

ERGONOMIC ANALYSIS OF MOTOR VEHICLES

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ABSTRACT: Up to the 1950s, motor vehicles were a product determined by technology. Engineers conceived the functional aspects of the vehicle, which was then dressed up by body work specialists and craftsmen. The purchaser himself was mainly interested in performance and technological innovations. Attention to user characteristics and needs came later. The evolution of the market intensified competition among manufacturers, who started to invest in image. Image soon became an important factor in driving customer choices.

The ergonomic aspects of motor vehicles are not explicitly treated by the European Community directives. The Society of Automotive Engineers, through its standards committees, sustain a series of recommended practices, that codify tools and methods. In particular, the SAE norms define the anthropometric standards for the dimensional relationship between man and vehicle, which are at the base of any assessment on habitability, accessibility, reachability, internal and external visibility, and postural comfort.

KEY WORDS: ergonomics, motor vehicle, anthropometric databases, digital human models

ERGONOMSKA ANALIZA MOTORNOG VOZILA

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REZIME: Do 1950. godine, motorna vozila su bila proizvod određen tehnologijom. Inženjeri su razmatrali funkcionalne aspekte vozila, koji su onda prosleđivani stručnjacima za karoseriju i modelarima. Sam kupac je uglavnom zainteresovan za performanse i tehnološke inovacije. Pažnja na karakteristike i potrebe korisnika došla je kasnije. Evolucija tržišta intenzivirana konkurencije među proizvođačima, koji su počeli da ulažu u slici. Slika je ubrzo postala značajan faktor u vožnji izbora kupaca.

Ergonomski aspekti motornih vozila nisu eksplicitno tretirani direktivama Evropske zajednice. Društvo automobilskih inženjera (SAE), nastoji da preko svojih odbora standarda, omoguće primenu preporuka iz prakse, da kodira alate i metode. Konkretno, SAE norme definišu antropometrijske standarde za dimenzionalne odnos između čoveka i vozila, koja su osnova svake procene prikladnost za boravak, dostupnost, mogućnosti dohvata, unutrašnje i spoljne vidljivosti, i udobnosti položaja.

KLJUČNE REČI: ergonomija, motorno vozilo, antropometrijska baza podataka, digitalni model čoveka

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