

Title (en)
SOLENOID POWERED RIVETING TOOL

Publication
EP 0323113 A3 19891206 (EN)

Application
EP 88312087 A 19881221

Priority
US 13935687 A 19871230

Abstract (en)
[origin: EP0323113A2] A solenoid (34,71) actuated blind rivet tool having pulling impulse intensifying means co-acting with the mandrel pulling mechanism (14,20,22,86). One type of impulse intensifying means is a slideable connection of the tool's nose housing (11), housing the assembly for engaging and tensioning the mandrel, and power chamber (36) which comprises the remainder of the tool housing, which power chamber carries a solenoid (34) for powering the tool. The solenoid pulls the nose housing (11) rearwardly until it impacts against the power chamber (55), creating a high-magnitude impulse force to break the mandrel. In lieu of a slideably mounted nosepiece (11), the tool may include a member (86) linked to the pulling mechanism (14,20,22) and a ram (75) which is driven against the member by the solenoid (71) thereby creating an impulse force which is transmitted to the pulling mechanism.

IPC 1-7
B21J 15/04; B21J 15/24

IPC 8 full level
B21J 15/00 (2006.01); **B21J 15/02** (2006.01); **B21J 15/04** (2006.01); **B21J 15/16** (2006.01); **B21J 15/24** (2006.01); **B21J 15/36** (2006.01)

CPC (source: EP)
B21J 15/043 (2013.01); **B21J 15/24** (2013.01)

Citation (search report)
• [AD] EP 0130040 A2 19850102 - TUCKER FASTENERS LTD [GB], et al
• [AD] US 3646791 A 19720307 - LEFOTHERIS BASIL P
• [AD] US 3095106 A 19630625 - MORRISON RALPH A
• [AD] US 3254522 A 19660607 - ELLIOTT RICHARD M, et al
• [X] DE 8613823 U1 19860731

Cited by
EP4371681A1; CN108746456A; WO2024104644A1

Designated contracting state (EPC)
DE ES FR GB

DOCDB simple family (publication)
EP 0323113 A2 19890705; EP 0323113 A3 19891206; EP 0323113 B1 19940914; DE 3851521 D1 19941020; DE 3851521 T2 19950202; ES 2059544 T3 19941116; JP H01197037 A 19890808

DOCDB simple family (application)
EP 88312087 A 19881221; DE 3851521 T 19881221; ES 88312087 T 19881221; JP 30211988 A 19881129