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Slow Trip Across Sea Aids Profit and Environment

By ELISABETH ROSENTHAL

It took more than a month for the container ship Ebba Maersk to steam from Germany to Guangdong, China, where it unloaded cargo on a recent Friday — a week longer than it did two years ago.

But for the owner, the Danish shipping giant Maersk, that counts as progress.

In a global culture dominated by speed, from overnight package delivery to bullet trains to fast-cash withdrawals, the company has seized on a sales pitch that may startle some hard-driving corporate customers: Slow is better.

By halving its top cruising speed over the last two years, Maersk cut fuel consumption on major routes by as much as 30 percent, greatly reducing costs. But the company also achieved an equal cut in the ships’ emissions of greenhouse gases.

“The previous focus has been on ‘What will it cost?’ and ‘Get it to me as fast as possible,’ ” said Soren Stig Nielsen, Maersk’s director of environmental sustainability, who noted that the practice began in 2008, when oil prices jumped to $145 a barrel.

“But now there is a third dimension,” he said. “What’s the CO2 footprint?”

Traveling more slowly, he added, is “a great opportunity” to lower emissions “without a quantum leap in innovation.”

In what reads as a commentary on modern life, Maersk advises in its corporate client presentation, “Going at full throttle is economically and ecologically questionable.”

Transport emissions have soared in the past three decades as global trade has grown by leaps and bounds, especially long-haul shipments of goods from Asia. The container ship trade grew eightfold between 1985 and 2007.

The mantra was, “Need it now.” But the result is that planes, ships, cars and trucks all often travel at speeds far above maximum fuel efficiency.

Slowing down from high speeds reduces emissions because it reduces drag and friction as ships plow through the water.

That principle holds true in the air and on land. Planes could easily reduce emissions by slowing down.
percent, for example, adding just five or six minutes to a flight between New York and Boston or Copenhagen and Brussels, said Peder Jensen, a transportation expert at the European Environment Agency.

And simply driving at 55 instead of 65 miles per hour cuts carbon dioxide emissions of American cars by about 20 percent, according to the International Energy Agency. Yet many states are still raising speed limits, even as policy makers fret about dependence on foreign oil and emissions that heat the atmosphere.

“There’s a sense of urgency we’ve created — it’s always faster, faster, faster,” said Tim Castleman, founder of the Drive55 Conservation Project, a group in Sacramento that advocates the lower speed limit.

“I can drive 55 right now,” he said. “I believe it will make a profound difference.”

Of course, mile per mile, shipping even at conventional speeds is far more efficient than road travel. Shipping a ton of toys from Shanghai to northern Germany churns out lower emissions than trucking them south to Berlin afterward.

Some carriers initially resisted the idea of slowing down, arguing that speed was indispensable to serving their clients.

“There was initially a lot of skepticism,” said Philip Damas, director of liner travel at Drewry Shipping Consultants of London. “All ships are built with the expectation they’d have to sail fast.”

But now, he said, carriers from Germany to Israel to China are starting to embrace the slow strategy. Today more than 220 vessels are practicing “slow steaming” — cruising at 20 knots on open water instead of the standard 24 or 25 — or, like Maersk’s vessels, “super slow steaming” (12 knots).

And many companies find that the practice allows them to cut prices in an ever more competitive market, even at a time when oil prices hover around $80 a barrel.

Any rise in fuel prices or taxes would enhance the appeal of slow steaming. At the international climate conference in Copenhagen in December, Connie Hedegaard, now the European Union’s climate minister, proposed a tax on fuels used in shipping, saying the proceeds could be used to help poor countries adapt to rising temperatures.

China and India objected, saying it would increase the price of their exports to the West.

There are practical obstacles to a tax. For one thing, longstanding international agreements intended to promote global trade exempt airline and shipping fuel from taxation.

And even if nations were to accept emission ceilings under a so-called cap-and-trade system, there is enormous disagreement over how the accounting would work. Should the Ebba Maersk’s emissions appear on Denmark’s balance sheet, even though it travels from China to Germany and back?

While slowing speeds is a good idea, said David Bonilla, senior research fellow at the transport studies unit at Oxford University’s School of Geography and the Environment, he maintains that it cannot on its own arrest the emissions growth resulting from today’s trade patterns, in which vast amounts of goods are produced in Asia but consumed in Europe or the United States.
To make a difference, he said, fuel costs for long-distance shipping must rise to the point where carriers are forced to invest in new, far more efficient boats or shift to shorter routes.

“What you may have to do is to shift the location of industrial plants in international supply chains to shorten the distance between production and consumption,” he added. “But it’s very difficult to do that.”

Yet in shifting hundreds more ships to its slow steaming program last year, Maersk considered itself prescient: it is convinced that a carbon tax or tighter shipping rules are on the horizon.

“This is not going away, and those of us who are starting now will be ahead of regulations,” Mr. Nielsen said.

Super slow shipping involves adjustments. Maersk had to prove that slow speeds would not damage ship engines in order to maintain engine warranties that did not cover such slow travel. Customers have to factor in extra time for delivery, which can be problematic for time-sensitive products like fashion or electronics, said Mr. Damas of Drewry Shipping.

Maersk has also shouldered the labor costs of having crews at sea for longer periods and added two ships on its Germany-to-China route to maintain scheduled deliveries. But those expenses were canceled out by decreased fuel costs, it said.

Now Maersk is working with customers in the hopes of slowing more boats and contemplating charging customers variable rates, depending on speed.

If so, “they will have to decide what needs to come quickly,” Mr. Nielsen said, “and what can go on the proverbial slow boat to China.”