

<b>DESIGN</b>	HAVYARD 845
<b>CLASSIFICATION</b>	DNV + 1A1, E0,TUG, SUPPLY VESSEL, SF, NAUT-OSV (A), HL (2,8), LFL*, DYNPOS – AUTR, CLEAN DESIGN, OILREC, COMF-C(3)-V(3), ICE C
<b>BUILDERS</b>	HAVYARD LEIRVIK AS
<b>FLAG</b>	NORWEGIAN
<b>MMSI</b>	259 461 000
<b>IMO NO</b>	9418042
<b>DELIVERY DATE</b>	MARS 2010
<b>CALLSIGN</b>	LAZA

DETAILS BELIEVED TO BE CORRECT, BUT NOT GUARANTEED.



## HAVILA JUPITER

*Outline spesification*



# HAVILA JUPITER

## Outline specification

### Main dimensions:

L.O.A	92.00 m
L.P.P	79.80 m
Breadth moulded	22.00 m
Depth main deck	9.00 m
Design draft	6.00 m
Max. draft midship	7.53 m

### Performance:

Speed	18.2 knots
Bollard pull	258 t, main propellers only 274 tonnes included forward azimuth

### Class/authorities

DNV + IAI, Eo, Tug, Supply Vessel, SF, NAUT-OSV (A), HL (2,8), LFL\*,  
Dynpos – AUTR, Clean Design, Oilrec, Comf-C(3)-V(3), ICE C

### Tonnage

Gross tonnage	6455 t
Dead weight	max draft 3726 t
Dead weight at 6,00 m draft	approx. 1400 t
Light ship	5821 t
Max displacement	9687 t

### Deck Cargo

Deck Cargo	1500 t
Cargo deck area	750 m <sup>2</sup>
Main deck load	10 t/m <sup>2</sup>
Main deck free length	36 m
Max width off cargo deck	18 m

### Cargo-Tank Capacities/Pumps

All pumps are hydraulic driven

Ballast /Drill water cap	3519/3519 m <sup>3</sup>
2 off Bw/Dw pumps	0-200 m <sup>3</sup> /h-9 bar

Freshwater cap	1351 m <sup>3</sup>
2 off FW pumps	0-200 m <sup>3</sup> /h-9 bar

Fuel oil cap	1436 m <sup>3</sup>
1 off FO pump	0-200 m <sup>3</sup> /h-9 bar
1 off FO pump	0-100 m <sup>3</sup> /h-9 bar

Base oil cap	221 m <sup>3</sup>
1 off BO pump	0-100 m <sup>3</sup> /h-9 bar

Liquid mud cap	529 m <sup>3</sup>
2 off Mud pumps	0-75 m <sup>3</sup> /h-24 bar

Brine cap	402 m <sup>3</sup>
2 off Brine pumps	0-75 m <sup>3</sup> /h-18 bar

Special Product cap	324 m <sup>3</sup>
4 off sp. product pumps	0-75 m <sup>3</sup> /h-9 bar

Dry bulk cargo 4 tanks	Total 262 m <sup>3</sup>
2 off compr.	each 25.6m <sup>3</sup> /min 5.6 bar

Rig chain lockers	640 m <sup>3</sup>
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### Cargo Manifolds

Main deck	Midship both side
Main deck	Aft both side

### Agitators

Mud tanks	4 off El.driven
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### NOFO 2005 Oil rec. 1350 m<sup>3</sup>

ORO pumps	
1 off	0-200 m <sup>3</sup> /h
6 off	0-100 m <sup>3</sup> /h
4 off	0-75 m <sup>3</sup> /h

### Anchor Handling/tug Equip:

1 off	500 t AHT drum/600 t break
Max cap	13600 m 76 mm wire
1 off	400 t AHT drum/600 t break
Max cap	3500 m 76 mm wire
1 off	400 t Towing drum/700 t break
Max cap	5700 m 76 mm wire
2 off secondary winches	170t max capacity 11000 m 76 mm wire Or 2557 m of 150 mm rope Or 2471 m of 160 mm rope Or 2058 m of 170 mm rope Or 1996 m of 180 mm rope Or 1629 m of 190 mm rope Or 1565 m of 203 mm rope Or 1261 m of 210 mm rope

