

## MV Hermes Leader Report

### Client

Ray Car Carriers Ltd.  
Stamco Ship Management Ltd., Piraeus, Greece

### Purpose of Installation

Prevention of lime scale buildup inside the heat exchanger plates of the Fresh Water Generator (FWG)

### System Installed

HydroPath Marine HM-120

### Date of Installation

January 2015 – installed by Jowa Korea at Hyundai Mipo Dockyard, Pusan South Korea  
The vessel was delivered to client and started operating on February 2015.

### Date of Inspection

October 21, 2015



Figure 1. M/V Hermes Leader

### Installation Location

The HM unit was installed on the seawater inlet pipe to the FWG.

### Findings

The FWG was opened for cleaning after 9 months in service and 4,000 effective running hours, when the water production dropped from 24 to 17 m<sup>3</sup>/day (approx. 30% reduction).

Chief engineer of the Hermes Leader sent the following report regarding the HM unit:

TO: STAMCO SM  
ATT: SPA/TEC/Theodoros Megalokonomos  
FM: HERMES LEADER

REF: 2278 / 11-Nov-2015

SUB: TEC/HERMES LEADER - REQUEST FOR FWG CLEANING

Good day Sir,

Rym 1310346 dd 21/10/2015 pls be informed that FWG evaporator has been cleaned and in operation. The production now (same condition - SW tempr, vacuum, full open heating by-pass, etc.) is 24 m3 instead of 17 m3 per 24 hrs. The salinity drops from 7-8 ppm to 1-2 ppm. 7 kgs salt was removed from plates for about 4000 rhs in service. See attached photos for reference.

In addition, the condenser is not opened and cleaned yet in order to evaluate result of evaporator cleaning only. The results are more than satisfactory. Pls advise if necessary to continue with planned condenser cleaning which is good condition considering results achieved.

Best Regards  
Master/Ch.Eng.



Figure 2. The Fresh Water Generator plate and the removed limescale

The FWG contained accumulated lime scale on the plates as seen in the photos above. This result is still very good since the HM unit does not prevent the formation of scale, but reduces its adhesion properties when softening the scale by means of crystallization, thus lengthening the maintenance interval and reducing downtime for cleaning significantly. When opening the FWG and the plates are taken out, most of the accumulated lime scale falls off by itself leaving only a minor rest which is easily removed by hand or with a soft brush. This way damages to the plates caused by rough scraping are prevented.

