MV LA STELLA

Prepared Basis : CP Speed

madras to cbe

Dep.Date: 18-12-2023 14:59 UTC

Arrival.Date: 20-12-2023 15:00 UTC

Condition : Laden

Report Date : 09-Feb-24

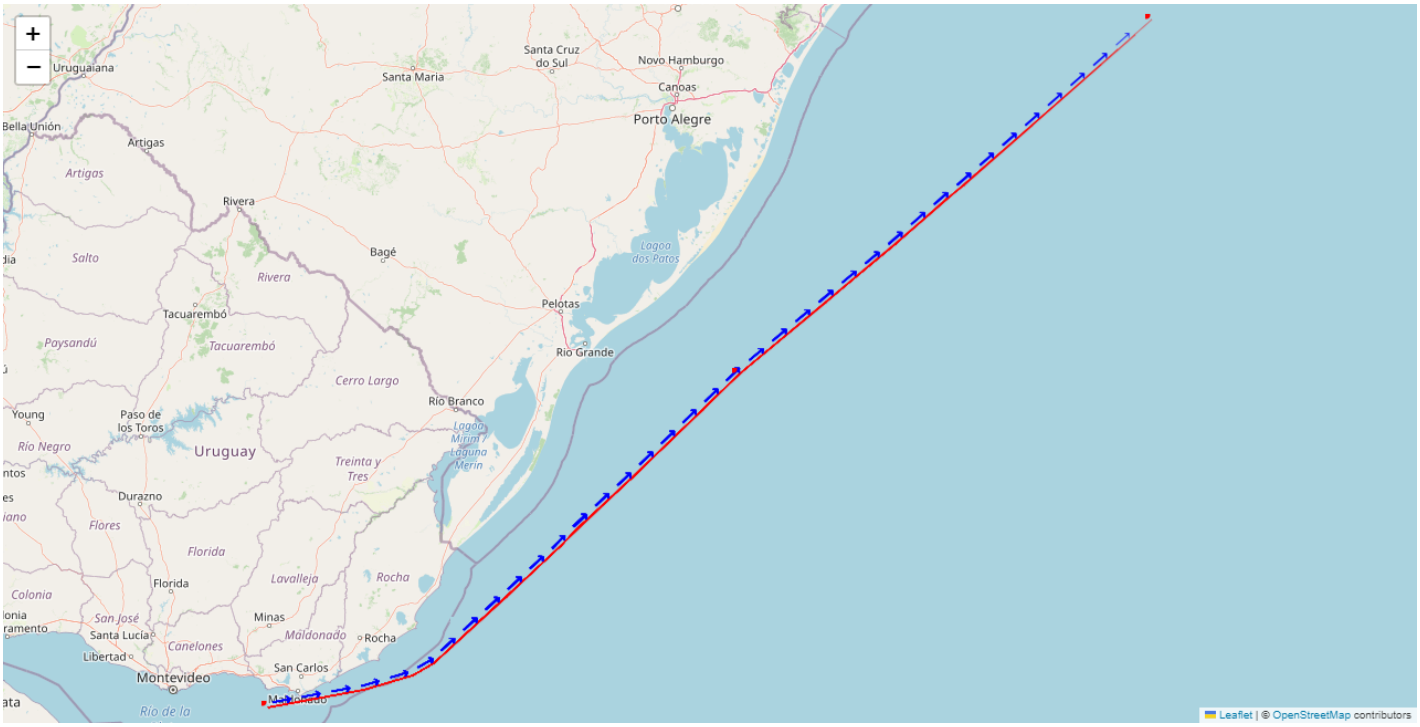
Reference No. :

VOYAGE MAP

Itinerary : madras - cbe

Voyage Leg Date(UTC) : 18-12-2023 14:59 - 20-12-2023 15:00

CP Warranties : About 13 Kts on About 23.5 Mts Fuel



Report Analysis Summary

Itinerary : madras - cbe

Voyage Leg Date(UTC) : 18-12-2023 14:59 - 20-12-2023 15:00

ATD(Z)	Time gain/loss	V/U/L SFO gain/loss	HSFO gain/loss	MGO gain/loss	MDO gain/loss
madras - cbe 18-12-2023 14:59	Nil	Nil	Nil	Nil	NA

