KOKKUVÕTE

Käesolevas tööd on alustatud tootearenduse protsessi väikese järelveetava haagise loomiseks, eesmärgiga luua uudse disainiga kompaktne karavan, mida oleks mugav kasutada ka väikese autoga, ning mis oleks ökonoomne. Töös käsitlen tootearenduse protsessi esimesi samme, kuna tegemist on väga mahuka projektiga. Esmalt on leitud erinevad piirangud ning paika pandud nõudmised, mida töö jooksul jälgima peab. Nagu näiteks,et tegemist on kerghaagisega, mida saab kasutada tavalisi B- kategooria juhilube omav inimene, ehk lubatud suurim mass on 750 kg. Lisaks et vältida erinevaid reisiga kaasnevaid makse, siis on üheks disainipiiranguks maksimaalne kõrgus maapinnast, mis ei tohi ületada 1900 mm. Tähtsal kohal oli ka disaini vastupidavus ilmastikule ja ajale, mis pani ka paika, millest karavan üldse koostatakse ja kuidas. Tegemist on küll esmase mudeliga, kuid see annab aluse põhjalikumaks arendustööks.

Töö käigus on loodud mudel, millega on läbiviidud erinevaid aerodünaamika simulatsioone mille käigus kogutud andmetega on hinnatud ka eeldatavat lisanduvat kütusekulu. Paika pandud tingimused ja nõuded disainile aitavad edaspidi kiiremini antud projekti arendada. Küll aga tasub ümber mõelda dimensioone, mis võimaldavad antud haagist veel kompaktsemaks muuta. Edaspidises arenduses võiks mõelda sisse ostetud alusraami vahetamisest täielikult enda poolt vastavalt vajadusele loodud raami vastu, millele siis ülejäänud pealisehitis teha.

7. SUMMARY

In this thesis, the product development process has been started to create a small towable trailer, with the aim of creating a compact caravan with a new design, which would be convenient to use with a small car, and would be economical. In the work, I discuss the first steps of the product development process, as it is a very large project. First, various limitations have been found and requirements have been set, which must be observed during the work. For example, it has to be a light trailer that can be used by a person with a normal B- category driver's license, i.e. the maximum allowed weight is 750 kg. In addition to avoiding various taxes associated with traveling, one of the design limitations is the maximum height from the ground, which must not exceed 1900 mm. The resistance to weather and time was also important, which also determined what the caravan is made of and how. Model in this work is an initial model, but it provides a basis for more comprehensive development work.

During the work, a model has been created, with which various aerodynamic simulations have been carried out, during which the expected additional fuel consumption has also been estimated with the collected data. The established conditions and requirements for the design will help to develop the given project faster in the future. However, it is worth rethinking the dimensions, which make it possible to make this trailer even more compact. In the future development, you could think about replacing the purchased base frame with a frame created inhouse according to the need, on which the rest of the superstructure can then be built.