THE CAR IN THE YEAR 2014

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ABSTRACT: The passenger vehicle today is modern and highly equipped. Already in the basic version, it has a servo steering, power brakes, Antilock Braking System, Electronic Stability Control, air bag, etc. It has crash safe and dynamically robust body. Body corrosion resistance is significantly better. Engines consume less, and yet (and nevertheless) the emission is nearly 100 times cleaner than 30 years ago.

In any case, the passenger cars today are much better, safer, more reliable and environmentally friendly. They became larger and heavier, but they are fulfilling all requirements. All this is possible through the application of new methods of body construction, by application of the know-how in new production technologies and through application of the new metallurgical classes of Steel and Aluminium. There are also new plastics and composites, too.

Great progress has been made in electronic monitoring and control of vehicle systems. Today, on the market, there are vehicles with automatic control. Future cars will soon not need a driver. On the other hand, new limitations on the road, like speed limits, are coming more and more. Congestions on roads would lead toward more speed limits.

Because of these, it is quite difficult to say how would passenger cars look like in the future? It could happen that private cars would be controlled from some control centre.

KEY WORDS: Chassis-Body concept, self-supporting body concept, Space Frame body concept, self-supporting monocoque body concept, new materials, new technologies, Hydroforming, Heatforming, Superplastic Forming, Tailored- /blanks, tubes, strips; welding, brazing, joining, rivets, Clinch-spots, Flow Drill Screws, Tack impact, FSW - Friction Stir Welding

AUTOMOBIL 2014. GODINE

REZIME: Putnički automobil danas je moderan i veoma opremljen. Već u osnovnoj verziji, ima servo upravljač, električne kočnice, sistem protiv blokiranja točkova, elektronska kontrola stabilnosti, vazdušni jastuk, itd. Vozilo ima karoseriju koja je robusna i bezbedna na udar. Otpornost karoserije na koroziju je značajno bolja. Motori troše manje, a opet (a ipak) emisija je gotovo 100 puta čistija nego pre 30 godina.

U svakom slučaju, putnički automobili danas su puno bolji, sigurniji, pouzdaniji i ekološki prihvatljiv. Postali su veći i teži, ali oni ispunjavaju sve uslove. Sve to je moguće kroz primenu novih metoda izgradnje karoserije, primjenom znanja u novim proizvodnim tehnologijama i primenom novih metalurških klase od čelika i aluminijuma. Takođe tu su i nove plastike i kompoziti.

Veliki je napredak postignut u elektronskom praćenju i kontroli sistema vozila. Danas, na tržištu, postoje vozila s automatskom kontrolom. Budućim automobilima uskoro neće biti potrebni vozači. S druge strane, nova ograničenja na putu, kao i ograničenja brzine, postaju sve stroža. Zagušenja na drumovima direktno vode ograničenju brzine kretanja.

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Zbog toga, vrlo je teško reći kako će putnički automobili izgledati u budućnosti? Moglo bi se dogoditi da se putnički automobili kontrolišei iz nekog kontrolnog centra.

KLJUČNE REČI: Komcept šasija-karoserija, koncept samonoseće karoserije, prostorni koncept rama, koncept samonoseć jednodelne karoserije, novi materijali, neove tehnologije, oblikovanje mlazom, oblikovanje toplotom, superelastično deformisanje, oblikovanje cevi, trake, zavarivanje, lemljenje, spajanje, zakivanje, pertlovanje, zavarivanje trenjem