Voyage Details

Leg Details	ATD(Z)	ETA(Z)	Good Weather				Performance		Overall Weather			
			Distance	Steaming Hours	Speed	Total Cons	Distance (Exc currents)	Speed	Distance	Steaming Hours	Speed	Total Cons.
madras to cbe	2023-12-18	2023-12-20	0.0	0	0	0	0.0	0	576.6	48.0	12.01	45.97
			0.0	0	0	0	0.0	0	576.6	48.0	12.01	45.97

Warranted Consumption

Leg Details	CP Speed	Total Cons.
madras to cbe	About 13 kts	About 23.5 MT

Report Analysis Summary

Interpretation of good weather criteria as per CP:

Weather Definition:

A noon report is counted as fair weather if majority of the noon period is good weather basis analyzed weather

- Wind Force <= 2 Bf, Significant Wave Height <= 1.0 m
- Adverse Currents are excluded

Noon Report excluded from evaluation :

Weather Source : Analyzed

Speed used for Analysis : Performed speed

All comparisons are done against CP Speed

"About" Tolerance:

- For speed : -0.5 / +0.5 Kts
- For consumption : -5.0 / +5.0 %

Good weather performance is extrapolated to overall voyage

***Note: The calculations for the report are done on the performed speed by adjusting the effect of currents (If applicable).

Speed Summary

Itinerary : madras - cbe

Voyage Leg Date(UTC) : 18-12-2023 14:59 - 20-12-2023 15:00

CP Warranties : About 13 Kts on About 23.5 Mts Fuel

Overall

Total Distance Sailed	576.6 NM
Time at Sea	48.0 hrs
Average Speed	12.01 kts

Good Weather

Total Distance Sailed	0.0 NM
Time at Sea	0 hrs
Average Speed	0.0 kts
C/P Min.Allowable Time	0.0 hrs
C/P Max.Allowable Time	0.0 hrs
Track Time Gain	0.0 hrs
Applied to Overall Track Time Gain	0 hrs

Fuel Consumption Summary

Itinerary : madras - cbe

Voyage Leg Date(UTC) : 18-12-2023 14:59 - 20-12-2023 15:00

CP Warranties : About 13 Kts on About 23.5 Mts Fuel

Overall

Average Daily Consumption	22.99 mts
Total Bunkers Consumed at Sea	45.97 mts
Gradewise Distribution of Bunkers consumed at sea	
HSFO	0.0 mts
IFO	45.77 mts
GO	0.2 mts

Good Weather

Actual Usage in Good Weather	0 mts
Average Daily Consumption	0 mts
Min.Allowable Usage	0.0 mts
Max Allowable Usage	0.0 mts
Fuel Loss	0.0 mts
No Loss/Gain applied to overall track	0 mts

