

SAFETY ASSESSMENT WHEEL BRAKE SYSTEM PADA PRIMARY DESIGN PESAWAT TERBANG TM-13

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“ABSTRAK”

Safety assessment di mulai dari identifikasi fungsi pesawat, identifikasi kondisi kegagalan, output FHA *aircraft*. Hasil *function hazard assessment* (FHA) dari *wheel brake system* pesawat TM13 dikategorikan *catastrophic* yang kondisi kegagalannya berupa “kehilangan semua kemampuan penghentian dan hilangnya sebagian kemampuan penghentian”. Pada analisis *fault tree analysis* (FTA) *wheel brake system* probabilitas kegagalannya sebesar 1.1822×10^{-13} sehingga *wheel brake system* ini dinyatakan aman digunakan. Hasil perhitungan daya pengereman yang dibutuhkan sebesar 129327 N, sedangkan daya yang tersedia 418800 N dengan demikian maka *wheel brake system* tersebut dinyatakan aman digunakan.

Kata Kunci: FHA, FTA, *Calculator* MTBF

***SAFETY ASSESSMENT WHEEL BRAKE SYSTEM IN PRIMARY
DESIGN AIRCRAFT TM-13***

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“ABSTRACT”

Safety assessment is started by identifying the aircraft functions, failure condition and Function Hazard Assessment (FHA) aircraft output. The results show that Function Hazard Assessment (FHA) of the wheel brake system of TM13 airplane is categorized as catastrophic failure conditions which are indication by "loss of all cessation capabilities and loss of partial cessation". For the wheel brake system Fault Tree Analysis (FTA) the probability of failure is 1.1822×10^{-13} so that the wheel brake system was safe to use. Is the calculation result show that the braking power required is 129327 N, while the available power is 418800 N. Therefore, thus the wheel brake system is safe to use.

Keywords: *FHA, FTA, Calculator MTBF*

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