

Title (en)
Electromagnetically operated pump

Title (de)
Elektromagnetische Pumpe

Title (fr)
Pompe électromagnetique

Publication
EP 1236895 A1 20020904 (EN)

Application
EP 02004697 A 20020228

Priority
IT MI20010420 A 20010301

Abstract (en)
An electromagnetically operated pump, to feed two-stroke internal-combustion engines with precise and controlled amounts of oil, comprises in a casing (1): a cylinder (2); a piston element (3) with a through pipe (4), axially movable in said cylinder (2); an electromagnetic coil (10) external to the cylinder (2), to control the movements of the piston element (3) against the action of spring means (11); a pumping and metering chamber (7) for the oil to be fed, at one end (9) of the cylinder (2); and valve means (12, 13) housed in said casing (1) close to said end (9), one of said means (12) cooperating with said piston element (3). According to the invention, in said pump the stroke of the piston element (3) is limited, on one side, by the plane surface (8) of the casing (1) onto which abuts the cylinder (2) in correspondence of said chamber (7) and, on the other side, by the inner surface (15) of a cup (16) bearing, with a projecting peripheral edge (17) thereof, onto the end of the cylinder (2) opposite to that of the chamber (7), stout spring means (18) being interposed between said cup (16) and the casing (1) to stop the cylinder (2) therein.

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Citation (search report)
• [A] US 5492449 A 19960220 - HUNKLINGER HERBERT [DE], et al
• [A] US 4306842 A 19811222 - MASAKA MITUSUKE
• [A] EP 0953764 A1 19991103 - MAGNETI MARELLI SPA [IT]
• [A] EP 0288216 A1 19881026 - EATON SA MONACO [MC]

Cited by
FR2874961A1

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