CO2 Emissions Summary

Overall

Total CO2 produced at sea (MT)	143.17 mts

Detailed Weather Analysis

Itinerary : madras - cbe

Voyage Leg Date(UTC) : 18-12-2023 14:59 - 20-12-2023 15:00

CP Warranties : About 13 Kts on About 23.5 Mts Fuel

Date/Time	Lat	Lon	Wind		SWH	Wind Wave	Swell		Current factor	Bad Weather Details	Report Data by Ship								
			BFT	Dir.(rel.)	Hgt(m)	(m)	Hgt (m)	Dir. (rel.)	Kts		Steaming Hours	Distance (NM)	Wind (Bft)	Current Factor (Kts)	Ordered Speed (Kts)	Avg. Speed (Kts)	RPM	Slip (%)	Course
18th Dec 2023 14:59	**-35.05**	**-55.25**	**5**	**144.05**	**0.86**	**0.86**	**0.35**	**103.59**	**-0.12**		**0.00**	**0.00**	**0.00**	**0.00**	**13.00**	**0.00**	**0.00**	**0.00**	**0.00**
18th Dec 2023 17:59			5	160.29	1.24	1.02	0.67	76.11	-0.42	WI									
18th Dec 2023 20:59			6	163.14	1.71	1.47	0.84	68.08	-0.03	WI									
18th Dec 2023 23:59			5	152.82	1.84	1.62	0.85	65.9	0.31	WI									
19th Dec 2023 02:59			6	148.64	2.09	1.92	0.81	65.77	0.44	WI									
19th Dec 2023 05:59			6	147.65	2.33	2.17	0.85	64.61	0.43	WI									
19th Dec 2023 08:59			6	151.6	2.49	2.32	0.88	58.95	-0.16	WI									
19th Dec 2023 11:59			6	139.86	2.70	2.51	0.99	54.35	-0.14	WI									
19th Dec 2023 15:00	**-32.30**	**-50.57**	**6**	**144.1**	**2.55**	**2.31**	**1.06**	**52.53**	**-0.07**		**24**	**297.00**	**7.00**	**0.00**	**13.00**	**12.40**	**91.44**	**-0.20**	**50.00**
19th Dec 2023 18:00			6	131.99	2.47	2.17	1.12	46.41	-0.07	WI									
19th Dec 2023 21:00			4	110.42	1.99	1.59	0.51	198.25	-0.61	WI									
20th Dec 2023 00:00			4	91.58	2.18	1.71	1.09	50.33	-0.84	WI									
20th Dec 2023 03:00			4	82.93	1.96	1.24	1.20	197.01	-1.31	WI									
20th Dec 2023 06:00			4	80.71	1.94	1.15	1.14	201.16	-1.28	WI									
20th Dec 2023 09:00			4	83.95	1.83	1.06	1.18	207.31	-0.06	WI									
20th Dec 2023 12:00			4	87.08	1.90	1.14	0.08	144.36	-0.23	WI									
20th Dec 2023 15:00	**-29.27**	**-46.46**	**4**	**89.9**	**1.93**	**1.01**	**1.65**	**205.56**	**-0.87**		**24**	**279.60**	**5.00**	**0.00**	**13.00**	**11.65**	**91.85**	**6.00**	**50.00**

Good Weather Summary

Itinerary : madras - cbe

Voyage Leg Date(UTC) : 18-12-2023 14:59 - 20-12-2023 15:00

CP Warranties : About 13 Kts on About 23.5 Mts Fuel

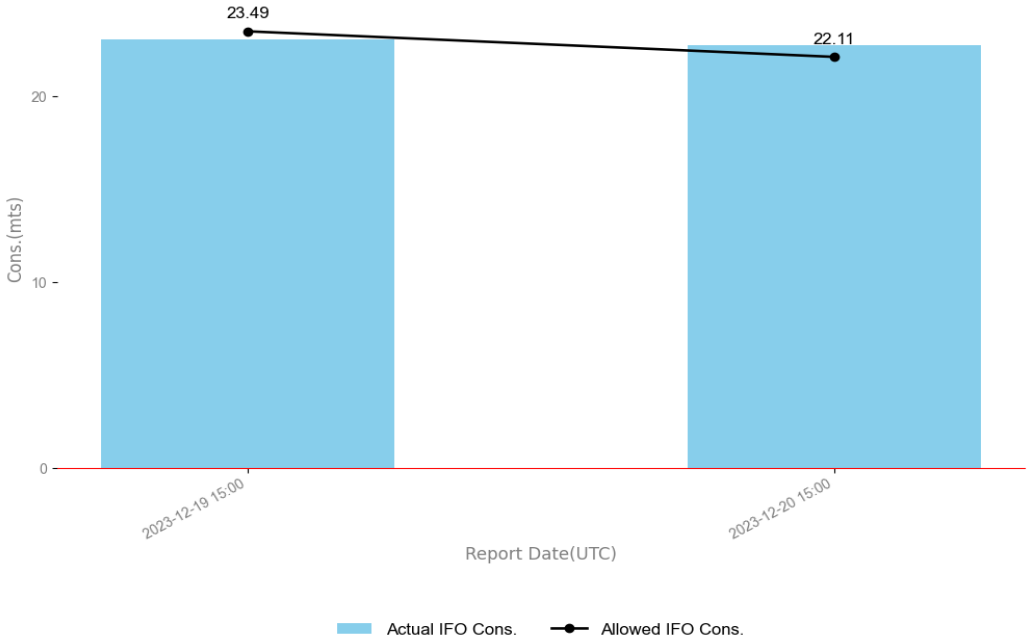
Date	Lat	Log	Steaming Hours	Allowed Steaming Hours	Distance (NM)	Avg - RPM	Slip (%)	Course	Bunker ROB (MT)				Bunker Cons. (MT)				Allowed Cons. MT	Good Weather
									HSFO	VULSFO	MGO	MDO	HSFO	VULSFO	MGO	MDO		
18th Dec 2023 14:59	COSP	madras	0.00	0.00	0.00	0.00	0.00	0	0.00	650.77	233.70	0.00	0.00	0.00	0.00	0.00	0.00	NO
19th Dec 2023 15:00	-32.30	-50.57	24	23.76	297.00	91.44	-0.20	50	0.00	627.74	233.60	0.00	0.00	23.03	0.10	0.00	23.49	NO
20th Dec 2023 15:00	EOSP	cbe	24	22.37	279.60	91.85	6.00	50	0.00	605.00	233.50	0.00	0.00	22.74	0.10	0.00	22.11	NO

