



# Designer gets glimpse of giant success



**RURAL REPORTER  
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Side-opening cargo doors seen in action as Sunbelt Spirit loads kiwifruit shipment

**P**ETER Dent had never been on the Sunbelt Spirit, but when he joined the giant vessel in Tauranga last week he had an intimate knowledge of her construction.

In 1978 the Taranaki-raised ship designer helped to design her fore-runner Sunbelt Dixi, pioneering a unique side-loading concept that most in the ship building industry said wouldn't work.

"Thirty years on Sunbelt Dixi is still sailing and has carried half a million cars and 20 million cartons of Californian citrus," Mr Dent said.

Now living in Sydney, Mr Dent was flown to New Zealand to visit Sunbelt Spirit by her owners and the company he previously worked with, Great American Lines.

"We wanted to give Peter the

opportunity to see this vessel while she was in this part of the world," said company vice-president Peter Johansen.

"Even though the principles of their design are similar, Sunbelt Spirit is more like a big sister than a sister ship to Sunbelt Dixi, which is much smaller," said Mr Dent.

The name Sunbelt refers to the western "sunshine" seaboard of the United States.

Mr Dent's path to ship design was not direct. He served in the Air Force during World War II and returned

home broke. "When we were demobbed I went to work on the Lyttelton Wharf to put myself through university."

He studied science but a strong interest in the sea and shipping took him to Sydney where he became

involved in the bulk-carrier business and eventually met Bryon Sugahara of Great American Lines.

"We became friends and he convinced me to work on plans for a ship which could carry both vehicles and fruit," Mr Dent said.

At the time vessels were taking cars from Japan to America's west coast and returning empty, while other ships were taking citrus fruit from California to Japan, also making the return trip without cargo.

The answer Mr Dent came up with was a vessel capable of carrying a large number of cars in cargo decks which could also be refrigerated for the transport of fruit.

The result was Sunbelt Dixi, which can carry 3317 Toyota Corona-sized cars and has eight reefer (refrigerated) compartments for fruit.



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That in itself was unique, but what made the vessel so unusual were the side-opening cargo doors which enabled fruit to be loaded on to pallets directly from the wharf.

Double doors meant neither of the Sunbelt vessels had had a problem with water-tightness in the side-opening doors, said Mr Dent.

The cargo doors open up in the hull and cages, lowered and raised by internal cranes, manoeuvre pallets of fruit from the wharf to the upper cargo holds where fork lifts pick up and stow them. The lower decks can be loaded without the use of the cages.

The efficiency of the design was demonstrated when Sunbelt Spirit loaded 7500 pallets of green and gold kiwifruit at the Port of Tauranga in 31 hours. That was about 242 pallets an hour compared with a normal-sized European vessel loading about 5000

pallets in 24 hours or an average of 208 pallets an hour.

Mr Dent was impressed with the ease and speed of the operation, as was Mr Johansen, who said it was the best he had seen in a long time.

"I've been impressed at how quickly and efficiently the stevedores have loaded the fruit with such precision, making the most of the space. It is absolutely some of the best loading of fresh fruit pallets I have ever seen," said Mr Johansen.

The shipment was the largest Zespri has sent on one vessel so early in the season and came about because the depressed US economy has reduced demand for new cars.

"The ship's owners were looking for another cargo and Zespri was able to take advantage of the opportunity," said Michael Knowles, Zespri's shipping manager.

"It's good news for all sectors of the industry as this vessel enables us to ship a significant volume of fruit into the European market.

"It's also a credit to the industry that it has been able to supply this volume of export-quality fruit so early in the season," he said.

Because of her size and unusual appearance, Sunbelt Spirit created quite a stir when she arrived in the Port of Tauranga. The ship's high straight sides towered over the wharf but only 21 crew are required to sail her.

She has 13 decks and a fleet of 12 forklifts for stowing pallets of fruit. Cars are driven on via a stern ramp.

She was expected to take 27 days, steaming at 19 knots, to reach the Belgium port of Zeebrugge.

## SUNBELT SHIPS

**Owner:** Great American Lines Inc  
**Sunbelt Spirit**

**Gross tonnage:** 60,587

**Net Tonnage:** 23,315

**Car Carrying Capacity:** about 6200 units (Toyota Corona)

**Breadth:** 32.26 m

**Length over all:** 212.082 m

**Draft:** 9 m

**Sunbelt Dixi**

**Gross tonnage:** 30,610

**Net tonnage:** 14,106

**Car Carrying Capacity:** about 3,317 units (Toyota Corona)

**Breadth:** 26.8 m

**Length overall:** 183.7m

**Draft:** 8.7m



UNIQUE: Peter Dent's design has opened doors for the shipping industry.

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