

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### TRANSPORTING

#### B60 VEHICLES IN GENERAL

(NOTE omitted)

#### B60N SEATS SPECIALLY ADAPTED FOR VEHICLES; VEHICLE PASSENGER ACCOMMODATION NOT OTHERWISE PROVIDED FOR

##### NOTES

- Attention is drawn to the Note following the class title [B60](#)
- {In this subclass the following term is used with the meaning indicated:
  - "cushion": seating part of a seat distinguished from the back-rest}
- {In this subclass, it is desirable to add the indexing codes [B60N 2210/00](#) - [B60N 2210/50](#), [B60N 2220/00](#) - [B60N 2220/30](#) and [B60N 2230/00](#) - [B60N 2230/30](#) with the exception of groups [B60N 2/0021](#) and [B60N 2/0035](#), where the allocation of the indexing codes is mandatory in accordance with their note}

2/00	<b>Seats specially adapted for vehicles; Arrangement or mounting of seats in vehicles</b> (railway seats <a href="#">B61D 33/00</a> ; cycle seats <a href="#">B62J 1/00</a> ; aircraft seats <a href="#">B64D 11/06</a> , <a href="#">B64D 25/04</a> , <a href="#">B64D 25/10</a> )	2/0024 . . . {for identifying, categorising or investigation of the occupant or object on the seat}
2/002	. {Seats provided with an occupancy detection means mounted therein or thereon (detection means responsive to presence or absence of children <a href="#">B60N 2/266</a> )}	2/0025 . . . . {by using weight measurement}
	<b><u>WARNING</u></b>	2/0026 . . . . {for distinguishing between humans, animals or objects}
	Group <a href="#">B60N 2/002</a> is impacted by reclassification into groups <a href="#">B60N 2/0021</a> - <a href="#">B60N 2/0035</a> , <a href="#">B60N 2/266</a> - <a href="#">B60N 2/272</a> , <a href="#">B60N 2210/00</a> - <a href="#">B60N 2210/50</a> , <a href="#">B60N 2220/00</a> - <a href="#">B60N 2220/30</a> , and <a href="#">B60N 2230/00</a> - <a href="#">B60N 2230/30</a> .	2/0027 . . . . {for detecting the position of the occupant or of occupant's body part}
	All groups listed in this Warning should be considered in order to perform a complete search.	2/0028 . . . . . {of a body part, e.g. of an arm or a leg}
2/0021	. . {characterised by the type of sensor or measurement}	2/0029 . . . . {for detecting the motion of the occupant}
	<b><u>NOTE</u></b>	2/003 . . . {characterised by the sensor mounting location in or on the seat}
	{In this group, it is mandatory to add the indexing codes of groups <a href="#">B60N 2210/00</a> - <a href="#">B60N 2210/50</a> }	2/0031 . . . . {mounted on the frame}
	<b><u>WARNING</u></b>	2/0032 . . . . {mounted on springs}
	Groups <a href="#">B60N 2/0021</a> - <a href="#">B60N 2/0035</a> are incomplete pending reclassification of documents from group <a href="#">B60N 2/002</a> .	2/0033 . . . . {mounted on or in the foam cushion}
	All groups listed in this Warning should be considered in order to perform a complete search.	2/0034 . . . . {in, under or on the seat cover}
2/0022	. . . {for sensing anthropometric parameters, e.g. heart rate or body temperature}	2/0035 . . . {characterised by the sensor data transmission, e.g. wired connections or wireless transmitters therefor; characterised by the sensor data processing, e.g. seat sensor signal amplification or electric circuits for providing seat sensor information}
2/0023	. . . {for detection of driver fatigue}	<b><u>NOTE</u></b>
		{In this group, it is mandatory to add the indexing codes of groups <a href="#">B60N 2220/00</a> - <a href="#">B60N 2220/30</a> and <a href="#">B60N 2230/00</a> - <a href="#">B60N 2230/30</a> }
		2/005 . . Arrangement or mounting of seats in vehicles {, e.g. dismountable auxiliary seats}( <a href="#">B60N 2/02</a> takes precedence {; for railway vehicles <a href="#">B61D 1/04</a> })
		2002/0055 . . {characterised by special measures to ensure that no seat or seat part collides, during its movement, with other seats, seat parts or the vehicle itself}
		2/01 . . Arrangement of seats relative to one another
		2/012 . . . {The seat support being a part of the vehicle body or chassis}
		2/015 . . Attaching seats directly to vehicle chassis
		2/01508 . . . {using quick release attachments}
		2/01516 . . . . {with locking mechanisms}

