

CLASSIFICATION SOCIETIES



Russian register builds on Arctic expertise

Construction of multi-purpose ice-breaking supply vessels is one of the current trends in the implementation of modern oil & gas projects in the Arctic and other freezing seas. Such vessels are equipped to perform ice-breaking operations, tanker escorting and fire-fighting assistance, and to participate in rescue operations and oil spill response activities, ensuring better servicing of offshore oil & gas fields as well as allowing a reduction in the quantity of service fleet units without decreasing the range of activities performed.

The Russian Maritime Register of Shipping (RS) is recognised for its expertise in technical supervision of such vessels. RS continues to rapidly expand its activities in this area by carrying out scientific research, constantly developing and improving the requirements, contributing to the implementation of new technologies and engineering solutions, thus placing greater focus on efficiency, safety, environment and risk assessment.

Provision is made for construction of supply vessels under the RS technical supervision within almost all the offshore oil & gas shelf

▲ *Ice-breaking multifunctional supply vessels being built at Vyborg Shipyard under RS survey*

projects in the Russian Federation, including the Arctic and the Far East regions. Several series of such vessels have already been built.

Two diesel-electric ice-breaking supply vessels of *Aleksandr Sannikov* type have been built to RS class for the Novy Port Project at Vyborg Shipyard. The design concept of ice-breaking supply vessels with three azimuth thrusters, designated Ice Class Icebreaker8 (one of the highest Ice classes according to RS classification) is intended to ensure high ice-breaking capacity – uninterrupted operation in continuous ice of 2m thickness – and good manoeuvrability. The equipment is designed for operation at temperatures as low as -50 degrees C. A relatively moderate draft provides free manoeuvring, even taking into account shallow water and shoals in the Gulf of Ob area.

On the continental shelf of the Sea of Okhotsk and Sakhalin Island, within the Sakhalin-1 and Sakhalin-2 oil & gas projects, the oil production facilities are successfully

serviced by vessels of the 70201 and 71014 project model. In case of emergency, the vessels can provide comprehensive measures for environmental protection and safety of platform crew. In addition, a series of the 71024 project model vessels, which can accommodate up to 70 people under normal operational conditions, is also successfully operating at Sakhalin-1 and 2.

Today, construction of such vessels to RS class continues. Icebreaker *Ob*, intended for operation at Sabetta port, is currently at the final stage of construction at Vyborg Shipyard. The icebreaker is equipped with two Azipod-type azimuth propulsion units in the bow and two units in the stern.

High automation class ensures operation of the machinery installation, so the crew do not need to be in the engine room at all times, and the vessel can be controlled by one officer from the bridge. In addition, reinforced Ice Class supply vessels of project model IBSV 10022, intended for operation in the high-latitude oil & gas fields, are under construction at Zvezda Shipbuilding Complex.