Keeping cars moving is the name of the game. Boxcars roll south on Norfolk Southern at Shenandoah Junction, W.Va., in 2005. George Hamlin

## Who pays whom to get a freight car rolling? Sharpen your pencils and jump into Railroad Accounting 101

by Brian Buchanan

boxcar sits idle behind a warehouse. Its contents have been unloaded and the doors are closed. The only movement that can be seen is the heat waves rising off the hot rails in the summer sun. Despite the quiet appearance of this scene, that idle boxcar is the center of all sorts of railroad activity on multiple levels. Like a taxi meter that keeps running when the car is stopped at a red light, an idle boxcar is subject to charges. Demurrage. Car hire. Lease payments. Each is a separate and distinct function in railroad accounting, though they often get confused with one another. Let's demystify these transactions.

## Demurrage dues

Demurrage is a charge assessed by the railroad against the party a car is destined to. Its purpose is to incent the car receiver to release a car as quickly as possible. (Some industries use cars as cheap warehouses. Others might receive a large multi-car shipment all at once that is beyond their capability to promptly unload, perhaps because they got a good deal on the product, or it was more convenient for the producer to make one large production run.) Demurrage also reimburses the railroad for any car hire charges it must pay on the car (as explained later). Holding onto a car beyond a prescribed amount of free time will cause demurrage charges to begin to accrue.

In an earlier, more convoluted era, railroad demurrage clerks and company traffic managers could be tied up for considerable amounts of time, each arguing their interpretation of the demurrage rules. It was a point of pride among many traffic managers not to accrue any demurrage. Over the years, the application of charges has been simplified. Nevertheless, demurrage is a sore point with many customers, who believe the railroads don't always apply it fairly.

Railroads classify customers as either "spot on arrival" or "constructive placement." Spot on arrival means the customer has the room to accept cars when they arrive; the demurrage clock begins ticking upon placement. But if a customer routinely has more cars in town than it can accept at one time, the cars will have to be held out. When cars arrive at the designated hold point or serving yard and are ready to be delivered, the customer will receive a "constructive placement notice." In this case, the demurrage clock begins ticking when the railroad issues the notice. Generally, when the customer orders the car in, the clock stops, then it begins again when the car is "actually placed" (spotted at the industry). For all customers, the clock

A boxcar of lumber is unloaded (above). Grand Trunk Western issued this accounting booklet (below) in 1974. Warehouse: Steve Glischinski

stops ticking when the customer notifies the carrier it is done with the car ("release").

Demurrage is calculated in whole days. In the past, customers usually received one free day to load a car and two free days to unload; after that, cars accrued chargeable days. Most customers were set up on an "average plan," where cars released before the expiration of free time earned credits that could be offset against debits resulting from cars held beyond the expiration of free time (versus "straight plan," where each car stood on its own). The net result was calculated monthly.

So why was it so convoluted? For ages, as cars were held out on demurrage, the daily chargeable rate went up every couple of days (to give more incentive to order the car in). However, cars on demurrage for considerable amounts of time would often get progressively less accessible for a railroad switch crew. Newly arrived cars were often grabbed and spotted first "for railroad convenience" (called a "run around"). The shipper's traffic manager would then complain that, had the older cars been spotted first, his demurrage charges would be less, since the older cars had a higher daily rate. He would often insist

the railroad recalculate the demurrage bill as if the older cars had in fact been spotted. Or the railroad might miss a switch, through no fault of the customer's, and cars would remain on demurrage an extra day. Or cars might arrive in town "bunched" (when several days of shipments arrive together). No matter what the case, heated discussions often resulted.

To simplify demurrage calculations and to eliminate customers' cherry-picking the oldest cars (which can be the hardest to switch out), most railroads have gone to a flat daily rate regardless of how long the car sits. The norm is \$60-\$90 per car per day for a railroad-controlled car. Private cars (whose reporting marks end in "X") do not incur demurrage when on a customerowned siding, although they

do incur charges if held out on constructive placement on railroad-owned trackage. If a customer continually has cars held out, it can usually enter into a "lease track" or "storage agreement" with the serving railroad.