- 2/01525 . . . . . {with locking elements expanding inside or under the vehicle floor or rail}
- 2/01533 . . . . . {using balls interlocking with notches}
- 2/01541 . . . . . {using moving hooks ([B60N 2/01583](#) takes precedence)}
- 2/0155 . . . . . {with the locking mechanism on the vehicle floor or rail}
- 2/01558 . . . . . {with key and slot}
- 2/01566 . . . . . {key rotating about a vertical axis}
- 2/01575 . . . . . {key sliding inside the vehicle floor or rail}
- 2/01583 . . . . . {locking on transversal elements on the vehicle floor or rail, e.g. transversal rods}
- 2/01591 . . . . . {with wheels coupled to the seat}
- 2/02 . . . . . the seat or part thereof being movable, e.g. adjustable (adjustable arm-rests [B60N 2/75](#); adjustable head-rests [B60N 2/806](#))
- 2002/0204 . . . . . {characterised by the seat or seat part turning about or moving along a non-standard, particular axis, i.e. an axis different from the axis characterising the conventional movement}
- 2002/0208 . . . . . {the seat or seat part turning about or moving along an inclined axis}
- 2002/0212 . . . . . {the seat or seat part turning about or moving along a longitudinal axis}
- 2002/0216 . . . . . {the seat or seat part turning about or moving along a transversal axis}
- 2002/022 . . . . . {the seat or seat part turning about or moving along a vertical axis}
- 2/0224 . . . . . {Non-manual adjustments, e.g. with electrical operation}
- WARNING**
- Group [B60N 2/0224](#) is impacted by reclassification into groups [B60N 2/0226](#), [B60N 2/0229](#), [B60N 2/0231](#), [B60N 2/0233](#), [B60N 2/0235](#), [B60N 2/0237](#), [B60N 2/0239](#), [B60N 2/0241](#), [B60N 2/0273](#), [B60N 2/0274](#), [B60N 2/0277](#), and [B60N 2/0278](#) - [B60N 2/0279](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 2/02246 . . . . . {Electric motors therefor}
- 2/02253 . . . . . {characterised by the transmission between the electric motor and the seat or seat parts}
- 2/02258 . . . . . {characterised by the mounting of the electric motor for adjusting the seat}
- 2/0226 . . . . . {User interfaces specially adapted for seat adjustment}
- WARNING**
- Group [B60N 2/0226](#) is incomplete pending reclassification of documents from group [B60N 2/0224](#).
- Groups [B60N 2/0224](#) and [B60N 2/0226](#) should be considered in order to perform a complete search.
- 2/0228 . . . . . {Hand-activated mechanical switches ([B60N 2/0229](#) takes precedence)}
- WARNING**
- Group [B60N 2/0228](#) is impacted by reclassification into groups [B60N 2/0229](#), [B60N 2/0231](#), [B60N 2/0233](#), [B60N 2/0235](#), [B60N 2/0237](#), [B60N 2/0239](#), [B60N 2/0241](#), [B60N 2/0277](#), and [B60N 2/0278](#) - [B60N 2/0279](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 2/0229 . . . . . {characterised by the shape, e.g. switches having cushion or backrest shape}
- WARNING**
- Group [B60N 2/0229](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).
- Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0229](#) should be considered in order to perform a complete search.
- 2/0231 . . . . . {concealed interfaces, e.g. hidden below seat cover}
- WARNING**
- Group [B60N 2/0231](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).
- Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0231](#) should be considered in order to perform a complete search.
- 2/0233 . . . . . {Touchscreens}
- WARNING**
- Group [B60N 2/0233](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).
- Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0233](#) should be considered in order to perform a complete search.
- 2/0235 . . . . . {Joysticks}
- WARNING**
- Group [B60N 2/0235](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).
- Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0235](#) should be considered in order to perform a complete search.

2/0237 . . . . {using portable terminals, e.g. smartphones}

**WARNING**

Group [B60N 2/0237](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).

Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0237](#) should be considered in order to perform a complete search.

2/0239 . . . . {using movement detection or gesture recognition}

**WARNING**

Group [B60N 2/0239](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).

Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0239](#) should be considered in order to perform a complete search.

2/0241 . . . . {using augmented or virtual reality}

**WARNING**

Group [B60N 2/0241](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).

Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0241](#) should be considered in order to perform a complete search.

2/0244 . . . . {with logic circuits}

**WARNING**

Group [B60N 2/0244](#) is impacted by reclassification into groups [B60N 2/0273](#), [B60N 2/0274](#), [B60N 2/0277](#), and [B60N 2/0278 - B60N 2/0279](#).

All groups listed in this Warning should be considered in order to perform a complete search.

2/0248 . . . . {with memory of positions}

**WARNING**

Group [B60N 2/0248](#) is impacted by reclassification into groups [B60N 2/0273](#), [B60N 2/0277](#), and [B60N 2/0278 - B60N 2/0279](#).

All groups listed in this Warning should be considered in order to perform a complete search.

2/0252 . . . . {with relations between different adjustments, e.g. height of headrest following longitudinal position of seat}

**WARNING**

Group [B60N 2/0252](#) is impacted by reclassification into groups [B60N 2/0273](#), [B60N 2/0277](#), and [B60N 2/0278 - B60N 2/0279](#).

All groups listed in this Warning should be considered in order to perform a complete search.

2/0256 . . . . {Arrangements for facilitating the occupant to get in or out of the vehicle, e.g. stowing a seat forward}

2/026 . . . . {varying hardness or support of upholstery, e.g. for tuning seat comfort when driving curved roads}

2/0264 . . . . {characterised by the type of electrical connection, e.g. wiring, plugs or USB}

2/0268 . . . . {using sensors or detectors for adapting the seat or seat part, e.g. to the position of an occupant}

2/0272 . . . . {using sensors or detectors for detecting the position of seat parts}

2/0273 . . . . {taking into account user data, e.g. knee height or physical state}

**WARNING**

Group [B60N 2/0273](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#), [B60N 2/0244](#), [B60N 2/0248](#), and [B60N 2/0252](#).

All groups listed in this Warning should be considered in order to perform a complete search.

2/0274 . . . . {movement of the seat following a virtual reality simulation}

**WARNING**

Group [B60N 2/0274](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0244](#).

