RESEARCHES ON THE CONSTRUCTIVE TYPES OF COUPLES USED AT TRACTORS

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SUMMARY

The paper makes a critical analysis of the most important constructive and functional characteristics of couples.

Co-axled axes can be blended through immobile couples and those with relative small removals of axes, through compensated couples. These couples bind between the ax of principal clutch and basic ax of tractor gear.

Cardanic couples make possible the blending of axes with big removals of axes. The bind achieving and the transmission of torsion moment from the power plug ax of tractor to the action ax of work parts of some agriculture machines are also made through cardanic couples.

The imobile couples have a limited spreading, being used for binding axes from the same carter, where it can be easily assured the co-axleity.

The compensated couples are the largest spreading in tractors construction and are met under the form of immobile couples or elastic couples.

The immobile compensated couple is used for binding the principal clutch axes with gear ax. These type of couples can take relative transversal removal of axles of 0,4 – 0,7 mm and angle removals up to 3°.

The elastic compensated couples allow the transmission of torsion moment between axles with angle removals up to 3-4 °. The compensation of unaxling is made upon deformation of some metallic or rubber elastic elements. Compared to the immobile couples, the elastic ones repay the shocks caused by the dинamic load in transmission. Compared to the metal elastic elements, the rubber elements have a high capacity of repaying, 10 times bigger than spring steel. That is why the couples with rubber elements are the most used.
The cardanic couples allow the binding of axes with relatively big removals of axes, which angles can reach up to 30-40\degree. For the simultaneous warming up of motor and direction wheels there were made sincrone cardanic couples, which assure the uniform round of conducted ax, without the series binding of 2 couples.

REFERENCES