

Title (en)
FUEL INJECTION DEVICE FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
KRAFTSTOFFEINSPRITZEINRICHTUNG FÜR EINE BRENNKRAFTMASCHINE

Title (fr)
DISPOSITIF D'INJECTION DE CARBURANT D'UNE MACHINE A COMBUSTION INTERNE

Publication
EP 1530681 B2 20180926 (DE)

Application
EP 03720202 A 20030318

Priority
• DE 0300880 W 20030318
• DE 10237586 A 20020816

Abstract (en)
[origin: DE10237586A1] The high pressure(s) (14) delivers fuel to buffer container (16) and has piston driven from camshaft (30) of IC engine. A delivery pump (12) forwards fuel from tank (10) to high pressure pump(s). To buffer container are coupled injectors (20) for engine cylinders supply. Between delivery pump and high pressure pump(s) is fitted proportioner (46), controlling fuel flow from high pressure pump(s) to buffer container for adjusting pressure in buffer container.

IPC 8 full level
F02M 63/02 (2006.01); **F02M 37/00** (2006.01); **F02M 59/34** (2006.01); **F02M 59/36** (2006.01); **F02M 59/46** (2006.01)

CPC (source: EP)
F02M 59/34 (2013.01); **F02M 63/0225** (2013.01); **F02M 63/025** (2013.01); **F02M 37/0047** (2013.01)

Citation (opposition)
Opponent :
• EP 1298316 A2 20030402 - DEUTZ AG [DE]
• DE 19508445 A1 19960912 - KLOECKNER HUMBOLDT DEUTZ AG [DE]
• DE 4233273 A1 19930902 - DIESEL TECH CORP [US]

Designated contracting state (EPC)
CZ DE FR GB SE

DOCDB simple family (publication)
DE 10237586 A1 20040226; CN 100532804 C 20090826; CN 1675463 A 20050928; DE 50307660 D1 20070823; EP 1530681 A1 20050518; EP 1530681 B1 20070711; EP 1530681 B2 20180926; WO 2004018867 A1 20040304

DOCDB simple family (application)
DE 10237586 A 20020816; CN 03819375 A 20030318; DE 0300880 W 20030318; DE 50307660 T 20030318; EP 03720202 A 20030318