

# RV JAVA ILLITHYIA



Suited for various offshore operations

- Site investigation for pre-drilling requirements
- Geotechnical investigations for port infrastructures, terminal plants and pipeline shore approach
- Shallow gas investigations including deep pilot holes up to 500m depth below sea level
- Geophysical and Debris Survey operations
- DP2 capability allows operations in water depths up to 300m

RV Java Illithyia is our latest addition of a dedicated dual-purpose geotechnical and geophysical vessel operating out of South East Asia. She has been given a Special Service Research Ship Class Notation with dimensions of 88m length and 18m width. Her main propulsion comes in the form of 2 x 2000 BHP main engines whilst lateral maneuvering is assured by 1 x 800 HP and 3 x 500 HP thrusters.

RV Java Illithyia is equipped with a Kongsberg DP2 and 4-point mooring system to ensure stable position holding in challenging waters of up to 2-3m swell and 25knots of wind speed. She is able to undertake geotechnical campaigns in open waters or close to offshore structures such as platforms and subsea pipelines making her a robust solution for clients.

RV Java Illithyia is setup as a Dedicated Geotechnical Vessel but has ample space to fit a complete spread of Digital and Analogue Survey Equipment. This dual purpose setup gives clients the opportunity to conduct subsequent Geophysical and Geotechnical Surveys with a single mobilization, especially beneficial in remote locations to optimise on costs.

Apart from her operational capabilities, RV Java Illithyia has spacious accommodation for 55 personnel, a sick bay, prayer room, lounge, a dedicated office, offshore laboratory as well as an onboard processing and reporting facilities.

## TECHNICAL SPECIFICATIONS

### GENERAL INFO

Vessel Name	RV Java Illithyia
Vessel Notation	Special Service Research Vessel
Built	1974 / rebuilt 2009 / converted 2018
Flag	Malaysia
Port of Registry	Port Kelang
IMO Number	7382885
Class	RINA (Registro Italiano Navale)
Dynamic Positioning	Kongsberg Simrad KPOS-21 Consoles certified DPS2

### PRINCIPLE DIMENSION

Length Overall	88.00 meters
Beam	18.00 meters
Breadth Moulded	18.00 meters
Draft	7.10m
Summer Draught	4.32m
Deck Area	772.16m <sup>2</sup>
Gross Tonnage	2685 tons
Net Tonnage	806 tons
Dead Weight Tonnage	2350 tons

### CAPACITIES, ENDURANCE & CONSUMPTIONS

Fuel/MGO	1400m <sup>3</sup>
Potable Water	900m <sup>3</sup>
Ballast Water	1164m <sup>3</sup>
Maximum speed	12 knots
Economic speed	10 knots

### CRANE, DECK & MOORING CAPABILITIES

Moon Pool	3.2 x 3.2 meters
Crane	15 tons (12 tons SWL)
Anchor Winches	4 x 35 Tonne Rated System
Tugger Winches	2 x 25 ton line
CCTV	40" twin screens from bridge to aft deck
Mooring System	4 Point Mooring with 5T Delta Flipper Anchors with Bridge Control and Tension Meter

### MACHINERY, PROPULSION

Propulsion	2 x 2000 BHP 600 RPM MAK Type 6M453 AK
Propulsion control	Port & Stb Wings, main bridge, aft deck controls via remote Ulstein system KPOS DP2 Rolls Royce POS Joystick control
Type of propellers	Variable Pitch Propeller
Thruster s	Bow thruster 2 x 500 BHP Stern thruster 1 x 500 BHP Stern thruster 1 x 800 BHP
Rudders	2 x spade rudders
Generators	2 x 900KW 3 x 250KW 1 x Emergency Generator 220V / 440V 60hz AC

### DYNAMIC POSITIONING CONTROL DP2

Type	Simrad HIPAP Hydro Acoustic system with remote control transducers
DGPS IALA + Simrad	3
DPS GPS	
Gyro Compass	3
VRM Pitch, roll	2
Wind Referencing	2
HIPAP	Kongsberg

### ACCOMODATION & FACILITIES

Crew Accommodation	55 persons
Hospital	1
Office	1
Cinema Lounge / TV	1
Resting Lounge	1

## NAVIGATIONAL AND COMMUNICATION

### NAVIGATION EQUIPMENT

Radar No 1	Furuno FR-2115 ARPA
Radar No 2	Furuno FR-1510DA
Auto Pilot	Plath Liffa Marine System 0031
Joystick	Rolls Royce P Joystick System V3
GPS Receiver	Furuno GP 32 & Furuno GP 90
Echo Sounder	Furuno LS 4100
Gyro Compass	Plath Liffa Marine System SR 180 Meridian Gyro Compass
Navtex Receiver	Furuno NX 500
Facsimile Receiver	Furuno 208c Weather Fax

