Echo sounder	1 x Furuno FE 700
MF / HF transceiver	1 x Furuno FS-1562-25
2-way VHF radio	3 x Motorola GP 340
SART	2 x Seven Star Electronics SART S-701
Speed log	1 x Furuno DS 80
Weather facsimile receiver	1 x Furuno FAX 207
Anemometer	1 x Obsermet OMC 139
EPIRB	1 x Saracom EB 10
Joystick Control	1 x Kongsberg SDP / SJS OT
VSAT	1 x 2 Astra

Fire-fighting equipment and antipollution equipment

FIFI system	FIFI Class 1 with water curtain all round
FIFI monitors	2 x 1200 m ³ / hr @ 12 bar 1 x monitor driven by main engine 1 x monitor driven by independent diesel drive (CAT 3412) 1 x monitor fitted with double barrel for foam discharge
FIFI pumps	2 x 1500 m ³ / hr @ 14 bar
Fire pumps	2 x 75 m ³ / hr
Emergency fire pump	1 x 25 m ³ / hr
Fireman outfits	6 sets
Fire extinguishers	11 x fire hydrants and fire extinguishers as per class requirements

Safety equipment

Rescue boat	1 x 6 person - rescue boat with outboard engine
Life rafts	6 x 25 person inflatable life rafts
Life buoys / life jackets	8 nos / 62 nos
MOB	2 x light smoke signal
Parachute distress signals	12 nos
Hand flare distress and smoke signals	12 nos each
First aid kit	1 no
Immersion suits	3 nos
Floodlights / searchlights	5 x 1000 w / 2 x 2000 w
Air horn / electric horn	1 no each

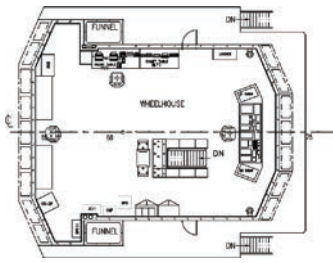
Accommodation (54 bunks)

6 x 1 berth cabins = 6 berths
10 x 2 berth cabins = 20 berths
7 x 4 berth cabins = 28 berths
1 x hospital with 2 beds

