

## **ABSTRACT**

On board the minesweeper M477 Oudenaarde, are two motor-generators that ensure the electrical autonomy of the ship. After thirty-five years out of service, the challenge of restarting one of these engines was very exciting.

It all starts with a presentation of the ship and its missions, followed by the identification of the engine, a Gardner six-cylinder LW model. An overview of the history of the Gardner company is then given, before an in-depth inspection of the engine components; thus, allowing the theoretical knowledge acquired during the Bachelor in Marine Engineering course to be related to the engine.

After the introduction and identification phase, a few checks and summary repairs in a precise order will allow to verify the state of the engine, and if a potential restart would be possible. Once these checks were successfully completed, and in the absence of an electric starter, an attempt was made to start the engine by using a hand lever.

An assessment is then made of the costs involved in refurbishing the engine in case of a further intensive use.

Finally, a visual and aesthetic restoration of the engine was carried out in order to present it to possible visitors when the ship's engine room will be opened as a museum.