

METHODOLOGY OF TEACHING THE SUBJECT OF DIFFERENT COMPOUNDS AND ITS ROLE IN PRODUCTION

E. A. Asanov

3rd Course Student of TDPU named after Nizamiy,

S. P. Jo'raqulov

3rd Course Student of TDPU named after Nizamiy,

M. K. Xalimov

Associate Professor of TDPU named after Nizamiy.

Annotatsiya

Ushbu maqolada chizmachilik fanida ajraluvchi birikmalar mavzusini, xususan, trubali birikmalar mavzusini o'qitish metodikasi, rivojlanish tarixi va uni ishlab chiqarishdagi o'rni qilingan.

Аннотация

В данной статье представлена методика преподавания темы разъемных соединений, в частности темы соединения труб, история развития и ее роль в производстве в технике.

Annotation

This article presents a methodology for teaching the topic of detachable connections, in particular the topic of pipe connections, the history of development and its role in production in technology.

Kalit so'zlar: ajraluvchi, ajralmas, birikma, fitting, detal, mufti, krestik, burchaklik.

Ключевые слова: разъемный, не разъемный, комбинация, фитинг, деталь, муфта, крестовина, уголок.

Key words: detachable, not detachable, combination, fitting, detail, coupling, cross, corner.

The parts are attached to each other in such a way that they can be separated from each other. When the parts of the separable compound are separated from each other,



they do not fall into an unusable, low-quality state, and it becomes possible to use it again. Such joints are called removable joints, and they include bolted, studded, screw, and fitting joints. Apart from them, keyed, pin and slotted joints are also part of detachable or sliding joints. Dissociable compounds are excitable or non-excitable. If the parts of the joint move relative to each other, it is called a moving joint. If the parts of the joint do not move relative to each other, that is, if they are firmly attached to each other, it is called a fixed joint. Movable connections include key, slot, spindle, and screw connections. Non-moving joints include joints with bolts, studs, screws, and fittings. Among the above, fittings, i.e. pipe joints, have a great place.

The technology of transporting liquids and gases through pipelines has a history of several thousand years. Pipes were first made of clay, then of brick and reinforced concrete. Even information about pipes is recorded in many ancient books. For example, according to the testimony of the Roman historian Eusebius, "Jerusalem's water supply was located in extremely infertile rocky soil, but it was so complex and branched that the city was literally a flowery garden washed by water." While excavating an ancient Mayan city near Chiapas, Mexico, archaeologists found an atypical aqueduct. It did not narrow to the end, but was installed at an angle. According to the researchers, the height of the water fountain obtained by this technical solution can reach six meters. The resulting water pressure was used by the Mayans to create an analogue of the modern flushing system in toilet rooms.

The true virtuosos in the construction of pipes were the Romans. They built very complex structures from an engineering point of view. For example, 11 aqueducts with a total length of 350 km transported the water of the city of Rome. Only 47 km of them are above ground and the rest are underground. For the construction of such pipes, the pipes were made of truly advanced construction materials at that time, pouzalon concrete, a mixture of impermeable sand, pouzalon and slag. It is considered the oldest of the Roman aqueducts, built in the 2nd century AD and served as a source of water for Carthage, the length of the pipe is 141 km. Currently, this engineering monument is located on the territory of Tunisia.

Another amazing construction is the Eifel aqueduct in Germany, built in the 80s. Its length is 130 km, it is almost entirely underground kilometers, and the water flows only due to the force of gravity. The Eiffel Aqueduct has been well preserved to this day.



With the rapid development of industry in the 19th century, iron pipes began to gradually replace concrete pipes. Today, pipes are made of various materials and differ in their properties and applications.

Pipes are one of the things invented by man that are always useful and necessary. Pipes play an important role in our life. No matter how long ago pipes were invented, and everything changes over time, the purpose of pipes is only expanding. It is difficult to imagine any production without pipes. For example, if we take into account the production of fittings, pipes and pipe joints are used to ensure the heating of ovens that heat semi-finished fittings (chushkas). It also plays an important role in many production equipment, where it is used in the product washing mode, transfer of various liquids, pouring, drying and many other modes of the equipment. But it is more often used to connect the pipe with a proper coupling. (Figure 1)

