# ClassNK

Offshore Support Vessels & Work Boats

[English]



## ClassNK-A World Leade

With more than 250 million gross tons on our register, ClassNK is one of the world's largest classification societies. The hallmark of this success is ClassNK's versatility and commitment to providing the highest level of service for every kind of vessel, including workboats.

Since its foundation, ClassNK has surveyed and classified work boats of all types, ranging from anchor handling tugs, to supply vessels and cable layers and ClassNK continues to offer a full suite of technical and support services for work boat owners and operators.

## **Network**

To better serve the needs of our clients, ClassNK is constantly expanding our worldwide service network. Currently, ClassNK boasts more than 130 exclusive surveyor sites around the globe, and every one of our offices is dedicated to providing you with high quality and comprehensive support services.

## **Assistance**

ClassNK provides a broad range of technical assistance to designers and shipyards worldwide. These technical services draw from a wealth of data from a more than a century of surveys, as well as the results of ClassNK's cutting edge research and development programs.

## **Flexibility**

The maritime and offshore industries increasingly rely on the services of a wide variety of different vessels. ClassNK offers customized service for every kind of work boat and we will match our services to the specific needs of your vessel.



## r in Ship Classification



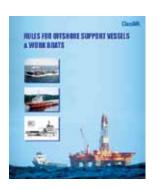
## ClassNK Full Support **Offshore Support Vessel Sector**

ew Generation, deep-water support vessels typically have much greater horsepower and winch strength than older workboats. Many also have dynamic positioning capabilities and use global positioning systems and computer controlled propulsion systems. ClassNK has a wealth of experience in surveying and classifying all types of offshore support vessels.

## ClassNK CLASSIFICATION SERVICE

As a leading classification society, we publish Rules and Guidance tailored to every kind of workboat.

To better meet industry needs and enhance maritime technologies, ClassNK offers an expansive notation system for each vessel type and for installations such as DPS (Dynamic Positioning System), FFV (Fire Fighting Vessel) etc., as well as providing descriptive notes to describe the main features of your vessel.



## **ENVIRONMENTAL PROTECTION**

Industries across the world are striving toward ever greater environmentally-friendly operations, and the maritime industry is no exception.

As part of our efforts at ClassNK, we create various rules and guidelines to meet the needs of the industry, and provide the relevant Notations. Recent Notations include "Environmental Awareness" and "Inventory of Hazardous Materials".

ClassNK also provides various Notations for specialized OSVs, in addition to its various environmental Notations, paving the way for ever more environmentally-friendly OSVs.

## STRENGTHENING FOR NAVIGATION IN ICE

Due to the growth of oil and gas exploration in colder climates, there is an increasing demand for offshore support vessels built to ice class.

ClassNK published a revised set of ice class vessel rules and will amend the rules to reflect new IMO Regulations such as the "Polar Code". ClassNK can survey and classify vessels to any one of the five ice class levels based on the needs of the owner.



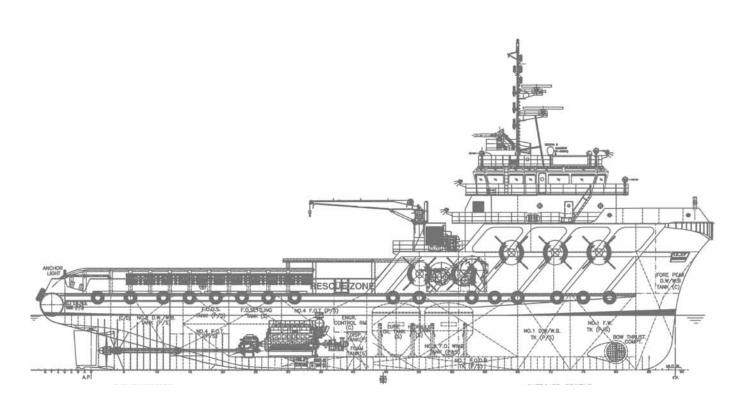
## **KAIYO**

A 699 gt offshore multi-purpose work vessel built by ISB Co., Ltd. for Offshore Operation Co., Ltd.



## **SETIA GAGAH**

A 1,188 gt platform support / supply vessel built by P.T. Jaya Asiatic Shipyard for Alam Maritime (M) Sdn. Bhd.





## **SHIN NICHI MARU**

A 697 gt offshore supply vessel built by Maehata Shipbuilding Co., Ltd. for Offshore Engineering Co., Ltd.



