Railway Mechanic Jim
by Rebecca Besser

Five days a week, I start my big white truck and get ready for work. I don’t know what I’ll be doing each day, because I never know what might break.

My name is Jim, and I am a heavy equipment mechanic for an Ohio railroad. I fix machines needed to keep the railroad running, and keep the tracks in good shape.

I travel to where the broken machine is, figure out what’s wrong, then order the parts that I will need. Parts for some machines are expensive, and I sometimes have to get permission to order them.

I work on different types of machinery that do many different jobs. I have worked on Ballast Tampers, Ballast Regulators, Tie Cranes, Bulldozers, Back-hoes, Tie Inserters, Spikers, Spike Pullers, and Air Compressors.

Ballast Tampers and Regulators maintain ballast or a bed of gravel underneath the railroad tracks. Tampers line the tracks and push the gravel back under the ties to keep everything tight and level. Regulators broom the gravel back between the ties and plow gravel up the sides of the ties to keep them tight in the ballast.
Taking good care of the tracks lessens the chances of a derailment, which is when a train jumps off the tracks. This can cause damage to the train, train cars, and track. Derailments cause an expensive loss in goods, and can cause injuries.

Tie Cranes pick up railroad ties and put them where they need to be when replacing old or damaged ties. Tie Inserters are used to remove and replace ties under the track. The ties hold the railroad tracks in place for the trains to run on.

Spike Pullers and Spikers pull out and replace the spikes that hold the metal rails to the wooden ties.

Bulldozers and Back hoes have many jobs that help the railroad workers keep everything running. For instance, they are sometimes used to help replace ties, but are also used to clear ditches, drains, and rights-of-way.

Air compressors have many jobs as well. They can drive spikes if the workers are using an Air Spike Driver, or they are used to blow snow out of switches. The switches need to stay clear so the trains can stay on the right tracks, to get where they need to be.

My efforts as a mechanic helps everyone do their job, and keeps the trains going. I am just one worker, but I’m an important piece to the big puzzle that is the railroad.

Bibliography

Glossary

ballast - layer of gravel below a railroad track, used to keep the track smooth and drain water from the tracks

rail - metal part of a railroad track; part of the track the train rolls on

ties - wooden base for railroad tracks; metal rails are attached to the wooden ties

spike - metal nail or stake used to attach the rails to the ties

switch - place where two railroad tracks join together; or place where one railroad track divides into two parts

At a switch, two railroad tracks combine or separate.
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1. What is Jim's job?
   a. to drive the trains
   b. to build new railroad tracks
   c. to fix machines and maintain railroad tracks
   d. to design new railroad machinery

2. What is derailment?

3. Nine Types of Machines that Railway Mechanic Jim Works On

4. Which two machines would be used to clear ditches and help replace ties?

5. What does Jim have to do before he orders expensive parts?
Railway Mechanic Jim
Vocabulary Activity

Part 1: Reread "Railway Mechanic Jim" by Rebecca Besser. As you read highlight the following vocabulary words in the story.

mechanic  gravel  ties  spikes
switch  local  air compressor

Part 2: Match each vocabulary word on the left with its definition on the right.

_______ 1. mechanic  a. large nails or stakes
_______ 2. gravel  b. nearby, in the same town or area
_______ 3. ties  c. place where railroad tracks divide or combine
_______ 4. spikes  d. a machine that stores air in a tank and pumps it out at high pressure
_______ 5. switch  e. person who fixes cars or other machinery
_______ 6. air compressor  f. nearby, in the same town or area
_______ 7. local  g. place where railroad tracks divide or combine

Part 3: Use a vocabulary word from the list to complete each sentence.

8. Kyle’s mother used an ___________________________ to add air to the tires.

9. Quinn likes to read the ___________________________ newspaper each night.

10. Cassie put ___________________________ in the bottom of her fish tank.

11. Caitlin loves to fix things. She wants to be a ___________________________ when she grows up.

12. The railroad mechanic adjusted the ___________________________ on the tracks so he could change the train’s direction.
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1. What is Jim's job?
   a. to drive the trains
   b. to build new railroad tracks
   c. to fix machines and maintain railroad tracks
   d. to design new railroad machinery

2. What is derailment?

   Derailment is when a train comes off the track.

3. Nine Types of Machines that Railway Mechanic Jim Works On
   - Ballast Tampers
   - Ballast Regulators
   - Tie Cranes
   - Bulldozers
   - Back-hoes
   - Tie Inserters
   - Spikers
   - Spike Pullers
   - Air Compressors

4. Which two machines would be used to clear ditches and help replace ties?

   Bulldozers and Back-hoes

5. What does Jim have to do before he orders expensive parts?

   ask permission
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