Split stern roller	2x3 m x dia. 4.5 m, MWL750 tonnes
2 off tugger winches forward	24 t
2 off tugger winches aft	20 t
1 off tugger winch forward	20 t
1 off tugger center forward	17 t
2 off RRM hydr rail crane	
Type AH55 SWL	3 tonnes 11-15.3 m 5 tonnes 3.4-11 m 7.5 tonnes 6 m 15 tonnes 3 m

with chain claw, wire twister and bracket for SDO tool	
2 x 76 mm Gypsies	fitted on winch
2 x 84 mm Gypsies	stored on board
1 x 95 mm Gypsies	stored on board
1 x 120 mm	stored on board
2 off Rolls Royce	Shark jaw/800 t SWL with chain-wire inserts: 2 x 50-70 mm, 2 x 76-95 mm, 2 x 100-120 mm, 2 x 125-166 mm

2 off Rolls Royce	Sentering device/14 t SWL
2 set off Rolls Royce	Towing pins/275 t SWL
1 off J-hook	250 t SWL
1 off Grapnel	250 t SWL
1 off	Odim ARF for less tension when recovering anchors to deck
4 off	rig chain lokkers 630 m
Locker cap	2x2050 m 76 mm chain
Locker cap	2x2100 m 76 mm chain or
Locker cap	2x1550 m 84 mm chain
Locker cap	2x1680 m 84 mm chain

### Tow Wires/Work Wires

Main Tow wire	1500 m 90 mm/NBL 659 t
Spare Tow wire	1500 m 90 mm/NBL 659 t
Work wire 1	2500 m 90 mm/NBL 659 t
Work wire 2	1000 m 90 mm/NBL 659 t
Jack up wire	50 m 77 mm
Smit bracket	500 tonnes

### Consumption at 6.25 m draft

Max speed	18.1 knots 80.5 t/day
	2 x diesel electric 11.2 knots 20.6 t/day
	3 x diesel electric 12.9 knots 30.0 t/day
	13.4 knots 33.0 t/day
	15.6 knots 49.5 t/day
For AH operations	25 t/day
For DP operations	8.5 t/day
Port	2.0 t/day

### Flow Meters

Flow meter for fuel with printer

### Anti Rolling System

Roll reduction tanks  
2 off stabilizing tanks

### Rudder

Two off RRM High Lift flap rudders  
Two off RRM Tenfjord steering gears

### Side thrusters

1 off sidethrusters forward	TT 2400, 1200 kW
1 off azimuth thruster forward	TCNS 92, 1500 kW
2 off sidethruster aft	TT 2000, 1200 kW each

### Deck machinery

1 off rope reel	10 t
1 off hydr. deck crane	15 t/15 m
2 off RRM hydr rail crane Type AH55 SWL	3 tonn 11-15.3 m 5 tonn 3.4-11 m, 7.5 tonn 6 m and 15 tonn 3 m

with chain claw, wire twister and bracket for SDO tool

### Rov Equipment

1 off Odim LARS Overhead launch and recovery system for WROV rated for 3000 m Operation

### A-FRAME

1 off Hydralift Offshore Pedestal Crane	250 t
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Model A0250 t P10138/ T7344  
For 250 tonnes with single wire max outreach from sternroller approx. 8.00 m  
Using topwheel 189 tonnes outreach from sternroller 12.7 m  
(to be used above sealevel only)

### Propulsion:

2 off MAK type 12M32C	total 12000 kW
2 off El motor	total 5200 kW
Total propulsion power	17200 kW
2 off RRM, Kamewa Ulstein, CP propeller	4600 mm in nozzle
6 off SCR Catalyzers type H+H	

### Generators:

Two off shaft gen each 5200 kva, 4680 ekW 690 V, 60 Hz

### Harbour/Emergency gen set

4 off Aux. generators	each 2100 ekW 690 v 60 Hz
1 off Emergency/harbour gen.	300 ekW 690 v 60 Hz

### Accomodation 60 persons

16 off	single cabins
20 off	double cabins
1 off	four men cabin

1 off	deck office
1 off	conference room
1 off	hospital
1 off	client office
1 off	ROV controll room