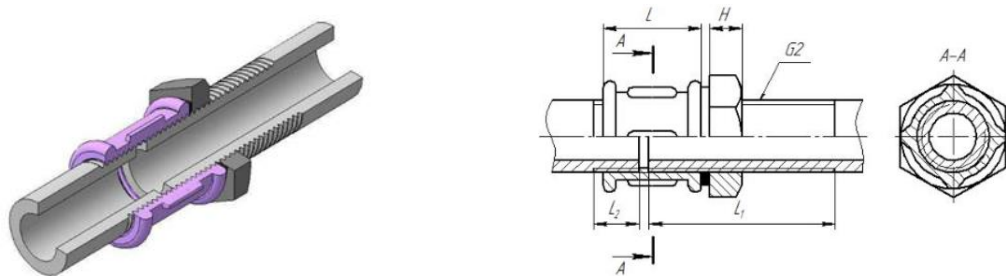


Figure 1.

Drip irrigation technology, which is widely used to irrigate crops in the farm, uses pipes and pipes. In addition, in greenhouses, they are in the frame and in other places, Picture 2.



Picture 2.

It is also widely used in construction, even in auxiliary tools needed during the construction process, pipes and pipe connections are necessary. For example, steel pipes are widely used in construction and assembly works. Various trusses, frames, various metal structures are made from them. Auxiliary tools are used in ladders and ladders, Picture 3.





Picture 3.

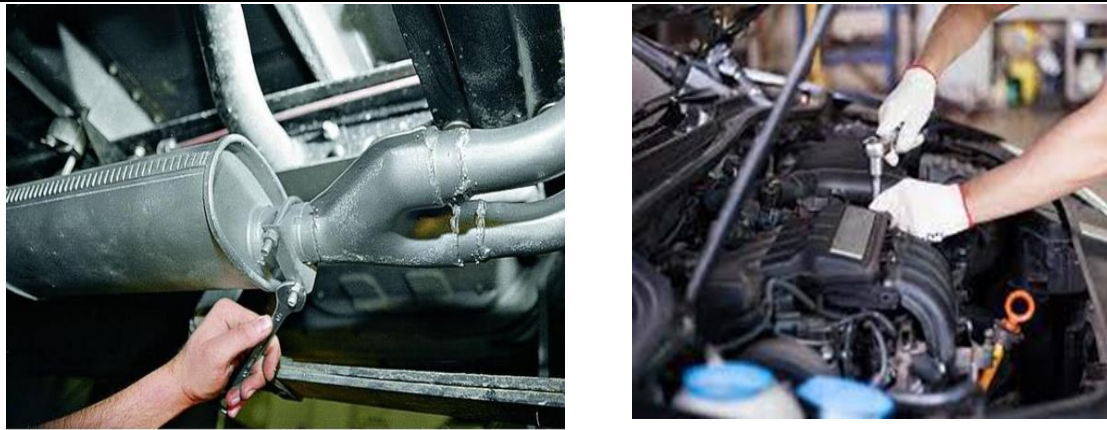
They are also used to protect the internal and external systems of telecommunication networks. It is impossible to lay communication and engineering systems, water and gas pipelines, heating networks and hot water supply without them, picture 4.



Picture 4.

In Mechanical engineering, pipes are used as material for the production of various structures and mechanisms. Depending on the diameter and parameters, the pipes can be used for lifting and transporting large loads, or, if not, for transporting technical liquids and gases. If we take cars, they are used as antifreeze in the motor part, and metal or aluminum tubes in the water circulation that cools the motor, Picture 5.





Picture 5.

In our daily life, we do not pay much attention to the fact that we see and come across pipes and pipe joints every day. To put it simply, each of us has pipes and pipe connections in each of our houses with courtyards or multi-storey houses. It is used in plumbing, gas installation, heating system, water supply, even depending on the size of roofs, chimneys, sleeves, waste water discharge, and many other things. They facilitate many processes in our daily life, Picture 6.



Picture 6.



Pipe joints are used in pipelines that transmit water, gas, air, and various liquids. They perform the joining of pipe lines, switching to another diameter, turning and other auxiliary tasks.

FOYDALANILGAN ADABIYOTLAR.

1. J.Xasanboyev va b. Pedagogika nazariyasi (Didaktika). – T. Fan va texnologiyalar, 2011.
2. E.Ro‘ziyev, A.Ashirboyev. Muhandislik grafikasini o‘qitish metodikasi. – T. “Yangi asr avlodi” nashriyoti, 2010.

