

Freight Car Handling and Distribution

by Anthony Thompson

Freight trains of loaded and empty cars, freight yards with a variety of cars among the yard tracks, local freight switching at industries, and freight cars standing at loading or unloading spots: all these are familiar images to railfans and modelers. Much has been written about train makeup and blocking, cars needed by particular industries, and about paperwork such as waybills—I've been guilty of the latter myself (see "Further Reading," below). But how does it all get started? How does a shipper get the car he wants? Who does all the paperwork, and how is it handled? This article is a brief summary of those features.

For many shippers and receivers who use freight cars, the contact with the railroad is the local agent. He is the one they call to request an empty car; he is the one who makes up the original waybill and initiates the billing process for the shipment; and he is the one they call when the car is loaded and ready to go. Likewise, the agent gets a call when a delivered load has been removed from a car and the empty car is ready for pickup. For priority loads, the agent may notify the receiver (or consignee) when the car is about to be delivered.

In a larger town or city, this role is played by a car distributor or car clerk at the nearest yard, or

a freight agent at a freight house. There would be many more shipper requests than could be handled by an agent and a clerk or two, and a car distributor at a sizeable yard may have a whole force of clerks to handle all the work. Moreover, paperwork may well be prepared by a separate clerical force in the yard office. But the basic process is the same.

When a shipper calls for an empty car, the agent will need to know its destination. This will be part of the request forwarded to the appropriate yard for fulfillment, so that Car Service Rules can be obeyed if possible. This is not the place to examine those Rules in detail, but the majority of car requests were filled according to requirements of the Rules. (A compact summary of the Rules is included in this article, taken from Coughlin's book—see "Further Reading.") A sidebar on the Rules is also appended (next page) to expand on Coughlin's graphic.

For example, a shipper may need a tight-bottom (mill) gondola, 48 feet long, destined to St. Louis.

Obviously the gondola supplied for this request has to be no less than 48 feet, but tariff rates depend to some extent on car size, so in this example, furnishing a 65-foot car (and its higher tariff rate) would not be acceptable to the shipper unless he can pay the rate only for the car he actually needs. The waybill would note something like "railroad convenience" so that others viewing the waybill will know why the freight charges are for a different size car than the one supplied. The same considerations

J-600M Form 151

SOUTHERN PACIFIC COMPANY

EMPTY CAR BILL

Classification
Kind **AAR Class XM**

FOR HOME

Billed from _____

To or Via _____ R. R.

FOR LOADING

Billed from **WEST OAKLAND, CA**

To **AGENT, BALLARD, CA**

INSTRUCTIONS—This form must accompany all empty foreign cars and must be used in billing private line cars under General Order Ten.

BOX CAR
SP 101245
AAR XM



This empty SP box car was requested by an industry at Ballard, California for loading. It is about to be switched to the loading spot upon direction from the agent. Empty Car Bills were often yellow, as is this SP one.



626—THE PITTSBURGH & LAKE ERIE RAILROAD COMPANY—626			
FREIGHT WAYBILL			
TO BE USED FOR SINGLE CONSIGNMENTS, CARLOAD AND LESS CARLOAD			
TO STATION	STATE	FROM STATION	STATE
BALLARD	CA	PITTSBURGH	PA
CONSIGNEE AND ADDRESS JUPITER PUMP & COMPRESSOR		SHIPPER J & L STEEL SOUTH SIDE WORKS	
ROUTE Show in route order P&LE-YNGS-NYC- BI-RI-CO BL-UP- OG-SP		AAR CLASS OF CAR ORDERED	GB
		LENGTH/CAPY OF CAR ORDERED	42
		WEIGHED S	S-Shipper's Tested Weights
		R-Railroad Scale	T-Tariff Classification
ON C.L. TRAFFIC - INSTRUCTIONS (Regarding Icing, Ventilation, Etc.) & EXCEPTIONS			
NO. PKGS.		DESCRIPTION OF ARTICLES	
C/L		STEEL SHEET	
GONDOLA			
NYC 707698			
AAR GB		IL 46'	

(Above) This load of steel sheet is en route to its destination in a 46-foot gondola. Car length ordered is 42 or more feet long, so this car meets that requirement. Routing includes interchanges; the abbreviations are: P&LE—Youngstown—NYC—Blue Island—RI—Council Bluffs—UP—Ogden—SP. Transfer runs, such as Indiana Harbor Belt delivering cars from the NYC yard to the Rock Island’s separate yard, are not usually included in these routings, and would be at the discretion of Chicago-area yardmasters.

would apply for larger or differently equipped box cars or any other car type, when the car request is effectively filled with “more car than is needed.”