### Navigation EQUIPMENT

1 off Furuno S-band ARPA Radar, model FCR-2837S (Chartradar)
1 off Furuno X-band ARPA Radar, model FAR-2827
1 off Furuno DGPS Navigator model GP-150
2 off Furuna ECDIS, model TECDIS T-2136
3 off Gyros Sperry Navigat X MK1
1 off AUTOPILOT, Navipilot 4000
1 off Magnetic Compass Navipol II
1 off Skipper Navigational Echo Sounder GDS 102 (IMO Aproved)
1 off Dopler Log, NAVIKNOT 450
1 off Furuno Weather Faximile, model FAX-30
1 off Furuno AIS Transponder, model FA-150
1 off Furuno VDR VR-3000 System
1 off Phonetec Sound Reception System, model VSS-111
1 off Bridge Warch Monitoring System

### COMMUNICATION EQUIPMENT GMDSS A 4

1 off Furuno MF/HF/ SSB RADIOSTATION model FS 2570
1 off Furuno NX-700B NAVTEX RECIVER
2 off Jotron 40S/45SX EPIRBS
2 off Jotron Radar Transponder, model TRON SART
3 off Jotron GMDSS approved portable VHF, model TRON TR-20
2 off Furuno INMARSAT-C w/EGC, model Felcom15
1 off Furuno SSAS, part off Inmarsat-c model Felcom
2 off Furuno VHF/DSC Simplex, model FM 8800S
1 off Sea-tel V-Sat
1 off Thrane & Thrane fleet broadband 500 telephone
2 off Motorola GSM telephone
2 off Furuno VHF Simplex, model FM2721
6 off Motorola GP 340 EX Portable VHF, EX Approved
6 off Motorola GP 380 EX Portable UHF, EX Approved
1 off Furuno Conning System, 4 monitors (2x19"+2x15")
3 off Motorola UHF Fixed for bridge after & ECR, model GM380

### DP II System

Dynpos AUTHR
2 off Rolls Royce Icon DP
1 off Cyscan
1 off Veripos LHD2-GG1
1 off Veripos LHD2-GG2
2 off wind sensors
1 off Hipap 500

