

The people who work on trains

The members of a train crew: who they are and what they do

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The people who work on trains have a variety of jobs. Each member of a train crew has a very specific function.

Since train crews do most of their work beyond the observation of supervisors, their duties, responsibilities, and often even their actions are carefully prescribed in the railroad's operating rulebook. Railroad operating rules are a subject unto themselves, but it's often said that every rule in the book is there because somebody tried to do something "the other way" and proved that it wasn't such a good idea.

While some crew members - primarily the engineer and conductor - are required on all types of trains, other positions are unique to either passenger trains or freight trains. For most of the 20th century, freight train crews consisted of five men: a conductor, two trainmen or brakemen, an engineer, and a fireman. Today most road freights operate with just two crew members, a conductor and an engineer. Many local freights that deliver and collect cars along their routes also have one trainman, and some have two, to help with the "ground work" of throwing the track switches and uncoupling the cars.

Here's a look at the different responsibilities of train crew members. The first four descriptions of a train crew's duties are based on the Pennsylvania Railroad's "Rules for Conducting Transportation" of October 28, 1956.

Conductor

Despite the image of the eagle-eyed engineer with his hand on the throttle, the conductor is the boss of a train crew. He reports to the trainmaster, his immediate management superior, and in operating his train he takes instructions from yardmasters and train dispatchers.

The conductor is responsible for the safe, prompt movement of the train, and for the care of its cargo and equipment. He is also responsible for the actions and safety of the crew, and for reporting any condition that interferes with safe train movements.

In practice this includes knowing what the train is carrying and observing prescribed precautions for hazardous materials, perishables, or any other freight that requires special handling. The conductor is responsible for the accuracy of the consist - that is, that each car is supposed to be there, and its accompanying paperwork is correct.

The conductor must be assured that every car in the train is in good operating condition before starting out, that loads are secure, and that the air brakes are connected and working throughout the train. He supervises the train's over-the-road operation and is responsible for the train operating in accordance with all rules, timetable authority, signal indications, and speed restrictions.

Radios have replaced hand signals with flags and lanterns for communicating with the engineer while the train is under way. When each train had a caboos, however, the conductor had another instrument of authority - an air brake valve by which he could stop the train if necessary.

Trainmen

Trainmen, or brakemen, also report to the trainmaster, but follow the instructions of the conductor and of "others with proper authority." They're responsible for the caboos identification markers, or the electronic rear-end device. They also have responsibility for protecting the train, which means "flagging" behind and ahead whenever the train is exposed to collision.

The trainmen handle throwing switches, coupling and uncoupling cars and engines, and setting and releasing hand brakes when cars are set out or picked up (that is, subtracted from, or added to, the train). While the train is moving they keep a lookout for potential hazards on the train itself: "hotboxes" (overheating journals), dragging equipment, or shifting loads.

When a caboos is used, usually the senior trainman rides in it. Historically, he was called the flagman or rear brakeman. The other trainman, the "brakeman" or "head brakeman," rides the engine.

Engineer

The engineer and his assistant (the fireman) are in a different chain of command than the rest of the crew. The engineer's immediate management supervisor is the road foreman of engines - the official charged with overseeing the safe and efficient operation of locomotives. The engineer must nevertheless obey the instructions of trainmasters, yardmasters, dispatchers, and even of roundhouse foremen in locomotive facilities. Of course, he must also obey the conductor of his own train, and be ready to take over the conductor's responsibilities in case the conductor is incapacitated.

Veteran railroaders say that anybody can run an engine, that it's running a train that takes skill and experience. The engineer must manage not only the power of his locomotive but also the coupler slack, momentum, and braking of all the cars coupled behind it. He controls the automatic air brakes on each car of the train by reducing pressure in the train's brake pipe. Before the control information - a pressure wave - reaches the rear of a long train, the brakes on the head end begin to respond. Factor in grades, curves, and speed, and this becomes a task requiring very fine judgment.

Most diesel-electric locomotives also have a secondary braking system called dynamic braking. It switches the electric traction motors to work as generators, and converts part of the train's kinetic energy - its momentum - into waste electrical energy. Dynamic braking helps the engineer control a train's speed on downgrades, but in terms of slack action its effect is just the opposite of the air brake.