Groups [B60N 2/0224](#), [B60N 2/0244](#), and [B60N 2/0274](#) should be considered in order to perform a complete search.

2/0276 . . . . {reaction to emergency situations, e.g. crash}

2/0277 . . . . {characterised by the calculation method or calculation flow chart of sensor data for adjusting the seat}

**WARNING**

Group [B60N 2/0277](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#), [B60N 2/0228](#), [B60N 2/0244](#), [B60N 2/0248](#), and [B60N 2/0252](#).

All groups listed in this Warning should be considered in order to perform a complete search.

2/0278	. . . . {using sensors external to the seat for measurements in relation to the seat adjustment, e.g. for identifying the presence of obstacles or the appropriateness of the occupants position}	2/0745	. . . . . {the slide path being curved}
		2/0747	. . . . . {the opening of the cross section being oriented in a direction different from the vertical, e.g. transversal}
		2/075	. . . . . roller-less
		2/08	. . . . . characterised by the locking device
		2/0806	. . . . . {with pin alignment systems, e.g. with at least one of a plurality of locking pins always aligned w.r.t. at least one of a plurality of pin-receiving elements}
		2/0812	. . . . . {Location of the latch}
		2/0818	. . . . . {inside the rail}
		2/0825	. . . . . {outside the rail}
		2/0831	. . . . . {Movement of the latch}
		2/0837	. . . . . {pivoting}
		2/0843	. . . . . . {about a longitudinal axis}
		2/085	. . . . . . {about a transversal axis}
		2/0856	. . . . . . {about a vertical axis}
		2/0862	. . . . . . {sliding}
		2/0868	. . . . . . {in a transversal direction}
		2/0875	. . . . . . {in a vertical direction}
		2/0881	. . . . . {Activation of the latches by the control mechanism}
		2/0887	. . . . . . {with synchronised movements}
		2/0893	. . . . . . {allowing independent movement of the latches, e.g. to recover tolerance errors}
		2/10	. . . . . tiltable ( <a href="#">B60N 2/12</a> {, <a href="#">B60N 2/2875</a> } take precedence)
		2/12	. . . . . slidable and tiltable
		2/123	. . . . . {and provided with memory locks}
		2002/126	. . . . . {the backrest being maintained in its tilted position until the seat has slid to its memorised position}
		2/14	. . . . . rotatable, e.g. to permit easy access ( <a href="#">B60N 2/10</a> {, <a href="#">B60N 2/2869</a> } take precedence)
		2/143	. . . . . {taking a position opposite to the original one}
		2/146	. . . . . {characterised by the locking device}
		2/16	. . . . . height-adjustable
		2/1605	. . . . . {characterised by the cinematic}
		2/161	. . . . . {Rods}
		2/1615	. . . . . . {Parallelogram-like structure}
		2/162	. . . . . . {Scissors-like structure}
		2/1625	. . . . . . {Combination of rods and slides}
		2/163	. . . . . . {Slides only}
		2/1635	. . . . . {characterised by the drive mechanism}
		2/164	. . . . . {Linear actuator, e.g. screw mechanism}
		2/1645	. . . . . {Eccentric mechanism}
		2/165	. . . . . {Gear wheel driven mechanism}
		2/1655	. . . . . {Cycloidal or planetary mechanism}
		2/166	. . . . . {Worm and worm gear articulations}
		2/1665	. . . . . {Hydraulic or pneumatic actuation}
		2/167	. . . . . {Ratchet mechanism}
		2/1675	. . . . . {with weight compensating means}
		2/168	. . . . . {and provided with braking systems}
		2/1685	. . . . . {characterised by a lock}
		2/169	. . . . . {Stepwise movement mechanisms, e.g. ratchets ( <a href="#">B60N 2/167</a> takes precedence)}
		2/1695	. . . . . {with simultaneous height and inclination adjustment}
		2/18	. . . . . the front or the rear portion of the seat being adjustable, e.g. independently of each other
2/0279	. . . . . {for detecting objects outside the vehicle, e.g. for user identification}		
2/028	. . {Elastically mounted back-rests}		
2/0284	. . {Adjustable seat-cushion length ( <a href="#">B60N 2/0224</a> takes precedence)}		
2002/0288	. . {Adjustable seat width}		
2/0292	. . {Multiple configuration seats, e.g. for spacious vehicles or mini-buses}		
2/0296	. . {Central command actuator to selectively switch on or engage one of several special purpose circuits or mechanisms}		
2/04	. . the whole seat being movable		
2/045	. . . {Longitudinal adjustment by means of articulated rods supporting the seat, e.g. parallelogram mechanisms ( <a href="#">B60N 2/38</a> takes precedence)}		
2/06	. . . slidable ( <a href="#">B60N 2/12</a> {, <a href="#">B60N 2/2209</a> } take precedence)		
2/062	. . . . . {transversally slidable}		
2/065	. . . . . {Rear seats}		
2/067	. . . . . {by linear actuators, e.g. linear screw mechanisms}		
2/07	. . . . . Slide construction		
2/0702	. . . . . {characterised by its cross-section}		
2/0705	. . . . . . {omega-shaped}		
2/0707	. . . . . . {J-shaped}		
2/071	. . . . . . {T-shaped}		
2/0712	. . . . . . {H or double T-shaped}		
2/0715	. . . . . . {C or U-shaped}		
2/0717	. . . . . . {Rounded, e.g. circular}		
2/072	. . . . . . {Complex cross-section, e.g. obtained by extrusion}		
2/0722	. . . . . . {Constructive details}		
2/0725	. . . . . . {Closing members for covering the slide}		
2/0727	. . . . . . {Stop members for limiting sliding movement}		
2/073	. . . . . . {Reinforcement members preventing slide dislocation}		
2/0732	. . . . . . {Attachment of seat frame to the slide, e.g. eyelets}		
2/0735	. . . . . . {Position and orientation of the slide as a whole}		
2/0737	. . . . . . {the slide path being substantially in a direction different from the longitudinal}		
2/074	. . . . . . {rotated about the transversal axis}		
2/0742	. . . . . . {rotated about the vertical axis}		

