A diesel electric locomotive is a type of railroad locomotive that uses both a diesel engine and an electric motor to provide the traction force. It is called a "diesel" locomotive because the diesel engine generates the power for the electric motor. The electric motor then provides the force that moves the train. Diesel electric locomotives are used in a variety of applications, including passenger trains, freight trains, and industrial locomotives. They are typically more powerful and efficient than their purely diesel counterparts, and they are also quieter and less polluting. Diesel electric locomotives are a popular choice for many railroads around the world due to their reliability and effectiveness.