### ELECTRIC POWER GENERATION

Diesel Engines	3 x General Motors Detroit ALLISON 12V71
Alternators	2 x 900KW Shaft Generators Type Siemen 1FB3/260 Type Electric Con Ltd BRF 400A
Electric Systems	Power Services 440 v3 Phase 3 Wire 60Hz
Harbour Generator	Type MO 453B, 440v 183A, 60Hz
Emergency Diesel Lister	Type ST3MA, 14.6 HP, 1800 RPM coupled to DAE

### RADIO COMMUNICATION EQUIPMENT

Inmarsat Type C	2 x Trimble Galaxy (GMDSS)
Inmarsat Type B	NERA SATURN B
Radio System	SEA HF
Positioning Data	IALA VSAT
SSB Transciever	Furuno FS 1562-25 (GMDSS)
DSC Terminal/Receiver	Furuno VHF DSC-6A (GMDSS)
Radiotelephone	2 x Furuno VHF FM 8500 (GMDSS)
VHF Marine Radio 1	Uniden MC 535
VHF Marine Radio 2	Icom IC-M45
VHF Marine Radio 3	3 x Portable Navico SRH 150 Emergency (GMDSS)
VHF Marine Radio 4	2 x Portable Navico SRH 250
UHF Radio	2 x Portable ICOM IC-F3002
VSAT System	Satcom Global - Sailor (512kbps upgradeable) with Fire wall, Router and Wi-Fi

## SAFETY SPECIFICATION

### SAFETY EQUIPMENT FOR CREW

Rescue Rib	Avon 5.4m—Launch 1x1.5T	Rescue Boat (SOLAS)	6 persons
	Davit	Life Raft Capacity	12 Persons
Mariner OB Engines	60hp capable of 20 knots		25 Persons
Radio	GMDSS A3	Number of Life Rafts	8

## GEOTECHNICAL CAPABILITIES

### DRILLING SYSTEM

Derrick Height	23.0m
Draw works	Kinematics Inc KPL22
Top drive	Dando 500
Heave compensation	+/- 3m
Mud pump	Gardner Denver 5"x10" (130GPM) Gasco Pump 4"x10" (100GPM)
Mud tanks	3 tanks with total 5000 gallon
Drill string	5 inch API pipes 4.5 IF connection 15ft length
Drill pipes	350m depth using 5" drill pipes 500m depth using 3.5" drill pipes
Seabed frame	10 tonnes
Shear Ram System	Available

### DOWNHOLE SAMPLING AND TESTING

Wireline PCPT	1m/3m WISON-APB 450m 1m Shelby Sampler
Dissipation Test	on request
Rock coring	Rokmax 6.5OD x 4 tools NC50 connection
Wireline logging	PS Logger
Vane Shear	APVD Berg Vane Shear System
Seismic PCPT	Seismic CPT System (on request)

### GEOTECHNICAL ONBOARD LABORATORY

Photography
Sample description
Moisture content
Bulk/dry density
UU Triaxial Test
Motorized Vane Shear
Torvane
Pocket Penetrometer
Carbonate Content Test

### SEDIMENT SAMPLING (UPON REQUEST)

Box corer	0.5m x 0.5m
Vibro corer	3m and 6m length
Drop corer	3m and 6m length
Piston corer	3m and 6m length
Grab Sampler	0.1m x 0.1m

### REPORTING

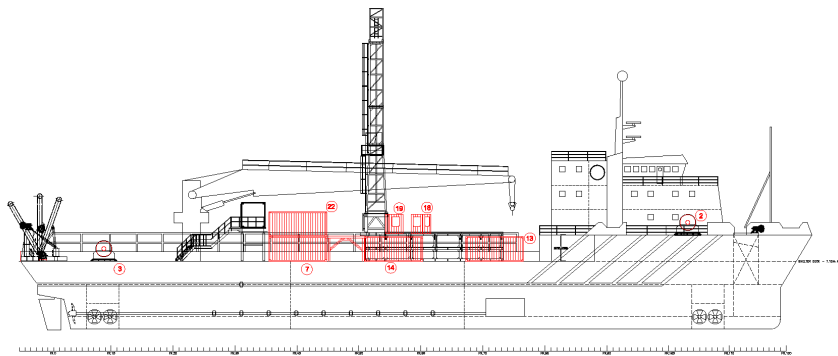
Offshore field reporting and real-time engineering analysis (e.g. jack-up leg penetration analysis and preliminary pile capacity analysis).

