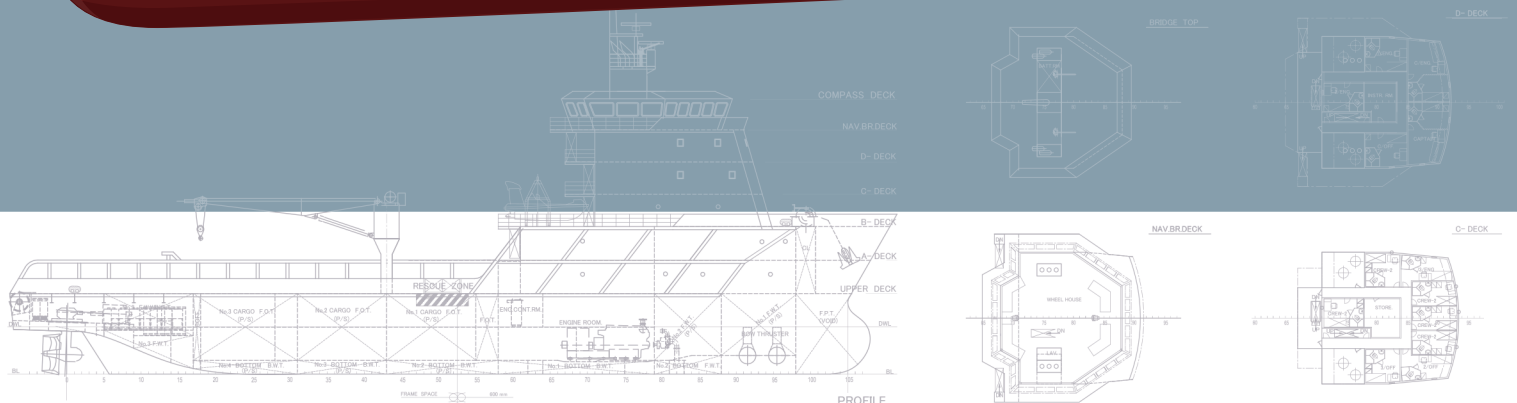


JAPAN PACKAGE FOR MULTI PURPOSE SUPPLY VESSEL



MPSV – OUTLINE PARTICULARS

ITEM	PARTICULARS
GENERAL	
Kind of the Vessel	Offshore Support Vessel (Multi Purpose Supply Vessel)
Navigation Area	Ocean Going, Worldwide
Operation Area	Mainly shallow water area of Asia, Middle East, Africa
Classification	ABS,  A1, Offshore Support Vessel (FFV 1), AMS, DPS-2, SPS, UWILD
Regulations	SOLAS, MARPOL (NOx : Tier III, SOx : Suitable FO), ILLC, COLREG, MLC, BWM, AFS
Standard, Workmanship	JIS, JSCS or other authorized standard in general
PRINCIPAL DIMENSIONS	
Length (o.a.)	approx. 71 m
Length (p.p.)	63.0 m
Breadth (mold)	16.6 m
Depth (mold)	6.5 m
Draught (designed)	3.8 m
Draught (scantling)	4.5 m
CAPACITY	
Gross Tonnage	approx. 2,700
Deadweight (d = 3.8 m)	approx. 1,300 t
Deadweight (d = 4.5 m)	approx. 1,900 t
Tank	
Fuel Oil (for cargo)	approx. 1400 m ³ (Flashpoint > 60℃)
Fuel Oil (for sailing of the vessel)	approx. 180 m ³ (Flashpoint > 60℃)
Fresh Water (for cargo)	approx. 450 m ³
Fresh Water (for the vessel)	approx. 80 m ³
Cargo Deck (Upper Deck)	
Deck Area	approx. 500 m ² (approx. 13.6 m (B) x 37 m (L))
COMPLEMENT	
Crew	16 persons
Others	44 persons
PERFORMANCE	
Speed	approx. 12.5 kts
MACHINERY	
Main Generator Set	4 sets
Rated Revolution	Medium Speed (720 or 900 min ⁻¹)
Fuel	Marine Diesel Oil (Low sulfur fuel)
Cooling	Central Fresh Water Cooling
SCR	1 set / engine Catalytic reactor using urea water, IMO Tier III
Generator	1 set / engine, AC450V, 60Hz, 3 Phase approx. 4,500 kW in total (approx. 1,125 kW each)
Propulsion System	
Azimuth Thruster	2 sets
Driver	Electric Motor
Propeller	2 sets, FPP
Revolution	approx. 220 to 240 min ⁻¹
Electric Motor	2 sets
Output	approx. 1,750 kW / set (approx. 3,500 kW in total)
Rated Revolution	6P, 1,200 min ⁻¹ (based on 60 Hz)
Control of Revolution	Inverter
Bow Thruster	2 sets
Type	Electric Motor Driven
Propeller	CPP
Electric Motor	approx. 550 kW / set, 4P, 1,800min ⁻¹ (based on 60Hz)
Deck Crane	
Type, Capacity	Electro Hydraulic Jib Type, 1 set, 10 t at 15 m

