
*A high freeboard and full lines above the waterline forward are designed for North Sea winter weather conditions*

# Rescue vessel has space aplenty

*Grampian Commander* is the first of a series of seven 'standby emergency response and rescue vessels' being built by Astilleros Balenciaga in Spain for North Star Shipping Ltd in Scotland, and was handed over a month ahead of the contracted delivery date

In line with most of North Star's fleet, *Grampian Commander* will be engaged in standby and emergency response and rescue duties, primarily supporting oil rigs in the Northern sector of the North Sea, where it will spend 28 days of every month, only returning to port for crew changes, loading fuel, stores and spares. The Group B standby rescue vessel is designed and outfitted to rescue up to 300 people in the UK sector. *Grampian Commander*, which is now in service, was formally named in Aberdeen in September.

Concept design work was carried out by IMT in the UK, in close co-operation with the shipowner's technical staff. The design is distinguished by its high freeboard and full lines above the waterline forward, intended to help the vessel deal with the weather conditions that it will be subjected to in the North Sea in winter. The forward facing full breadth deckhouse front on the forecastle deck offers a large 'wall' to shield the wheelhouse – which is located quite far aft – from green water.

*Grampian Commander* has accommodation for 16 in single cabins and dedicated survivor accommodation and treatment areas. To house all of the crew and up to 300 survivors, the superstructure sides have been taken to the full beam in all accommodation decks.

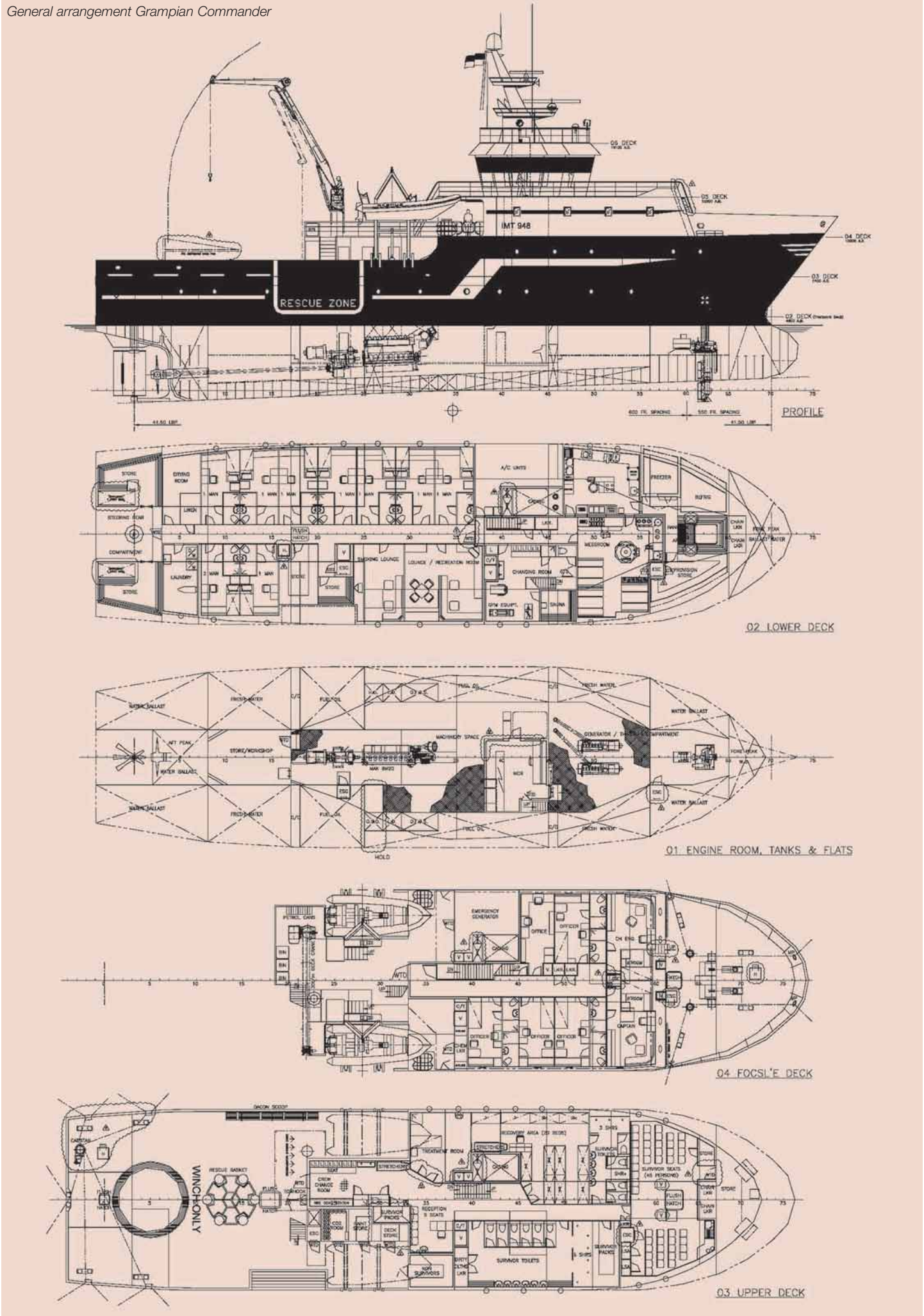
Below decks the vessel is subdivided into the bow thruster/genset compartment aft of the forepeak, separated from the engine control room compartment by a watertight remote operated hydraulic door, the engine room aft and a engineer's workshop, just forward of the aftpeak. All of the above spaces are flanked by wing tanks effectively forming a double hull throughout the length of the vessel.

