

Title (en)

Lance for repairing refining vessel.

Title (de)

Lanze zum Ausbessern von Frischgefäßsen.

Title (fr)

Lance pour réparer des récipients d'affinage.

Publication

EP 0062986 A1 19821020 (EN)

Application

EP 82301527 A 19820324

Priority

- JP 5139181 A 19810406
- JP 5139281 A 19810406

Abstract (en)

A spray lance (12) for repairing refractory linings of refining vessels such as steel making converters comprises multiple concentric tubes to form a passage (18) for repairing material such as powder refractory and carbon powder, a passage (19) for a combustible gas such as oxygen and passages (20, 21) for feeding and returning a cooling fluid. A plurality of nozzles (16) are provided on a cylindrical surface and a front end, each consisting of two concentric pipes (16a, 16b) communicating with the passages (18, 19) for the repairing material and the combustible gas, respectively, thereby enabling the lance (12) to repair wider areas of inner walls of furnaces. In addition, without providing a nozzle (16) at the front end of the lance (12), the passage (18) for the repairing material is closed at its front end to form a cleaning opening communicating the passage (19) for the combustible gas, through which the combustible gas is jetted against the bottom of the furnace to clean accumulated adhesives on the bottom.

IPC 1-7

C21C 5/44; F27D 1/16

IPC 8 full level

C21C 5/44 (2006.01); F27D 1/16 (2006.01)

CPC (source: EP)

C21C 5/443 (2013.01); F27D 1/1652 (2013.01); F27D 2001/1663 (2013.01)

Citation (search report)

- [YP] WO 8002320 A1 19801030 - DO NII CHERNOJ METALLURGII [SU], et al
- [YP] WO 8002739 A1 19801211 - DO NII CHERNOJ METALLURGII [SU], et al
- [Y] AU 514740 B2 19810226 - DO NII CHERNOI METALLURG AND P
- [AD] US 3883078 A 19750513 - CHEMERIS OLEG NIKOLAEVICH, et al
- [A] DE 1458945 A1 19690123 - UNION CARBIDE CORP
- [A] DE 1458948 A1 19690123 - UNION CARBIDE CORP
- [Y] STAHL UND EISEN, Vol. 100, No. 3, 11 February 1980, Düsseldorf; H. SPERL: "Das Flamspritzverfahren zur Reparatur der Konverterzustellung in der Sowjetunion", pages 125 to 127

Cited by

ES2088725A2; CN114504938A; EP0277232A4; DE102007054949B4; JP2021000592A; EP4060270A1; FR3120937A1; US6186410B1

Designated contracting state (EPC)

AT DE FR GB

DOCDB simple family (publication)

EP 0062986 A1 19821020; EP 0062986 B1 19850925; CA 1179119 A 19841211; DE 3266479 D1 19851031

DOCDB simple family (application)

EP 82301527 A 19820324; CA 400357 A 19820401; DE 3266479 T 19820324