

Title (en)

Plastic wrench with metal insert.

Title (de)

Schraubenschlüssel aus Kunststoff mit metallischem Einsatz.

Title (fr)

Clé de serrage perfectionnée en matière plastique avec insert métallique.

Publication

**EP 0390705 B1 19931020 (FR)**

Application

**EP 90420105 A 19900227**

Priority

FR 8902997 A 19890302

Abstract (en)

[origin: EP0390705A1] Plastic wrench consisting of a handle (2) and a tightening head (3, 4), comprising a polygonal opening (5, 6), in which is inserted a metal insert (10, 11) which is open and also polygonal, and whose walls form tightening jaws, characterised: - in that the walls (12, 13, 14, 15) of the insert (10, 11) forming jaws are parallel and slightly protrude beyond the lateral faces (16-19) of the openings (5, 6) of each tightening head (3, 4); - in that the metal insert (10, 11) is produced from a hard, flexible and resilient metal having a hardness coefficient of between 45 and 50 HRC; - and in that, at the level of the jaws (12-15), the thickness E2 of the insert (10, 11) is between 0.5 and 0.7 times the thickness E1 of the tightening head (3, 4). <IMAGE>

IPC 1-7

**B25B 13/08**; **B25B 13/00**

IPC 8 full level

**B25B 13/00** (2006.01); **B25B 13/02** (2006.01); **B25B 13/08** (2006.01)

CPC (source: EP KR US)

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Cited by

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**EP 0390705 A1 19901003**; **EP 0390705 B1 19931020**; CA 2008956 A1 19900902; CA 2008956 C 19990413; DE 69003980 D1 19931125; DE 69003980 T2 19940224; ES 2045866 T3 19940116; FR 2643844 A1 19900907; FR 2643844 B1 19931015; JP 2521730 Y2 19970108; JP H02143167 U 19901205; KR 900016794 U 19901005; KR 960005139 Y1 19960622; US 5062328 A 19911105

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