## **DANUM 65**

A 467 gt anchor handling tug vessel built by Piasau Slipways Sdn. Bhd. for Shin Yang Shipping Sdn. Bhd.

### MIRAI

A 8,706 gt research ship built by Mitsubishi Heavy Industries, Ltd. Shimonoseki Shipyard & Machinery Works for JAMSTEC.



### **SUBARU**

A 9,557 gt cable layer built by Mitsubishi Heavy Industries, Ltd. for NTT World Engineering Marine Corporation.



### ANDROMEDA V

A 22,049 gt drag suction hopper dredger built by IHC Holland NV for Andromeda Five Pte. Ltd.

## A Wide Var **ClassNK** and Wor



JAMSTEC



CHIKYU uses GPS position data from satellites and acoustic position data from transponders on the sea floor to confirm its position.

After calculating the CHIKYU's deviation using this position data, computer-controlled azimuth thrusters (360 degree rotatable huge screw propellers) work continuously to minimize the deviation from a designated position, known as Feed-back control.

The CHIKYU also makes use of Feed-forward control. By calculating the wind force with the wind velocity and control, CHIKYU controls each azimuth thruster (direction and revolution) to prevent large deviations before they occur.

These two control schemes ensure that CHIKYU remains within a designated position in conditions suitable for drilling.

## iety **kboats**

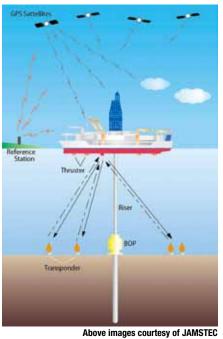
## **CHIKYU**

A 56,752 gt mobile offshore drilling unit built by Mitsubishi Heavy Industries, Ltd. Nagasaki Shipyard & Machinery Works and Mitsui Engineering and Shipbuilding Co., Ltd. for JAMSTEC.

This ship is the most advanced deep-sea scientific drilling ship in the world and the only scientific drill ship to use a safe and reliable riser drilling system. ClassNK provided class notation "DPS B" for the ship's state of the art dynamic positioning system.









### **AJANG MEDINA**

A 487 gt oil spill recovery vessel built by Shin Yang Shipyard Sdn. Bhd. for Ajang Shipping Sdn. Bhd.



### **ZUIRYU**

A 112 gt high-speed escort ship built by Kanagawa Dockyard Co., Ltd. for Isewan Bosai K.K.



JOGMEC

### **HAKUREI**

A 6,283 gt geologic survey/supply vessel built by Mitsubishi Heavy Industries, Ltd. Shimonoseki Shipyard & Machinery Works for Japan Oil, Gas and Metals National Corporation (JOGMEC).





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## **ClassNK** specifies Notations

for Offshore Support Vessels, including Anchor Handling Tug Supply Vessels with Fixed Fire Fighting Systems for External Fire

s marine resource development moves further offshore and into deep sea regions, there is an increasing demand for multi-purpose offshore support vessels capable of not only transporting cargo to offshore floating facilities, but also mooring, installation, and fire fighting operations in a wide variety of offshore environments.

As technical requirements and workloads change, ship owners and builders desire notations that properly describe the intended purpose and technical capabilities of their ships. In order to meet the changing needs of maritime industry and better serve our clients in the offshore sector, ClassNK has established new notations for offshore support vessels, including Anchor Handling Tug Supply Vessels (AHTS) with Fixed Fire Fighting System for External Fire (FiFi).

## **Notation Examples**

ClassNK Notations can be issued to meet the specific needs of clients and their ships.

Ship Type	Before Amendment	After Amendment
Offshore/Platform Supply Vessel with DPS	Notation: NS*(TUG) (DPS A) DPS A: Class A DPS Descriptive Note: Designed for towing and offshore supply purposes	Notation: NS*(OSV) (DPS A) OSV: Offshore Supply Vessel Descriptive Note: None
Anchor Handling Vessel with FiFi	Notation: NS*(TUG) Descriptive Note: -Designed for anchor handling -Fixed Fire Fighting System for External Fire FIFI 1	Notation: NS*(AHV/FFV1) AHV: Anchor Handling Vessel FFV1: Fire Fighting Vessel-Type1 Descriptive Note: None
Anchor Handling Tug Supply Vessel	Notation: NS*(TUG)	Notation: NS*(AHV/OSV) AHV: Anchor Handling Vessel TV: Towing Vessel



For further information, please visit the ClassNK website. (https://www.classnk.or.jp/account/en/Rules Guidance/ssl/login.aspx)

