

Title (en)
Shield advancing excavator.

Title (de)
Schildvortriebsmaschine.

Title (fr)
Excavateur à bouclier.

Publication
EP 0231655 A1 19870812 (EN)

Application
EP 86310113 A 19861223

Priority
JP 29770985 A 19851225

Abstract (en)
A shield advancing excavator (1) for excavating tunnels comprises a cylindrical shield body (2), a deck (20) fixed to and within said body (2) and extending rearwardly, an erector (18) mounted axially movably on said deck (20) and adapted to erect a segmental ring inside said body from arcuate segments (23), a holder (19) fixed to said erector (18) and engageable with and disengageable from the inner wall (17) of a ring erected inside said body (2) to fix said erector axially relatively to said erected ring when so engaged, a plurality of axially-extending shield jacks (15) mounted within said body adjacent the periphery of said body in axial alignment with the erected ring segments, each of said jacks having a spreader (14) rearwardly extendible by the respective jack to engage with the last-erected ring segment in alignment with that jack to provide a reaction force to advance said body, whereby said excavator (1) can advance while a ring is being erected, the erector being held axially stationary by the holder during the erection. The shield jacks are arranged in groups around the shield body whereby they are retractible group by group to enable a ring to be constructed stepwise while jacks that are unretracted during each constructional step remain effective to advance the shield body.

IPC 1-7
E21D 9/08; **E21D 11/40**

IPC 8 full level
B01F 13/00 (2006.01); **E21D 9/06** (2006.01); **E21D 9/08** (2006.01); **E21D 9/087** (2006.01); **E21D 11/40** (2006.01)

CPC (source: EP)
B01F 33/3031 (2022.01); **B01F 33/3032** (2022.01); **E21D 9/0873** (2016.01); **E21D 11/403** (2013.01)

Citation (search report)
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