

THE PROCESS OF LOADING BY CONVEYOR TRANSPORT IN MINING ENTERPRISES

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Abstract: Currently, the mining industry is developing in the Republic of Uzbekistan. This article provides information about the conveyor loading system used in mining enterprises and their application in the mine. Conveyor transport in mining enterprises is based on the results of several studies on increasing productivity and reducing electricity consumption. Based on the geological and geotechnological location of the mine and forming the technological scheme of the mine, based on the parameters of the mine, it will be possible to place the conveyor transport on the boundary of the mine. This makes it possible to transport the crushed rocks separated from the massif over long distances.

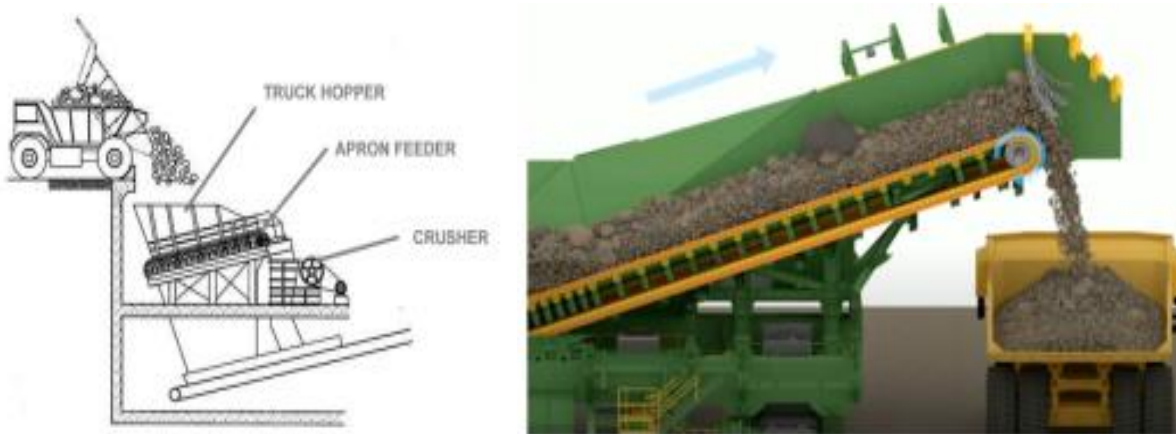
Keywords: Open pit mining, layout scheme of the mine, slope angle of an open pit mine, conveyor transport, conveyor slope angle, the principle of moving the conveyor, conveyor loading scheme, belt conveyors.

Introduction

Frictional resistance is important because in mining enterprises, cross-distance transport by rock transport is often carried out over long distances, and depending on the field directions of the mine information on ways to reduce the energy consumption factor is provided. To eliminate this reason, various studies are being conducted and analyzing as many results as possible. Although the conveyor has the advantage of low rolling resistance using rollers makes the conveyor as large as it is now, research in the field of rolling resistance is still ongoing. Other recent research developments are carried out in the start and stop phase of transport and process because it is the main cause of equipment failure. After the material is mined in a surface or underground mine, the material is prepared and transferred to its next technological station. Conveyors are designed for long distance transportation there are different types of conditions. Constantly recurring design requirements by conveyor type show that the conveyor type is used for work, which is the most economical method for the economy of the mine. Priority requirements for design and capacity, piece size, dust generation and environmental conditions based on the basic requirements that decide which type conveyors are used. A brief survey of trends in other types of conveyors close to the mining process is underway. This is a conveyor belt types are used in surface or underground mines after mining, mainly used for a long time and long we will be able to use it to transport rocks to a distance and create piles. The conveyor also carries out loading processes directly into the mining machines. Depending on what type of equipment is used in mining enterprises, a mining passport is formed with a strict order for mining. This will be similar to the layout processes for underground, surface and open pit mining. When using conveyors in

