

Title (en)
DEVICE FOR SEQUENTIAL OPERATION OF TWO OR MORE CYLINDERS

Title (de)
VORRICHTUNG ZUM SEQUENTIELLEN BETRIEB VON ZWEI ODER MEHR ZYLINDERN

Title (fr)
DISPOSITIF DE COMMANDE SÉQUENTIEL DE DEUX OU PLUSIEURS CYLINDRES

Publication
EP 4001668 B1 20230830 (EN)

Application
EP 21208158 A 20211115

Priority
IT 202000027654 A 20201118

Abstract (en)
[origin: EP4001668A1] The present invention regards a device for sequential operation of two or more cylinders, comprising: a first conduit (2), provided with a first branch (21), designed to be connected to a chamber of a first cylinder (10), and a second branch (22), designed to be connected to a chamber of a second cylinder (10); a second conduit (3), provided with a first branch (31), designed to be connected to the other chamber of the first cylinder (10), and a second branch (32), designed to be connected to the other chamber of the second cylinder (11); a first control valve (4), arranged along the second branch (22) of the first conduit (2), which is movable between an opening configuration, in which it allows flow along the second branch (22) of the first conduit (2), and a closing configuration, in which it prevents the flow along the second branch (22) of the first conduit (2); an adjustment element (53), arranged along the first branch (31) of the second conduit (3), which is configured in such a way so as to allow an exhaust flow from the other chamber of said first cylinder (10) towards said second conduit (3) if the pressure in said other chamber of said first cylinder (10) exceeds a predetermined value and to prevent flow in the opposite direction; a control valve (52), preferably a check valve, which is positioned parallel to said regulating element (53) and is configured so as to allow a flow towards said other chamber of said first cylinder (10) in case the pressure in said first branch (31) in the portion facing said other chamber of said first cylinder (10) is lower than the pressure in the remaining part of said first branch (31) and to prevent the flow in the opposite direction; a first pilot conduit (41), which connects the first control valve (4) and the first branch (31) of the second conduit (3) at an intermediate point between the connection to the first cylinder (10) and the adjustment element (53), and pilots the control valve (4) towards the closed configuration.

IPC 8 full level
F15B 11/20 (2006.01)

CPC (source: EP)
F15B 11/20 (2013.01); **F15B 2211/30505** (2013.01); **F15B 2211/329** (2013.01); **F15B 2211/50518** (2013.01); **F15B 2211/5153** (2013.01); **F15B 2211/7053** (2013.01); **F15B 2211/71** (2013.01); **F15B 2211/783** (2013.01)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 4001668 A1 20220525; **EP 4001668 B1 20230830**; IT 202000027654 A1 20220518

DOCDB simple family (application)
EP 21208158 A 20211115; IT 202000027654 A 20201118