The vessel is driven by a single MaK 8M20 main engine developing 1,520kW turning at 1,000rpm. The engine drives a Scana Volda controllable-pitch propeller through a

*The deckhouse front on the forecastle deck shields the wheelhouse from green water*

| GRAMPIAN COMMANDER | |
|---|---|
| **Owner** | North Star Shipping |
| **Designer** | IMT |
| **Builder** | Astilleros Balenciaga |
| **Length, oa** | 43.33m |
| **Length, bp** | 41.50m |
| **Beam mld** | 11.80m |
| **Depth** | 7.40m |
| **Draft** | 4.25m |
| **Main engine** | MaK 8M20 |
| **Output** | 1,520kW |
| **Complement** | 16 |
| **Classification** | Lloyd's Register, +100A1, LMC, Stand by Vessel |

*General arrangement Grampian Commander*




*The crane is used to deploy rescue scoops during rescues*

flexible coupling. The vessel has a 280kW Schottel SRP 170-ZSV retractable azimuthing thruster forward, which can be driven separately by a dedicated control, or in conjunction with the main propeller and steering system by a single joystick lever. This retractable unit provides the vessel with a redundant means of propulsion in the event that the main engine should suffer a serious failure. When on standby duties in fair weather the retractable thruster will be used for loitering, with the main engine shut down, thus reducing fuel consumption.

The ship's requirements for electrical power are provided by two main generating sets in the auxiliary room, forward of the air conditioned engine control and main electrical switchboard room. The generating plant is composed of two Volvo D12-Aux generating sets capable of producing 350kWe at 1,800 rpm each, and there is also a Volvo TAMD 103-RC 190kW emergency/harbour generating set fitted on the upper deck. *Grampian Commander* also has a Leroy Somer shaft alternator of 650kWe, driven by a PTO off the gearbox.

Combined with high-lift rudders and the azimuthing bow thruster, the propulsion machinery gives *Grampian Commander* an excellent level of manoeuvrability and the necessary control for station keeping and tracking, when centrally controlled by the Schottel 'Masterstick' joystick system. All of the propulsion units can be operated by individual controls from the forward and aft stations in the wheelhouse, as well as from the independent joystick system, which has three fixed control panels, one on each bridge wing and in the aft control console of the wheelhouse.

*A single MaK 8M20 main engine drives a Scana Volda CP propeller*

Dreggen supplied the ship's hydraulic knuckle-boom crane, which has a capacity of 2 tons at 15m outreach, the function of the crane being to load spares and stores and handle equipment in port, and deploy the ships' rescue 'scoop' over the side when required.

The accommodation is divided into three levels with the wheelhouse being the fourth. Most of the crew's quarters are sited on the main deck, and primarily consist of single cabins with en suite washrooms. Forward on this deck is the galley with direct access to refrigerated provisions rooms and adjacent to it is the messroom. Also found on the main deck are the dayrooms, changing rooms, and a small gym and sauna.

On the upper deck adjacent to the rescue zone amidships direct access is provided from the weather deck for survivors to enter the accommodation. All of the rescue zones and equipment required for this kind of vessel were carefully studied and laid out to ensure speedy access and flow of survivors to the different treatment, resting or sitting areas.

Clean-up showers are located on the outside deck, after which able survivors access the reception waiting area. From here they are directed to treatment room (which is outfitted in accordance with the standard required by this vessel type), recovery area, which is fitted with beds, or to the sitting area, depending on their state. This deck also houses all washroom facilities for survivors. The forecastle deck holds the comfortable and spacious captain's and chief engineer's cabins as well as other officer cabins and guest cabins, all of them with their washroom facilities. The ship's office is also on this level.

On the top level the wheelhouse houses all vessel controls, navigation systems, communications equipment and alarm panels. Forward there is a console with all the ship's controls, radars, radio equipment, and onboard communications systems. The forward console has split consoles, with a sliding helm seat in the middle, providing the skipper with a comfortable steering position with all of the manoeuvring controls at hand. This is also the case in the aft console. On the bridge wings there are two consoles with fixed joystick controls providing excellent visibility over the rescue and fast rescue craft deployment zones. The chart table, with chart drawers underneath, lies adjacent the GMDSS A3 communications console, including those required during emergency operations, isolated from each by a partition board. In addition to all of the navigation and communications equipment that one would expect to find on the vessel, a satellite communications system provides a direct connection to North Star's offices ashore, *Grampian Commander* being, effectively, an extension of the company's shore-based facilities.


*Rescue equipment includes two FRCs, a Dacon scoop and a Cosalt rescue basket*

For rescue operations, the vessel is provided with two Avon Searider 6.5m fast rescue craft which are raised and lowered by hydraulically operated davits. Other appliances for rescuing survivors from the water include a Dacon scoop and a Cosalt rescue basket, both of which are operated from onboard the vessel, and do not require any of the ship's crew to leave the safety of the vessel in adverse weather conditions. **OSJ**