- 2/1803 . . . . . {with independent front and/or rear adjustment}
  - 2/1807 . . . . . {characterised by the cinematic}
  - 2/181 . . . . . {Rods}
  - 2/1814 . . . . . {Parallelogram-like structure}
  - 2/1817 . . . . . {Scissors-like structure}
  - 2/1821 . . . . . {Combination of Rods and slides}
  - 2/1825 . . . . . {including a curved slide}
  - 2/1828 . . . . . {Slides only}
  - 2/1832 . . . . . {including a curved slide}
  - 2/1835 . . . . . {pivoting about an axis located in the front}
  - 2/1839 . . . . . {pivoting about an axis located in an intermediate position}
  - 2/1842 . . . . . {pivoting about an axis located in the rear}
  - 2/1846 . . . . . {pivoting about a distant axis, e.g. virtual}
  - 2/185 . . . . . {characterised by the drive mechanism}
  - 2/1853 . . . . . {Linear actuator, e.g. screw mechanism}
  - 2/1857 . . . . . {Eccentric mechanism}
  - 2/186 . . . . . {with a transversal pin displaced by a moving slot or a cam along a predetermined path}
  - 2/1864 . . . . . {Gear wheel driven mechanism}
  - 2/1867 . . . . . {Cycloidal or planetary mechanism}
  - 2/1871 . . . . . {Worm and worm gear articulations}
  - 2/1875 . . . . . {Racks}
  - 2/1878 . . . . . {Hydraulic or pneumatic actuation}
  - 2/1882 . . . . . {Ratchet mechanism}
  - 2/1885 . . . . . {with weight compensating means}
  - 2/1889 . . . . . {and provided with braking systems}
  - 2/1892 . . . . . {characterised by a lock}
  - 2/1896 . . . . . {Stepwise movement mechanisms, e.g. ratchets (B60N 2/1882 takes precedence)}
  - 2/20 . . . the back-rest being tiltable, e.g. to permit easy access (B60N 2/04, B60N 2/22 {, B60N 2/3002} take precedence)
  - 2/203 . . . {taking a position opposite to the original one}
  - 2/206 . . . {to a position in which it can be used as a support for objects, e.g. as a tray}
  - 2/22 . . . the back-rest being adjustable {(B60N 2/2878 takes precedence)}
  - 2002/2204 . . . {Adjustable back-rest height or length}
  - 2/2209 . . . {by longitudinal displacement of the cushion, e.g. back-rest hinged on the bottom to the cushion and linked on the top to the vehicle frame}
  - 2/2213 . . . {Gear wheel driven mechanism (B60N 2/2231, B60N 2/225 take precedence)}
  - 2/2218 . . . {Transversally moving locks}
  - 2/2222 . . . {the back-rest having two or more parts}
  - 2/2227 . . . {and provided with braking systems}
  - 2/2231 . . . {Worm and worm gear articulations}
  - 2/2236 . . . {with a transversal pin displaced by a slot or a cam along a predetermined path}
  - 2/224 . . . {Stepwise movement mechanisms, e.g. ratchets}
  - 2/2245 . . . {provided with a lock mechanism on the upper part of the back-rest}
  - 2/225 . . . by cycloidal or planetary mechanisms
  - 2/2251 . . . {with gears having orbital motion, e.g. sun and planet gears}
  - 2/2252 . . . . . {in which the central axis of the gearing lies inside the periphery of an orbital gear, e.g. one gear without sun gear}
  - 2/2254 . . . . . {provided with braking systems}
  - 2/2255 . . . . . {with coiled springs}
  - 2/2257 . . . . . {with rollers or balls}
  - 2/2258 . . . . . {with ratchets}
  - 2/23 . . . by {linear actuators, e.g.} linear screw mechanisms
  - 2/231 . . . . . {by hydraulic actuators}
  - 2/232 . . . . . {provided with memory locks}
  - 2/233 . . . . . {by linear screw mechanisms}
  - 2/235 . . . by gear-pawl type mechanisms
  - 2/2352 . . . . . {with external pawls}
  - 2/2354 . . . . . {and provided with memory locks}
  - 2/2356 . . . . . {with internal pawls}
  - 2/2358 . . . . . {and provided with memory locks}
  - 2/236 . . . . . {linearly movable}
  - 2/2362 . . . . . {rotatably movable}
  - 2/24 . . . for particular purposes or particular vehicles
  - 2/242 . . . {Bus seats}
  - 2/245 . . . {for handicapped persons}
  - 2002/247 . . . {to support passengers in a half-standing position}
  - 2/26 . . . for children (B60N 2/30 takes precedence)
- WARNING**
- Group B60N 2/26 is impacted by reclassification into groups B60N 2/266 - B60N 2/272, B60N 2/273, and B60N 2/274.
- All groups listed in this Warning should be considered in order to perform a complete search.
- 2/265 . . . {Adaptations for seat belts}
  - 2/266 . . . {with detection or alerting means responsive to presence or absence of children; with detection or alerting means responsive to improper locking or installation of the child seats or parts thereof}
- WARNING**
- Groups B60N 2/266 - B60N 2/272 are incomplete pending reclassification of documents from groups B60N 2/002, B60N 2/26, B60N 2/28, B60N 2/2803, B60N 2/2806, B60N 2/2809, B60N 2/2812, and B60N 2002/2815.
- All groups listed in this Warning should be considered in order to perform a complete search.
- 2/267 . . . . . {alerting means responsive to presence or absence of children}
  - 2/268 . . . . . {detecting or alerting means responsive to the installation of the child seats in the vehicle}
  - 2/269 . . . . . {detecting or alerting means responsive to the Isofix locking on the child seat or vehicle}
  - 2/271 . . . . . {detecting or alerting means responsive to securing the child in the seat}
  - 2/272 . . . . . {Buckle lock sensors for child seat safety belts}