Of course, while all this is going on the engineer must also observe whatever movement authority governs his train - timetable, signal, or track warrant - watch the track ahead and the train behind, see that his locomotive is running safely and efficiently, blow whistle or horn signals for grade crossings, and plan ahead for stops to switch or to meet other trains.

Fireman

In steam days, the fireman did what his job title implies: stoked the fire and maintained steam pressure in the boiler. With dieselization that side of his job disappeared. Early diesel-electrics sometimes required attention on the road, but they soon improved to the point of needing little care except at terminals. The

fireman still had responsibilities as the engineer's helper, especially in watching the track and signals ahead and in relaying signals from trainmen. Firemen were also apprentice engineers, allowed to run the train under the engineer's supervision and expected to learn enough to be ready for eventual promotion. Railroad managements quickly decided to phase out their firemen once the steam engines were gone, but only in recent years has the fireman's job been eliminated.

Passenger train crew members

Passenger trains require additional people to work on board. Employees on a passenger train are divided into train-service crew members - who are responsible for the train's operation (i.e., the conductor and engineer) - and on-board service employees, who staff coaches, dining cars, and sleeping cars, and tend to the needs of passengers.

In the 1980's Amtrak took complete control of its train-service and on-board service crews, removing them from the payrolls of its host freight railroads. Amtrak gives new employees training, both in the classroom and on the road. Training is conducted at Amtrak's crew bases, and sometimes at outside facilities. Amtrak's dining car chefs are trained at the famed Culinary Institute of America in Hyde Park, N.Y. All employees, regardless of the job, are educated in emergency train-evacuation procedures.

A typical Western long-distance train has a chief of on-board services, a dining-car steward, a chef, two food specialists, two lead service attendants, three service attendants, and five train attendants for the coaches and sleeping cars. On Eastern trains, crew members include a chief, chef, food specialists, two lead service attendants, three service attendants, and seven train attendants. The exact number of train attendants depends on the length of the train.

Here are general job descriptions for each of these positions, with selected instructions from the employee manual:

Chief of on-board services. Although the chief defers to the conductor on matters of train operation, the chief is the supreme authority for on-board service, acting as supervisor of the entire service crew. Perhaps his or her most important role is to solve any problems encountered by passengers on any trip. The chief has a variety

of routine duties such as making train announcements, performing routine clerical work, and distributing meal vouchers to first-class (sleeping-car) passengers.

Steward/lead service attendant. The latter title is the one principally used now to describe the person in charge of the dining car. In addition to supervising service attendants and kitchen crew, the LSA is responsible for maintaining inventory and accounting for dining-car revenue. When warranted, the LSA is expected to wait on tables.

Dining-car service attendants. The attendant's main responsibility is to perform the classic service of a waiter, for which Amtrak provides a detailed job description, right down to how to present a wine bottle or how to place the check on the table. Attendants also have a variety of custodial duties.

Chef. In addition to directly preparing many of the entrees, the chef oversees the preparation of all food in the dining car, determining portion size and verifying each order as it leaves the kitchen. Other duties include keeping inventory of food and equipment, and keeping the kitchen clean.

Food specialist. Supports the chef in all aspects of food preparation and kitchen maintenance, and must be able to step in as chef in case of an emergency.

Service attendant, lounge and snack service. A real jack-of-all-trades position, the lounge-car attendant should know as much about human nature as he or she does about fixing drinks, keeping a snack and beverage inventory, and maintaining a clean and adequately supplied car (including the rest rooms) - all responsibilities of the position. "Generate additional revenue for your car through upselling," says the employee manual. "Immediately notify the chief or the conductor if a situation develops causing controversy with a guest which cannot be resolved."

Coach attendants. This is a job with a lot of responsibility, since passenger volume and turnover is high. Duties range from policing seat assignments to ensuring that passengers get off at the right station to keeping the whole place clean. It's a tall order. "Main ceiling lights must be turned off at 10 p.m. Passengers will be allowed to wake up to natural light in the morning."

Sleeping-car attendants. First-class passengers expect a lot out of a sleeping-car

attendant (formerly called a porter), and the list of duties is the longest in the manual. Attendants are expected to make up beds (if parallel to the aisle, "feet toward the engine"), carry baggage, explain train procedures, replenish room supplies, and deliver wake-up beverages and newspapers. "Maintain quiet in your car at all times," notes the employee manual.

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