The recent golden anniversary of containerization seems to have resulted in the hagiography of Malcolm McLean. However, like many innovators, McLean does not have an unblemished record. He made two bad “bet-the-company bets” on fuel. He introduced the fast SL-7s as fuel costs skyrocketed, and then later introduced the slow E-conships as fuel prices collapsed and trade exploded. But McLean’s most lasting negative legacy is likely to be steamship line-provided chassis.

The early rationale for lines providing chassis was logical. Vessels could carry more cargo in stacked containers than in trailers that were rolled on. Early liner carriers needed to provide all the assets necessary for container movement: vessels, terminals, containers — and chassis. U.S. terminal operations became largely wheeled.

A containerization spread worldwide, however, responsibility for the chassis fell solely on the trucker. Outside the U.S., containers would be removed from or loaded onto truckers’ chassis at the terminal. A containerization grew, U.S. terminals (with access to increasing land supply) expanded horizontally, with containers stored on chassis. Other countries grew vertically — stacking more in the same terminal footprint.

Intermodal service increased the chassis challenge. A marine terminal typically handles four to 10 lines. A railroad terminal may handle 25. As the number of lines (and chassis owners) increases, the operating complexity increases as well. Commercial pressure only exacerbates the problem.

Southern Pacific Railroad’s ICTF terminal in Los Angeles was a prime example of the chassis problem. A PL and Sea-L and were allowed almost unlimited free chassis storage there, so if they had congestion at their marine terminals, they would simply dray the empty chassis to ICTF for free storage. In the early 1990s, it was not unheard of for 20 to 25 percent of the yard to be used to store empty chassis.

Some railroads tried to introduce neutral chassis pools — whereby a leasing company would provide a single source of chassis to all customers. These efforts mostly failed because lines found the rates too high. The problem was that lines could calculate a daily cost of ownership — but not utilization — so it was never a valid comparison.

The neutral pool ultimately morphed into a co-op pool in which all lines share the assets. The pool concept was successfully implemented at Maher Terminals (in New York-N.J.) and Hampton Roads.

A few years of discussion, Union Pacific Railroad implemented a steamship line chassis pool in Denver last year. Only pool chassis were allowed to remain empty in the yard. Live lifts were required for non-pool-chassis users. BNSF joined, creating a single, citywide pool. The pool was created through the Ocean Carrier Equipment Management Association, a U.S.-based association of 18 steamship lines. OCEMA set up a subsidiary, Consolidated Chassis Management, to operate the pool and establish others.

The pool results have been very successful. Utilization is up and valuable terminal space has been freed. In smaller markets, such as Denver, individual lines have handled traffic surges without massive repositioning.

Chassis maintenance and repair costs have jumped. There are two reasons for this. Pools located in marine facilities are often required to use union labor, which is considerably more expensive than off-dock labor. It has also become clear that some lines did not maintain their chassis to the same standard as other lines. The pool has raised all maintenance and repair to the same standard. This benefits the entire industry by ensuring that all equipment is safe and roadworthy.

A chassis pools proliferate, certain concerns require attention. Some lines still refuse to participate, and the railroads will need to make a difficult commercial choice if they are serious about pools. Additionally, many stakeholders would like to see the pools introduced more quickly.

The duopoly of OCEMA pool managers troubles some. Leasing companies Trac and Flexi-Van have moved from supplying neutral pools to running co-ops. To some, this represents an inherent conflict of interest — but only the lessors have the necessary software to run the co-ops. The market seems to be crying out for a truly neutral operator. After all, leasing companies make money by having too much equipment in use.

OCEMA plans to introduce pools in port locations so all steamship chassis can be pooled. A domestic container operators have been studying chassis pool alternatives for years and may be inching toward a solution. The results have been encouraging — albeit a long time coming.

Ted Prince is senior vice president of Optimization Alternatives Ltd. He can be reached at (804) 754-2291, or via e-mail at ted@oax.com.