- 2/273 . . . {with detection or alerting means responsive to crashes}  
**WARNING**  
 Group [B60N 2/273](#) is incomplete pending reclassification of documents from groups [B60N 2/26](#), [B60N 2/28](#), [B60N 2/2803](#), [B60N 2/2806](#), [B60N 2/2809](#), [B60N 2/2812](#), and [B60N 2002/2815](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 2/274 . . . {characterised by the communication means between the child seat and another entity, e.g. vehicle or portable device}  
**WARNING**  
 Group [B60N 2/274](#) is incomplete pending reclassification of documents from groups [B60N 2/26](#), [B60N 2/28](#), [B60N 2/2803](#), [B60N 2/2806](#), [B60N 2/2809](#), [B60N 2/2812](#), and [B60N 2002/2815](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 2/28 . . . Seats readily mountable on, and dismountable from, existing seats {or other parts} of the vehicle  
**WARNING**  
 Group [B60N 2/28](#) is impacted by reclassification into groups [B60N 2/266 - B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 2/2803 . . . . {Adaptations for seat belts}  
**WARNING**  
 Group [B60N 2/2803](#) is impacted by reclassification into groups [B60N 2/266 - B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 2/2806 . . . . {for securing the child seat to the vehicle}  
**WARNING**  
 Group [B60N 2/2806](#) is impacted by reclassification into groups [B60N 2/266 - B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 2/2809 . . . . . {with additional tether connected to the top of the child seat and passing above the top of the back-rest}  
**WARNING**  
 Group [B60N 2/2809](#) is impacted by reclassification into groups [B60N 2/266 - B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 2/2812 . . . . . {for securing the child to the child seat}  
**WARNING**  
 Group [B60N 2/2812](#) is impacted by reclassification into groups [B60N 2/266 - B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 2002/2815 (Frozen) . . . . . {with additional belt accessories, e.g. a belt tension detector}  
**WARNING**  
 Group [B60N 2002/2815](#) is no longer used for the classification of documents as of August 1, 2023.  
 The content of this group is being reclassified into groups [B60N 2/266 - B60N 2/272](#), [B60N 2/273](#), [B60N 2/274](#), and [B60N 2/2816](#).  
 All groups listed in this Warning should be considered in order to perform a complete search.
- 2/2816 . . . . . {with additional belt accessories, e.g. belt tension detectors}  
**WARNING**  
 Group [B60N 2/2816](#) is incomplete pending reclassification of documents from group [B60N 2002/2815](#).  
 Groups [B60N 2002/2815](#) and [B60N 2/2816](#) should be considered in order to perform a complete search.
- 2/2818 . . . . . {characterised by guiding means for children belts}
- 2/2821 . . . . . {having a seat and a base part}
- 2/2824 . . . . . {part of the base being supported by the vehicle frame ([B60N 2/289](#) takes precedence)}
- 2/2827 . . . . . {part of the base being supported by the seat sub-frame ([B60N 2/2893](#) takes precedence)}
- 2/283 . . . . . {suspended}
- 2/2833 . . . . . {back-rest suspended}
- 2/2836 . . . . . {window-frame suspended}
- 2/2839 . . . . . {having a front guard or barrier}
- 2/2842 . . . . . {adapted to carry the child, when dismounted from the vehicle}

