

Title (en)  
PUMP TESTING SYSTEM WITH ENERGY RECOVERY

Title (de)  
PUMPENTEST-SYSTEM MIT ENERGIERÜCKGEWINNUNG

Title (fr)  
SYSTÈME DE TEST DE POMPE AVEC RÉCUPÉRATION D'ÉNERGIE

Publication  
**EP 2930365 A1 20151014 (EN)**

Application  
**EP 15160969 A 20150326**

Priority  
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Abstract (en)  
The invention relates to a pump testing system with energy recovery which provides saving on electric energy required for the pump tests such as quality control and performance life test which are compulsory for the manufacturers and repairmen to conduct. Said system comprises a tank (1) in which the oil to be drawn by the test pump (7) to be tested therein is provided and an electric motor (10) to which said test pump (7) is connected. The oil drawn from the tank (1) by the test pump (7) with the operation of said electric motor (10) is transferred to the shaft of the electric motor (10) by a transmission element or to the hydraulic motor (9) connected to the extended back shaft. The oil pressure is increased to an extent allowed by the electronically controlled proportional pressure relief valve (5) in the hydraulic motor (9) output line and upon opening of the pressure relief valve (5), the pressure oil drives the hydraulic motor (9) coupled with said electric motor (10). Thus, energy recovery is achieved by re-supply of the torque generated in the hydraulic motor (9) to the system. Said system comprises control blocks (6) controlling the system with the information received from the measuring devices such as flow meter, torque meter, tachometer, and pressure transmitter measuring the data such as flow rate, pressure, and torque in the system.

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Citation (search report)  
• [X] US 4368638 A 19830118 - GROVES RICHARD L, et al  
• [A] US 4798086 A 19890117 - STYFHOORN JOHN [US]  
• [A] US 6318167 B1 20011120 - POWER WILLIAM [US]  
• [A] DE 4104708 A1 19910905 - BECHTOLD GUENTER DIPL ING FH [DE]  
• [A] WO 8808524 A1 19881103 - GRUMMAN AEROSPACE CORP [US]

Cited by  
CN107401535A; CN107218260A; CN109869325A; CN106092397A; CN105822627A; CN112855664A; CN107327430A; CN107165893A; CN110541815A; CN115045824A

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