

Title (en)  
Machine for boring tunnels.

Title (de)  
Tunnelbohrmaschine.

Title (fr)  
Perforatrice pour tunnels.

Publication  
**EP 0122103 A1 19841017 (EN)**

Application  
**EP 84302245 A 19840402**

Priority  
GB 8309356 A 19830406

Abstract (en)  
A machine for boring tunnels comprises concentric outer and inner sleeves (2, 4) between the forward extents of which is defined an annular housing (6). A spiral auger (8) extends axially through the inner sleeve (4) and carries at its forward end a primary cutting head (10), while an annular secondary cutting head (14) is mounted in the annular housing (6) and is rotatable about the central axis of the sleeves (2, 4) on rotation of the auger (8). A series of steering plates (20) are spaced circumferentially about the forward extent of the outer sleeve (2) and are pivotal outwardly of said sleeve (2) on actuation of associated control members (22) to control the direction of movement of the machine on thrusting of said machine through the ground by an associated thrust mechanism reacting against the rear ends of the sleeves (2, 4) and providing power for rotating the auger (8) and associated cutting head (10, 14).

IPC 1-7  
**E21D 9/10**

IPC 8 full level  
**E21B 7/06** (2006.01); **E21B 7/20** (2006.01); **E21D 9/10** (2006.01); **E21D 9/11** (2006.01); **E21D 9/12** (2006.01)

CPC (source: EP)  
**E21B 7/062** (2013.01); **E21B 7/201** (2013.01); **E21D 9/1093** (2013.01); **E21D 9/112** (2013.01); **E21D 9/124** (2013.01)

Citation (search report)  
• [Y] DE 1282049 B 19681107 - DEMAG AG  
• [Y] DE 1534611 A1 19690828 - DEMAG AG  
• [Y] DE 1759760 B2 19750821  
• [Y] DE 2507984 B2 19770331  
• [Y] DE 2845316 A1 19800424 - MALMENDIER ALEXANDER  
• [Y] FR 1538551 A 19680906  
• [Y] GB 337886 A 19301113 - JAMES HARRY PRICE, et al  
• [Y] GB 1497544 A 19780112 - BALFOUR BEATTY LTD  
• [Y] BE 732629 A 19691016  
• [Y] US 1888085 A 19321115 - ALEXANDER HUMBEL  
• [Y] US 3480327 A 19691125 - MATSUSHITA KUNIIRO  
• [Y] US 3989303 A 19761102 - AKKERMAN DONALD H  
• [A] DE 2511419 A1 19760923 - EICKHOFF GEB

Cited by  
EP0799966A3; EP1767741A3; US5193938A

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0122103 A1 19841017**; GB 8309356 D0 19830511

DOCDB simple family (application)  
**EP 84302245 A 19840402**; GB 8309356 A 19830406