




## Clean Shipping Index Certificate of verification

Name of vessel:	VIIKKI	Score:	106	
Owner:	ESLshipping			
IMO number:	IMO9797620			

THIS IS TO CERTIFY that the above-mentioned vessel has been verified by the undersigned according to the Clean Shipping Index, and that, upon completion of the survey the undersigned is of the opinion that the vessel performance is in compliance with the self assessment. The scoring for this vessel meet the requirements of the **CSI 4** classification according to the Clean Shipping Index.

Date of issue:  
2022-04-01

Valid until:  
2025-04-01

Annual update required:  
Fulfilled

Jonas Hoffman  
Surveyor  
DNV

Elin Malmgren  
Director  
Clean Shipping Index



## SOx

Scoring description Company assessment highlighted	Verification assessment	Verification comments	Guideline for assessment
Main engines Operations in non-ECAs			
No data/compliance	0	<b>3</b>	LNG & FO <0,1%S. All fuel used in ME,AE, 2023 average 207 ppm
Operation <i>only</i> in ECAs (ECA scoring doubles)	0		
Fuel quality < 0.1% S	3		
<b>"Minimum sulphur fuels" (&lt; 50 ppm S)</b>	<b>5</b>		
Plug-in battery power, fuel cell, wind power or similar	5		
Main engines Operations in ECAs			
No data/compliance	0	<b>2</b>	Office and onboard verification Required documents: Bunker Delivery Notes, BDN summaries, Oil Record Book, International Air Pollution Prevention (IAPP) certificate
Operation <i>only</i> in non-ECAs (scoring above doubles)	0		
<b>"Minimum sulphur fuels" (&lt; 50 ppm S)</b>	<b>5</b>		
<500ppm S	2		
Plug-in battery power, fuel cell, wind power or similar	5		
Aux. engines			
No data/compliance	0	<b>2</b>	Office and onboard verification Required documents: Bunker Delivery Notes, BDN summaries, Oil Record Book, International Air Pollution Prevention (IAPP) certificate
Fuel quality < 0.1% S outside SECAs	2		
Shore-side electricity	5		
<b>"Minimum sulphur fuels" (&lt; 50 ppm S)</b>	<b>5</b>		
Plug-in battery power, fuel cell, wind power or similar	5		

## PM

Scoring description Company assessment highlighted	Verification assessment	Verification comments	Guideline for assessment
PM Main engines, operation in non-ECAs			
No data/compliance	0	2023 average S, 207 ppm	Office and onboard verification Required documents: Bunker Delivery Notes, BDN summaries, Oil Record Book, International Air Pollution Prevention (IAPP) certificate, Measurement report with PM emission factors
Operation <i>only</i> in ECAs (ECA scoring doubles)	0		
Fuel quality < 0.1% S	3		
PM < 0.2 g/kWh	3		
PM < 0.1 g/kWh	5		
<b>Minimum sulphur fuels (&lt; 50 ppm) S</b>	<b>5</b>		
Plug-in battery power, fuel cell, wind power or similar	5		
PM Main engines, operation in ECAs			
No data/compliance	0	1	Office and onboard verification Required documents: Bunker Delivery Notes, BDN summaries, Oil Record Book, International Air Pollution Prevention (IAPP) certificate, Measurement report with PM emission factors
Operation <i>only</i> in non-ECAs (scoring above doubles)	0		
<b>"Minimum sulphur fuels" (&lt; 50 ppm S)</b>	<b>5</b>		
PM < 0.2 g/kWh	3		
PM < 0.1 g/kWh	5		
<500ppm S	1		
Plug-in battery power, fuel cell, wind power or similar	5		
PM aux.engines			
No data/compliance	0	0	Office and onboard verification Required documents: Bunker Delivery Notes, BDN summaries, Oil Record Book, International Air Pollution Prevention (IAPP) certificate, Measurement report with PM emission factors
PM < 0.2 g/kWh	3		
PM < 0.1 g/kWh	5		
Shore-side electricity	5		
<b>"Minimum sulphur fuels" (&lt; 50 ppm S)</b>	<b>5</b>		
Plug-in battery power	5		