Message Traffic

Report Type	Position		Date/ Time (GMT)	Since last report								DTG (NM)	ETA (LT)	BROB(MT)				Remarks
	Lat	Log		Avg Wind (Dir. x Bft)	Avg Sea (Dir. x Height)	Ordered Speed (Kts)	Avg. Speed (Kts)	Course	RPM	Slip (%)	Distance Sailed (NM)			HSFO	V/ULSFO	MGO	MDO	
Departure-madras	-35.05	-55.25	18th Dec 2023 14:59	0.0 x 0	0.0 x 0.0	13	0.00	0	0.00	0.00	0.00	0	0	False	650.77	233.70	0	
NOON	-32.30	-50.57	19th Dec 2023 15:00	157.5 x 7	157.5 x 2.5	13	12.40	50	91.44	-0.20	297.00	0	0	False	627.74	233.60	0	
Arrival-cbe	-29.27	-46.46	20th Dec 2023 15:00	90.0 x 5	67.5 x 1.0	13	11.65	50	91.85	6.00	279.60	0	0	False	605.00	233.50	0	

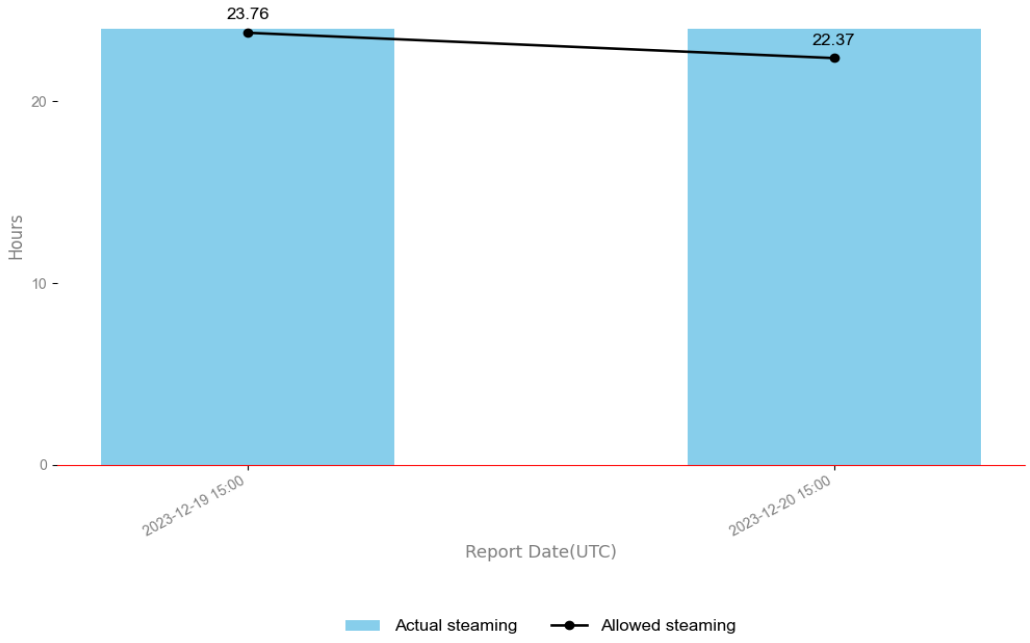
Fuel Graph

Comparison between Actual vs Allowed IFO Cons.



