

Title (en)

PROTECTIVE DEVICE FOR A CASTING STREAM ISSUING FROM A METALLURGICAL VESSEL

Publication

EP 0033309 B1 19830601 (DE)

Application

EP 81890004 A 19810112

Priority

AT 41380 A 19800125

Abstract (en)

[origin: US4402437A] A protection arrangement for a casting jet emerging from a metallurgical vessel includes a protective tube enveloping the casting jet and fastened to an articulation-rod assembly that is pivotable into any space direction. In order to be able to follow any desired position of the casting jet with the protective tube, the articulation-rod assembly includes a first, vertically extending, four-bar linkage parallelogram which is mounted with its vertically arranged web so as to be rotatable about a vertical axis. To its coupler, an extension arm carrying the protective tube is hinged, forming the oscillating crank of a second four-bar linkage. The web of the second four-bar linkage is formed by an oscillating crank of the first four-bar linkage parallelogram.

IPC 1-7

B22D 41/08; B22D 11/10

IPC 8 full level

B22D 41/08 (2006.01); **B22D 11/10** (2006.01); **B22D 41/56** (2006.01)

CPC (source: EP US)

B22D 41/56 (2013.01 - EP US)

Cited by

DE102016119706A1; CN110918956A; US8991663B2; WO2011107253A1

Designated contracting state (EPC)

BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0033309 A2 19810805; EP 0033309 A3 19810819; EP 0033309 B1 19830601; AT 364103 B 19810925; AT A41380 A 19810215;
CA 1168020 A 19840529; DE 3160366 D1 19830707; JP S56139259 A 19811030; US 4402437 A 19830906

DOCDB simple family (application)

EP 81890004 A 19810112; AT 41380 A 19800125; CA 367333 A 19801222; DE 3160366 T 19810112; JP 729081 A 19810122;
US 21698780 A 19801216