

Title (en)

HYDRAULIC SYSTEM HOISTING AND AUTO-LEVELLING A TOOL

Title (de)

HYDRAULIKSYSTEM ZUM ANHEBEN UND AUTOMATISCHEN NIVELLIEREN EINES WERKZEUGS

Title (fr)

SYSTÈME HYDRAULIQUE DE LEVAGE ET DE MISE À NIVEAU AUTOMATIQUE D'UN OUTIL

Publication

EP 3742001 A1 20201125 (EN)

Application

EP 20165275 A 20200324

Priority

IT 201900007047 A 20190521

Abstract (en)

Hydraulic system (1) for hoisting and auto-levelling a tool connected to a hoisting arm, comprising:- a first supplying and unloading port/connection (2) and a second supplying and unloading port/connection (3) directly or indirectly connected or connectable to a storage reservoir and a pump for pressurizing a working fluid;- a hoisting actuator group (4) connected or connectable by said hoisting arm to the tool for hoisting/lowering it, and having a first port/connection (6) for gaining access to a first chamber thereof, and a second first port/connection (7) for gaining access to a second chamber thereof;- an aligning actuator group (5) connected or connectable to the tool and hoisting arm for holding the tool according to an orientation predefined during said hoisting/lowering steps and having a first port/connection (8) for gaining access to a first chamber thereof and a second port/connection (9) for gaining access to a second chamber thereof;- a first flow divider (10) comprising an inlet (12), a first outlet (13) and a second outlet (14), configured to separate a flow rate entering the inlet (12) in a first and second predefined flow rates exiting the first (13) and second outlets (14), respectively;- a second flow divider (11) comprising an inlet (21), a first outlet (22) and a second outlet (23), configured to separate a flow rate entering the inlet (21) in a first and second predefined flow rates exiting the first (22) and second outlets (23), respectively, wherein:- the inlet (12) of the first flow divider (10) is fluidically connected to the second port/connection (7) of the hoisting actuator group (4);- the first outlet (13) of the first flow divider (10) is fluidically connected to the second supplying and unloading port/connection (3);- the second outlet (14) of the first flow divider (10) is fluidically connected to the first port/connection (8) of the first aligning actuator (5);- the inlet (21) of the second flow divider (11) is fluidically connected to the first port/connection (6) of the hoisting actuator group (4);- the first outlet (22) of the second flow divider (11) is fluidically connected to the first supplying and unloading port/connection (2);- the second outlet (23) of the second flow divider (11) is fluidically connected to the second port/connection (9) of the aligning actuator group (5).

IPC 8 full level

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Citation (search report)

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- [A] US 4815357 A 19890328 - TRUEHART DAVID C [US]
- [XPA] EP 3495565 A1 20190612 - DALMASSO GIACOMO [IT], et al

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