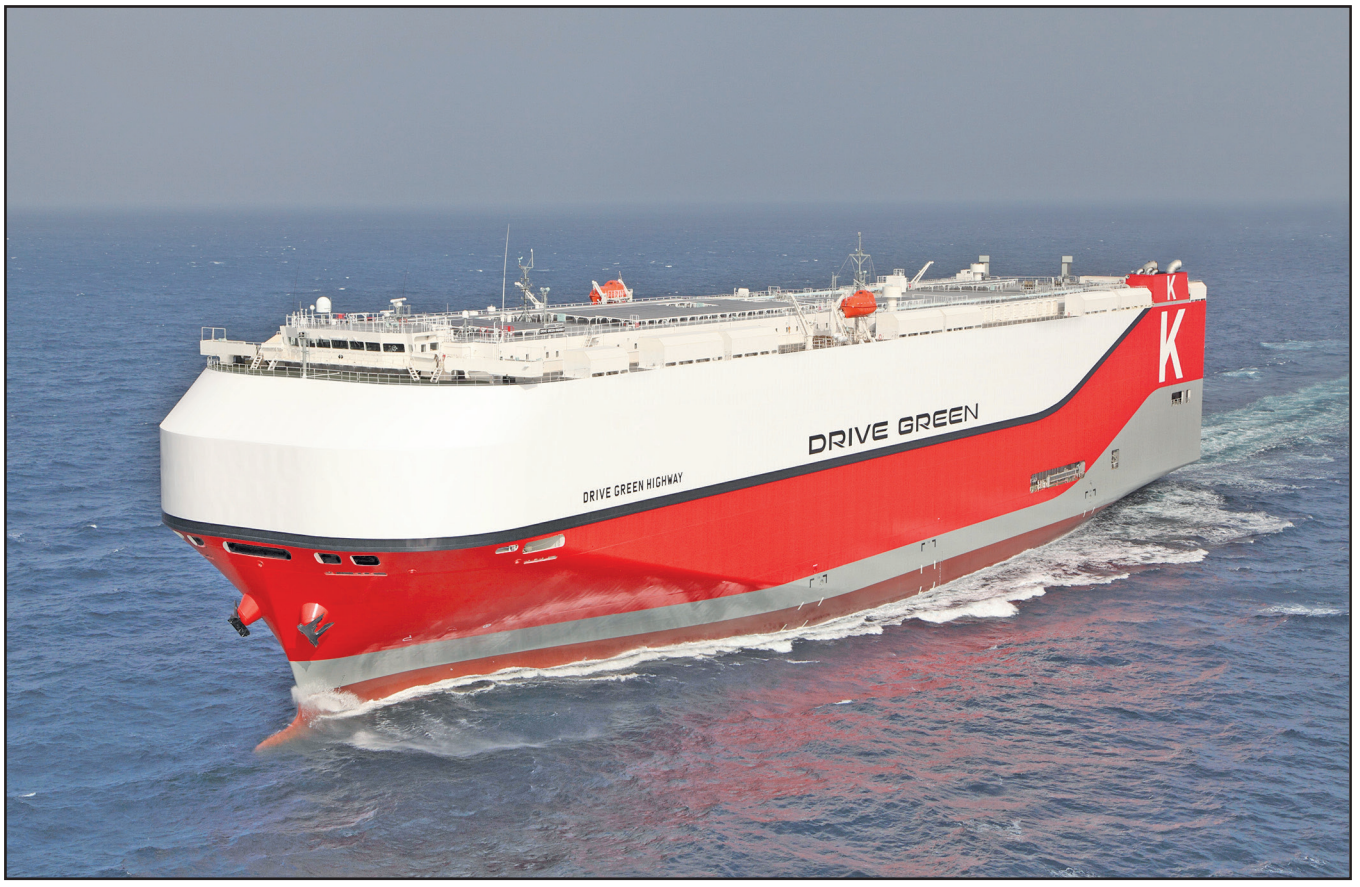

DRIVE GREEN HIGHWAY: Car carrier

Shipbuilder: ....**Japan Marine United Corporation**
Vessel's name: ..... ***DRIVE GREEN HIGHWAY***
Hull No: **5044**
Owner/Operator: ..... **JMU5044 SHIPPING S.A. / "K" LINE**
Country: ..... **Panama / Japan**
Designer: .....**Japan Marine United Corporation**
Country: ..... **Japan**
Flag: ..... **Panama**
IMO number: **9728069**
Total number of sister ships already completed (excluding ship presented): ...**1**
Total number of sister ships still on order:..... **2**

The delivery of "K" Line's *DRIVE GREEN HIGHWAY* this year was a milestone in the Drive Green project launched in 2014 to use the world's most advanced technologies to build a 7,500 unit car carrier which provides both environmental protection and energy savings. The project was launched with the aim of reducing CO_2 emissions by 25% compared with more conventional designs using advanced hull design and energy saving technology.