2/2845	. . . . .	{having handles}	2/3065	. . . . .	{in a longitudinal-vertical plane}
2/2848	. . . . .	{being convertible or adaptable to a preambulator, e.g. a baby-carriage or a push-chair}	2/3068	. . . . .	{in a longitudinal-transversal plane}
2/2851	. . . . .	{provided with head-rests}	2/307	. . . . .	{in a transversal-vertical plane}
2/2854	. . . . .	{Children's cots; Hammocks}	2/3072	. . . . .	{on a lower level of a multi-level vehicle floor}
2/2857	. . . . .	{characterised by the peculiar orientation of the child (B60N 2/2869 takes precedence)}	2/3075	. . . . .	{stowed in recess (B60N 2/3079 takes precedence)}
2/286	. . . . .	{forward facing (B60N 2/2866 takes precedence)}	2/3077	. . . . .	{stowed in the luggage compartment}
2/2863	. . . . .	{backward facing}	2/3079	. . . . .	{in a recess}
2/2866	. . . . .	{booster cushions, e.g. to lift a child to allow proper use of the conventional safety belts}	2/3081	. . . . .	{Seats convertible into parts of the seat cushion or the back-rest or disappearing therein, e.g. for children}
2/2869	. . . . .	{rotatable about a vertical axis}	2/3084	. . . . .	{Disappearing in a recess of the back-rest}
2/2872	. . . . .	{provided with side rests}	2/3086	. . . . .	{Disappearing in a recess of the cushion}
2/2875	. . . . .	{inclinable, as a whole or partially}	2/3088	. . . . .	{characterised by the mechanical link}
2/2878	. . . . .	{the back-rest being inclinable}	2/309	. . . . .	{rods}
2/2881	. . . . .	{Upholstery, padded or cushioned members therefor}	2/3093	. . . . .	{slides}
2/2884	. . . . .	{with protection systems against abnormal g-forces}	2/3095	. . . . .	{Auxiliary rear seats accessible from outside the vehicle when in an in-use position}
2/2887	. . . . .	{Fixation to a transversal anchorage bar, e.g. isofix}	2/3097	. . . . .	{Dismountable seats storable in a non-use position (B60N 2/015, B60N 2/28 take precedence)}
2/289	. . . . .	{coupled to the vehicle frame}	2/32	. . . . .	convertible for other use
2/2893	. . . . .	{coupled to the seat sub-frame}	2/34	. . . . .	into a bed
2002/2896	. . . . .	{the child seat being foldable, e.g. to facilitate transport}	2/345	. . . . .	{by adding parts}
2/30	. . . . .	Non-dismountable {or dismountable} seats storable in a non-use position, e.g. foldable spare seats	2/36	. . . . .	into a loading platform {(B60N 2/065 takes precedence)}
2/3002	. . . . .	{back-rest movements}	2002/363	. . . . .	{characterised by provisions for enhancing the cargo floor surface, e.g. elements closing gaps or enlarging the back-rest surface}
2/3004	. . . . .	{by rotation only}	2/366	. . . . .	{characterised by the locking device}
2/3006	. . . . .	{about longitudinal axis}	2/38	. . . . .	specially constructed for use on tractors or like off-road vehicles
2/3009	. . . . .	{about transversal axis}	2/39	. . . . .	Seats tiltable to compensate for roll inclination of vehicles
2/3011	. . . . .	{the back-rest being hinged on the cushion, e.g. "portefeuille movement"}	2/40	. . . . .	saddle type
2/3013	. . . . .	{the back-rest being hinged on the vehicle frame}	2/42	. . . . .	the seat constructed to protect the occupant from the effect of abnormal g-forces, e.g. crash or safety seats (for protecting children B60N 2/26; arm-rests B60N 2/75; head-rests B60N 2/888)
2/3015	. . . . .	{the axis being located at the top of the back-rest}	2/4207	. . . . .	{characterised by the direction of the g-forces}
2/3018	. . . . .	{about vertical axis}	2/4214	. . . . .	{longitudinal}
2/302	. . . . .	{by translation only}	2/4221	. . . . .	{due to impact coming from the front}
2/3022	. . . . .	{along longitudinal axis}	2/4228	. . . . .	{due to impact coming from the rear}
2/3025	. . . . .	{along transversal axis}	2/4235	. . . . .	{transversal}
2/3027	. . . . .	{along vertical axis}	2/4242	. . . . .	{vertical}
2/3029	. . . . .	{by composed movement}	2/4249	. . . . .	{fixed structures, i.e. where neither the seat nor a part thereof are displaced during a crash}
2/3031	. . . . .	{in a longitudinal-vertical plane}	2/4256	. . . . .	{the shape of the seat being specially adapted for a particular purpose or for particular vehicles}
2/3034	. . . . .	{in a longitudinal-transversal plane}	2/4263	. . . . .	{with anti-submarining systems}
2/3036	. . . . .	{in a transversal-vertical plane}	2/427	. . . . .	Seats or parts thereof displaced during a crash
2/3038	. . . . .	{Cushion movements}	2/42709	. . . . .	{involving residual deformation or fracture of the structure}
2/304	. . . . .	{by rotation only}	2/42718	. . . . .	{with anti-submarining systems}
2/3043	. . . . .	{about longitudinal axis}	2/42727	. . . . .	{involving substantially rigid displacement}
2/3045	. . . . .	{about transversal axis}	2/42736	. . . . .	{of the whole seat}
2/3047	. . . . .	{the cushion being hinged at the back-rest}	2/42745	. . . . .	{of the back-rest (B60N 2/433 takes precedence; higher part of the back-rest moving together with the headrest B60N 2/888)}
2/305	. . . . .	{the cushion being hinged on the vehicle frame}	2/42754	. . . . .	{of the cushion}
2/3052	. . . . .	{about vertical axis}	2/42763	. . . . .	{with anti-submarining systems}
2/3054	. . . . .	{by translation only}			
2/3056	. . . . .	{along longitudinal axis}			
2/3059	. . . . .	{along transversal axis}			
2/3061	. . . . .	{along vertical axis}			
2/3063	. . . . .	{by composed movement}			