### Entertaining Equipment

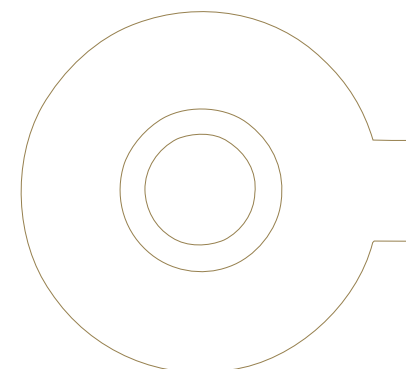
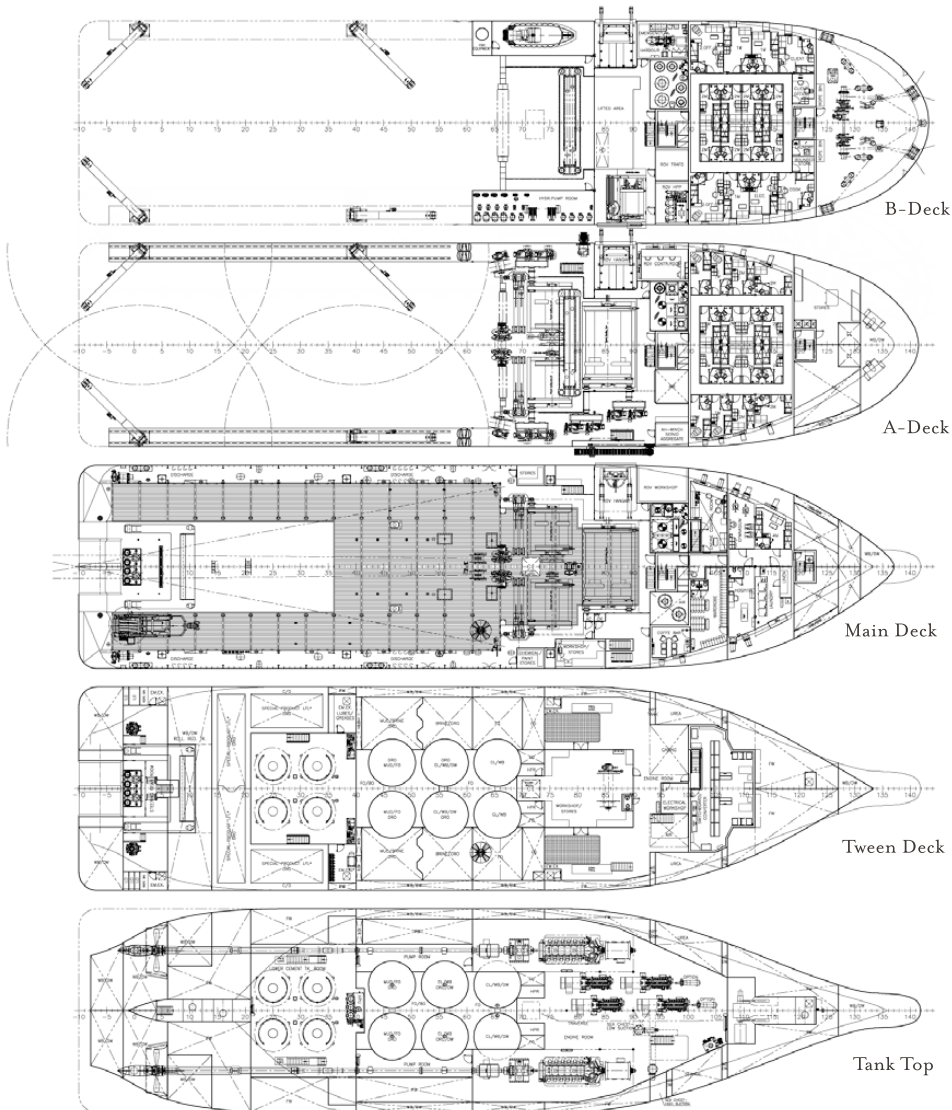
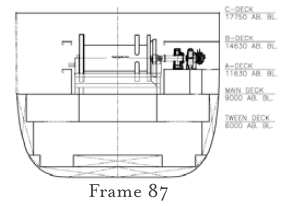
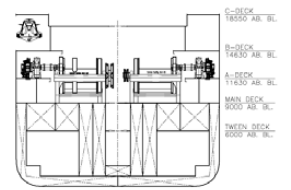
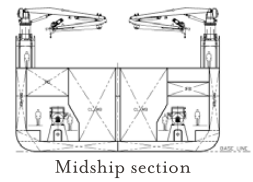
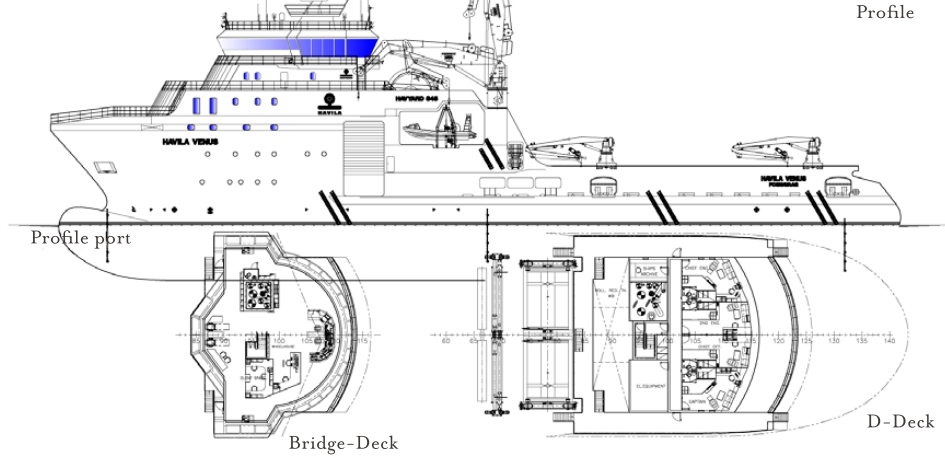
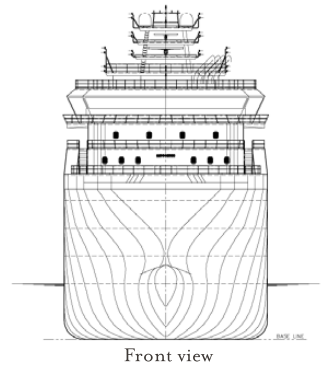
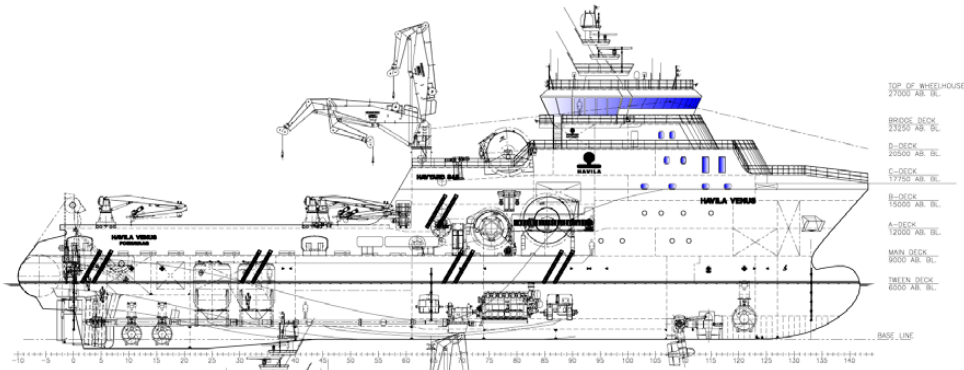
Sat TV: Sea Tel
Rack with 7xTuners
1 off TV /Radio/CD/DVD inn all Crew cabins

