

GAS TURBINE ENGINE COMPRESSOR BLADE RESTORATION

ABSTRACT

A method of repairing a gas turbine engine compressor blade airfoils includes machining away airfoil material (50) along leading and trailing edges and a radially outer tip of the airfoil to form leading edge, trailing edge, and tip cut-backs (66, 68, 69). Then beads of welding material (72) are welded onto the leading edge, trailing edge, and tip cut-backs (62, 62, 64). Then some of the weld material is machined away from the weld bead (70) to obtain desired finished dimensions of the leading and trailing edges and radially outer tip (66, 68, 69). Blade material along only radially outermost portions (80) of the leading and trailing edges (LE, TE) extending from the tip towards a base of the airfoil (32) is machined away. A rounded corner (30) is formed between the leading edge and trailing edge cut-backs (62, 63) and unmachined portions (74) of the airfoil (34) between the outermost portions (80) of the leading and trailing edges (LE, TE) and the base of the airfoil (32).

FIG. 6



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