

Title (en)
BUMPER WITH INTEGRATED ENERGY ABSORBER AND BEAM

Title (de)
STOSSFÄNGER MIT INTEGRIERTER ENERGIEAUFNEHMEVORRICHTUNG UND STANGE

Title (fr)
PARE-CHOCS COMPORTANT UN AMORTISSEUR D'ENERGIE ET UNE POUTRE INTEGRES

Publication
EP 1509423 A2 20050302 (EN)

Application
EP 03757371 A 20030606

Priority

- US 0317835 W 20030606
- US 16383802 A 20020606
- US 29412402 A 20021114

Abstract (en)
[origin: WO03104030A2] A bumper system includes a tubular beam with flattened end sections, and further includes an energy absorber having a rear recess mateably receiving the tubular beam in a nested relationship, with the recess also including flat mating surfaces engaging the flattened end sections. Mounts engage a rear of the flattened end sections, and fasteners secure the tubular beam and energy absorber to the mounts. In one modified bumper system, corner sections on the energy absorber are shaped to slidingly engage a side surface of the mount and simultaneously an end of the beam upon corner impact of the vehicle. In another modified bumper system, offset ends of the tubular beam fit into a recess in an energy absorber, with its center section being between vehicle mounts.

IPC 1-7
B60R 19/40

IPC 8 full level
B60D 1/14 (2006.01); **B60D 1/52** (2006.01); **B60R 19/18** (2006.01); **B60R 19/48** (2006.01); **B60R 21/34** (2006.01); **B60R 19/24** (2006.01); **B60R 19/50** (2006.01)

CPC (source: EP)
B60D 1/52 (2013.01); **B60D 1/56** (2013.01); **B60R 19/18** (2013.01); **B60R 19/48** (2013.01); **B60R 19/24** (2013.01); **B60R 2019/1806** (2013.01); **B60R 2019/1813** (2013.01); **B60R 2019/1866** (2013.01)

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 PT RO SE SI SK TR

DOCDB simple family (publication)
WO 03104030 A2 20031218; **WO 03104030 A3 20041104**; **WO 03104030 B1 20050728**; AU 2003248628 A1 20031222;
AU 2003248628 A2 20031222; CA 2485712 A1 20031218; CN 100421999 C 20081001; CN 1659067 A 20050824; EP 1509423 A2 20050302;
EP 1509423 A4 20051221; JP 2005528286 A 20050922; MX PA04012007 A 20050307

DOCDB simple family (application)
US 0317835 W 20030606; AU 2003248628 A 20030606; CA 2485712 A 20030606; CN 03812706 A 20030606; EP 03757371 A 20030606;
JP 2004511120 A 20030606; MX PA04012007 A 20030606