Whether the needed car is on hand at the supplying yard, or has to be requested from elsewhere, it will be handled with an Empty Car Bill and directed from its location to the agent in the shipper’s town (Empty Car Bills are described in my *RMC* article). Sometimes the specific industry is identified on this Bill, but usually the agent is expected to direct the switching crew as to the car’s destination.

The shipper fills out a railroad form, the bill of lading (similar to but different from the waybill), with all particulars of the shipment, and provides it to the agent or car distributor. The bill of lading serves as the contract between shipper and railroad for movement of the load. Once the agent knows the empty car initial and number, the waybill can be prepared for the outgoing load, awaiting only the scale weight if that will be the basis for charges.

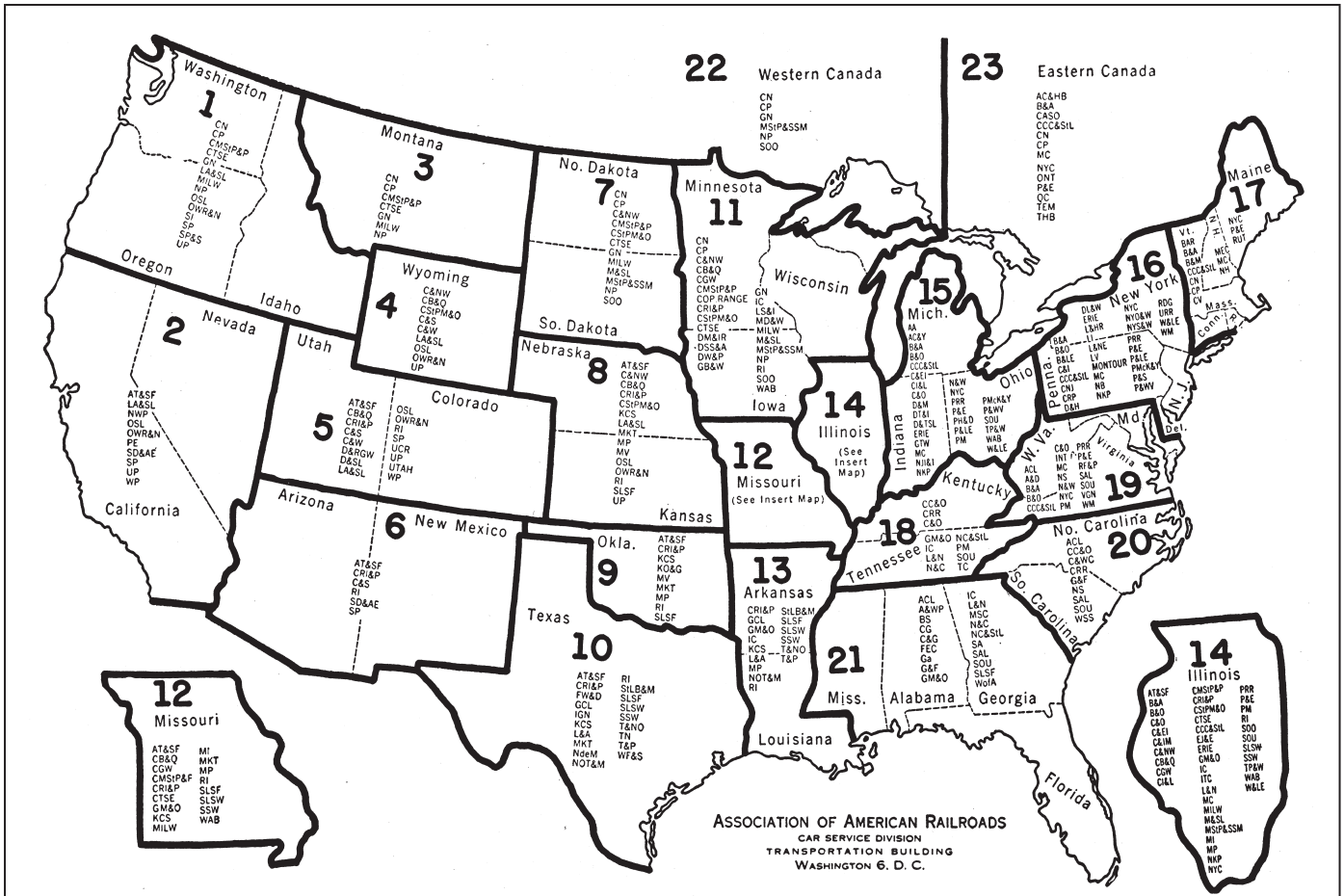
Under the common circumstance of a weight agreement being in force for the cargo being loaded, it only requires a count of the cartons, barrels, crates, or other containers, since their unit weight is provided in the agreement. (Weight agreements are described in more detail in my article in the April