THE OSV DEVELOPED BY TECHNOLOGY AND EXPERIENCE OF THE JAPANESE SHIP MACHINERY AND EQUIPMENT INDUSTRIES

Outstanding Features of the OSV

- Optimized for the operation at higher temperature, humidity and moderate sea states in shallow water, as opposed to the North Sea environment, as well as achieved affordable price by increasing cost effectiveness
- Higher reliable and save-energy Japanese equipment to be fully applied
- Eight packages are system-integrated, which simplify shipbuilding process including engineering and ensure higher performance of the OSV.
- Global service stations established by Japanese Manufacturers can be used at emergency conditions as well as regular maintenance.
- ABS has reviewed the General Arrangement and Midship Section of this project "JAPAN PACKAGE FOR MULTI PURPOSE SUPPLY VESSEL" and granted "Approval in Principle (AIP)" to the concept of the design for the reviewed items under this project.

- OSV owners and operators pointed out that prevailing design of OSVs might have adopted higher specifications assuming operations in the North Sea, resulting in higher building cost.

In our study, design and specifications of the OSV are optimized to suit the operation at higher temperature, humidity and moderate sea states in shallow water, different from the North Sea environment, employing reliable and save-energy Japanese ship machinery and equipment, which have been proven on merchant vessels,

- JSMEA may provide drawings and documents free of charge to owners who are interested in the construction of this OSV subject to a certain cooperation agreement.
- The OSV basic engineering and packaging project has been studied to contribute to the development mainly for the global offshore market in line with the policy of the JSMEA Offshore Development Strategy Review Board in corporation with 30 member companies for a couple of years in 2018 and 2019, which has been supported by Ministry of Land, Infrastructure, Transport and Tourism of Japanese Government (MLIT) as well as basic drawings were made in cooperation with Shipbuilding Research Center of Japan (SRC).
- Upon completion of ABS final approval of the further submitted drawings, the OSV design will be eligible for ABS classification of

 A1, Offshore Support Vessel (FFV 1) , AMS, DPS-2, SPS, UWILD.

JAPAN PACKAGE PARTICIPATING COMPANIES

BEMAC BEMAC Corporation	DAIHATSU Daihatsu Diesel Mfg.Co., Ltd.	 IBUKI IBUKI KOGYO CO., LTD.	 IHI Power Systems Co.,Ltd.
 Kashiwa Co., Ltd.	 Manabe Zoki Co., Ltd.	MIURA MIURA CO.,LTD.	 NAKASHIMA PROPELLER CO., LTD.
 Naniwa Pump Mfg. Co., Ltd.	NHE Nippon Hakuyo Electronics.Ltd.	NISHISHIBA Nishishiba Electric Co.,Ltd.	SEMCO SEMCO LTD.
 TAIYO ELECTRIC CO.,LTD.	 TOKYO KEIKI INC.	 Ushio Reinetsu Co.,Ltd.	 Yanmar Power Technology Co., Ltd.

VENDORS FOR JAPAN PACKAGE

 Chugoku Marine Paints, Ltd.	 COAST Corporation	 Furuno Electric Co., Ltd.	 HSN-KIKAI KOGYO CO., LTD.	 Hien Electric Industries, Ltd.
HISAKA Hisaka Works, Ltd.	 Japan Radio Co., Ltd.	 Kamome Propeller Co., Ltd.	 NIPPON PAINT MARINE COATINGS Co., Ltd.	NITTOSEIKO NITTOSEIKO CO., LTD.
 SASAKURA ENGINEERING CO., LTD.	 TAIKO KIKAI INDUSTRIES CO., LTD.	 Teramoto Iron Works Co., Ltd.	 Terasaki Electric Co., Ltd.	 Volcano Co., Ltd.

Designed by
Shipbuilding Research
Center of JAPAN (SRC)

SRC
Shipbuilding Research Centre of Japan

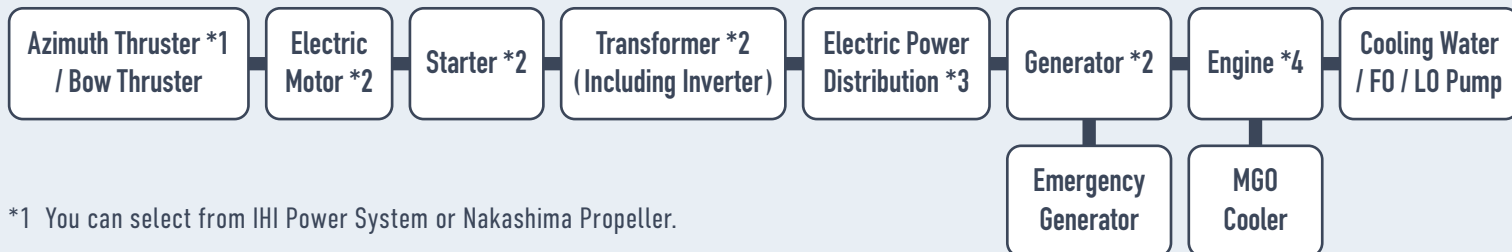
Supported by
Ministry of Land, Infrastructure,
Transport and Tourism (MLIT)


Ministry of Land, Infrastructure and Transport and Tourism

PACKAGE EXAMPLES

Japan Ship Machinery and Equipment Association

Propulsion / Power System Package



*1 You can select from IHI Power System or Nakashima Propeller.

