

# MAINTAINING SHIPPER RAIL CAR FLEETS

**A Major Role for On-Site Repair Teams in Maximizing Fleet Efficiency**

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Freight rail supply chains include many partners who have a critical role in the delivery of efficient service. In addition to the fixed infrastructure requirements, the industry utilizes both railroad and private rolling stock. Class I railroads own large fleets of general purpose freight cars; however, many rail car fleets are specialized, private cars operated by individual shippers, and often comprised of leased equipment. In fact, private cars account for the majority of railway rolling stock in North America. These private fleets are particularly common for bulk liquid shipments in the petroleum, chemical, and food and agriculture industries, utilizing tank cars. Shippers with private cars work closely with maintenance service providers to ensure reliable, well maintained fleets while maximizing fleet availability.

Maintenance of shipper rail car fleets consists of repairs performed by the railroads, known as "running repairs" (work such as wheels, brakes and couplers), and work performed at lessor or contract repair facilities. Both railroads

and contract facilities perform repairs in accordance with standards set by the Association of American Railroads (AAR). However, unlike running repairs which are determined, performed and billed by the railroad without any car owner pre-authorization, use of contract repair facilities requires close collaboration between the shipper and maintenance service provider. Key considerations are service location alternatives and matching repair needs with capabilities and capacity. Private repairs can be performed at shops, by mini-shops co-located at shipper terminals, or by mobile repair teams operating on a scheduled or call-out basis.

A large percentage of the work at private repair facilities in Canada pertains to tank cars. Tank cars represent the largest population of specialty rail cars, and tank car maintenance is complex. Tank car facilities must be certified or registered with the AAR, and in Canada these facilities must also be registered with Transport Canada. There are various facility classes that can perform certain types of tank car work, including facility classes applicable to on-site repair operations. Additionally, recognizing that loading and unloading facilities operate the valves and fittings on a tank car in their normal course of the business, the Canadian tank car standard provides a list of 'replaced in kind' items that do not require a tank car facility.

Increasingly, tank car maintenance demands are having a major impact on industry rolling stock maintenance capacity and rail car out-of-service time. Tank car scheduled maintenance includes a wide variety of government and industry mandated programs, generally

at fixed intervals. Tank car qualifications (requirements include visual inspections, structural integrity inspections, thickness tests, service equipment inspections, and safety system inspections) are major regulatory programs, accounting for a large share of tank car maintenance activity at repair shops. Furthermore, the industry is rapidly approaching a period of unprecedented demand on tank qualification capacity due to fleet age profiles. These requirements, the result of previous car building waves, coupled with maintenance demands associated with rapid fleet growth (particularly in Western Canada), are presenting new challenges and opportunities.

As a result of this new maintenance reality, a number of strategies and tactics have been developed to address shop throughput including reducing unscheduled cars, year-round high shop utilization (traffic seasonality is an issue), leaner processes and expanded capacity. However, greater use of on-site repairs is part of the solution - both for tank cars and other freight car types in shipper fleets. Shippers benefit with major quantifiable savings including reduced freight charges and higher fleet availability, as well environmental sustainability advantages. Shops benefit with substantial freed-up capacity for the more complex maintenance such as tank qualifications and heavy repair work.

On-site repair capabilities are wide ranging, from pre-load inspections and light repairs, to service equipment qualifications on tank cars. Even tank qualifications are possible with prerequisite infrastructure and interior tank cleaning capabilities. Typical on-site repair activities include brake



system repairs, wheel changeouts, coupler replacements, safety appliance repairs, application of reflective decals, stenciling, gasket replacement, and minor damage repair. On-site repair teams can ensure cars inside shippers' facilities are ready-to-load, reliable, and meet Transport Canada, U.S. Department of Transportation and AAR standards and regulations.

Procor, Canada's largest lessor of tank cars and specialty freight cars, operates 17 on-site locations in its network, which also includes four main service centres. Working closely with its customers to identify on-site repair opportunities, Procor has expanded the scope of work at a number of existing sites from light to medium repairs, and has opened new locations. New locations require an economically sufficient level of rail traffic, however, it may be shipper aggregated. With new terminal projects, the objective is to participate in the early, planning stages to further the shipper's goals. The evaluation of repair needs includes

sizing-up the appropriate number of car spots, quantifying the on-site repair savings and ensuring a good fit with the local plant operations.

Procor touches over 50,000 cars annually with its on-site repair services and more than 70 per cent of Procor fleet servicing is completed within the gates of customer facilities. In addition to actively partnering with customers to provide industry-leading maintenance services, Procor has developed strong supplier relationships to achieve practical, high value solutions to industry challenges today and in the future. Procor purchases many materials and services to support its operations, including rail car components, interior and exterior coatings, consumable supplies, and health and safety equipment to name a few. A number of Canadian Association of Railway Supplier members play key roles supporting Procor's maintenance network, with shipper fleet efficiency and reliability as the end objectives.



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