## NOx

Scoring description Company assessment highlighted	Verification assessment	Verification comments	Guideline for assessment
NOx main engines			
No data/ No score	0	<b>0</b>	Tier II  Office and onboard verification Required documents: Engine International Air Pollution Prevention (EIAPP) certificate. Other approved NOx measurements or calculations
<b>25% below Tier III level</b>	<b>10</b>		
50% below Tier III level	18		
Plug-in battery power, fuel cell, wind propulsion or similar no- NOx propulsion method	21		
Tier III levels with proven emissions before 2021-01-01	18		
NOx auxiliary engines			
No data/ No score	0	<b>6</b>	Tier III (LNG)  Office and onboard verification Required documents: Engine International Air Pollution Prevention (EIAPP) certificate, Other approved NOx measurements or calculations
25% below Tier III level	4		
50% below Tier III level	7		
Plug-in battery power, shore- side electricity, fuel cell, wind propulsion or similar no-NOx method	9		
Tier III levels with proven emissions before 2021-01-01	6		
<b>No auxiliary engines</b>	<b>4</b>		

## CO2

Scoring description Company assessment highlighted	Verification assessment	Verification comments	Guideline for assessment
CO2 emission information			
No data	0	<b>3</b>	Office and onboard verification Required documents: Overview of each voyage, split on ballast and laden legs if applicable, with sailed distance, port calls, cargo transported, type and mass of fuel consumed for main engine, auxiliary engines, boilers and other consumption. Data preferably available over one calendar year (or more). Documentation explaining methodology and calculation used for establishing CO2 footprint.
CO2 per TEU-km according to BSR	3		
<b>CO2 per tonne-nm according to MEPC (EEOI)</b>	<b>3</b>		
CO2 emission performance CCWG			
<b>No data</b>	<b>0</b>	<b>0</b>	Office and onboard verification Required documents: Overview of each voyage, split on ballast and laden legs if applicable, with sailed distance, port calls, cargo transported, type and mass of fuel consumed for main engine, auxiliary engines, boilers and other consumption. Data preferably available over one calendar year (or more). Documentation explaining methodology and calculation used for establishing CO2 footprint.
Reference value or above	0		
< Reference value	3		
> 5% below reference	6		
> 10% below reference	9		
> 15% below reference	12		
> 20% below reference	15		
> 25% below reference	18		
> 30% below reference	21		
> 40% below reference	27		
CO2 emission performance EEOI			
No data	0	<b>27</b>	Office and onboard verification Required documents: Overview of each voyage, split on ballast and laden legs if applicable, with sailed distance, port calls, cargo transported, type and mass of fuel consumed for main engine, auxiliary engines, boilers and other consumption. Data preferably available over one calendar year (or more). Documentation explaining methodology and calculation used for establishing CO2 footprint.
20% above reference or more	0	2023 MRV data used. Scoring 55.1% below reference value.	
< 20% above reference	3		
< 15% above reference	6		
< 10% above reference	9		
< 5% above reference	12		
Reference value or below	15		
> 5% below reference	18		
> 10% below reference	21		
> 15% below reference	24		
<b>&gt; 20% below reference</b>	<b>27</b>		

