

ABSTRAK

Analisis terjadinya kerusakan *skin* pesawat Cessna 172N pada bagian *fuselage* menggunakan metode doubler. Tujuan penelitian ini, penulis ingin mengetahui penyebab terjadinya kerusakan dan mengetahui upaya proses *repair* kerusakan pada *skin fuselage* pesawat Cessna 172N yang diakibatkan terjadi benturan saat *loading equipment*. Dari hasil analisa didapatkan beberapa point kesimpulan yaitu: (1) *Repair Material* adalah suatu proses perbaikan atau penangulangan bagian-bagian yang mengalami kerusakan atau cacat agar kekuatan bagian memenuhi standar yang telah ditetapkan oleh perancang, (2) Setelah mengidentifikasi kerusakan *structure* pada *skin fuselage*, (3) Dalam pelaksanaan *repair skin fuselage* ada beberapa langkah yang perlu diperhatikan. Pertama, membaca *manual book repair skin fuselage* serta mengidentifikasi kerusakan yang terjadi yaitu metode *doubler*. Kedua, setelah indentikasi kerusakan dilanjutkan dengan proses yang disebut dengan proses *removing* dan *installing*. Ada beberapa langkah yang perlu dilakukan pada proses ini. pertama adalah melepas akses, *cowling*, dan bagian lain dari *part* yang mengalami *damage* serta melepas *rivet* dan memotong area *damage skin*, dilanjutkan dengan langkah selanjutnya yaitu perbaikan area kerusakan apabila *core* mengalami kerusakan, dan langkah terakhir adalah memasang kembali seluruh akses yang dilepas pada langkah pertama.

Kata kunci: *Repair Material, NDT, Removing, Installing, Monitoring*



ABSTRACT

Analysis of the damage to the skin of the Cessna 172N aircraft on the fuselage part using the doubler method. The purpose of this study, the author wants to find out the cause of the damage and know the efforts to repair damage to the skin fuselage of the Cessna 172N aircraft caused by bentuntura during loading equipment. From the results of the analysis, several points of conclusion were obtained, namely: (1) Repair Material is a process of repairing or overcoming parts that have been damaged or defective so that the strength of the parts meets the standards set by the designer, (2) After identifying structural damage to the skin fuselage, the engineer then makes a decision on the use of methods suitable for material repair, namely the doubler method, (3) In the implementation of skin fuselage repair, there are several steps that need to be considered. First, read the skin fuselage repair book manual and identify the damage that occurred. Secondly, after indentation the damage is continued with a process called the removing and installing process. There are several steps that need to be done on this process. the first is to remove access, cowling, and other parts of the damaged part and remove the rivet and cut the skin damage area, followed by the next step, which is to repair the damage area if the core is damaged, and the last step is to reinstall all access that was removed in the first step.

Keywords: *Repair Material, NDT, Removing, Installing, Monitoring*

