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KS Gleitlager GmbH

Plain bearings enable weight reduction in vehicle transmissions

Experts agree that vehicle transmission systems have significant influence on fuel consumption and thus emissions. All measures for increasing transmission efficiency by reducing internal friction and all weight reduction measures directly affect the above-mentioned parameters. Regarding weight, the automotive manufacturing rule of thumb applies: 10% less vehicle mass generates fuel savings of about 5%. KS Gleitlager GmbH offers a comprehensive portfolio of sliding materials especially for use in vehicle transmission systems, in order to optimally fulfil the prevailing tribological requirement at the individually corresponding bearing position in the transmission.

In addition to their high wear resistance and mixed friction-resistance, plain bearing materials for transmissions must demonstrate low friction coefficients. Adequate corrosion resistance against aggressive oils is also important, as is a maximal specific load carrying capability. Metal bearings must additionally demonstrate defined tolerance values and must also be machine re-workable after installation.

KS Gleitlager has developed a material portfolio for transmission plain bearings which comprises steel-aluminum, steel-sintered bronze, steel-cast bronze and steel-bronze polymer composite material groups and fulfils all these requirements. One can select the appropriate material for bushings and thrust washers from the comprehensive portfolio based on the individual bearing requirement.

These special bearings differ from roller bearings due to a significantly smaller need for installation space. They thereby enable weight reductions in all transmission components that require them and thus contribute to lower vehicle weight and, consequently, to fuel and emissions savings.