2010 *Dispatcher’s Office*.) The agent computes the freight charges and adds those to the waybill.

A copy of the waybill then travels with the load. The normal arrangement was for the waybills to be in the custody of each conductor along the route, who used them for his wheel report and any other documentation, usually prepared in the caboose. At

A Note on Car Service Rules

The attached graphic and rules summary by E.W. Coughlin is largely self-explanatory, and many modelers have become aware of the implications of these Rules for the empties which are loaded on *their* layout. But modelers often fail to realize how the Rules affect incoming loads. A yard clerk on the Southern in Atlanta, for example, does *not* choose “just any local car” (other than Southern) to load; on the contrary, unneeded empties of that kind would go home on direct connections. Instead, that clerk tries to use empties from the region of *your* railroad, since those are the first choices under the Rules. Of course cars from the region of origin will be used if none others are convenient, but these are *exceptions* to the Rules and should be modeled in that light.



LOAD CARS AS FOLLOWS (In order of preference)

- 1—Do not load a car off home line if suitable foreign car of proper ownership is available or can reasonably be obtained.
- 2—Load foreign cars via owner roads, whenever possible, including points reached by owner and points beyond. Foreign cars at a junction point with owner should be loaded via owner's rails.
- 3—Load foreign cars to a Home District (as defined herein) even when not possible to route via owning line.
- 4—Load foreign cars to a District intermediate between loading point and a Home District so that cars will be advanced as directly as possible toward the owning roads.
- 5—Load foreign cars to a District beyond or adjoining a Home District; but, generally, this should not be farther than a District next adjacent thereto, except that when routing provides for a movement of a car over owner's rails there would be no restriction as to destination.
- 6—Between suitable cars available for loading, give preference to cars most distant at loading point from the owner.

Do Not Load High Class Box Cars With Commodities That Will Damage or Taint the Interior.

Observance of the above principles in selecting empty cars for loading will greatly contribute to more efficient car utilization and better car supply by preventing unnecessary empty mileage. The use of a foreign car for loading to home territory instead of loading a local car away from home is most important, since this will often prevent the movement of cars empty in both directions. Fullest possible advance notice by shippers in the form of written car orders, specifying routing and destination, will greatly aid the railroads in furnishing prompt and satisfactory car supply to shippers.

DEFINITIONS: Home Car—A car on the road to which it belongs. Foreign Car—A car on a road to which it does not belong.

—from Coughlin, *Freight Car Distribution and Handling in the United States*

each switching location along the route, the waybills would visit the yard office for inspection and recording.

The waybill is stamped with a junction stamp at each point where one railroad hands off the car to the next carrier, and an interchange report is prepared, documenting the end of one road's per diem responsibility and the start of another. A report also goes to the car owner to document car location.

In the last step before delivery, the local switching crew would take the waybill to the local agent for the particular receiver's location. Sometimes the waybill had been sent by U.S. mail to that agent in advance of the arrival of the shipment.

Incidentally, most railroads provided "bill boxes" on the exterior of depots or freight sheds so that

paperwork could be picked up or dropped off by conductors when an agent was not on duty. These were usually locked with a switch padlock. For modelers, such a box can be a solution to the problem of needing agents on duty at all towns in which switching occurs.

The agent would mark the delivery time and forward a copy of the waybill to the office which handles freight billing. Sometime the agent may collect COD freight charges, depending on the arrangement between shipper and receiver, but usually the waybill goes to a railroad office where experts on freight rates check and correct the bill; a lot of waybills just moved with an estimated freight charge on them.

