

Caribbean Cruising

Thanks to its exceptional energy efficiency, the PrimeLINE® unit is growing in popularity throughout the world's ocean trade routes, and the tropical waters of the Caribbean Basin are no exception. On these pages we spotlight two operations with significant presence in the Caribbean that have considerably expanded their PrimeLINE investments.

PrimeLINE® Takes On Larger Role In Crowley Maritime's Growing Fleet

Crowley Maritime Corporation's liner services group recently reached an important milestone on the path to world-class environmental stewardship: conversion of nearly a quarter of its refrigerated fleet to energy-efficient PrimeLINE® units.

The achievement occurred in time for the peak winter produce export season from the Central American countries that Crowley serves, when it took delivery of 355 new 40-foot high-cube refrigerated containers. Combined with the 400 PrimeLINE units Crowley acquired previously following extensive field testing, the Jacksonville, Fla.-based shipping line now has 755 PrimeLINE units in its growing fleet of refrigerated containers.

"The PrimeLINE unit offers improved efficiencies and reduced power consumption, which reduces our emissions and impact on the environment," said John Azzo, Crowley's director of strategic procurement. "We've placed considerable focus on implementing environmentally sound technologies as part of our overall initiatives to provide customers with the highest quality equipment and ocean cargo transportation services between the United States, Central America and the Caribbean."

Crowley dedicates most of its refrigerated containers to perishable produce trade, although Azzo said the PrimeLINE unit's high performance at the lowest temperatures will also serve in the delivery of frozen foods such as ice cream.

The fleet's latest 40-foot high-cube refrigerated containers are also Crowley's first to use sustainable polyurethane technology foam, a highly efficient insulator with substantially lower global warming potential than conventional insulation.

"As a result of the way the container is designed and insulated, combined with the PrimeLINE unit from Carrier, we anticipate long-term efficiencies, even as the units age," Azzo added.

Environmental Stewards

Founded nearly 120 years ago by Thomas Crowley, a 17-year-old with a single Whitehall rowboat serving sailing vessels moored in the San Francisco Bay, Crowley has grown into a multifaceted enterprise with a shipping and logistics business, harbor-ship assist and tanker escort, ocean towing and barge transportation, marine salvage, wreck removal and emergency response, to name just a few.

Crowley launched its Caribbean liner services in the 1980s, and today Crowley is known as a leading ocean cargo carrier between the United States and Puerto Rico, the Virgin Islands and Eastern Caribbean, the Bahamas, Central America, Dominican Republic, Haiti and Cuba.

Crowley also has a long history of environmental stewardship. A Crowley safety handbook published 20 years before the Oil Pollution Act of 1990 contains operational procedures to prevent spills that many years later became law. Today this environmental stewardship continues with a focus on deploying greener



technology, using more environmentally friendly operations and joining partnerships to help build a greener planet.

In keeping with this, Crowley also aims to provide its customers with the most innovative, energy-efficient and reliable refrigerated containers. That's where the new refrigerated containers equipped with PrimeLINE units come in.

The PrimeLINE unit uses digital scroll compressor technology and was developed to help shipping lines conserve fuel and reduce emissions related to shipboard power generation. It remains the industry's most efficient container refrigeration

unit and has the highest deep-frozen capacity of any unit using non-ozone-depleting R-134a, the refrigerant most widely used by the container industry.

"We are pleased to help Crowley achieve another milestone in the transition of its refrigerated fleet to more environmentally sustainable equipment," said Chiou Fun Sin, Carrier vice president, Global Container Refrigeration. "The PrimeLINE unit was designed especially for shipping lines such as Crowley that care deeply about the impact their operations have on the world."

Chiquita Increases Investment In PrimeLINE® Units

Chiquita Brands increased its investment in Carrier Transicold PrimeLINE® container refrigeration units nearly fivefold in 2010, based on the solid performance track record and energy-savings of the PrimeLINE units, demonstrated through research.

Within the last year, Cincinnati-based Chiquita added 4,700 PrimeLINE units equipped with the QUEST power-saving mode to the 1,250 previously acquired for its banana fleet. Chiquita's investment came on the heels of side-by-side tests it ran comparing power consumption and pull-down performance of the PrimeLINE unit and other manufacturers' units.

"Pull-down performance is critical to assuring the highest quality product," said Juan Carlos Hernandez, Chiquita's manager of maintenance and repair, who supervised the testing. "In addition, energy conservation is vital to Chiquita's green transportation

initiatives, and we were pleased that it not only reduces fuel consumption related to shipboard power generation but also reduces emissions proportionately, helping us to shrink our carbon footprint."

"We applaud the wisdom of Chiquita in conducting its own analysis to verify capabilities of container refrigeration systems before expanding its investment," said David Appel, president, Carrier Transicold.

"Over the period of ownership, the energy efficiency of PrimeLINE units will result in a substantial savings in terms of total lifecycle costs," Appel added.

Chiquita is a leading international marketer and distributor of high-quality fresh and value-added food products – from energy-rich bananas and other fruits to nutritious blends of convenient green salads.

The PrimeLINE units are used on routes from Central America, 95 percent of which are destined for North American ports.

