

Title (en)
DEVICE FOR THE FORCE OIL FEED OF A HYDRAULIC CONSUMER OPERATED AT A DEFINED OPERATING PRESSURE

Title (de)
EINRICHTUNG ZUR DRUCKÖLVERSORGUNG EINES MIT EINEM DEFINIERTEN BETRIEBSDRUCK BETRIEBENEN HYDRAULISCHEN VERBRAUCHERS

Title (fr)
DISPOSITIF D'ALIMENTATION EN HUILE SOUS PRESSION DESTINE A UN CONSOMMATEUR HYDRAULIQUE FONCTIONNANT AVEC UNE PRESSION DE FONCTIONNEMENT DEFINIE

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Application
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Abstract (en)
[origin: WO02055886A2] The invention relates to a device for the forced oil feed of a hydraulic clamping cylinder (11) which is operated at a defined operating pressure $p > b <$ and during whose clamping operation a significant oil leakage flow occurs that is returned to the reservoir (32) of a pressure supply system (33). Said pressure supply system is used for the temporary force oil supply of at least one further hydraulic consumer. The pressure supply system comprises a first pump (41) that permanently functions so as to charge a pressure accumulator (52) used as the pressure source for the consumer (11; 61), and a second pump (42) that feeds a cooling circuit in a low power circulation operation mode. A reservoir charging device (41, 42, 59) is used by means of which the reservoir can be charged to a pressure $p > s <$ when the reservoir pressure falls below a threshold value $p > su <$, said pressure $p > s <$ being significantly higher than the operation pressure $p > b <$. The first pump (41) is designed for a pump capacity that supplies the oil leakage flow in the normal operation and that maintains the reservoir pressure at a minimum value $p > s <$ at which the operating pressure $p > b <$ is stable. The reservoir charging device comprises a switch valve (5) that switches also the second pump (42) to the reservoir charging operation mode when the reservoir pressure falls below the lower switch threshold value $p > su <$. Once the reservoir (52) is charged to a significantly higher switch threshold value $p > so <$, the second pump is switched back to the circulation operation mode.

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Citation (search report)
See references of WO 02055886A2

Cited by
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