

Minimize Wear and Tear in Y12 Aircraft Tyres

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Abstract : This research was related to identify the reasons which lead for early wear and tear of aircraft tyres. Further this research focused to rectify those issues in tyres with some modifications. The aircraft tyres of Y12 aircraft was selected for the study as due to Y12 aircraft fly frequently. Self-structured questionnaire was prepared and it was distributed among Y12 aircraft technicians. Based on their feedback several issues were identified related to tyre wear and tear. One of the reasons was uneven tyre wearing. But it could rectify after interchanging the tyre sides after completion of 50 landings. Several modifications were done in order to rectify all the identified issues. Several devices were constructed in order to enhance the life time of the Y12 aircraft tyre. Mechanical properties were measured for the worn-out tyres. The properties were compared with the control tyre sample. It was found that there was an average increment of tensile strength by 38.14 % of control tyre, when compared with the worn-out tyres which were completed 50 number of landings. The suggested modifications are in the process of implementation. It is confident that above mentioned solutions will lead to increase the life span of tyres in Y12 aircraft.

Keywords : aircraft, devices, enhance life span, modifications for tyre wear

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