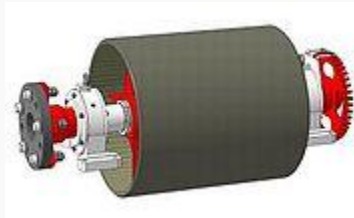


DRIVING DRUMS AND VARIATORS



Driving Drums



Driving Drums

Driving Drums put in motion the Conveyor Belts under the action of the Drives. The working surface of the drum is lined up for the most effective coupling with the belt. The main types of lining-up are: dis mountable rubber, glued rubber or rubber-ceramic, metal-ceramic. Driving drum is installed at the beginning or at the end of the Conveyors depending on the technological scheme. It puts the entire conveyor in motion under the action of the gear motor. The working surface of the drum is lined up for the most effective coupling with the belt.

Applications

The driving drum is used for transmission of the pull force needed for putting the belt in motion. The driving drums are the elements of the conveyor equipment intended for transportation of cargoes, bulk materials, products and parts in different industries. The set of driving drums includes either one shaft console intended for coupling with the drive mechanism, or two symmetrically placed consoles allowing making coupling of the drum with two mechanisms.

There are different designs and schedule-sizes of driving drums. Their characteristics and schedule-sizes depend on the following parameters: belt width, work load, center shaft diameter for bearing and bolt diameter, console and keyed connection size, total weight and the weight of the rolling elements. Besides that the driving drums may be smooth or lined-up.

Variators



Variators

Variator is a continuously-variable speed gearbox, working by friction. Most use cones or a spherical surface (concave or convex) to arrange a friction drive between two elements that may be varied in their effective diameter. Before the introduction of hydrostatic transmissions most combine harvesters used a type of variator drive using a large V belt and two variable width V pulleys to vary transmission speed and drum speeds. A variator is a device that can change its parameters, or can change parameters of other devices. Often a variator is a mechanical power transmission device that can change its gear ratio continuously (rather than in steps). Variator is a system for varying the valve opening of an internal combustion engine. This allows the engine to deliver high power, but also to work tractably and efficiently at low power. There are many systems for variator, which involve changing either the relative timing, duration or opening of the engine's inlet and exhaust valves.

Source: http://solidswiki.com/index.php?title=Driving_Drums