the process of transporting rocks, material must be prepared to maximize conveyor performance. Depending on which type equipment or units, it can be done in a certain way. When the cargo is transported in an open pit or in surface mining, the material is not prepared for the first transport or transfer process. But when conveyor is installed, when transporting the conveyor to a long distance, a combined crusher is installed distinguished by its required capacity, particle size and speed. To date, the technological applications of various mining control and management of conveyors are solutions for high angle. I believe the biases are very high in open pit mines. These systems could instead be used to remove material from the mine by using multiple trucks, we can compare performance. When the material is removed from the open pit, the material is transported and processes are often carried out by means of a high-efficiency belt conveyor. Mining capacity in surface mining can be very high due to the use of bucket wheel excavators. Conveyors are adapted to them there are also options for placing the mine on a slope. If the material is less homogeneous, it is often installed to transport cover rock it is widely used to change the volume of raw materials, to load materials from dumpers to crushers. After resizing material, it is often transported by belt conveyors capable of carrying large capacities. These mass processing functions can be classified according to mass velocity storage, the bulk is not in motion and therefore has zero velocity. The transfer does and most of it is moved from or to its warehouse. It accelerates to zero. If the bulk flow needs to change direction or speed, the transfer function is applied. There is mass velocity, but not constant conveyor belts are set in motion by acceleration. The last function, and the most important in this task, is the transport function. In this case, the velocity of the mass is constant and carries the mass a great distance. Will be processed in bulk transmitted by transfer and often before reaching the transport stage. Bucket wheel excavators or permanent miners have loading equipment and hopper and chute function can perform the function of transmission.





Picture 1. Conveyor loading system diagram

Conveyors are ideal equipment for the transport function. Conveyors can be used to transport almost anything. Mined raw materials, mines equipment, labor goods, and even the miners themselves can be used in the inclination it is installed on the border area of the mine, having a vertical, downward or horizontal level. As mentioned above, the use of a conveyor in the mining industry widely used in the transportation of mined minerals. But for the conveyor to work properly, there must be material to be conveyed and tailored, to meet preferred manufacturing characteristics and to limit wear, for example. This the operation of the conveyor must be controlled and therefore the material must be crushed. Large pieces and pieces of material will be more difficult to control during transport. Therefore, a grinder is installed in front moves well on the conveyor. After the first preparation is stopped, the mineral can be transferred to another conveyor until it reaches and a panel conveyor system is used. The panel conveyor transports the material the greatest horizontal distance and is delivered to the shipping point through the horizon of the main working area. There he climbs up from the mine by pulling it and trucks, used for lifting or transporting loads along a vertical shaft. Principles of operation of conveyors the principles of conveyor function can be different. Some conveyors use unlimited and the conveyor belt is set in motion when the ring rotates controlled by the drive panels to transport the material. Within this principle, it is possible to make a difference it will be possible to support the material or to pull and push the material. Material support and unlimited usage the ring is based on the principle of, for example, a belt conveyor. Weighing when using an endless conveyor belt box found in the chain conveyor type. These two principles of support and attraction cannot be found and cannot move a surface with a high weight distribution using an infinite loop. An example of a supported principle is the equalization of weight on a conveyor belt column using the vibration method. Over the years in the Republic of Uzbekistan, new solutions and new methods of cargo transportation in the mining industry have appeared and introduced to make the mining system more effective, efficient and safer. This is work provides an overview of conveyors used in the mining industry. It gives good information about used items and application for each type of operation and a complete understanding of the principle and function of operation there is also much information on the use of conveyors in the mining industry. There are all kinds of conveyor systems in the mining industry. Conveyor systems at work used only in underground and surface mines. The type of conveyors studied this article

contains conveyors that use the infinite principle controlled by one or more drivers methods are provided for moving mass material. It therefore excludes the use of individual vehicles or the use of trolleys, vibrating conveyors, etc. is envisaged.

Conclusion

Conveyors have the same transport function: transportation. Material properties the extracted raw materials do not always correspond to those required for the conveyor systems used. Each one different types of conveyors are designed with different philosophies and requirements. Conveyors of different types are used in almost every method of mining, there must be material characteristics modified to work more effectively and efficiently. Designed for visible conveyor systems only transportation of mined raw materials. These conveyors transport raw materials and excavated material able to transport pieces of different sizes and capacities. Chain conveyor using flights or an apron feeders are the right conveyors to do this kind of work. Mostly for making grinders or other equipment material is installed at the transfer point. Belt conveyors, tube conveyors and slotted conveyors conveying material of the right size makes the system reliable, efficient and effective. This used for underground, surface and open pit mining.

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