A NOx suppression device has been installed on the main engine, which reduces both CO_2 and NOx emissions by the combination of an exhaust gas recirculation system and water emulsion fuel designed by Kawasaki Heavy Industries. The SOx reduction method installed – a SOx scrubber – was produced by Mitsubishi Heavy Industries and Mitsubishi Kakoki Kaisha.

In addition to the above energy saving equipment, LED lighting has been installed through most of the ship, with the LED lights on car decks supplied by a solar power system manufactured by Solar Frontier. With a maximum capacity of 7,500 passenger cars the ship can also carry other types of cargo. The design of the *Drive Green Highway* aims to reduce wind resistance and provides extra stability. Other sustainable technologies contributing to the reduction of fuel consumption are the use of a special coating which reduces the ship's resistance and the design of the ship's screw, which increases efficiency.

Drive Green Highway integrates among the world's most advanced environmentally friendly and energy-saving technologies, including greenhouse gas suppression systems fitted to Solar Frontier's CIS solar panels on its decks. The vessel has one of the largest solar energy systems on any ship in the world, with more than 900 of Solar Frontier's CIS solar panels installed on the vessel's top deck offering a 150 kilowatt-peak of electricity generating capacity. The electricity generated by these solar panels will be used to power all LED lighting on the vehicle decks.

"K" Line selected Solar Frontier's CIS modules to install on their new ship because they generate higher electricity yield (kilowatt-hours per kilowatt-peak) than crystalline silicon solar panels in real-world conditions. Their strength in hot environments and salt-mist environments, such as at sea, will also support *Drive Green Highway* as it carries cargo around the world.

With its design and technology improvements, *Drive Green Highway* will emit 25% less carbon dioxide, 50% less nitrogen oxide and 90% less sulphur oxide per vehicle transported.

TECHNICAL PARTICULARS

Length oa: .....max. 199.99m
Breadth moulded: 37.50m
Depth moulded
To other decks: .....38.23m (to accommodation deck)
Draught
Scantling: 9.9m
Gross: 76,387gt
Deadweight
Scantling: 20,034tonnes
Speed, service (-- %MCR output): 20knots
Classification society and notations: .....Nippon Kaiji Kyokai NS*(VC, EQ C DG, PSPC-WBT)(IWS)(PSCM) (EA + STS, BWTS, SCELL-11)(BWTS) (IHM), MNS*(M0)
Main engine(s)
Design: ..... MAN B&W
Model: 7S60ME-C8.2
Manufacturer: .....Kawasaki Heavy Industries Ltd.
Number: 1
Type of fuel: ..... HFO or MDO
Output of each engine: 13,000kW
Propeller(s)
Material: ..... Ni-Al-Bronze
Designer/Manufacturer: .....Japan Marine United / Nakashima Propeller Co., Ltd.
Number: 1
Fixed/Controllable pitch: .....Fixed pitch
Diesel-driven alternators
Number: 3
Engine make/type: ..... Daihatsu Diesel Mfg. Co., Ltd.
Type of fuel: ..... HFO or MDO
Alternator make/type: ..... Taiyo Electric Co, Ltd.
Boilers
Number: 1
Type: ..... Vertical Smoke-tube boiler
Make: .....Osaka Boiler Mfg. Co., Ltd.
Mooring equipment
Number: .....2 x windlass and mooring winch, 4 x mooring winch
Make: .....Nippon Pusnes Co. Ltd
Type (electric/hydraulic/steam): .....Electro-hydraulic driven
Vehicles
Total cars: .....7,500 units
Ballast control system
Make:..... Musasino Co., Ltd.
Water Ballast Treatment System
Make: .....Alfa Laval
Complement
Officers: 10
Crew: 13
Supernumaries/Spare: 8
Bow thruster(s)
Make: .....Kawasaki Heavy Industries, Ltd.
Number: 1
Fire detection system
Make: .....Consilium Nittan Marine Ltd.
Fire extinguishing systems
Engine room
Make/Type: ..... Kashiwa / High expansion foam
Vehicle spaces
Make/Type: ..... Kashiwa / High expansion foam
Cabins
Make/Type: .....Sea water
Public spaces
Make/Type: .....Sea water
Radars
Number: 2
Make:..... Japan Radio Co., Ltd.
Integrated bridge system? ..... No
Delivery date: .....9 February 2016

DRIVE GREEN HIGHWAY