

Title (en)  
BOLSTER-LESS FRAMED BOGIE SUITABLE FOR HIGH-SPEED FREIGHT WAGON

Title (de)  
WIEGENLOSES GERAHMTES DREHGESTELL FÜR HOCHGESCHWINDIGKEITSGÜTERWAGEN

Title (fr)  
BOGIE À CADRE SANS TRAVERSE APPROPRIÉ POUR UN WAGON DE FRET À GRANDE VITESSE

Publication  
**EP 4086136 A1 20221109 (EN)**

Application  
**EP 20909890 A 20200728**

Priority  
• CN 201911415719 A 20191231  
• CN 2020105308 W 20200728

Abstract (en)  
A bolster-less framed bogie suitable for a high-speed railway freight wagon, the bogie comprising comprising a frame assembly (200), four tumbler axle box positioning devices (400), and two wheelset assemblies (500); the frame assembly (200) includes a pair of box-shaped side beams (210), two round steel crossbeams (220), two longitudinal connection beams (230), and a guide pin assembly (240); two ends of each of the round steel crossbeams (220) are respectively fixed on one of the box-shaped side beams (210) to form an H-shaped structure; the longitudinal connection beams (230) and the guide pin assembly (240) are disposed within a space enclosed by means of the pair of box-shaped side beams (210) and the two round steel crossbeams (220); a middle portion of each of the box-shaped side beams (210) is U-shaped to form a U-shaped middle section (214), a mounting platform for rubber pile spring of secondary suspension (214a) is provided at a concave part of the U-shaped middle section (214), and a rubber pile spring of secondary suspension (300) is disposed on the mounting platform for rubber pile spring of secondary suspension (214a); a top of the rubber pile spring of secondary suspension (300) is provided with a positioning seat boss (304) matched with a positioning hole on a wagon body; the guide pin assembly (240) is located between the pair of box-shaped side beams (210), and two sides of the guide pin assembly (240) are respectively provided with first transverse damper mounting seats (241); the two longitudinal connection beams (230) are respectively located on a side of the guide pin assembly (240) and are respectively provided with a second transverse damper mounting seat (234); the first transverse damper mounting seats (241) are respectively connected to one second transverse damper mounting seat (234) by means of a transverse hydraulic damper (130); a first traction rod seat (242) is provided at a lower portion of the guide pin assembly (240), and a second traction rod seat (223) is provided at a lower portion of one of the round steel crossbeams (220), and a traction rod assembly (120) is provided between the first traction rod seat (242) and the second traction rod seat (223); an anti-hunting damper (110) is provided at an outer side of the frame assembly (200); end portions of the pair of box-shaped side beams (210) are connected to the two wheelset assemblies (500) by means of the four tumbler axle box positioning devices (400); a plurality of disc-shaped brake devices (600) is provided between each of the round steel crossbeams (220) and an axle (501) of each of the wheelset assemblies (500). The bogie may meet the requirements of a railway freight wagon with a running speed of 200 km/h.

IPC 8 full level  
**B61F 5/52** (2006.01)

CPC (source: CN EP)  
**B61F 3/02** (2013.01 - EP); **B61F 5/08** (2013.01 - EP); **B61F 5/30** (2013.01 - CN); **B61F 5/301** (2013.01 - EP); **B61F 5/302** (2013.01 - CN); **B61F 5/305** (2013.01 - CN); **B61F 5/52** (2013.01 - CN EP)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4086136 A1 20221109**; **EP 4086136 A4 20240124**; CN 111016950 A 20200417; WO 2021135198 A1 20210708

DOCDB simple family (application)  
**EP 20909890 A 20200728**; CN 201911415719 A 20191231; CN 2020105308 W 20200728