Automobile Essay, Research Paper

Automobile

Soon after automobiles were mass-produced early in the 20th century, they began to change styles of living. The automobile is still causing changes. Easy access by passenger car or by truck helps to determine where people build homes, buy food, seek recreation, and locate businesses. The term automotive means “self-propelling.” It generally refers to passenger cars, trucks, buses, and tractors. The words automobile, motorcar, and car may include any conveyance in the general range of automotive vehicles, but they usually refer specifically to passenger vehicles that seat from two to six people.

Cars and trucks are unique. Unlike other types of transportation, they enable the driver to get in and go at a moment’s notice. They move near the source or destination of farm or manufactured products, unrestricted by the need for rails, runways, or waterways. Roads are needed, of course, and these cover the industrial countries of the world in a vast network. Many automotive vehicles have been developed for travel over primitive roads and open terrain (see Roads and Streets).

The automobile is a mixed blessing. Millions of people driving passenger cars create huge traffic jams around major cities. The exhaust from automobiles pollutes the air. Each year thousands of people are killed and injured in automobile accidents.

Most of the world’s automobiles run on gasoline, which is made from petroleum, a resource in limited supply. The Arab oil embargo of 1973, in which major oil-producing nations stopped making shipments, revealed how dependent many countries had become upon petroleum imports. The rapid gasoline price increases that followed the embargo disrupted every national economy in the world.

The automobile underwent many changes in the 1970s, 1980s, and early 1990s. Concern with safety and pollution led to design changes and the introduction of new technology. Automobile bodies and engines were made smaller and lighter to save gasoline. Researchers worked on alternatives to the gasoline engine and on fuel-efficient transportation.

Industry’s Vast Influence

By the early 1990s more than 50 million automobiles were being manufactured worldwide annually. Leading manufacturing areas were Japan, the United States, and Western Europe. There was also significant production in Eastern Europe and Latin America. The automotive industry is so vast that it influences, directly or indirectly, most of the people on Earth. In industrial nations the level of automobile production has become a barometer of the economy and is closely watched by political leaders and business analysts. Changes in auto production directly affect the large steel, aluminum, petroleum, and rubber industries and their suppliers and employees. A long strike in the automobile industry or a sharp drop in sales can result in a general business decline (see Automobile Industry).

Uses

Although the size of the automobile industry is impressive, it is the use of automotive vehicles that has had the greatest effect on people’s lives. Foods arrive fresh at processing plants or at local markets because of the automotive vehicle. Many other products in common use are also distributed quickly and inexpensively by motor trucks.

Many services other than transportation depend on the automobile. Public utilities are built and maintained by crews using automotive equipment. Ambulance, fire, and police services depend on the automobile. The construction industry uses a variety of special vehicles to prepare building sites and to haul materials and to put them in place. Farmers use automobiles, trucks, tractors, and motorized harvest and planting equipment.

The armies of the world rely on motor vehicles to move soldiers and supplies and to assault the enemy. Modern military strategy involves highly mobile armies supported by tanks, armored personnel carriers, and supply trucks.

Way of Life

Before the automobile was developed, people lived near their places of work. Many now commute between suburban residential areas and industrial or office areas in the city. Shopping centers, banks, restaurants, and even churches have been arranged to serve people in automobiles. Because so much vacation and other pleasure touring is done in automobiles, motels and parks have accommodations for large numbers of passenger cars, vehicles towing trailers, and light trucks (often called recreational vehicles, or RV’s) that contain kitchen facilities and beds. An entire industry supports automotive hobbyists who collect and restore antique or classic cars, collect and drive sports cars, or modify their vehicles in many ways. Both children and adults make miniature car models.

BODY

The body of an automobile encloses or partly encloses the vehicle’s mechanical parts and the driver and passengers. The term body does not include the car’s motor, transmission, chassis, or frame. Sometimes, however, the body is integrated with the frame as a solid unit. The body of a truck includes the structure that carries the cargo.

Passenger car bodies usually are stamped out of sheets of metal. They are shaped and punched to accommodate the elements that make up the car.

The first automobiles were called horseless carriages because they resembled horse-drawn vehicles. Gradually cars were styled for greater comfort and convenience. In order to provide a more pleasing appearance and to reduce wind resistance, streamlining was introduced.