2/42772	. . . . {characterised by the triggering system}	2/5883	. . . {by sewing, stitching or threading}
2/42781	. . . . {mechanical triggering}	2/5891	. . {characterised by the manufacturing process; manufacturing seat coverings not otherwise provided for}
2/4279	. . . . {electric or electronic triggering}	2/60	. . Removable protective coverings
2/43	. . . {Safety locks (for back-rests <a href="#">B60N 2/433</a> )}	2/6009	. . . {covering more than only the seat}
2/433	. . . Safety locks for back-rests, e.g. with locking bars activated by inertia	2/6018	. . . {attachments thereof}
2/50	. Seat suspension devices	2/6027	. . . . {by hooks, staples, clips, snap fasteners or the like}
2/501	. . {actively controlled suspension, e.g. electronic control}	2/6036	. . . . {by hook and loop-type fasteners}
2/502	. . {attached to the base of the seat ( <a href="#">B60N 2/504 takes precedence</a> )}	2/6045	. . . . {by clamping means}
2/503	. . {attached to the backrest ( <a href="#">B60N 2/504 takes precedence</a> )}	2/6054	. . . . {by buckle passages}
2/504	. . {attached to the base and the backrest}	2/6063	. . . . {by elastic means}
2/505	. . {Adjustable suspension including height adjustment}	2/6072	. . . . {by thermal welding}
2/506	. . {Seat guided by rods}	2/6081	. . . . {by adhesion, e.g. glueing}
2/507	. . . {Parallelogram-like structure}	2/609	. . . . {by sewing, stitching or threading}
2/508	. . . {Scissors-like structure}	2/62	. Thigh-rests ( <a href="#">B60N 2/914 takes precedence</a> )
2/509	. . {Seat guided by slides or the like}	2/64	. Back-rests {or cushions ( <a href="#">B60N 2/2222 takes precedence</a> )}
2/52	. . using fluid means	2/643	. . {shape of the back-rests ( <a href="#">B60N 2/66 takes precedence</a> )}
2/522	. . . {characterised by dampening means}	2/646	. . {shape of the cushion}
2/525	. . . {using gas}	2/66	. . Lumbar supports
2/527	. . . {using liquids}	2/663	. . . {portable with attachment to the back-rest}
2/54	. . using mechanical springs	2/665	. . . {using inflatable bladders}
2/542	. . . {made of rubber or other material having high internal friction, e.g. polymers}	2/666	. . . {vertically adjustable}
2/544	. . . {Compression or tension springs ( <a href="#">B60N 2/542 takes precedence</a> )}	2/667	. . . {having flexible support member bowed by applied forces}
2/546	. . . {Leaf- or flexion springs}	2/6671	. . . . {with cable actuators}
2/548	. . . {Torsion springs, e.g. torsion helicoidal springs}	2/6673	. . . . {with motor driven adjustments}
2/56	. Heating or ventilating devices	2/68	. Seat frames
2/5607	. . {characterised by convection}	2/682	. . {Joining means}
2/5614	. . . {by liquid}	2002/684	. . . {the back rest being mounted or joined with an easy attachment system to the seat}
2/5621	. . . {by air}	2/686	. . {Panel like structures}
2/5628	. . . . {coming from the vehicle ventilation system, e.g. air-conditioning system}	2/688	. . {Particular seat belt attachment and guiding}
2/5635	. . . . {coming from the passenger compartment}	2/70	. Upholstery springs {; Upholstery}
2/5642	. . . . {with circulation of air through a layer inside the seat}	2/7005	. . {detachable}
2/565	. . . . {sucked from the seat surface}	2/7011	. . {of substantially two-dimensional shape, e.g. hammock-like, plastic shells, fabrics}
2/5657	. . . . {blown towards the seat surface}	2/7017	. . {characterised by the manufacturing process; manufacturing upholstery or upholstery springs not otherwise provided for}
2/5664	. . . . {with unforced air circulation, i.e. not using a fan or the like}	2/7023	. . {Coach-like constructions}
2/5671	. . . . {forming a windbreak, e.g. warm air blown on the neck of the passenger of an open vehicle}	2/7029	. . . {back-rests}
2/5678	. . {characterised by electrical systems}	2/7035	. . . {Cushions}
2/5685	. . . {Resistance}	2/7041	. . . . {Fixation of covers and springs}
2/5692	. . . {Refrigerating means}	2/7047	. . . . {Springs}
2/58	. Seat coverings	2/7052	. . . . . {Springs using a combination of metal and rubber}
2002/5808	. . {comprising opening zones for airbags}	2/7058	. . . . . {Metallic springs}
2/5816	. . {attachments thereof}	2/7064	. . . . . {helicoidal}
2/5825	. . . {by hooks, staples, clips, snap fasteners or the like}	2/707	. . . . . {with rubber blocks}
2/5833	. . . {by hook-and-loop type fasteners}	2/7076	. . . . . {with rubber bands}
2/5841	. . . {by clamping means}	2/7082	. . . . . {with air or fluid cushions ( <a href="#">B60N 2/914 takes precedence</a> )}
2/585	. . . {by buckle passages}	2/7088	. . . . . {with valves ( <a href="#">B60N 2/914 takes precedence</a> )}
2/5858	. . . {by elastic means}	2/7094	. . {Upholstery springs}
2/5866	. . . {by thermal welding}	2/72	. . Attachment or adjustment thereof
2/5875	. . . {by adhesion, e.g. gluing}	2/75	. Arm-rests
		2/753	. . {movable to an inoperative position}



