

The modern agricultural tractors.



Vocabulary:

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| 1. generally – вообще | 17. notably - особенно |
| 2. articulated – ясно сформулированный | 18. due to – из-за |
| 3. steering – регулирование | 19. traction - тяга |
| 4. axle – ось | 20. Floatation - плавание |
| 5. consequently- следовательно | 21. clutch - сцепление |
| 6. steerable – управляемый | 22. trailing - перемещение |
| 7. compartment- отделение | 23. pump - насос |
| 8. remain – останьтесь | 24. Recent — недавний |
| 9. wheel – колесо | 25. drive – двигать |
| 10. engine – двигатель | 26. flexible – гибкий |
| 11. soil – почва | 27. sold – проданный |
| 12. belt – пояс | 28. successful – успешный |
| 13. develop – развиваться | 29. introduce - вести |
| 14. widely – широко | 30. manufacturer – изготовитель |
| 15. adopt – принять | 31. affordable – возможный |
| 16. Plough - плуг | 32. dispensed — распределённый |

Прочитайте предложения и переведите их, используя лексику.

1. The first traction engines were developed from these, and were widely adopted for agricultural use.
2. The word tractor was taken from Latin, being the agent noun of trahere "to pull".
3. There are a lot of different modern agricultural tractors in our farm.
4. The first tractors were steam-powered ploughing engines.
5. Four-wheel drive tractors are the most popular agricultural machines.
6. The predecessors of modern tractors, traction engines, used steam engines for power.
7. Generally one engine could burn any of those, although cold starting was easiest on gasoline.
8. Most older farm tractors use a manual transmission.
9. They help give the farmer a larger degree of control in certain situations, such as field work.
10. There are a lot of different types of tractors.



The agricultural types.

Tractors can be generally classified as two-wheel drive, two-wheel drive with front wheel assist, four-wheel drive (often with articulated steering), or track tractors (with either two or four powered rubber tracks). The classic farm tractor is a simple open vehicle, with two very large driving wheels on an axle below and slightly behind a single seat (the seat and steering wheel consequently are in the center), and the engine in front of the driver, with two steerable wheels below the engine compartment. This basic design has remained unchanged for a number of years, but enclosed cabs are fitted on almost all modern models, for reasons of operator safety and comfort.





In some localities with heavy or wet soils, notably in the Central Valley of California, the "Caterpillar" or "crawler" type of tracked tractor became popular in the 1930s, due to superior traction and floatation. These were usually maneuvered through the use of turning brake pedals and separate track clutches operated by levers rather than a steering wheel.



Four-wheel drive tractors began to appear in the 1960s. Some four-wheel drive tractors have the standard "two large, two small" configuration typical of smaller tractors, while some have four large powered wheels. The larger tractors are typically an articulated center-hinged design steered by hydraulic cylinders that move the forward power unit while the trailing unit is not steered separately. In the early 21st century, articulated or non-articulated, steerable multi-track "tractors" have largely supplanted the "Caterpillar" type for farm use. Larger types of modern farm tractors include articulated four wheel or eight wheel drive units with one or two power units which are hinged in the middle and steered by hydraulic clutches or pumps.



A relatively recent development is the replacement of wheels or steel crawler-type tracks with flexible steel-reinforced rubber tracks, usually powered by hydrostatic or completely hydraulic driving mechanisms. The configuration of these tractors bears little resemblance to the classic farm tractor design.



Ex.1. Agree or Disagree the following statements.

1. Four-wheel drive tractors began to appear in the 1950s.
2. Some four-wheel drive tractors have the standard "two large" configuration typical of smaller tractors, while some have four large powered wheels.
3. The classic farm tractor is a simple close vehicle.
4. The configuration of tractors bears little resemblance to the classic farm tractor design.
5. Larger types of modern farm tractors don't include articulated four wheel or eight wheel drive units with one or two power units which are hinged in the middle and steered by hydraulic clutches or pumps.
6. In the later 21st century, articulated or non-articulated, steerable multi-track "tractors" have largely supplanted the "Caterpillar" type for farm use.
7. Today there are a lot different modern agricultural tractors.
8. There are new agricultural machines in every farm.



Ex. 2. Answer the questions.

- 1) Tractors can be generally classified as three-wheel drive, three-wheel drive with front wheel assist four-wheel drive or track tractors, can't they?
- 2) What is the classic farm tractor?
- 3) What was usually maneuvered through the use of turning brake pedals and separate track clutches operated by levers rather than a steering wheel?
- 4) What does the configuration of these tractors bear little resemblance to?
- 5) What kinds of agricultural tractors do you know?
- 6) Are there such machines in your farm?

Ex.3. **Descend your position of the problem of the text.**

The modern agricultural tractors.

