

Title (en)
Tip for earth moving machinery and locking key therefore

Title (de)
Spitzenanordnung für Erdförderungsmaschinen

Title (fr)
Ensemble d'extrémité pour machine se déplaçant à terre

Publication
EP 2378010 A3 20120118 (EN)

Application
EP 11173680 A 20051125

Priority
• EP 05823628 A 20051125
• IT 2005000692 W 20051125

Abstract (en)
[origin: WO2007060697A1] The invention relates to a tip assembly for earth moving machinery, comprising a tip (11) having a pocket (12) open at the back, said tip exhibiting a hole (16) for seating a locking key, an adapter (41) having a nose (42) that geometrically couples with said pocket (12) , said nose being crossed by a seat (43) for seating the locking key, and a locking key (61) inserted in said hole in the tip and in said seat in the adapter for locking the tip to the adapter. At least one surface of the nose exhibits a lowered or recessed zone obtained around the seat for the locking key. At least the wall of the pocket facing said surface of the nose internally exhibits a relief complementary to said lowered or recessed zone. In this way, the coupling between the tip and the adapter is made stronger by the interaction between at least two respective facing surfaces .

IPC 8 full level
E02F 9/28 (2006.01)

CPC (source: BR EP US)
E02F 9/2825 (2013.01 - BR EP US); **E02F 9/2841** (2013.01 - BR EP US)

Citation (search report)
• [XAI] US 2921391 A 19600119 - OPSAHL EUGENE G
• [XY] US 4919566 A 19900424 - CARON JAMES O [US], et al
• [X] US 3675350 A 19720711 - MULCAHY HARRY W, et al
• [XY] US 2003070330 A1 20030417 - OLDS JOHN R [US], et al
• [XA] US 2251169 A 19410729 - SEAL VOORHEES N
• [XA] US 3508352 A 19700428 - RADWILL ROBERT P
• [X] US 5709043 A 19980120 - JONES LARREN F [US], et al
• [X] US 2004107608 A1 20040610 - MEYERS THOMAS ANTHONY [AU], et al

Cited by
CN103317535A; US2017152647A1; US9840829B2; US10400427B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2007060697 A1 20070531; AT E518993 T1 20110815; BR PI0520798 A2 20090623; BR PI0520798 B1 20170613;
CN 101316968 A 20081203; CN 101316968 B 20110727; EP 1954890 A1 20080813; EP 1954890 B1 20110803; EP 2378010 A2 20111019;
EP 2378010 A3 20120118; US 2008256832 A1 20081023

DOCDB simple family (application)
IT 2005000692 W 20051125; AT 05823628 T 20051125; BR PI0520798 A 20051125; CN 200580052166 A 20051125; EP 05823628 A 20051125;
EP 11173680 A 20051125; US 9181708 A 20080428