At the time of delivery, the grace period begins



721 SOUTHERN PACIFIC COMPANY 721			
FREIGHT WAYBILL			
TO BE USED FOR SINGLE CONSIGNMENTS, CARLOAD AND LESS CARLOAD			
TO STATION	STATE	FROM STATION	STATE
BALLARD	CA	MEDFORD	OR
CONSIGNEE AND ADDRESS		SHIPPER	
SOUTH COUNTY LUMBER, TM. TK.		ROGUE RIVER LUMBER	
ROUTE Show in route order		AAR CLASS OF CAR ORDERED	XM
SP		LENGTH/CAPY OF CAR ORDERED	50
		WEIGHED	R
		E-Estimated	S-Shipper's Tested Weights
		R-Railroad Scale	T-Tariff Classification
ON C. L. TRAFFIC-INSTRUCTIONS (Regarding Icing, Ventilation, Etc.) & EXCEPTIONS			
NO. PKGS.		DESCRIPTION OF ARTICLES	
		C/L MILLED LUMBER, MIXED	
AUTOMOBILE CAR			
SP 64996			
AAR XM		IL 50'6"	

(Above) Though classed as an automobile car by AAR, this double-door box car is in general service, and is seen here about to arrive at Shumala, on its way to the Ballard team track with a load of lumber. Finished lumber was usually shipped in box cars, while flat cars normally carried rough lumber.

(Below) This inbound load of fruit box labels from Portland, Oregon has just been spotted at Coastal Citrus.

728 - Spokane, Portland & Seattle Ry. Co. - 728			
FREIGHT WAYBILL			
TO BE USED FOR SINGLE CONSIGNMENTS, CARLOAD AND LESS CARLOAD			
TO STATION	STATE	FROM STATION	STATE
SANTA ROSALIA	CA	PORTLAND	OR
CONSIGNEE AND ADDRESS		SHIPPER	
COASTAL CITRUS ASSOCIATION		MULTNOMAH LITHO CO.	
ROUTE Show in route order		AAR CLASS OF CAR ORDERED	XM
SP&S-PORT-SP		LENGTH/CAPY OF CAR ORDERED	
		WEIGHED	T
		E-Estimated	S-Shipper's Tested Weights
		R-Railroad Scale	T-Tariff Classification
ON C. L. TRAFFIC-INSTRUCTIONS (Regarding Icing, Ventilation, Etc.) & EXCEPTIONS			
NO. PKGS.		DESCRIPTION OF ARTICLES	
		525 CTNS LEMON BOX LABELS	
BOX CAR			
T&NO 53489			
AAR XM			



in which no demurrage or “rent” is charged to the receiver for the use of the car, usually 48 hours (depending on railroad-shipper agreement). At the end of that time, an additional charge begins to be levied. The car receiver thus is anxious to unload the car, and his phone call or other notification to the agent, that the empty car is ready for pickup, terminates his responsibility for potential demurrage, regardless of when the railroad physically picks up the car.

The empty will now return to the nearest yard, unless that local agent has already arranged to confiscate it for loading at another shipper. It will move on the reverse of the route it followed when loaded (if not confiscated along the way), so that the roads which benefited from the freight charges on the load will equally share the cost of returning the empty.

It should also be mentioned that when an empty car is spotted for loading, the same demurrage process takes place: a free period such as 24 hours is followed by a daily charge for the car, until the agent is notified that it is ready to be picked up.

Example

To illustrate the above description, I’ll follow a single car through the process. Let’s imagine a shipper in Houston, Texas, who manufactures wire rope. He requests a box car to be delivered to his siding on the Texas & New Orleans, for a shipment to a marine supply house in Seattle, Washington.

The car distributor at Englewood Yard in Houston has a Burlington box car available which is suitable (Seattle is in an adjoining District to a CB&Q Home District), and the car is routed to the shipper with an Empty Car Bill. Upon loading, the waybill is prepared, the car is picked up, and starts on its way.

At El Paso, the car is handed off to Southern Pacific, and the junction report ends the per diem charges to T&NO and starts those to SP; and CB&Q is notified of the place and time of interchange.

The shipper has specified the routing via Oakland, California to Western Pacific, and up the Inland Gateway to Bieber, California and the Great Northern. Accordingly the SP interchanges the car to WP at Oakland, and again the junction report, and interchange report to CB&Q, document the event.

