

Title (en)  
Nozzle/nozzle holder arrangement for a plasma torch

Title (de)  
Düse/Düsenhalterung für einen Plasmabrenner

Title (fr)  
Ensemble tuyère/porte-tuyère pour torche à plasma

Publication  
**EP 0933981 B1 20011017 (FR)**

Application  
**EP 99400198 A 19990128**

Priority  
• CA 2290146 A 19991122  
• FR 9801146 A 19980202  
• US 44304899 A 19991118

Abstract (en)  
[origin: EP0933981A1] The assembly has a nozzle (1) forming the male part and a nozzle carrier forming the female part that receives the nozzle. The nozzle has on its outer periphery a spiral taper (14) and a groove (15) running axially along the length of the taper. The carrier has boss co-operating with the taper to ensure the nozzle is retained in the carrier.

IPC 1-7  
**H05H 1/34**

IPC 8 full level  
**H05H 1/34** (2006.01)

CPC (source: EP US)  
**H05H 1/34** (2013.01 - EP US); **H05H 1/3478** (2021.05 - EP); **H05H 1/3478** (2021.05 - US)

Citation (examination)  
• US 5308949 A 19940503 - REED JR E SMITH [US], et al  
• WO 9623620 A1 19960808 - KOMATSU MFG CO LTD [JP], et al  
• EP 0872300 A1 19981021 - KOMATSU MFG CO LTD [JP], et al

Cited by  
US10576575B2; US10737347B2

Designated contracting state (EPC)  
BE DE ES FR GB IT NL PT SE

DOCDB simple family (publication)  
**EP 0933981 A1 19990804; EP 0933981 B1 20011017**; CA 2290146 A1 20010522; DE 69900348 D1 20011122; DE 69900348 T2 20020905; ES 2165224 T3 20020301; FR 2774548 A1 19990806; FR 2774548 B1 20000303; PT 933981 E 20020228; US 6169264 B1 20010102

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