**CMA Ships**

**Fleet Performance Report**

**Q4 2024**

**Fleet Performance Centre**

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# 1. Scope

The scope of this report is to provide the Performance Overview of the CMA Fleet for the Quarter 4 of 2024. Detailed below is the list of 17 Vessels under the ambit of this report:

* CMA CGM Malta
* CMA CGM Puerto Antioquia
* CMA CGM Ambarli
* CMA CGM Beira
* CMA CGM Lekki
* CMA CGM Kribi
* Flora Delmas
* CMA CGM Goya
* CMA CGM Puget
* APL Turkey
* CNC Bangkok
* ANL Warrnambool
* CMA CGM Callao
* CMA CGM Arica
* CMA CGM Cebu
* CMA CGM Semarang
* CMA CGM Nacala

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| Note: CMA CGM Mendelssohn is not part of this report as the Vessel came into management in late September 2024. We will require more data in the system to provide Performance analysis. |

# 2. Vessel Performance Rating

The Vessel Performance Rating (VPR) is our holistic KPI to evaluate the improvement in vessel performance as it incorporates all important KPIs of Performance and underscores the reporting quality of vessels. VPR for the CMA Fleet in Q4/24 stands at 71%.

In Q4/24, 9 Vessels are in Green Zone & 8 Vessels are in Orange Zone. None of the Vessels are in Red Zone.

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| **Note:**   * Period of evaluation for the VPR is for 3 months belonging to the corresponding quarter. This is not to be confused with Monthly Connect performance sheets as there it is taken for 6 months. * Green Zone: VPR>70% * Orange Zone: VPR between 40% - 70% * Red Zone: VPR<40% |

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| **Vessel** | **Q1 VPR (%)** | **Q2 VPR (%)** | **Q3 VPR (%)** | **Q4 VPR (%)** |
| CMA CGM Malta | 72 | 71 | 71 | 71 |
| CMA CGM Puerto Antioquia | 74 | 77 | 77 | 77 |
| CMA CGM Ambarli | 67 | 60 | 76 | 63 |
| CMA CGM Beira | 73 | 71 | 72 | 73 |
| CMA CGM Lekki | 78 | 70 | 74 | 79 |
| CMA CGM Kribi | 75 | 70 | 68 | 66 |
| Flora Delmas | 70 | 73 | 74 | 73 |
| CMA CGM Goya | 61 | 56 | 57 | 66 |
| CMA CGM Puget | 56 | 57 | 67 | 67 |
| APL Turkey | 73 | 76 | 76 | 67 |
| CNC Bangkok | 71 | 72 | 72 | 76 |
| ANL Warrnambool | 75 | 70 | 64 | 75 |
| CMA CGM Callao | 73 | 72 | 72 | 70 |
| CMA CGM Arica | 74 | 77 | 59 | 67 |
| CMA CGM Cebu | 79 | 75 | 71 | 72 |
| CMA CGM Semarang | 69 | 72 | 71 | 69 |
| CMA CGM Nacala | 73 | 71 | 69 | 68 |
| **Fleet VPR (%)** | **71** | **70** | **70** | **71** |

# 3. CII Rating

The following table provides CII Ratings for 2024 of the CMA Fleet. The Final Ratings are subject to final IMO DCS Verification by DNV, which is in progress.

# 4. Main Engine Performance

## 4.1 Hull Deterioration Savings Potential

The table below provides the increased consumption of CMA Fleet in Q4/24, Q3/24, Q2/24 & Q1/24 along with Savings potential due to Hull performance.



## 4.2 Main Engine Deterioration Savings Potential

The table below provides the increased consumption of CMA Fleet in Q4/24, Q3/24, Q2/24 & Q1/24 along with Savings potential due to ME performance.



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| **Notes:**  Data Reliability Criteria is as below:   * High: Average of % of Logs considered >40% * Medium: Average of % of Logs considered between 20% - 40% * Low: Average of % of Logs considered <20% |

# 5. Auxiliary Engine Performance

Auxiliary Engine utilization aims at reducing energy consumption by working towards a more conscious and optimal operation of ship machinery and systems.

Non-essential machinery and equipment that do not affect the ship and personnel safety can be stopped while in port and at sea to reduce the load on the diesel generators.

The Auxiliary Engine baseline has been established based on the conditions below.

* At Sea - Accounting for power requirements necessary for safe operations of the Vessel at sea (no cargo related operations in progress)
* At Port - Accounting for Power requirements necessary for safe operations at Anchorage or port in idle conditions (no cargo related operations in progress)

The baseline values have been derived using the Electrical Load Analysis manual of the vessels. Baseloads are calculated using the running hours of various consumers and using the SFOC values from the Electrical Load Analysis & Shop tests.

