

Title (en)  
BUNDLE PULLER WITH ADJUSTABLE LENGTH CARRIAGE FRAME

Title (de)  
BÜNDELEXTRAKTOR MIT WAGENRAHMEN MIT VERSTELLBARER LÄNGE

Title (fr)  
DISPOSITIF D'EXTRACTION DE FAISCEAUX A CHASSIS PORTEUR DE LONGUEUR REGLABLES

Publication  
**EP 1723067 A4 20081224 (EN)**

Application  
**EP 04719775 A 20040311**

Priority  
US 2004007430 W 20040311

Abstract (en)  
[origin: WO2005097663A1] A bundle puller (110) having an adjustable length carriage frame (102,104) is disclosed. The carriage frame includes a hinged section (106) that can be rotated between a level or lowered position and a raised position. When the hinged section is raised, the length of the carriage frame is decreased considerably, which allows the bundle puller to be operated in narrow alleyways. The hinged section may then be lowered for operating in larger alleyways. A hydraulic cylinder (124) lowers and raises the hinged section. A rack-and-pinion drive system (154a,154b) is used instead of the more common screw system to move the sled (144) back and forth on the carriage frame while removing or replacing tube bundles in the heat exchanger shell. Separate gear racks (150a,150b) are attached to the hinged section and main section of the carriage frame, respectively. The separate gear racks can be raised and lowered with the hinged section.

IPC 8 full level  
**B66F 11/00** (2006.01); **B23P 19/02** (2006.01)

CPC (source: EP)  
**B23P 19/024** (2013.01)

Citation (search report)

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- [A] WO 0119563 A1 20010322 - GOOD ROCK S P A [IT], et al
- [DA] US 4575305 A 19860311 - KRAJICEK RICHARD W [US], et al
- [E] US 6746201 B1 20040608 - CRADEUR ROBERT R [US], et al
- See references of WO 2005097663A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005097663 A1 20051020**; CA 2557685 A1 20051020; CA 2557685 C 20090616; EP 1723067 A1 20061122; EP 1723067 A4 20081224

DOCDB simple family (application)  
**US 2004007430 W 20040311**; CA 2557685 A 20040311; EP 04719775 A 20040311