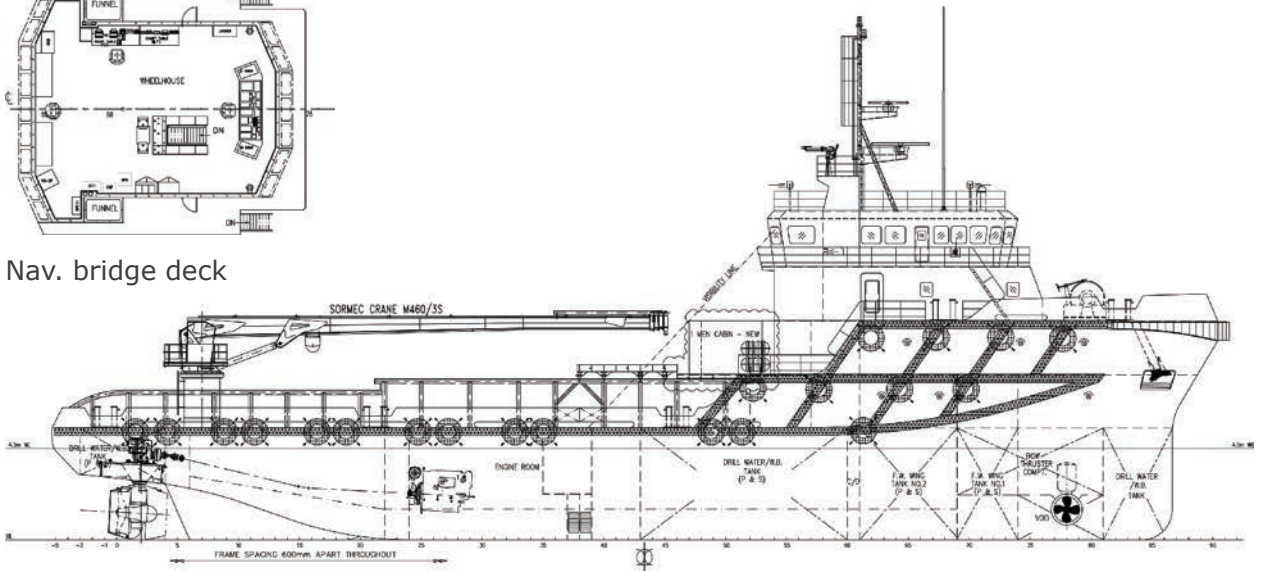
Tank Capacities

	SG	Fuel oil	Pot water	Drill water	Ballast water	Liquid mud	Brine	Base oil	Glycol	Dry bulk	Oil recovery
	m ³	0.850	1.000	1.000	1.025	2.500	2.500	0.830	1.120	2.40	1.00
F.W. Wing Tank Port	60.02		60.02								
F.W. Wing Tank Stbd	60.02		60.02								
F.W. DB Tank Centre	79.51		79.51								
DW/WB FP TK (C)	53.67			53.67							
No. 1 DW/WB TK Stbd	22.76			22.76							
No. 1 DW/WB TK Port	22.76			22.76							
No. 2 DW/WB TK Port	36.80			36.80							
No. 2 DW/WB TK Stbd	37.96			37.96							
No. 3 DW/WB TK Port	51.42			51.42							
No. 3 DW/WB TK Stbd	51.42			51.42							
No. 4 DW/WB TK Center	57.67			57.67							
No. 5 DW/WB TK Stbd	14.32			14.32							
No. 5 DW/WB TK Port	14.32			14.32							
No. 1 FO DB TK Stbd	47.43	40.32									
No. 1 FO DB TK Port	45.96	39.07									
No. 2 FO DB TK Stbd	47.65	40.50									
No. 2 FO DB TK Port	49.27	41.88									
No. 1 FO Wing Stbd	34.66	29.46									
No. 1 FO Wing Port	34.66	29.46									
No. 2 FO Wing Stbd	86.33	73.38									
No. 2 FO Wing Port	86.33	73.38									
FO Day Tank Stbd	9.37	7.96									
FO Day Tank Port	9.37	7.96									
Liquid Mud Tank # 1	94.98					237.45					
Liquid Mud Tank # 2	67.03					167.58					
Lube Oil Tank	5.30										
Foam Tank	13.45										
Detergent Tank	13.45										
Bilge Holding	6.92										
Dirty Oil Tank	6.92										
Dry Bulk # 1	46.72									112.13	
Dry Bulk # 2	46.72									112.13	
Dry Bulk # 3	46.72									112.13	
Dry Bulk # 4	46.72									112.13	
Total weight in tons		383.38	199.55	363.10		405.03				448.51	
Total volume in m³		451.03	199.55	363.10		162.01				186.88	