*2 You can select from Nishishiba Electric or Taiyo Electric.

*3 You can select from BEMAC or Taiyo Electric.

*4 You can select from Daihatsu Diesel Mfg, IHI Power Systems or Yanmar Power Technology.

MANUFACTURERS
CONSIST FROM

BEMAC

DAIHATSU

N/GATA

NAKASHIMA

naniwa pump

NISHISHIBA

TAIYO
ELECTRIC CO., LTD.

USHIO
Regulation, Air Conditioning & Marine Electric

YANMAR

DPS / Navigation package



*5 Propulsion refer to "Propulsion / Power System package".

MANUFACTURERS
CONSIST FROM

BEMAC

KEIKI

Mooring Package



MANUFACTURERS
CONSIST FROM

BEMAC

MANABE
SHIBATA JAPAN

NISHISHIBA

TAIYO
ELECTRIC CO., LTD.

Accommodation Package



MANUFACTURERS
CONSIST FROM

NHE

MIURA

USHIO
Regulation, Air Conditioning & Marine Electric

Cargo Handling Package

1. Liquid Cargo part



MANUFACTURERS
CONSIST FROM

BEMAC

MJURA

naniwa pump

NISHISHIBA

SEMCO

TAIYO
ELECTRIC CO., LTD.

2. General Cargo part



MANUFACTURERS
CONSIST FROM

BEMAC

MANBE
YAMATO JAPAN

NISHISHIBA

TAIYO
ELECTRIC CO., LTD.

Firefighting Package

1. External Firefighting System part



*6 You can select from Daihatsu Diesel Mfg, IHI Power Systems or Yanmar Power Technology.

MANUFACTURERS
CONSIST FROM

BEMAC

DAIHATSU

N/GATA

Kashiwa Co., Ltd.

naniwa pump

YANMAR

2. Firefighting System for the Vessel



MANUFACTURERS
CONSIST FROM

Kashiwa Co., Ltd.

NHE

Others

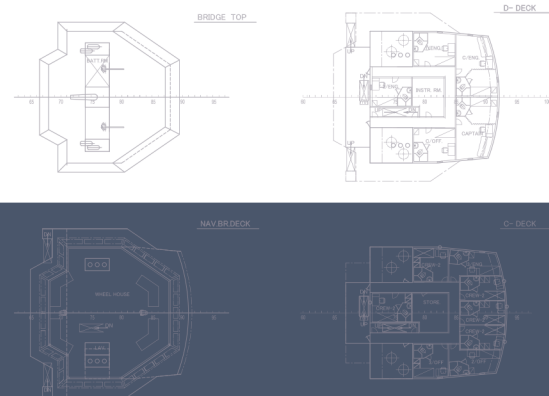
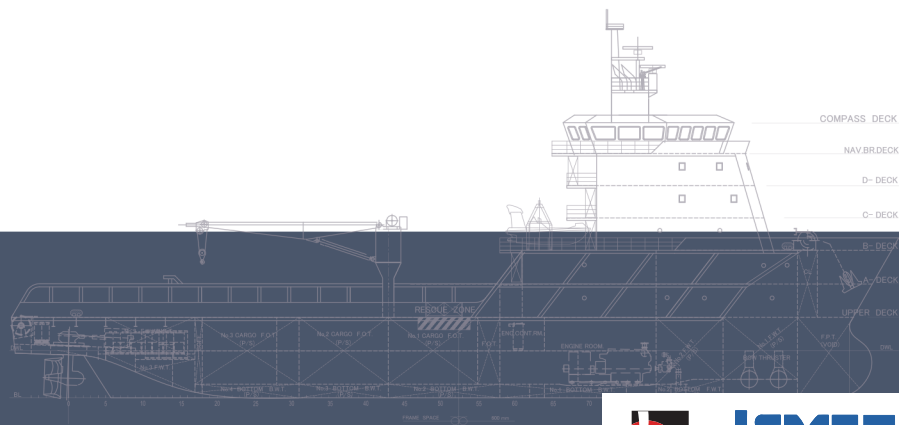


Whistle, Navigation and Signal light, Lighting, Navigation and Communication, Bell, Gong, General & Fire Alarm system, Internal communication system etc



Mechanical Ventilation
(Engine Room, Propulsion room, Bow Thruster room, etc)





JSMEA

Japan Ship Machinery and Equipment Association

Japan Ship Machinery and Equipment Association

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