

Title (en)
METHOD AND DEVICE FOR THE AUTOMATIC MECHANICAL BUNDLING AND BINDING OF HIGHLY COMPRESSED BALES OF WASTE MATERIALS WITH ONE OR MORE BINDING WIRES

Publication
EP 0149774 B1 19890412 (DE)

Application
EP 84114909 A 19841207

Priority
DE 3346051 A 19831220

Abstract (en)
[origin: EP0149774A2] 1. A process for the automatic mechanical enwrapping and binding of highly-compressed bales (3) of waste materials with one or more binding wires (4, 5) at one or more levels (E1 , E2 , E3) lying parallel to one another, whereby each level is first enwrapped by a wire passing crosswise over the passage in which the material to be compressed is moving to be compressed to form a bale (3) with wires (4, 5) being drawn intermittently on each side (15 and 16) of this passage from suitable storage means into the bale-compaction chamber, with one of the wires (4) then being moved across behind the compressed bale (3) to the opposite side (16) and then, after mechanical severance, having each resultant pair of free wire ends (4a, 5a and 4b, 5b) twisted together, characterized by, a combination of the following working operations following one another in succession or cyclically and at least to some extent overlapping one another : a. Binding wire or wires (4, 5) being moved individually at each level (E1 , E2 , E3) by feed units (cylinder 6, piston rod 7, wire feed head 8) that are not mechanically connected one with another, to bring it or them into contact with a cutting or severance unit (9, 10). b. Rotation of the twisting fingers (11) being initiated by a control impulse that is triggered on the maximum pressure necessary for severance building up in the hydraulic circuit on the cutting means coming against an end stop. c. Similar starting position always being assumed by the twisting fingers (11) and synchronization inaccuracies between the various twisting stations (I', II', III') being compensated for through the use of so-called geared brake motors with low pullout torque. d. The binding wires (4, 5) or that part of them (4ab, 5b) where they are drawn together on the ready compacted bale end of the press ram and those (4a, 5a) at the rear end of the press ram as viewed in its direction of compression being held in position by being clamped between the cutting punch (9) and the anvil (10) or wire-feed head (8) during the severance phase until effective twisting together of the free ends (4a, 5a and 4b, 5b) is effected.

IPC 1-7
B65B 27/12

IPC 8 full level
B65B 27/12 (2006.01)

CPC (source: EP)
B65B 27/12 (2013.01)

Cited by
EP0466024A1

Designated contracting state (EPC)
DE FR GB IT NL SE

DOCDB simple family (publication)
EP 0149774 A2 19850731; EP 0149774 A3 19860910; EP 0149774 B1 19890412; DE 3346051 A1 19850725; DE 3346051 C2 19891012; DE 3477654 D1 19890518

DOCDB simple family (application)
EP 84114909 A 19841207; DE 3346051 A 19831220; DE 3477654 T 19841207