Title (en)

BATTERY CHARGING AND EXCHANGE SYSTEM FOR ELECTRICALLY POWERED VEHICLES

Title (de)

BATTERIELADE- UND WECHSELSYSTEM FÜR ELEKTROANGETRIEBENE FAHRZEUGE

Title (fr)

SYSTEME DE CHARGEMENT ET D'ECHANGE DE BATTERIES DESTINE A DES VEHICULES ELECTRIQUES

Publication

EP 0950015 A4 20000202 (EN)

Application

EP 97949418 A 19971110

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- US 74542396 A 19961112
- US 85162197 A 19970506
- US 96501897 A 19971105

Abstract (en)

[origin: WO9821132A1] A battery transfer and charging system for electrically powered vehicles includes a conveyor loop (C) for conveying batteries (B) from a battery receiving station (15) to a battery delivery station (14). A displacement assembly (16) removes spent batteries of electric vehicles by placing charged batteries into position within the vehicles so as to laterally displace spent batteries. Spent batteries displaced from vehicles are received by the receiving station (15), where the batteries are tested both electrically and by comparing battery status data against predetermined criteria. Batteries which fail the battery test are automatically removed from the conveyor loop (C) by an elevator assembly (43). Batteries are automatically charged as they pass through the conveyor loop (C) in an assembly-line fashion. Following recharge, batteries are conveyed to the displacement station for installation within later vehicles. In one embodiment of the system, vehicles are processed through the system in sequential order, stopping at a specified location for battery installation/removal. A vending machine system (402) for recharging and dispensing portable batteries (204) of electrically assisted bicycles (200) is also disclosed.

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B65G 67/00; B60S 5/06

IPC 8 full level

B60S 5/06 (2006.01); B60K 1/04 (2006.01)

CPC (source: EP US)

B60L 3/12 (2013.01 - EP US); **B60L 50/64** (2019.01 - EP US); **B60L 50/66** (2019.01 - EP); **B60L 53/65** (2019.01 - EP); **B60L 53/80** (2019.01 - EP US); **B60S 5/06** (2013.01 - EP US); **B62J 43/13** (2020.02 - EP); **B62J 43/16** (2020.02 - EP); **B62M 6/75** (2013.01 - EP); **B62M 6/90** (2013.01 - EP); B60K 1/04 (2013.01 - EP); B60L 2260/44 (2013.01 - EP); B60L 2260/50 (2013.01 - EP); B62K 2204/00 (2013.01 - EP); E04H 6/42 (2013.01 - EP); Y02T 10/70 (2013.01 - EP); Y02T 10/7072 (2013.01 - EP); Y02T 90/12 (2013.01 - EP); Y02T 90/167 (2013.01 - EP); Y04S 30/14 (2013.01 - EP)

Citation (search report)

- [XA] WO 9518760 A1 19950713 - UNLIMITED RANGE ELECTRIC CAR S [US]
- See references of WO 9821132A1

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DOCDB simple family (publication)

WO 9821132 A1 19980522; AU 7179398 A 19980603; CN 1078560 C 20020130; CN 1239927 A 19991229; EP 0950015 A1 19991020; EP 0950015 A4 20000202; HK 1023976 A1 20000929; TW 370497 B 19990921

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