

Title (en)

An excavating method and apparatus for constructing the base of a tunnel

Title (de)

Verfahren und Grabvorrichtung zur Herstellung von Tunnelsohlen

Title (fr)

Procédé et dispositif d'excavation pour la construction du sol dans un tunnel

Publication

**EP 0757158 A1 19970205 (EN)**

Application

**EP 96110660 A 19960702**

Priority

IT TO950652 A 19950802

Abstract (en)

An excavating apparatus for constructing, remaking, reinforcing or restoring any part of the base of a tunnel, such to provide an inverted arch (18) or resting piers structure adequate for sustaining the tunnel (11), comprises a power driven trencher excavating means (20) so restrained as to accomplish a combined movement of: oscillation about an axis substantially parallel to the longitudinal axis of the tunnel; sliding in a direction perpendicular to said axis; and transverse horizontal translation together with said oscillation axis, along a horizontal guide means (10) extending transversely in the tunnel (11). There is also disclosed an excavating method making use of such an apparatus. <IMAGE>

IPC 1-7

**E21D 9/00**

IPC 8 full level

**E21D 9/00** (2006.01)

CPC (source: EP)

**E21D 9/01** (2016.01)

Citation (search report)

- [A] DE 3835459 A1 19900419 - GEWERK EISENHUETTE WESTFALIA [DE]
- [A] EP 0385233 A2 19900905 - CASAGRANDE SPA [IT]
- [A] DE 936859 C 19551222 - ORENSTEIN & KOPPEL AG, et al
- [A] US 4109336 A 19780829 - FORD DONALD E
- [A] EP 0394806 A1 19901031 - TREVI SPA [IT]
- [DA] DE 2545363 A1 19770421 - KUNZ ALFRED & CO
- [A] EP 0334262 A1 19890927 - RODIO & C CONST G [IT]
- [A] DE 4002177 A1 19910808 - SCHMAILZL JAKOB [DE]
- [A] FR 1071452 A 19540901

Cited by

CN106223960A; CN110226526A; DE19810475A1; EP0887512A3; DE19722459C1; CN109371765A

Designated contracting state (EPC)

AT CH DE ES FR GB IT LI

DOCDB simple family (publication)

**EP 0757158 A1 19970205; EP 0757158 B1 20000426**; AT E192213 T1 20000515; DE 69607901 D1 20000531; DE 69607901 T2 20001102; ES 2147330 T3 20000901; IT 1280890 B1 19980211; IT TO950652 A0 19950802; IT TO950652 A1 19970202

DOCDB simple family (application)

**EP 96110660 A 19960702**; AT 96110660 T 19960702; DE 69607901 T 19960702; ES 96110660 T 19960702; IT TO950652 A 19950802