Title (en)

Self-unloading train for bulk commodities.

Title (de)

Selbstentladerzug für Sturzgüter.

Title (fr)

Train autodéchargeant pour matériaux en vrac.

Publication

EP 0206590 A1 19861230 (EN)

Application

EP 86304284 A 19860605

Priority

US 74169585 A 19850606

Abstract (en)

A unit train consists of a plurality of hopper cars (11, 12, 13) and a multi-purpose trailer car (15). The hopper cars (11, 12, 13) have one or more hoppers (21) each having a bottom discharge opening (31) and a controllable gate (32). An endless belt conveyor (40) traverses the length of the train including a portion of the trailer car (15), and underlies the hopper discharge gates (32) so that the hoppers (21) may be emptied sequentially onto the train conveyor (40) to unload the entire train. The trailer car (15) includes a lift portion (45) of the train conveyor (40) to elevate the material for discharge onto a transfer conveyor (50) carried on the trailer car (15). The elongated transfer conveyor (50) is pivotally mounted (51) at the receiving end to be swung laterally to discharge the material received from the train conveyor (40) at some selected point alongside the track. The trailer car (15) may include the power system and control system for operating the conveyors (40, 50) and the hopper gates (32). The train is self-unloading by depositing the train load in a windrow alongside the track while the train is moving slowly. For unloading the train in a stationary position, the transfer conveyor (50) may deposit the material onto a portable stacking conveyor (60) which may then deposit the entire train load in one or more stockpiles which may be thirty feet (9 meters) high and located some distance from the track.

IPC 1-7

E01B 27/02

IPC 8 full level

E01B 27/02 (2006.01)

CPC (source: EP)

E01B 27/02 (2013.01); E01B 2203/032 (2013.01); E01B 2203/038 (2013.01)

Citation (search report)

- [X] DE 2447635 A1 19750430 MOKSEL ALEXANDER
- [Y] US 2989930 A 19610627 FORT FLOWERS HENRY
- [A] US 1455602 A 19230515 CURLEE GEORGE A
- [A] GB 2097846 A 19821110 PLASSER BAHNBAUMASCH FRANZ
- [A] FR 2508950 A1 19830107 BOUVOT MARC [FR]
- [A] GB 142569 A 19200510 EDWARD WAYNE SHUTT

Cited by

CN114852116A; AT398213B; US5277538A; GB2277725A; GB2277725B; WO2022073499A1; WO2016195584A1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0206590 A1 19861230; **EP 0206590 B1 19900411**; AT E51910 T1 19900415; AU 5841086 A 19861211; AU 585616 B2 19890622; DE 3670320 D1 19900517

DOCDB simple family (application)

EP 86304284 A 19860605; AT 86304284 T 19860605; AU 5841086 A 19860605; DE 3670320 T 19860605