

## Bad U.S. roads force "just in time" manufacturers to plan for 'just in case'

By James B. Kelleher | September 25, 2014

(Reuters) - Some of America's leanest manufacturers share a fat secret.

Companies like Whirlpool and Caterpillar are making costly additions to their otherwise sinewy supply chains to compensate for aging U.S. roads that are too potholed and congested for "just in time" delivery.

Some opt to keep more trucks and inventory on the road. Others are leasing huge "just in case" warehouses and guarded parking lots on the edges of big cities. All that activity raises costs, which are expected to increase even more if roads are allowed to deteriorate further and an improving economy boosts traffic.

Whirlpool, for instance, has set up a network of secure drop lots outside Chicago, Milwaukee and Minneapolis. A washing machine that used to go from regional distribution center to local distribution center to customer in one day now sits overnight in a parking lot.

It "adds an extra day of lead time, which means extra inventory," said Whirlpool Corp logistics chief Michelle VanderMeer.

Then there are the parking lots and the guards. "That's real physical infrastructure and security that we have to pay for," she said. "We'd rather be investing our money elsewhere," she added, declining to estimate Whirlpool's expenses.

Overall, U.S. companies face billions of dollars in costs due to the limitations of the creaking, overcrowded transportation network, which earned a D+ grade in the most recent report card from the American Society of Civil Engineers (ASCE).

The Texas A&M Transportation Institute estimates that road congestion alone costs shippers \$27 billion a year – and that is only the value of wasted driver time and extra fuel.

"What it doesn't take into account is the cost of all the extra trucks and all the extra inventory in transit that manufacturers have to roll out to make sure their deliveries get there on time," said Bill Eisele, a senior research engineer at Texas A&M.

Manufacturers are lobbying Congress to approve new repair funds next year, with low expectations. The Highway Trust Fund, which finances road and bridge repairs, narrowly avoided insolvency this summer when lawmakers approved funding through May.

The current gas tax which funds repairs raises \$40 billion annually and has not been raised in two decades. There is little appetite in Washington, D.C to raise the gas tax to bring in the \$170 billion the Federal Highway Administration estimates is needed annually to improve roads.

So manufacturers improvise.

Commercial real estate advisers at Colliers International, Jones Lang LaSalle and CoStar report a proliferation of "just-in-case" warehouses popping up in heavily congested urban areas.

The Polar Vortex which froze much of the nation last winter and 2012's Hurricane Sandy in the Northeast were disasters for shippers and catalyzed the move. The trend is now being pushed by expectations that an improving economy will further crowd roads and raise costs, they said.

Outside Chicago, Panasonic Corp, Ingram Micro and Owens & Minor have all leased spaces in recent years to help take congestion-related variability out of their supply chains, according to CoStar.

An item which passes through two warehouses requires about 50 percent more inventory than an item which passes through one, said Rene Circ, CoStar's director of industrial research.

"It either costs the companies in the form of lower margins and profits or customers in the form of higher prices," he said.

As the world's largest maker of big earth-moving equipment,

Caterpillar is also one of the world's largest shippers by weight, moving 12 billion pounds of machines, engines and parts globally each year, much of that out of its plants in the central and southern United States.

Many of those machines are exported. To get them to ports on the east and west coasts, Caterpillar often breaks some of its heaviest machines into parts and then re-assemble them on the dock before loading them onto ships for export.

Crazy? Not according to Ed O'Neil, the company's logistics chief. It turns out that all that extra work actually costs Caterpillar less than obtaining the state-issued heavy-load permits required to move the machines fully assembled over highways whose capacity has been cut in recent years because of a lack of upkeep.

"It's a better business decision to spend the money to tear it apart and then to put it back together than it is to try to send it as one piece," O'Neil says.