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- (81) 指定国 (除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA,

(54) Title: HYDRAULIC TRANSMISSION BOX CONTROL SYSTEM FOR OIL-CHARGE BRAKING OF REVERSE PART OF TORQUE CONVERTER

(54) 发明名称: 一种变矩器反向部分充油制动的液力传动箱控制系统

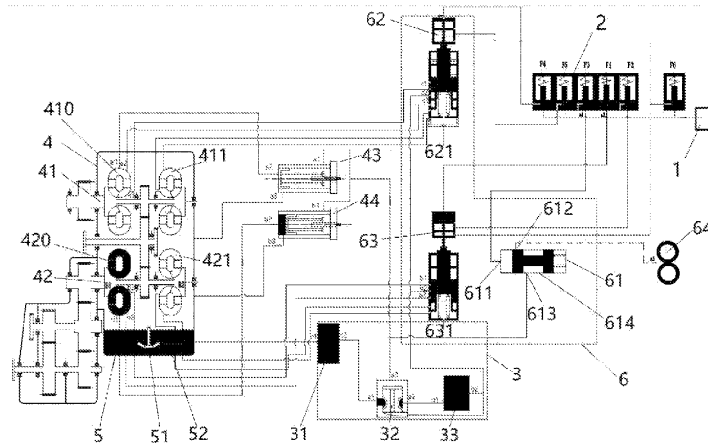


图 1

(57) Abstract: Disclosed in the present invention is a hydraulic transmission box control system for oil-charge braking of a reverse part of a torque converter. The control system comprises an air source module, an electronic control valve module, a hydraulic unit of a hydraulic transmission box, and a hydraulic control unit, wherein the electronic control valve module is connected to the air source module, and the hydraulic control unit is connected to the electronic control valve module and is used for acquiring a traction/braking signal of the hydraulic transmission box; and the hydraulic unit is used for implementing an oil-charge/oil-discharge operation of the hydraulic transmission box on the basis of the traction/braking signal. A cooling unit comprises a traction heat exchanger, a three-way transfer valve and a braking heat exchanger, which are connected in sequence. By means of providing a two-position three-way valve and a drainage valve in the control system, full-oil-charge reverse braking of the hydraulic transmission box is changed into partial-oil-charge reverse braking, and the braking heat exchanger is additionally provided, so as to solve the problems of a braking force of a locomotive

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根据细则4.17的声明:
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being too large, the capacity of a heat exchanger of the torque converter being insufficient, and the braking force being easily mastered, thereby making it convenient to operate the braking performance of the hydraulic transmission box of the locomotive, and greatly improving the economical efficiency and the reliability.

(57) 摘要: 本发明公开了一种变矩器反向部分充油制动的液力传动箱控制系统, 包括风源模块、电控阀模块、液力传动箱的液力单元以及液力控制单元; 电控阀模块与风源模块连接, 且液力控制单元与电控阀模块连接, 用于获取液力传动箱的牵引/制动信号; 液力单元用于根据牵引/制动信号实现液力传动箱的充油/排油操作; 冷却单元包括依次连接的牵引热交换器、三通转接阀以及制动热交换器; 通过在控制系统中设置两位三通阀与泄流阀, 使液力传动箱全充油反向制动变为部分充油反向制动, 并增加设置了制动热交换器, 解决了机车制动力太大、变矩器热交换器容量不足以及制动力不易掌握的问题, 使机车液力传动箱的制动性能操作方便, 且经济性与可靠性都得到很大提高。