

Title (en)

AUTOMOTIVE DRIVE TRAIN HAVING A FIVE-CYLINDER ENGINE

Title (de)

KRAFTFAHRZEUG-ANTRIEBSSTRANG MIT EINEM 5-ZYLINDER-MOTOR

Title (fr)

CHAÎNE CINÉMATIQUE D'AUTOMOBILE À MOTEUR À CINQ CYLINDRES

Publication

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Application

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Abstract (en)

[origin: WO2007054059A1] The invention relates to an automotive drive train having an internal combustion engine (266) that is configured as a five-cylinder engine and a hydrodynamic torque converter device. Said device has a torsional vibration damper consisting of two energy accumulating devices (272, 276) and a converter lockup clutch (268). The turbine wheel (274) is interposed between the two energy accumulating devices (272, 276). According to the invention, ranges of values or ratios for following parameters are claimed: maximum engine torque $M_{\text{mot,max}} </SUB>$ (266), spring rate $C_{₁}$ (272), mass moment of inertia $J_{₁}$ (274), spring rate $C_{₂}$ (276), mass moment of inertia $J_{₂}$ (278) and spring rate $C_{\text{GEW}} </SUB>$ of the transmission input shaft (280). The mass moment of inertia $J_{₁}$ should be high between the two energy accumulating devices (272, 276) and masses should be as little as possible between the torsional vibration damper and the transmission input shaft. Figure 5 shows a spring-mass equivalent circuit diagram with closed converter lockup clutch (268).

IPC 8 full level

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CPC (source: EP KR US)

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