

Common Chassis Pools can help trucking companies save fuel and reduce greenhouse gas emissions by minimizing unnecessary truck movements and idling associated with switching chassis. Drayage trucks using pooled chassis could save up to 0.8 gallons per trip, reducing Nitrogen Oxide and Particulate Matter emissions.

What is the challenge?

Fuel consumption and turn times for drayage trucks are increased through the common practice of picking up and dropping off chassis that belong to different terminal operators. Most chassis are owned and maintained by individual terminal operators or steamship lines, and are not permitted for use with containers from another carrier. With one acre required for every 50 chassis, the storage of excess chassis requires space that could be allocated for more productive uses within the terminal. Port congestion associated with chassis storage can negatively impact terminal throughput, timeliness, and ability to compete as a shipping destination.

Chassis switching can add up to an hour per trip, substantially reducing income for drayage truck drivers. Since trucking companies and truckers are typically paid by the trip, reducing gate turn-time is key to maintaining pay level, and driver retention. Chassis switching also increases fuel use, delivery times, port congestion, and air pollution.

What is the solution?

One option to reduce delays caused by switching chassis is the development of a port-wide common chassis pool. Participating shipping lines provide their own chassis for use by the pool, which can be managed and maintained by a

subsidiary of the participating terminals, or a third party. This allows drayage trucks to use pooled chassis to serve multiple carriers and greatly reduces gate turn-times through greater streamlining of operations.

Common chassis pools can provide a more efficient management of terminal assets, increase the volume of goods through the port and free up space used to store chassis on port lands. Additional fuel savings from reducing miles traveled while switching chassis, is dependent on the size of the port facility and its physical layout. Pooled chassis can also facilitate the implementation of virtual container yards (VCY) and empty container yards (ECY), reducing the number of empty container movements, congestion and wait times at terminal gates.

The results are in . . .

In October 2004, the Port of Virginia became the first U.S. port to require all chassis stored on site to participate in its Hampton Roads Chassis Pool II (HRCPII). By June 2005, HCRPII has achieved 100% participation from the port's container shipping lines, managing over 15,000 chassis. Plans for the pool include the development of HCRP III in which a third party supplier will own all chassis.

The pool has reduced the number of chassis stored on site by 5,000 to 6,000,

or 20% of the original fleet. This has resulted in 40 to 60 acres of land being recaptured for use by the terminals. HCRPII has been instrumental in keeping gate turn times below an average of 42 minutes, enabling terminals to accommodate the continued annual growth in container shipments occurring at the Port of Virginia.

Local trucking companies have indicated that the number of moves their drivers are able to complete in a shift has risen dramatically. Local drivers who would previously only be able to complete two to three container moves per shift are now being able to move up to ten containers daily. This has allowed companies to provide a more reliable service while increasing company revenues and driver incomes. Marine and railroad terminals including the ports of Los Angeles Long Beach, Baltimore, Charleston and Savannah, have expressed an interest in port-wide common chassis pools.

Next steps

Terminal operators and Port Authorities should consider the implementation of chassis pools to recapture terminal space, reduce gate turn times, and reduce air pollution and congestion in and around port facilities. Stakeholder meetings held early in the planning process can help terminals interested in adopting a common chassis pool determine which model best suits the needs of the individual ports.