## Chemicals

Scoring description Company assessment highlighted	Verification assessment	Verification comments	Guideline for assessment
Antifouling			
No data	0	<b>7</b>	Onboard verification Required documents: Anti-Fouling System(AFS) certificate, Material Safety Data Sheet (MSDS), Technical Data Sheet (TDS)
Other/ Controlled Depletion Polymer (CDP)	0		
Biocidal antifouling paints	0		
<b>Non-biocidal antifouling paints</b>	<b>7</b>		
Stern Tube Oil			
No data	0	<b>7</b>	Onboard verification Required documents: MSDS, TDS
Mineral oil based	0		
<b>Air seal</b>	<b>7</b>		
Based on biodegradable oil	5		
Water lubrication	7		
Not applicable	7		
External hydraulic fluids			
No data	0	<b>3</b>	Capped systems.  Onboard verification Required documents: MSDS, TDS
Mineral oil based	0		
Ext. hydraulics exchanged to electrical power	3		
<b>Based on biodegradable oil</b>	<b>3</b>		
Ext. hydraulic system capped	3		
Gear oils for thrusters and controllable pitch (CP) propellers			
No data	0	<b>5</b>	Onboard verification Required documents: MSDS, TDS
Mineral oil based	0		
<b>Based on biodegradable oil</b>	<b>5</b>		
Not applicable	5		
Boiler/ Cooling water treatment			
No data	0	<b>2</b>	Onboard verification Required documents: MSDS, TDS
Classified as CMR, toxic, sensitizing, dangerous to the environment	0		
<b>Not classified as above (nitrite exclusive)</b>	<b>2</b>		
Cleaning agents			
No data	0	<b>3</b>	Onboard verification Required documents: MSDS, TDS
Classified as CMR, dangerous to the environment or toxic	0		
<b>Not classified as above</b>	<b>3</b>		
Refrigerants			
No data	0	<b>3</b>	Onboard verification Required documents: MSDS, TDS, IAPP certificate, Refrigerant Record Book
Non-natural (excluding the HFCs below)	0		
HFCs complying with GWP<3500 and ODI=0	1		
<b>Natural (NH3, CO2) or HFCs complying with GWP&lt;1850 and ODI=0</b>	<b>3</b>		

## Water and waste control

Scoring description Company assessment highlighted	Verification assessment	Verification comments	Guideline for assessment
Grey water			
No data	0	<b>3</b>	All grey water through treatment plant,
No treatment	0		
<b>No discharge in sensitive areas (PSSA) or treatment in sewage plant onboard</b>	<b>3</b>		
Sewage / Black water			
No data/ no treatment	0	<b>4</b>	Onboard verification Required documents: Certificate of Type Approval for Sewage Treatment Plant (if applicable), International Society of Sustainability Professionals (ISSP) certificate (if in place), Proposed Management System (PMS) documentation (if in place) Sewage handling manuals
Sewage treatment plant according to MEPC onboard	4		
Sewage is left on land for treatment	5		
Garbage handling			
No data	0	<b>4</b>	Onboard verification Required documents: Garbage Record Book, Garbage Management Plan
Incinerator used on board	0		
<b>No incinerator on board or documented no incineration of garbage and no waste overboard and separate garbage handling for reuse, recycling and disposal</b>	<b>4</b>		
Sludge handling			
No data	0	<b>4</b>	Onboard verification Required documents: International Oil Pollution Prevention (IOPP) certificate, Oil Record Book
Incinerator used on board	0		
<b>No incinerator on board or documentation of no incineration of sludge and disposal of sludge to treatment on shore</b>	<b>4</b>		
Bilge water treatment			
No data	0	<b>6</b>	Onboard verification Required documents: IOPP certificate, PMS documentation (if in place)
Gravimetric separation	0		
Active treatment installed and < 5ppm oil in outgoing water	4		
Active treatment installed and < 5ppm oil in outgoing water and emission control box in place	6		
Active treatment installed and < 15ppm oil in outgoing water	3		
<b>Discharge to onshore facility</b>	<b>6</b>		
Crew awareness			
No data	0	<b>3</b>	Onboard verification Interview survey
<b>Documented education of personnel on environmental awareness, health risks and adequate protective equipment</b>	<b>3</b>		
Scrubber water			
Release of either open-loop or closed loop scrubber water to the sea	0	<b>5</b>	LNG and distillate fuel operation, no scrubber.. Onboard verification Required documents: Bunker Delivery Notes, BDN summaries,

Use of residual oil or mixed fuels containing residual oil, such as VLSFO or ULSFO

0

Use of distillate oil such as MGO, LNG or alcohols as fuel or plug-in battery power, fuel cell, wind power or similar

5

Oil Record Book