## Car hire? What's that?

Car hire is often confused with demurage. Car hire is what one railroad pays another railroad (or car owner) while the other railroad's car is on its property. It is one of a railroad's largest variable costs and has been in existence since the early 1900s.

Car hire has two components: a time element ("per diem") and a mileage element (the "mileage rate"). Originally per diem was a daily rate. Whoever had possession of the car at midnight was responsible for that day's per diem to the car owner. This gave rise to the term "per diem run." Railroads would let cars for connecting carriers accumulate throughout the day, then run transfer or interchange jobs designed to get them delivered just before mid-

night, thus saving a day's worth of per diem (and transferring the burden to the receiving carrier). However, in 1977, the per diem was changed to an hourly calculation. Cars were assigned hourly values, which were

Wisconsin Central sold and leased back these boxcars for paper service (with SSAM initials), seen in 1998. Photo and GTW booklet: Brian Buchanan

multiplied by the actual number of hours each carrier had possession of a car.

The second component of car hire is the mileage payment. Each car has an assigned mileage rate, which is multiplied by the number of miles it runs over other carriers to determine payments. Railroad-owned cars (whose reporting marks are railroad initials) are subject to both per diem and mileage payments for the entire time they are on another railroad, regardless of whether the car is loaded or empty.

The amount of the payments recently went through a radical transition. Previously, hourly per diem rates were fixed under a formula prescribed by the Interstate Commerce Commission, and were based on a car's purchase price, age, and number of active service days. The rates were determined to reflect a fair return on investment for the car owner. As a car aged, its rate decreased about 3 percent a year. Hourly rates generally ranged from 15 cents to more than \$1 an hour. Throughout the 1990s, however, car hire on much of North America's railroad-owned car fleet was gradually "deprescribed." Now the rates for most cars are set through negotiations between the car owner and the other railroads it traverses.

Private cars historically accrued only mileage payments and only while loaded.

The railroads paid a "mileage allowance" to compensate the car owner or shipper for supplying the equipment. Now, many freight rates specify that private cars be "mileage-free." This lowers the rate for the customer and simplifies accounting. An exception is the TTX Co. fleet (cars such as RBOX, GONX, etc.) which, even though their reporting marks end in "X," are treated like railroad-owned cars and are subject to both time and mileage payments.

## The world of leases

There may even be a third financial transaction involving the car. Many freight cars that carry railroad reporting marks are actually leased from companies such as GE Rail Services, First Union, etc. Usually, three types of leases are possible. Under a per diem lease, the car is generally "free on line" to the lessee, meaning the car leasing company only makes money off the car once it is loaded, moves off the leasing railroad, and starts generating car hire while on other roads. This type of lease can benefit a short line that needs cars but cannot afford a lease payment, or a car leasing company with excess cars or one that wants to put a railroad reporting mark on its cars to generate per diem earnings.

Another type of lease is the operating lease, wherein the lessee pays a monthly

charge for use of the car. Two variations are possible. One type is a net lease (or "triple net lease"), under which the lessee is responsible for expenses such as running repairs, taxes, and insurance. Full service leases, the other type, are more costly, since the responsibility for repairs and administrative expenses remains with the leasing company. On a monthly basis, operating leases are more expensive than purchasing a car outright. However, when the need for a car may extend for only a few years, this might be the way to go.

The longest term lease is the finance lease. These leases can run for many years and approach the time frame of financing had the car been purchased. The decision to lease instead of purchase often hinges on tax considerations. When a railroad needs to raise cash, it might do a "sale and lease back" of equipment it owns and then enter into one of the above lease arrangements.

So, the next time you see an idle car at a warehouse, think of the financial activity going on behind the scenes, which has created its own sub-industry within railroading. I

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