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| **Filtration criteria for AE @ Sea:**  Noon at Sea, EOSP logs which falls under below criteria will be filtered out:   * ME load at Sea < 37% MCR * Log duration < 8 hours. * For Oil/Chem Tanker vessels, if Boiler cons at sea >1.0 MT/day – as this would suggest that some cargo operation (cargo heating/tank cleaning) is in progress. * IGG consumption >0.5 MT/day. * For all Vessels, if reported consumption is more than 1.0 MT from baseline consumption. * Consumptions are converted to 24 hours to compare with MT/Day Baseline * The difference between Main Engine Running hours and Log duration is more than 1 hour. * For Container Vessels, Reefer Consumption is calculated by considering 2.75 kW Load per reefer & converted to 24 hours. The Reefer consumption is deducted from total AE Consumption for comparing with the Baseline (MT/Day).   **Filtration criteria for AE @ Port:**  Noon at Port, STBY (Container Vessels only) logs which falls under below criteria will be filtered out:   * Log duration < 8 hours. * Logs with Main Engine Running hours are not considered. * For all Vessels except Container, if reported consumption is more than 1.0 MT from baseline consumption. * For Oil/Chem Tankers, Logs with Tank cleaning is not considered. * Consumptions are converted to 24 hours to compare with MT/Day Baseline * For Container Vessels, Reefer Consumption is calculated by considering 2.75 kW Load per reefer & converted to 24 hours. The Reefer consumption is deducted from total AE Consumption for comparing with the Baseline (MT/Day). |

## 5.1 AE at Port Fuel Consumption Trend

Below table provides Average AE Consumption at Port for the CMA Fleet in Q4/24, Q3/24, Q2/24 & Q1/24 along with the Savings potential:



## 5.2 AE at Sea Fuel Consumption Trend

Below table provides Average AE Consumption at Sea for the CMA Fleet in Q4/24, Q3/24, Q2/24 & Q1/24 along with the Savings potential:



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| **Note:**   * CMA CGM Goya is not part of the above analysis as the Electrical Load analysis complete document is not available. |

# 6. Boiler Performance

Boiler optimization on vessels improves the performance and efficiency of boilers and their associated steam distribution systems. It can reduce running costs and improve performance. Boiler optimization can involve various aspects such as:

* Operating the boiler at the optimal pressure and temperature to maximize the heat transfer and minimize heat losses.
* Maintaining the boiler water quality to prevent corrosion and scale formation, which can affect the heat transfer and cause boiler failure.
* Implementing proper control and monitoring systems to regulate the boiler operation and detect any faults or anomalies.
* Performing regular inspection and maintenance to ensure the boiler is in good condition and meets safety standards.

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| **Filtration criteria for Boiler @ Sea:**  Noon at Sea, EOSP logs which falls under below criteria will be filtered out:   * ME load at Sea < 37% MCR * Log duration < 8 hours.   **Filtration criteria for Boiler @ Port:**  Noon at Port logs which falls under below criteria will be filtered out:   * Logs with Main Engine Running hours are not considered. * Log duration < 8 hours. * For Oil/Chem Tankers, Logs with Tank cleaning is not considered. |

## 6.1 Boiler Consumption trend at Port/Idle

Below table provides Average Boiler Consumption at Port for the CMA Fleet in Q4/24, Q3/24, Q2/24 & Q1/24 with Savings potential:



## 6.2 Boiler Consumption trend at Sea

Below table provides Average Boiler Consumption at Sea for the CMA Fleet in Q4/24, Q3/24, Q2/24 & Q1/24 with Savings potential:



# 7. Conclusions

1. CII Rating: CMA CGM Mendelssohn is E Rated. Recurring communication with CMA will be required for improving the CII rating of the Vessel based on the Operating Profile has prepared EET ESD Report for CMA CGM Goya which explains on CII improvement actions. The report was shared with FM in November 2024.
2. Vessels which carried out DD in Q4 of 2024 is expected to have good improvements in Vessel Performance Rating and the related KPIs. This will be tracked in the upcoming Quarterly report onwards.
3. Vessels currently without a Main Engine Shaft Power meter, FPC has provided quote comparison for the Shaft Power meter installation for the below vessels:
   1. CMA CGM Beira
   2. CMA CGM Nacala
   3. CMA CGM Semarang
4. Vessels having issues/out of order in Main Engine Shaft Power meter, the Performance improvement depends on the resolution of the same:
   1. CNC Bangkok
   2. CMA CGM Puerto Antioquia
   3. CMA CGM Goya
5. Vessels with Main Engine Flowmeter inaccuracies, this also impacts the Performance analysis:
   1. CMA CGM Puget
   2. CNC Bangkok
6. CMA CGM Puget: The Shop test data post the TC Cut out is not available, both onboard and with TSI. This is impacting all KPIs.
7. AE & Boiler Consumption: There are lot of Vessels in the Fleet with scope for AE & Boiler Fuel optimization. This is provided in sections 5.1, 5.2 and 6.1.

**-------------------------------------------End of Report--------------------------------------------**