

APPLICATION AND DESIGN OF HYDRO TRANSMISSION FOR TRACTORS

Vanja Šušteršič, Dušan Gordić, Mladen Josijević, Vladimir Vukašinić¹

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ABSTRACT: In the recent years, there has been a great progress in the development and practical application of hydro transmission in all industries. In particular, they are widely used in mobile machines in the construction, mining, agriculture and forestry for starting the working parts (manipulators) which perform technological operations and for driving power. The basic advantages and disadvantages of hydraulic power transmission are explained in this paper, with examples of application of both types - hydrostatic and hydrodynamic power transmission for tractors. Calculation of both types of hydraulic power transmission for tractors was made along with a 3D model based on the calculated size.

KEY WORDS: tractor, hydrostatic transmission, hydrodynamic transmission, 3D model

PRIMENA I PROJEKTOVANJE HIDRO TRANSMISIJA KOD TRAKTORA

REZIME: U poslednjih nekoliko godina došlo je do velikog napretka u razvoju i praktičnoj primeni hidro transmisija u svim granama privrede. Posebno se široko primenjuju u oblasti mobilnih mašina u građevinarstvu, rudarstvu, poljoprivredi i šumarstvu i to, kako za pokretanje radnih organa (manipulatora) koji izvode tehnološke operacije, tako i za pogone kretanja. U radu su objašnjene osnovne prednosti i nedostaci hidrauličnog prenosa snage, sa primerima primene oba tipa - hidrostatičkog i hidrodinamičkog prenosa snage kod traktora. Urađen je i proračun oba tipa hidrauličnih prenosnika snage kod traktora, sa 3D prikazom modela na osnovu proračunatih veličina.

KLJUČNE REČI: traktor, hidrostatička transmisija, hidrodinamička transmisija, 3D model

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