

Title (en)  
Resistance heater probe.

Title (de)  
Widerstandsheizsonde.

Title (fr)  
Sonde chauffante à résistance électrique.

Publication  
**EP 0109843 A1 19840530 (EN)**

Application  
**EP 83307064 A 19831118**

Priority  
• GB 8233335 A 19821123  
• GB 8321028 A 19830804

Abstract (en)  
A resistance heater for performing heat treatment of the braze-affected area of a metallic sleeve attached by brazing within and to a metallic tube, consisting of a composite in generally tubular form and able to be inserted within the sleeve so as to register with that length of the sleeve over which it is desired to effect heat treatment, the composite including a cylindrical core (2), a ceramic tube (6) fitted over the core (2), at least one thermocouple (9) disposed in a slot (8) in the tube (6), a heater tube (10) fitted over the tube (6) and having over part of its length (the heating part) a spiral groove (11) extending right through the tube (10) thickness, the groove (11) being filled with high resistance material to provide heating when current is applied across the ends of the groove (11), and a further tubular part (14) extending over the non-heating part of the heater tube (10). The heating tube (10) is varied in thickness to give a desired temperature profile over the length of the sleeve being heat treated.

IPC 1-7  
**H05B 3/44**; **B23K 1/04**

IPC 8 full level  
**C21D 1/34** (2006.01); **C21D 9/50** (2006.01); **H05B 3/44** (2006.01)

CPC (source: EP)  
**C21D 1/34** (2013.01); **C21D 9/50** (2013.01); **H05B 3/44** (2013.01)

Citation (search report)  
• DE 1015159 B 19570905 - SIEMENS AG  
• FR 1404105 A 19650625 - ACEC [BE]  
• GB 2021369 A 19791128 - STEGMEIER H  
• US 1553342 A 19250915 - VAUGHAN VICTOR G  
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Cited by  
CN105007641A; CN105517210A; CN103716928A; EP0285464A1; FR2612941A1

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DE FR GB NL SE

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