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Группа №201
Преподаватель Макеева Е.В.
Тема: История развития транспорта
e-mail преподавателя: elena.makeeva.1974@bk.ru

Задание 1. Познакомьтесь с новыми словами и словосочетаниями:
full-size self-propelled vehicle – полноразмерное самодвижущееся средство передвижения
to propel a vehicle – передвижное транспортное средство
steam-driven carriage – экипаж, приводимый в движение паром
three-wheeled carriage – 3-колесный экипаж
conventional vehicles – обычное средство передвижения
steam-engine – паровой двигатель
to run at slow speed – двигаться на малой скорости
internal combustion engine – двигатель внутреннего сгорания
steam-powered engine – паровой двигатель
four-stroke cycle engine – двигатель 4-тактовый
battery-powered – питание от батареи
pollute – загрязнять
pollution – загрязнение
exhaust – выхлоп
gallon of fuel – галон топлива
basic – основной
clatter – стук, шум
pump – качать
brake – тормоз
roller – каток
gear-box – коробка передач
burner – камера сгорания
valve – клапан
cam – кулачок
fuel – топливо
save – экономить
ignite – зажигать

Задание 2. Прочитайте и устно переведите текст:

The history of the automobile goes back several hundred years. One of the earliest attempts to propel a vehicle by mechanical power was suggested by sir Isaac Newton about 1680. It was little more than a toy consisting of a steam boiler supplying a steam jet turned to the rear.

However, the credit for building the first self-propelled road vehicle must undoubtedly go to the French military engineer, Nicholas Cugnot (Кюньо). Between 1763 and 1769 two steam-driven carriages were built and tried.

In 1784 the Russian inventor Kulibin built a three-wheeled carriage. In his vehicle he used for the first time such new elements as brakes, rollers and a gear –box. The first Englishman to build a full-size self-propelled vehicle for use on the roads and to obtain practical results was Threvithick (Тревитик). Between 1798-1800 he built several working models.

Up to 1860 most of road vehicles were powered by steam engines which ran at slow speeds. In 1860 Lenior (Ленуар) of Paris built an internal combustion engine which ran on city gas, the gas being ignited by an electric spark. In 1866, Otto invented the type of four-stroke cycle engine which is used today.

Slowly but surely the auto industry is perfecting a number of alternatives to the conventional engines found in almost all of today's passenger cars. Two prime factors lie behind the search for different engines - the necessity to reduce air pollution by requiring cleaner auto exhaust and the desire to produce cars that will run farther on a gallon of fuel. While basic research is continuing on electric and steam powered engines, it is the diesel, turbine and Stirling that are current industry favourites.

Diesels get better mileage than gasoline engines, and the fuel is usually cheaper. In 1890's, Rudolf Diesel, invented the engine that bears his name. As air is drawn into the engine and compressed internal temperatures rise, and pressures reach two to three times those in a gasoline engine. The extreme pressures have meant that diesels usually are much larger and heavier than gasoline engines of the same power potential.

The disadvantages of diesels as passengers - car engines are slow performance, noise and smoke.

The turbine and Stirling are multifuel engines, capable of running on any liquid that will burn, including such exotic types as peanut oil and perfume. This would be a major advantage if severe petroleum shortages develop.

The turbine cars now operating are handbuilt models that cost more than 1 million dollars each. Alloys of precious metals of high durability are still required for certain vital turbine parts. Engineers believe that progress in ceramics hold the key to making turbines practical alternatives to present-day engines...

The Stirling concept, first offered more than 150 years ago by a Scottish clergyman, involves external instead of internal combustion ... In the new design, hydrogen gas is heated by a burner, which can run on virtually all kinds of fuel ... Engineers point out that a Stirling engine would be quieter than an equivalent internal combustion engine, would emit less toxic gases, and would use fuel more economically ...

Yet, there is still opinion in the auto industry that the conventional gasoline powered engine - the type in almost universal use now - will continue to dominate until or unless outside circumstances dictate otherwise.

Задание 3. Выпишите предложения где говорится:

а) о первых попытках использовать механическую энергию для приведения в движение экипажа;

б) об основных требованиях, предъявляемых к автомобилю.

Задание 4. Выберите утверждения, соответствующие содержанию текста.

1. The history of the automobile goes back...

a) a hundred years;

b) a thousand years;

c) several hundred years.

2. Diesels are usually much larger and heavier than...

a) gasoline engines;

b) turbine cars;

c) Stirling engines.

3. The disadvantages of diesels are...
a) low speeds;
b) noise and smoke;
c) heavy weights.

4. The turbine and Stirling are multifuel engines, capable of running on...
a) petrol only;
b) peanut oil and perfume;
c) benzene.

Задание 5. Переведите на русский язык следующие слова и словосочетания:
vehicle, mechanical power, self-propelled, was constructed, a steam-driven carriages, wheels, passengers, motor cars, issued, prosecuted, of gasoline engines, introduced the four-stroke cycle of operation, two-seated cars, efficient, international combustion engine, abolition, automobile industry, collect antique cars, advertisements.

Задание 6. Закончите предложения, используя текст
1) In …. a steam engine was built in Great Britain.
2) From 1860 to 1900 was a period of the application…
3) The cars of that time were very small…
4) Multi-cylinder engines came into use, most commonly used are…
5) The best collection-100 old cars of great rarity –…