

1.3.71. C-SCAN ULTRASONIC EVALUATION OF Al/Ti BRAZED JOINT

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An indigenously developed brazed joint of Al/Ti was characterized by ultrasonic C-scan method. The study revealed certain debond locations in the brazed joint suggesting metal and air interface. These debond locations would have resulted due to the failure of filler material's joining ability. In spite of certain amount of load applied on the braze base metals, the above debonding happened. The debond locations further confirm that the pressure was not sufficient and therefore the debonds are present at exactly the same location where there were gaps in the fixture. Further analysis revealed that these debonds were present at the interface between the braze material and Al-plate. It is concluded that ultrasonic C-scan can be effectively used to evaluate the bond characteristics in a brazed joint between dissimilar metals.