

1. Прочитайте текст и переведите его, используя технический словарь:

Mechanical Transmission

Transmission is a system of mechanisms for transferring energy from the engine to the machine's executive bodies with varying speeds, torque, direction and type of motion. Depending on the method of energy transfer, they are divided into mechanical, electrical, hydraulic and pneumatic. The most common mechanical transmission of rotational motion: friction, belt, gear, worm, chain and planetary. These transmissions have the main characteristic - the gear ratio. The gear ratio shows how many times the drive shaft rotates faster or slower than the driven shaft. In each transmission, the shaft that transfers power is called the leading (input) one, and the perceiving it by the slave (output).

Distinguish down (reduction) transmission, in which the input shaft rotates faster than the output and the gear ratio is less than unity, and increasing (multiplicative), in which the input shaft rotates more slowly than the output and the gear ratio is greater than unity.

Frictional and belt drives work due to the frictional force, and the gear, worm and chain drive - due to the force of engagement.

Mechanical transmission, which transforms one type of movement into another, also found its application in modern technology. These include rack and screw, crank-slider and eccentric, cam mechanisms. The crank-slider mechanism is used in reciprocating compressors. In the compressor, the rotational motion of the crank is converted into the rotational motion of the slider. In internal combustion engines, the crank-slider mechanism is used to convert the reciprocating motion of the slider into rotational motion of the crank.

2. Выпишите из текста ответы на следующие вопросы:

1. Какие механические передачи вращательного движения являются наиболее распространёнными?
2. Какой вал называется входным, а какой выходным?
3. Где применяется кривошипно – ползунный механизм?

Задание 1 Переведите текст на русский язык. Оформите перевод в виде документа Microsoft Word.

In the past, technical drawings for industry and architecture were drawn by hand, i.e. people worked at drawing boards with drawing equipment. These hand-drawn diagrams provided clear technical information but were slow and expensive to make. Nowadays, working drawings are done on computers, which is much quicker.

Computers can also:

1. Save, change, and recycle the drawings
2. Make 3D images
3. Make drawings bigger or smaller
4. Keep an electronic library of standard parts
5. Make symmetrical images of components
6. Make accurate and consistent drawings

A good way to explain the advantages is to think about architectural drawing. Features such as windows and doors can be moved until the architect likes the building. Images of the rooms are created in 3D so the viewer can “walk” through the rooms. Designers can also experiment with different arrangements of furniture and colors.

Задание 2 Заполните пропуски в определениях, используя слова, данные в скобках. Запишите ответы на английском языке в документе Microsoft Word.

- 2.1 ... means having two halves the same shape and size. (*different, standard, symmetrical*)
- 2.2 ... means correct in every detail, with no mistakes. (*accurate, consistent, architectural*)
- 2.3 ... means made by a person. (*technical, hand-drawn, slow*)
- 2.4 ... means to use something again. (*save, recycle, keep*)
- 2.5 ... are pictures or drawings. (*images, features, colors*)

Labor rights or workers' rights are a group of legal rights and claimed human rights having to do with labor relations between workers and their employers, usually obtained under labor and employment law. In general, these rights' debates have to do with negotiating workers' pay, benefits, and safe working conditions. One of the most central of these rights is the right to unionize. Unions take advantage of collective bargaining and industrial action to increase their members' wages and otherwise change their working situation.

Labor rights can also take in the form of worker's control and worker's self management in which workers have a democratic voice in decision and policy making. Many labor movement campaigns have to do with limiting hours in the work place. The labor movement initially focused on this "right to unionize", but attention has shifted elsewhere. Critics of the labor rights movement claim that regulation promoted by labor rights activists may limit opportunities for work.

Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay. The ILO and several other groups have sought international labor standards to create legal rights for workers across the world. Recent movements have also been made to encourage countries to promote labor rights at the international level through fair trade. Freedom of association workers are able to join trade unions that are independent of government and employer influence.

How do you think what are labor rights consist of ?

What can help workers to manage with labor rights problems?

February 14, 2017
Mr. Ivanov,
Chief Executive,
JSC Kholod Oborudovanie,
15 Sacco and Vatsetti St.
Saratov, Russia 41056

Dear Sir,

We inform you that our meat production combine is about to increase the manufacturing capacity. So we are planning to attach the cold store to the south side of the building. You can enter it through the main building. The assembling of the cold store is made on piles.

Main information

The chamber is for cooling of beef sides. The temperature of load supply = +10 C. The piling height of load = 3.5 m. The temperature in the cold store = - 3 C. The chamber sizes: width - 5 m, length - 5 m, height - 6 m. Wall material: reinforced concrete, thickness - 200 mm.

The isolation material: expanded polystyrene. The heat insulation thickness: 200 mm.

In this regard, we are planning to buy compressor-condenser unit at your Company.

We ask you, in perhaps short terms, to make calculations and to offer us the brand of the unit demanded for the cold store. We also ask you to send the form of the contract for obtaining supplies of your products and assembly operations.

We look forward to hearing from you

Yours faithfully,
Mr. D. Peterson,
Chief Executive,
Prom Mash

Questions to the text

1. What production facility should be built and operated?
2. What are the dimensions of the cold store: width, length, height?
3. What equipment is needed to maintain the correct temperature in the cold store?