

中文原文:

B. 动力换挡变速箱

多档动力换挡变速箱，为平行轴(定轴式)传动结构。由液压控制的多片式摩擦离合器，能在带负荷状态(不切断动力)下接合与脱开，也就是动力换挡。所有传动齿轮均由滚动轴承支承，齿轮与齿轮之间为常啮合传动。

各齿轮、轴承及离合器均由经冷却后的油进行润滑。

变速箱有三个多片湿式摩擦离合器，换挡时相应的离合器摩擦片被轴向作用的油压所推动的活塞压紧。离合器摩擦片的松开是靠螺旋弹簧的作用力将活塞推回。

D. 驱动桥

本机前桥固定，后桥与车架相对摆动。为增大牵引力，提高作业性能，采用四轮驱动。

驱动桥主要由壳体、主传动器(包括差速器)、半轴、轮边减速器等组成。

壳体安装在车架上，承受车架传来的载荷，并将其传到车轮上。同时是主传动器、半轴、轮边减速器的安装壳体。

主传动器是一级螺旋锥齿轮减速器，主要用来增大传动系统的扭矩，降低从变速箱传来的转速，并改变运动的方向。

差速器是由两个锥形直齿半轴齿轮、十字轴、四个锥形直齿行星齿轮及左右差速器壳组成的行星齿轮传动副。它对左右车轮的不同转速起差速作用，并将主传动的扭矩和运动传给轮边减速器。

轮边减速器是一个行星齿轮传动机构。内齿圈固定在轮边支承轴上，行星轮架与轮辋固定一起转动，其运行是通过半轴、太阳轮而得到的，它的作用是进一步增大运动系统的扭矩与降低传动系统的转速，以获得合适的工作速度。

轮胎轮辋总成是主要的行走部件，本机采用 17.5~25 型轮胎，属低压宽基轮胎。其断面尺寸大，弹性与减震性能好，接地比压小，具有良好的附着性能和越野性能。

英文译文

B. Power shift gearbox

The multi-gear power shift gearbox is a parallel shaft (countershaft) transmission structure. The hydraulically-controlled multi-disc friction clutch can engage and detach in a loaded state (without cutting off the power), which is the so-called power shift. All the transmission gears are supported by rolling bearings, and transmission is realized by the constant engagement between the gears.

All the gears, bearings and clutches are lubricated by the oil that has been cooled off.

The gearbox has three wet multi-disc friction clutches, and during gear shifting, the clutch discs are pressed by the oil pressure-driven piston acting along the shaft. The loosening of the clutch discs relies on the force of the coil spring to push the piston back.

D. Drive axle

The front axle of this vehicle is fixed, and the back axle and the frame can swing relative to each other. Four-wheel drive is used to increase traction and improve the performance of operation.

The drive axle mainly consists of the housing, the main actuator (including the differential), the half shaft, and the wheel reduction gear.

The housing is installed on the frame, supporting the load transmitted from the frame, and transmitting it to the wheels. At the same time, it is also the housing on which the main actuator, the half shaft and the wheel reduction gear are installed.

The main actuator is the primary spiral bevel gear reducer, mainly used to increase the torque of the drive system, reduce the RPM transmitted from the gearbox, and change the direction of movement.

The differential is the planetary gear-driven shaft consisting of two cone-shaped straight-toothed half shaft gears, cross shaft, four cone-shaped straight-toothed planetary gears as well as the left and right differential housings. It differentiates the different rotation speeds of the left and right wheels, and transmits the torque and motion of the main drive to the wheel reduction gear.

The wheel reduction gear is a planetary gear drive mechanism. The internal ring gear is secured to the rim supporting axle, the planetary wheel ratchet and the rim are fixed and rotate together, and their motion is obtained through the half shaft and the sun wheel. Its role is to further increase the torque of the motion system and reduce the rotation speed (RPM) of the drive system, so as to get an appropriate operation speed. The wheel rim assembly is the main walk part.

The tires with a size of 17.5-25 are used for this vehicle, which are low-pressure and wide-base tires. They have a big cross-section, good elasticity and shock absorption, low ground pressure, strong traction, and excellent off-road performance.