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The photograph on the cover shows the 'Esso Cardiff' (right), alongside the 'Esso Bonn'.

Preface

I consider that my time at sea as an Electrical Officer was one of the most valuable experiences of my working life. For more than seven years I worked aboard a variety of tankers owned by Esso Petroeulm Ltd. and this was followed by a few more years working on the ferries from Dover to France and Belgium.

I frequently think about those days at sea and the many men I sailed with all of whom displayed a very high level of professionalism. I started my sea-going career on the 'Esso Cardiff' on 21 May 1977. I left the sea on 31 January 1989.

The Master of the 'Esso Cardiff' during many of my trips on this vessel was Captain Mike King who hailed from Liverpool. He ran a tight ship and was highly regarded. I miss him and many of my colleagues who, sadly, are no longer with us.

I might have left the sea, but the sea has never left me.

I treasure the memories and photographs of a small but important part of my life that I'm sharing with you in this little book.

Alan J Cook GCGI; I.Eng; MIET; MISTC; MABSW; MSUT

When the Big Ship Draws Near

The vast expanse of hull draws nearer and soon I'm able to read the draught measurement proclaiming that 73 feet of the ships mighty hull is under water. The VLCC and ULCC (Very Large and Ultra Large Crude Carrier) is a monster ship whose place is at sea in the deep oceans, rather then in the fairly shallow waters around our coasts.

These ships are unable to enter most European ports when loaded to their maximum capacity of upwards of 250 000 tonnes deadweight (dwt).

This deadweight tonnage comprises mainly the ships cargo of crude oil but also includes its fuel oil bunkers and stores. There are a number of ships of double this capacity being used to carry our much-needed liquid energy from the Persian Gulf to our refineries – and many more on the drawing boards of ship designers.

In these days of high oil prices, these monster ships are economic necessities and it makes sense to use them, however, being so huge means that provision must be made for them to enter port. The only way to do this is to reduce the ship's draught and this can only be done by transferring some of its cargo to another, smaller, vessel. This is where 'my' ship comes in as it has been equipped to carry out these lightening operations. My ship is the TT (Turbine Tanker) Esso Cardiff which, at a mere 50 800 dwt has a draught of around half that of the VLCC.

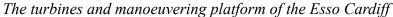
The two ships steam on an almost parallel course across the bay with my ship being gradually edged closer and closer to the monster vessel it's come to lighten. The Yokohama fenders have already been lowered over the port side of our ship which will prevent any damage to the ships delicate hulls as they strive to meet a few feet from each other. The two ships are securely lashed together and come to a stop whereby they drop anchor and a gangway is bridged across the gap between their hulls.

Within a few minutes, the connecting party from my ship, supervised by the Chief Engineer, is on board the VLCC / ULCC connecting flexible hoses to the manifolds of each ship. Also on board the larger ship is our safety officer who will stay there for the duration of pumping operations, liaising with portable radios the two ships operations. Various papers are exchanged, cargo tests are completed and the transfer pumping operation can begin.

The whole operation is one of masterly seamanship combined with the skill and safety exercised by every single person involved. The huge NO SMOKING sign painted across the front of each ship's accommodation block is an ominous warning of the consequences that could occur if someone was careless or used a piece of faulty equipment whereby a single spark could bring about a holocaust.

The seamanship exercised by each of the ships Masters is if a very high order as operations are carried out regardless of whether it is day or night. The Master of the smaller of the two vessels commands the operation of bringing the two ships together in somewhat variable weather and lighting conditions where a very high degree of professionalism is required. Orders must be carried out instantly and without question; the telegraph between bridge

and engine room conveys orders of a change of speed and direction (ahead / astern) to the sweating engineers standing on the manouvering platform controlling the ship's engine far below the bridge who swing their valves and controls in instant response to the commands as they are rung on the telegraph. Below the waterline, and with no way of seeing out, the engineers in their hot working environment are not subjected to any sense of direction or speed, not even knowing how close their ship is to the next but following orders implicitly as they arrive from the bridge.





These lightening operations can be carried out repeatedly during the transfer of cargo from a ULCC – as many as four 'sailing' operations can sometimes occur in a twenty-four hour period – leaving port; arriving at the vessel to be lightened; departing the lightened ship; entering port and berthing. This busy rota can be continued over several days although some respite can occur if our ship is given orders to discharge cargo in a port a little further away where there is a longer time between these 'stand-by' operations which keep everyone busy at their respective posts.

Although the ship's officer's minimum working week is only 63 hours, these lightening operations often mean that as many as 90 hours can be worked by officers on 'stand-by' duties or involved in repairing or maintaining equipment – apart from 'driving' the ship. The ship's officers usually spend three months on board during which time dozens of lightening operations can be undertaken with speed and safety and with the confidence brought about by highly skilled teamwork.

Equipment on board the Esso Cardiff was not envisaged to take the strain of these operations when the ship was designed and built as a 'gulf-runner', before the days of VLCCs so a high level of maintenance and repair is needed to maintain reliability.

After just a few hours alongside, the engines are 'warmed-through' (turbines and other machinery brought up to temperature) and the MWM diesel engine started to provide power to the bow thruster motors. This diesel engine drives a 3300 V, 1.4 MW alternator which provides power to the two submerged motors in the bows of the ship which rotate propellers which provide additional manoeuverability to the ship at low speeds when coming alongside the berth or another ship.

The MWM 'Bow Thruster Diesel engine of the Esso Cardiff. The alternator is in yellow (left).



'Stand-by' is commenced and the lines connecting the ship to shore are loosened, heaved into their 'sea' locations and the Esso Cardiff is manoeuvered away from the larger vessel, the Yokohama fenders brought aboard and seated on the stowage frames and once again we head for port where the whole operation will be repeated for as long as it takes to reduce the draught of the VLCC to a level where it can enter port to complete its discharge.



Lightening operations continue day and night.