## GEOPHYSICAL CAPABILITIES

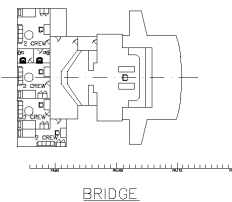
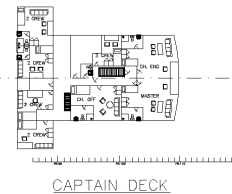
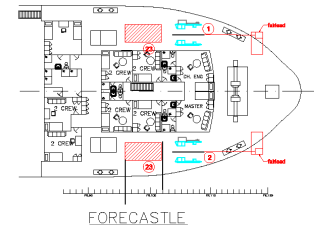
### GEOPHYSICAL CAPABILITIES (UPON REQUEST)

Single Beam Echo Sounder	Echotrac MK III
Multi Beam Echo Sounder	Reson 7101
Side Scan Sonar	Edgetech 4200-FS
Magnetometer	Marine Magnetic Seaspay
Sub Bottom Profiler	Applied Acoustic Boomer
Navigation	Qinsy Navigation System
Positioning	Veripos LD4
Gyro Compass	TSS Meridian Surveyor
USBL	Sonardyne Scout USBL

# GENERAL ARRANGEMENT

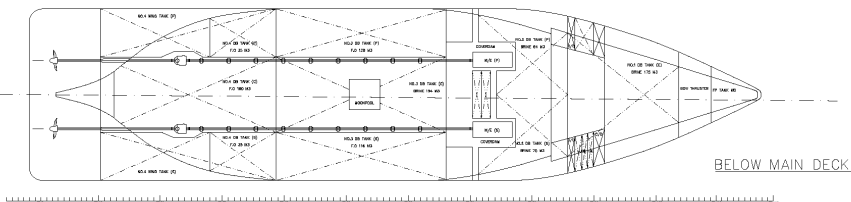
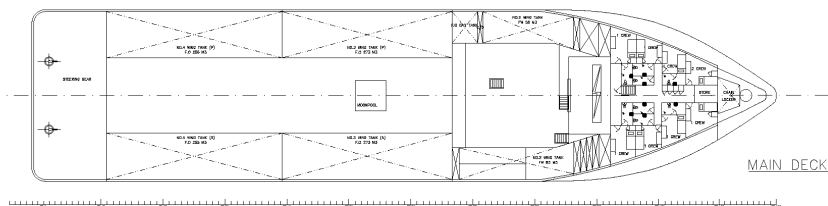
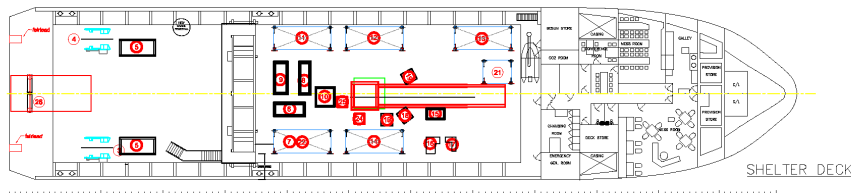


TOP OF WHEELHOUSE  
BRIDGE DECK  
CAPTAIN DECK  
FORECASTLE DECK  
SHELTER DECK  
MAIN DECK  
BELOW MAIN DECK



**PRINCIPAL PARTICULAR**  
LOA 82.35 M  
B 19.00 M  
Depth 7.31 M  
Summer Draft 4.32 M

**LIST DRILLING EQUIPMENT**  
1. ANCHOR WINCH 1 (35 TON PULL)  
2. ANCHOR WINCH 2 (35 TON PULL)  
3. ANCHOR WINCH 3 (35 TON PULL)  
4. ANCHOR WINCH 4 (35 TON PULL)  
5. WINCH POWERPACK AFT 4 ton  
6. POWER PACK BACKUP Weight 4.8 ton  
7. POWER PACK CONTAINER Weight 7.0 ton  
8. GENSET NO.1 Weight 4.8 ton  
9. GENSET NO.2 Weight 4.8 ton  
10. C.P.T. WINCH 1 UNIT @ 4.5 ton  
11. WORKSHOP CONTAINER Weight 8.0 ton  
12. AIR BANK CONTAINER Weight 8.7 ton  
13. LABORATORY CONTAINER Weight 6.0 ton  
14. MUD TANK CONTAINER Weight 5.5 ton  
15. MUD POWER PACK Weight 4.5 ton  
16. MUD PUMP 1 Weight 3.0 ton  
17. MUD PUMP 2 Weight 3.0 ton  
18. DRILLING CONSOLE  
19. C.P.T. CONSOLE  
22. MUD TANK STORAGE Weight 10 ton  
23. WINCH POWER PACK FWD Weight 4 ton  
24. UMBILICAL WINCH #1  
25. UMBILICAL WINCH #2  
26. A-FRAME



DATE	MODIFICATION DETAIL / DESCRIPTION OF CHANGE	REV	BY
17/12/2018	Check	01	YUDI
26/03/2018	Check	02	PAUL
06/04/2018	Check	03	PAUL
26/03/2018	Check	04	PAUL
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\*The vessel specifications may change from time to time

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