

The Main structure of transmission Assembly

The transmission consists of front-located five-speed main transmission and one two-speed auxiliary transmission. In main transmission, the input shaft and its gear is connected by spline, the gear of input shaft can float in radial direction. The gears on countershaft are engaged with countershaft in certain magnitude of interference and connected with crescent key and long key, except the gears of reverse and low speeds are made as integration. The gears on main shaft are supported by spline shim; it is can be in a float condition in radial direction. They are located in axial direction by the thrust washer, long hex key on main shaft, spline shim and adjusting shim. The clearance of adjacent two gears can be adjusted by selecting adjust shim with different thickness. In auxiliary transmission, the drive gear is connected with main shaft by spline. The Aux. reduction gear is on Aux, main shaft supported by spline shim, and gear can float in radial direction. The gears of all speeds in main and auxiliary transmission are in form of constant engage.

In the main transmission of twin countershaft transmission, there are tow countershafts assemblies with completely same size and structure (except PTO gear); it is so called the auxiliary gearbox.