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The development of mineral deposits is a significant proportion of the global economy. On our planet, rich useful resources, the producing industry refers to the main profitable business sectors. For the organization of work at mining facilities and careers requires special productive equipment. Off-road dump trucks with a roomy body are some of the most sought-after machines in the extractive industry.

The development of such a network as Caterpillar helps solve the problems of the technical equipment of large companies in the global market. The manufacturer pays special attention to the design of heavy equipment for the mining industry. CAT off-road dump trucks deservedly occupy leadership positions in the ratings of the biggest models in the world.

Industrial equipment Cat brand is difficult to attribute to budget, but it does not have equal in reliability, performance, carrying capacity and efficiency in operation. The necessary criteria for extreme mining conditions are fully reflected in the line of off-road dump trucks. They differ in high power and durability when performing work. The manufacturer offers multifunctional machines of different load capacity, with different engine power, which allows you to increase the efficiency of work and reduce costs, due to the number of material transported per ride. Caterpillar production does not stand still and is constantly developing, improving and expanding model ranges of dump trucks.

## **CAT 785D**

Currently, the CAT ruler includes 13 basic models in the limit ranges of 36-363 tons, and the engine power is 483-4056 liters. The leading positions in the top of the largest and most popular Cat brand dump trucks takes the mountain model 785 D. Engine characteristics provide confident movement on offroad, including cool descents, Fully integrated AHS system. The mechanical power transmission CAT and the transmission with switching under load provide not having analogs of the efficiency and controllability on steep rise, in off-road conditions, as well as on roads with high rolling resistance.

The model is designed to organize mining work at an altitude of up to 4267 meters. Like all CAT dump trucks with a mechanical drive, the 785D model is equipped with the massloading brakes of four wheels and automatic control of the retarder for better control of the machine. The 785D career dump trucks is equipped with oil renewal systems, continuously filtering the rear axle oil, filters with an extended service life, and less frequently require maintenance. All this reduces the amount of waste entering the environment.

**CAT 789D.** The next place in the rating of dump trucks is the model with the technical mass of 324319 kg. Cat 789D career dump truck loading capacity reaches 181 tons. The machine is equipped with an industrial motor CAT 3516C HD. This SUV is capable of working in difficult conditions and on high mountain slopes. The advantage of this model in an efficient brake system that provides safe movement

The oil cooled brake system CAT has a high reliability and provides the handling of the machine even on the worst roads. The combined system includes a working, auxiliary and parking brake, as well as a retarder brake. In this case, the design of the system remains reliable in operation, which ensures maximum braking efficiency.

Convenient access to daily service points facilitates performance and reduces regular maintenance time. Convenience of maintenance and increased up to 500 hours of interclavicle intervals provide reduced machine downtime and increase its performance.

CAT 793D is supplied by a manufacturer in four options for the organization of mining at different heights. Like all CAT dump trucks with a mechanical drive, model 793D is equipped with oil-boring brakes of four wheels and automatic retarder control for better control of the machine, as well as faster and confident work.

The undercarriage of the quarry dump truck is designed to move up and down steep slopes with a loaded body. The 793F provides the industry's best payload at rated gross operating weight. The 793F climbs a 10% slope with a best-inclass speed of 12.9 km/h. The 20% increased torque of the C175-16 allows you to develop a large tractive effort during acceleration to overcome steep climbs and off-road terrain.

Mining processes depend on the development of the production of large-sized industrial machines of high capacity. Quarry dump trucks that can work in extreme conditions greatly simplify the transportation of rocks from deposits. But as a rule, the use of large-sized special equipment of large sizes requires significant costs for the maintenance of a commercial fleet and the training of operators.

If you are considering buying a Cat dump truck, you should objectively evaluate the profitability of the solution. When choosing equipment, you need to take into account the amount of mining or quarrying work. It is necessary to take into account the downtime of large-capacity commercial vehicles, as this will be unprofitable for the company. Large Cat dump trucks are advisable to purchase for the organization of permanent work in the mining industry.