### Incinerator

1 off Teamtec
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### Safety equipment

Safety equip. according to SOLAS for 60 persons
Alusafe 770 Mob boat
Rescue boat davit: TTS Marine HL9D
Equiped with safe anchor handling package from RRM



## CARGO CAPACITY PLAN

TANK No.	Volume M <sup>3</sup>	Fuel M <sup>3</sup>	Pot Water M <sup>3</sup>	Ballast Water M <sup>3</sup>	Mud SG 2.8 M <sup>3</sup>	Brine SG 2.5 M <sup>3</sup>	Base Oil M <sup>3</sup>	Dry Bulk M <sup>3</sup>	ORO	Spec. Prod. SG 1.5
1	227.0			227.0						
2 SB	289.0		289.0							
2 PS	294.0		294.0							
3 SB	47.5			47.5						
3 PS	70.2			70.2						
4 SB	39.9	39.9								
4 PS	140.4	140.4								
5 SB	136.2			136.2						
5 PS	111.9			111.9						
8 SB	40.4			40.4						
8 PS	40.4			40.4						
9 SB	131.6			131.6						
9 PS	131.6			131.6						
10 SB	253.7			253.7						
10 PS	253.7			253.7						
11 SB	134.3	134.3								
11 PS	129.5	129.5								
12 SB	53.8		53.8							
12 PS	53.8		53.8							
13 SB	67.5		67.5							
13 PS	67.5		67.5							
14 SB	75.8			75.8						
14 PS	75.8			75.8						
16 SB	38.1	38.1								
16 PS	40.2	40.2								
17 SB	23.6	23.6								
17 PS	23.6	23.6								
19 SB	74.0	74.0								
19 PS	80.3	80.3								
20 SB	94.3					94.3			94.3	
20 PS	94.3					94.3			94.3	
21 PS	107.0				107.0	107.0			107.0	
21 SB	107.0				107.0	107.0			107.0	
22 PS	189.5			189.5						
22SB	189.5			189.5						
25 PS	75.5								75.5	75.5
25 SB	75.5								75.5	75.5
26 PS	86.9								86.9	86.9
26 SB	86.9								86.9	86.9
27 ROLL	317.4		317.4	317.4						
31 PS	72.9			72.9						
31 SB	72.9			72.9						
38 FO	42.2	42.2								
42 PS	151.2			151.2						
42 SB	151.2			151.2						
43 PS	157.5			157.5					157.5	
43 SB	157.5			157.5					157.5	
44 PS	157.5	157.5			157.5				157.5	
44 SB	157.5	157.5			157.5				157.5	
45 FO	133.3	133.3								
46 FO/BA	221.6	221.6					221.6			
47 WB	89.3			89.3						
48 WB	37.8			37.8						
49 ROLL	192.6			192.6						
50 PS	104.2		104.2							
50 SB	103.8		103.8							
63 WB	138.4			138.4						
1 CEM	65.7							65.7		
2 CEM	65.7							65.7		
3 CEM	65.7							65.7		
4 CEM	65.7							65.7		
<b>TOTAL</b>	<b>6973.3</b>	<b>1436.0</b>	<b>1351.0</b>	<b>3513.5</b>	<b>529.0</b>	<b>402.6</b>	<b>221.6</b>	<b>262.8</b>	<b>1357.4</b>	<b>324.8</b>

1 M<sup>3</sup> = 6.289 BARREL (BBLs)    1 M<sup>3</sup> = 35.315 F3



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