On-dock rail: off-base?

BY THEODORE PRINCE

The development of on-dock rail seems so natural that many of us forget to question its efficacy. Indeed, on-dock may be a case of common wisdom overriding common sense.

International containers moving in intermodal service have three transportation options. Off-dock involves a container, mounted on a chassis, transferred by truck between the marine terminal and the railroad ramp. Near-dock has a container transferred (with or without a chassis) between a marine terminal and an adjacent, but external, rail loading facility. Then there is on-dock - offering train loading within the same marine terminal as the vessel operation.

Yet, the seemingly obvious benefits of on-dock beg further scrutiny. Part of the problem is the basis for cost and service comparison. Ports and steamship lines benchmark on-dock against other marine terminal activities (slow and expensive). Railroads and intermodal would benchmark on-dock against other intermodal terminal operations (fast and inexpensive).

Attributes of on-dock may include ease of service and cost savings. But these alleged benefits might simply be substitutes for other failings. For example, claiming that on-dock eliminates gate congestion at marine terminals completely ignores the question of why marine terminals offer such deplorable gate processing.

First, on-dock appears more expensive than off-dock. In Southern California, the off-dock cost is $80 drayage between the marine terminal and rail ramp, plus terminal gate charges. On-dock is expensive because everything is high-priced: labor, equipment and land.

In Chicago, six workers at $20 an hour can load 200 containers in a shift ($5/lift). On-dock at Long Beach requires 25 workers at $80/hour to load the same volume ($80/lift). With expenses for land ($200,000 per acre per year) loading equipment, maintenance and the like, it is not unreasonable to fully cost on-dock at upward of $200 per lift. Most likely, the terminal operator hides the cost to the line by an internal cross-subsidy with the vessel stevedoring.

In many cases, the on-dock operator has no incentive to control expenses so costs continue to increase. One East Coast on-dock operation has a contract that stipulates that the railroad must absorb all cost increases. The port has refused to intervene. However, I am sure the port will cry railroad discrimination when the high terminal cost causes the railroad to raise its rates — and the port to be uncompetitive with other, cheaper ports.

Second, on-dock service may be inferior to off-dock. On-dock requires the compilation of volume to make unit trains. Large vessels may need five or six trains to handle all their intermodal cargo. Since on-dock terminals can only handle one or two trains at a time, this volume may not be accommodated for several days, while off-dock cargo can be handled in individual units by the railroads using their existing generic train network.

Service can be worsened by access problems. Marine terminals in Long Beach are 25 miles from the transcontinental railroad main lines. This is a 30-minute drive — two hours in bad traffic. By rail, it is a four-hour move under good conditions — 36 hours with congestion. The Ports of Los Angeles and Long Beach will tell you that the Alameda Corridor will solve this problem. It will, if and when it’s built. Right now, the on-dock rail facilities built with the promise of the corridor must struggle with antiquated facilities. The national freight shortage is partly attributable to the increased cycle time of on-dock.

Access is not a problem limited to Southern California. Every port with on-dock is subject to this railroad main-line access problem. Most ports deny that this is their problem; their job is to merely unload vessels and load trains. Rather than get directly involved with overseeing movement, ports have turned to other parties. These range from the sublime (i.e., having terminal-switching railroads handle unit trains) to the ridiculous (i.e., setting up coordination groups). One port made the mistake of hiring a knowledgeable ex-railroad official to oversee the coordination. When he pointed out the ineptitude of the operation, he was dismissed.

On-dock has to cope with disaggregation of volume. Lines no longer have two or three exclusive vessels. With vessel alliances, the same volume is spread among five or more vessels. The vessel-sharing partners may well have different railroad partners and commercial priorities. Furthermore, the proliferation of double-stack destinations spreads the same volume over more destinations. This is a challenge for optimal car utilization and may require extensive switching.

On-dock needs to be managed as the intermodal operation it is, not as a marine sideline. Terminal operators need to recognize — and compensate for — their limitations. Professional, intermodal terminal operators should be invited to review and improve their operations. Steamship lines need to face reality and fulfill customer requirements. Ports need to stop hiding behind third parties and become directly involved in controlling rail access and movement. Railroads need to speak up and define ways to improve mobility through ports. It’s an intermodal problem; we need an intermodal solution.

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