Steaming Graph

Comparison between Actual vs Allowed Steaming



Annex A - Speed Calculation Detail

1 Min. C/P allowable time (hrs)

$$= \frac{\text{Distance in Good Weather(NM) - (+/- Current Factor} \times \text{Actual Time in Good Weather)(NM)}}{\text{(Warranted Speed (kts) + Min. Speed Tolerance (kts))}}$$

2 Max. C/P allowable Time (hrs)

$$= \frac{\text{Distance in Good Weather(NM) -(+/- Current Factor} \times \text{Actual Time in Good Weather)(NM)}}{\text{(Warranted Speed (kts) - Max. Speed Tolerance (kts))}}$$

3 Track Time Gain = Min. C/P allowable time (hrs) - Actual Time in Good Weather (hrs)

4 Track Time Loss = Max. C/P allowable time(hrs) - Actual Time in Good Weather (hrs)

5 Track Time is applied to Overall Track Time

$$= \left[\frac{\text{Good Weather gain/Loss track time(hrs)}}{\text{Good Weather Distance (NM)}} \right] \times \text{Total Voyage Distance (NM)}$$

Annex B - Fuel Consumption Calculation Detail

Distance adjusted for current (NM)

= Distance in Good Weather (NM) - (+/- Current Factor × Actual Time in Good Weather)(NM)

1 Min. Allowable Usage (mts)

$$= \left[\frac{\text{Distance adjusted for current (NM)}}{\text{(C/P Speed - Min. Speed Tolerance(kts) *24}} \right] \times \text{Daily C/P allowable Consumption} \times (1\text{-About \%})$$

2 Max Allowable Usage (mts)

$$= \left[\frac{\text{Distance adjusted for current (NM)}}{\text{(C/P Speed - Min. Speed Tolerance(kts) *24}} \right] \times \text{Daily C/P allowable Consumption} \times (1\text{+About \%})$$

3 Good Weather Fuel Gain

= Min. Allowable Usage (mts) - Actual Usage in Good Weather (mts)

4 Good Weather Fuel Loss

= Max. Allowable Usage (mts) - Actual Usage in Good Weather (mts)

5 Good Weather Fuel Gain/Loss Consumption applied to overall track

$$= \left[\frac{\text{Good Weather Fuel gain/Loss Consumption (mts)}}{\text{Good Weather Distance (NM)}} \right] \times \text{Total Voyage Distance (NM)}$$

Annex C - CO2 Emission Calculation Detail

Total CO2 produced at sea (MT) = Σ(bunker consumed x CO2 factor for particular grade)

*all CO2 factors are considered as mentioned in IMO GHG Study 2020 (pg.74; Table 21)

Weather DataSources

Our weather forecast is based on data from several sources including NOAA server along with two other agencies.The weather projection model consist of 05 days accurate weather forecast along with 09 days extended forecast. For subsequent days,information from historical weather database is used.

WAVEWATCH III for Wind/Waves/Swell

WAVEWATCH III is a third generation multi-grid wave model at NOAA/NCEP in the spirit of WAM model.

Update Interval : 6 Hours
Average Resolution Time : 3 Hours
Time Period : 5 Days
Provider : NOAA (National Oceanic & Atmospheric Administration

GEFS (Global Ensemble Forecast System) for Wind/Waves/Swell

The Global Ensemble Forecast System (GEFS) is a weather forecast model made up of 21 separate forecast or ensemble members.

Update Interval : 6 Hours
Average Resolution Time : 3 Hours
Time Period : 16 Days
Provider : NOAA (National Oceanic & Atmospheric Administration

Copernicus Marine Environment Monitoring Service- for Sea Currents

The Copernicus Marine Environment Monitoring Service is part of the Copernicus Pro- gramme, which is an EU Programme managed by the European Commission (EC) and implemented in partnership with the Member States, the European Space Agency (ESA), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), the European Centre for medium-range Weather Forecasts (ECMWF), EU Agencies and Mercator Ocean. The Programme is aimed at developing a set of European information services based on satellite Earth Observation and in-situ (non-space) data.

Spatial Resolution : 0.08 degree (Lat) x 0.08 degree (Lon)
Temporal Resolution : Hourly mean
Time Period : 7 Days
Provider : Copernicus