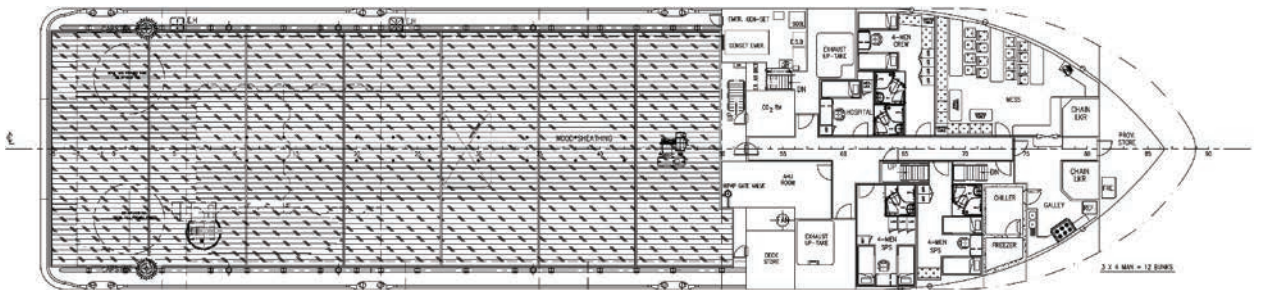
GA Specifications



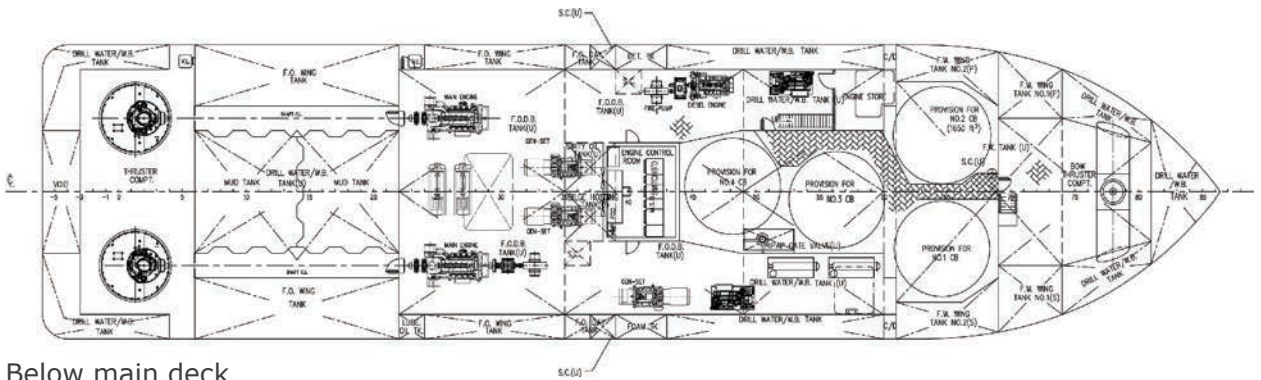
Nav. bridge deck



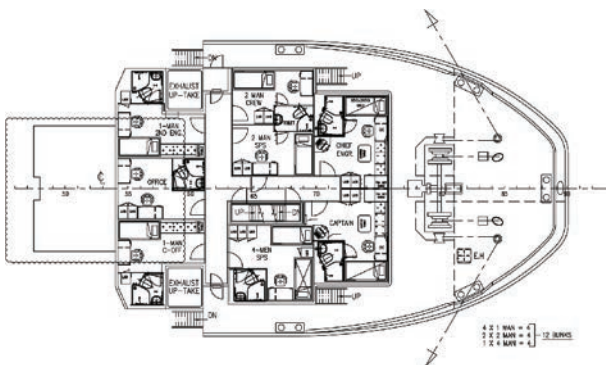
Outboard profile



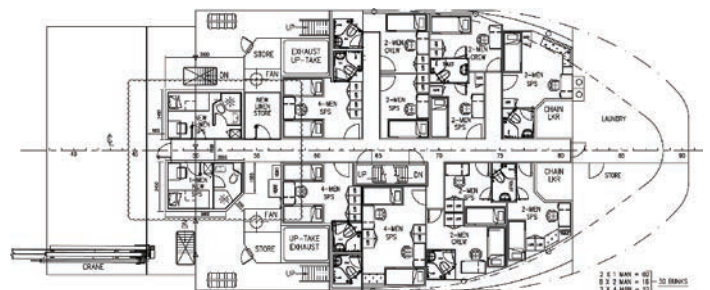
Main deck



Below main deck



Upper forecastle deck



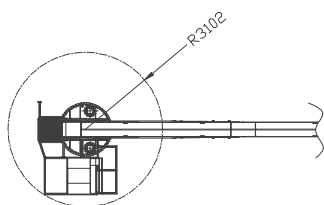
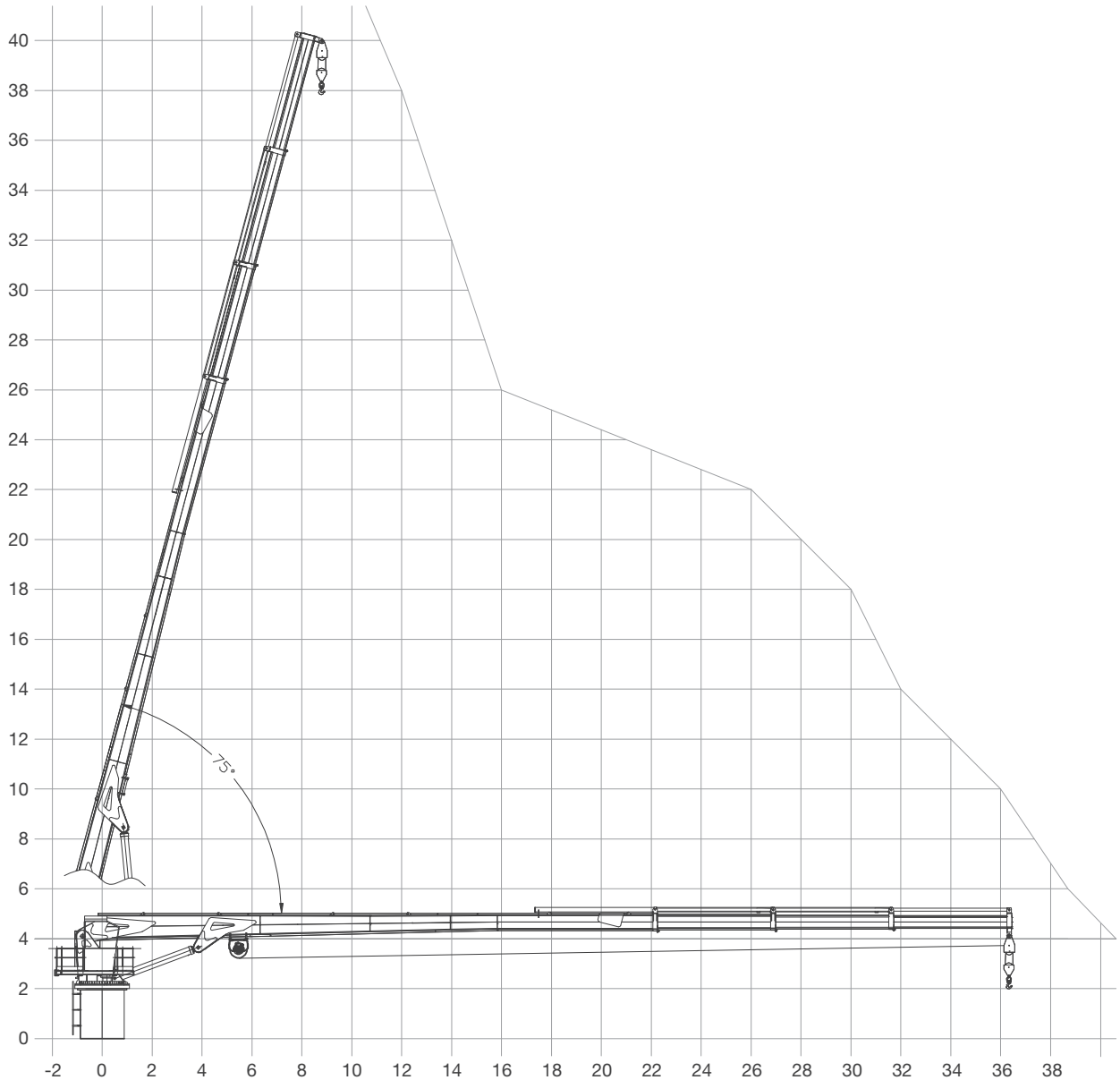
Forecastle deck

SORMEC Marine Cranes - M460/3S

Technical Data

Max. Outreach	(m)	36.5
Slewing angle		Continuous
Rotating velocity	(rpm)	0.6
Max. working pressure	(bar)	280
Recommended pump delivery	(l/min)	230
Oil tank capacity	(l)	1200

SORMEC Marine Crane is designed according to the German Crane Code DIN 15018.



HARBOUR	mm 23000	mm 27500	mm 32000	mm 36500
	kg 10000	kg 7500	kg 5900	kg 5000
SEA STATE 1	mm 23000	mm 27500	mm 32000	mm 36500
	kg 8000	kg 6000	kg 4720	kg 4000
SEA STATE 2-3	mm 23000	mm 27500	mm 32000	mm 36500
	kg 6500	kg 4875	kg 3835	kg 3250
STATIC SWL	mm 7500	mm 12000	mm 18000	
	kg 18000	kg 18000	kg 13500	
DYNAMIC SWL**	mm 7500	mm 12000	mm 18000	
	kg 10200	kg 10200	kg 8000	

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