

Title (en)  
Front loader

Title (de)  
Frontlader

Title (fr)  
Chargeur frontal

Publication  
**EP 1306489 A1 20030502 (EN)**

Application  
**EP 02021575 A 20020926**

Priority  
GB 0125695 A 20011026

Abstract (en)

The specification describes a front loader for fitting onto a supporting vehicle, with a quick-change frame for interchangeable tools which is coupled to the free end region and can be swivelled by tipping cylinders, at least one locking pin being mounted on the frame, which pin can be moved at a given unlocking signal from a locked position fixing the tool to the quick-change frame to an unlocked position releasing the tool, by a hydraulic auxiliary force against the force of a resilient element. In order to have a simpler, more favourably priced construction while retaining the advantages of known front loaders, the locking pin (23) can be moved into the unlocked position by an actuating mechanism which becomes active only in response to the unlocking signal, and which responds to the increase in the distance between the locking pin (23) and the front loader (2) which takes place when the tipping cylinders (18) are drawn out. <IMAGE>

IPC 1-7

**E02F 3/36**

IPC 8 full level

**E02F 3/36 (2006.01)**

CPC (source: EP)

**E02F 3/3631 (2013.01); E02F 3/3645 (2013.01)**

Citation (search report)

- [A] US 4243356 A 19810106 - TAKOJIMA HYOICHI
- [A] DE 4327942 C1 19950105 - DEERE & CO [DE]
- [A] US 5078569 A 19920107 - COOK KURT I [US]
- [A] EP 0943738 A1 19990922 - MAILLEUX S A [FR]
- [A] PATENT ABSTRACTS OF JAPAN vol. 004, no. 108 (M - 024) 5 August 1980 (1980-08-05)

Citation (examination)

**EP 0447119 A1 19910918 - AUBREY MARTIN JAMES [GB]**

Cited by

US10273650B1; DE102014215330A1; US2022196056A1; US8469081B2; US9342093B2

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DOCDB simple family (application)

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