

Title (en)
COAXIAL LUBRICATION SYSTEM

Title (de)
KOAXIALSCHMIERSYSTEM

Title (fr)
SYSTEME DE LUBRIFICATION COAXIAL

Publication
EP 1511595 A4 20070328 (EN)

Application
EP 03760290 A 20030612

Priority
• US 0318535 W 20030612
• US 38820402 P 20020612

Abstract (en)
[origin: WO03106104A1] Lubricated and pressurized air is reliably provided to a machining point in machining a comparatively deep point in a workpiece via an inexpensive and simple coaxial manifold (17). Pressurized air enters an annular flow path (S1) and pressurized lubricant enters a central, coaxial flow path (S2) that terminates near the tool (2) and workpiece.

IPC 8 full level
B23Q 1/00 (2006.01); **B23Q 11/10** (2006.01)

CPC (source: EP)
B23Q 11/1015 (2013.01); **B23Q 11/103** (2013.01); **B23Q 11/1046** (2013.01); **Y02P 70/10** (2015.11)

Citation (search report)
• [X] JP S63174871 A 19880719 - MATSUSHITA ELECTRIC IND CO LTD
• [X] JP 2001150295 A 20010605 - BROTHER IND LTD
• See references of WO 03106104A1

Cited by
US9616540B2; US9931724B2

Designated contracting state (EPC)
DE

DOCDB simple family (publication)
WO 03106104 A1 20031224; EP 1511595 A1 20050309; EP 1511595 A4 20070328; JP 2005529757 A 20051006

DOCDB simple family (application)
US 0318535 W 20030612; EP 03760290 A 20030612; JP 2004512976 A 20030612