(Right) This waybill might be the one accompanying the CB&Q box car described in the text example. Routing shown is that described in the text, with interchange junction points abbreviated.

750 TEXAS & NEW ORLEANS RAILROAD COMPANY 750			
FREIGHT WAYBILL			
TO BE USED FOR SINGLE CONSIGNMENTS, CARLOAD AND LESS CARLOAD			
TO STATION	STATE	FROM STATION	STATE
SEATTLE	WASH	HOUSTON	TEX
CONSIGNEE AND ADDRESS		SHIPPER	
ELLIOT BAY MARINE SUPPLY		GULF ROPE & CABLE	
ROUTE Show in route order		AAR CLASS OF CAR ORDERED	
T&NO-ELP-SP-OAK- WP-BBR-GN-BEND- SP&S-VAN-GN		XM	
		LENGTH/CAPY OF CAR ORDERED	
		WEIGHED	
		E-Estimated S-Shipper's Tested Weights R-Railroad Scale T-Tariff Classification	
ON C.L. TRAFFIC - INSTRUCTIONS (Regarding icing, Ventilation, Etc.)			
& EXCEPTIONS SHIPPER LOAD & COUNT			
NO. PKGS.		DESCRIPTION OF ARTICLES	
14 REELS		WIRE ROPE, VARIOUS SIZES	
BOX CAR			
CB&Q 130258			
AAR XM			

At Bieber, the process is repeated; then the GN exchanges the car to the Spokane, Portland and Seattle in Bend, Oregon, and receives it back at Vancouver, Washington, and finally the GN delivers the car in Seattle. The GN’s freight agent in Seattle handles the waybill upon delivery of the load.

The documentation of all the interchange points readily permits returning empties to be verified as having previously moved through that point. Another source of that information is the “jumbo” or car ledger at each interchange point, a book in which every interchanged car is recorded for possible future reference. If the empty was not in fact interchanged at that point when received under load, the receiving railroad of the empty is entitled to refuse to accept the car, since it didn’t benefit from the loaded journey of the car.

The model waybill shown encapsulates the interchange points for this shipment, abbreviated as was common with often-used junctions.

Model Operations

So what do we learn from this information that can help in modeling waybill operations? First, the central role of the agent is evident, and layout operating jobs such as agent-operator make sense in many situations. If operators are too busy or not well located to carry out agent duties, simply providing a “bill box” for each town or large industry can work well.

Most layouts are not complex enough to feature

multiple interchanges with the same neighbor railroad, but if those are present, waybill information about arriving-car interchange points can be used to route unconfiscated empties back through that interchange.

It has long been the practice in some car-card systems to provide a “hold” period, during which a spotted car remains on an industrial siding, in effect for multiple operating sessions. This is prototypical for some but not all industries. This practice needs to be refined so that industries which would ordinarily load cargo rapidly, such as packing houses, do not experience hold periods. Other industries should not ordinarily have hold times exceeding free time under the demurrage rules.

Waybill Appearance

The waybills shown in this article are modified from the ones shown in my two previous articles (cited below). The prototype’s characteristic vertical division between shipper and consignee information has been adopted, and more space for routing information, particularly junction points, has been gained. My previous article in *The Dispatcher’s Office* provides information about the type faces used to fill out the waybills, and about achievement of prototype railroad appearance and code numbers.

The waybills for this article are accompanied by model photos of the cars identified on the car sleeves, to illustrate a few of the points made in this article. After spending some time operating with this new waybill design, I’m convinced it’s an improvement over my original version.

To Learn More

This entire waybill process is described and discussed in far more detail than is practical here, in a book published by the AAR and written by a long-time employee of its Car Service Division, E.W. Coughlin (see “Further Reading,” below). That book also contains a fine description of implementing Car Service Rules, including a summary of a training course used by one railroad to acquaint clerks and agents with the finer points of those Rules. I believe most modelers interested in operation would benefit from at least a cursory examination of that material.

Also listed below are a number of references which explain and expand upon some of the background for this article. I found them useful as sources of prototype information.

Acknowledgements

I have to thank two experienced railroaders whose knowledge of freight operations, people, and paperwork was of great help to me, Jerry Stewart and Paul Koehler. But any errors which remain in this article are my responsibility, not theirs.

Further reading

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