

WELD REPAIR OF SWITCH BLADES

Weld repair of switch blades damaged as a result of normal traffic passing through a set of switches has been carried out in the past with mixed results. However because of the safety critical nature of switches the process was discontinued after a number of derailments, reputedly due to failed weld repaired switch blades, had occurred. No consistent reason for these failures was described.

It was previously shown that annual savings throughout British Rail of £2m could be made if only 50% of switch blades currently removed and scrapped could be weld repaired. This report describes the work carried out to determine the feasibility of the safe weld repair of worn switch blades. The report describes the effects of weld process and process parameters on the dimensional stability of the switch blades.

Recommendations as to the scope for switch weld repair are discussed and a Switch Welding Repair Procedure proposed. The possible limitations on the process are highlighted.