- 2/757 . . . {in a recess of the back-rest}
- 2/76 . . . {in a recess of the cushion}
- 2/763 . . {adjustable}
- 2/767 . . . {Angle adjustment}
- 2/77 . . . {Height adjustment}
- 2/773 . . . {Longitudinal adjustment}
- 2/777 . . . {Transversal adjustment}
- 2/78 . . {post or panel mounted}
- 2/783 . . . {sill suspended, e.g. window sill}
- 2/787 . . {detachable}
- 2/79 . . {Adaptations for additional use of the arm-rests}
- 2/793 . . . {for use as storage compartments}
- 2/797 . . . {for use as electrical control means, e.g. switches}
- 2/80 . Head-rests
- 2/803 . . fixed
- 2/806 . . movable or adjustable
- 2/809 . . . vertically slidable
- 2/812 . . . . characterised by their locking devices
- 2/815 . . . . . Release mechanisms, e.g. buttons
- 2/818 . . . . . with stepwise positioning
- 2/821 . . . . . with continuous positioning
- 2/824 . . . . . using springs
- 2/826 . . . . . using rubber-type material
- 2/829 . . . . characterised by their adjusting mechanisms, e.g. electric motors
- 2/832 . . . . movable to an inoperative or stowed position
- 2/835 . . . . . specially adapted for rear seats
- 2/838 . . . Tilttable
- 2/841 . . . . characterised by their locking devices
- 2/844 . . . . . Release mechanisms, e.g. buttons
- 2/847 . . . . . with stepwise positioning
- 2/85 . . . . . with continuous positioning
- 2/853 . . . . characterised by their adjusting mechanisms, e.g. electric motors
- 2/856 . . . . movable to an inoperative or stowed position
- 2/859 . . . . . specially adapted for rear seats
- 2/862 . . . . with means for maintaining a desired position when the seat-back is adjusted, e.g. parallelogram mechanisms
- 2/865 . . . providing a fore-and-aft movement with respect to the occupant's head
- 2/868 . . . providing a lateral movement parallel to the occupant's shoulder line
- 2/874 . . . movable to an inoperative or stowed position ([B60N 2/832](#), [B60N 2/856](#) take precedence)
- 2/876 . . . . specially adapted for rear seats ([B60N 2/835](#), [B60N 2/859](#) take precedence)
- 2/879 . . with additional features not related to head-rest positioning, e.g. heating or cooling devices or loudspeakers
- 2/882 . . detachable
- 2/885 . . provided with side-rests
- 2/888 . . with arrangements for protecting against abnormal g-forces, e.g. by displacement of the head-rest
- 2/891 . . with the head-rest being comma-shaped in side view
- 2/894 . . with rods solidly attached to the back-rest
- 2/897 . . with sleeves located in the back-rest for guiding the rods of the head-rest
- 2002/899 . . {characterised by structural or mechanical details not otherwise provided for}
- 2/90 . Details or parts not otherwise provided for
- 2002/905 . . . {the head-rest or seat used as an anchorage point, for an object not covered by groups in [B60N](#), e.g. for a canvas}
- 2/91 . . {Panels between front seats}
- 2/914 . . {Hydro-pneumatic adjustments of the shape}
- 2/919 . . {Positioning and locking mechanisms ([B60N 2/16](#), [B60N 2/18](#), [B60N 2/22](#), [B60N 2/225](#) take precedence)}
- 2002/924 . . . . {using electric or hydraulic energy}
- 2/929 . . . . {linear}
- 2/933 . . . . {rotatable}
- 2/938 . . . . . {and provided with braking systems}
- 2/943 . . . . . {Stepwise movement mechanisms, e.g. ratchets}
- 2002/948 . . . . {the actuation of the positioning or locking mechanism for one seat part being dependent on the position of another seat part, e.g. the seats floor lock being unlocked when the back-rest is inclined or the backrest can be tilted only when the seat is in its rear position}
- 2002/952 . . . . {characterised by details of the locking system}
- 2002/957 . . . . . {the locking system prevents an abnormal or wrong mounting situation, i.e. deployment or functioning of a seat part being prevented if the seat or seat part is not properly mounted}
- 2002/962 . . . . . {the locking system disabling tilting of the back-rest to the vertical position, when the seat is not properly installed}
- 2002/967 . . . . . {the locking system prevents tilt of whole seat by retaining and locking the seat in a vertical storage position}
- 2002/971 . . . . . {the locking system being an element distinct from articulation means, retaining the seat or seat part in its folded position, e.g. controlled by a wire}
- 2/976 . . {massaging systems}
- 2002/981 . . {Warning systems, e.g. the seat or seat parts vibrates to warn the passenger when facing a danger}
- 2/986 . . {Side-rests ([B60N 2/2872](#), [B60N 2/885](#) take precedence)}
- 2/99 . . . {adjustable}
- 2/995 . . {Lower-leg-rests, e.g. calf-rests}
- 3/00 Arrangements or adaptations of other passenger fittings, not otherwise provided for (of radio sets, television sets, telephones, {stowing or holding appliances} , safety belts or the like [B60R](#))**
- 3/001 . . {of tables or trays}
- 3/002 . . {of trays}
- 3/004 . . . . {of foldable trays mounted on the back-rest}
- 3/005 . . . . {mounted on the steering wheel}
- 3/007 . . . . {mounted on the window sill}
- 3/008 . . {of beds}
- 3/02 . of hand grips or straps
- 3/023 . . {movable}
- 3/026 . . {characterised by the fixing means ([B60N 3/023](#) takes precedence)}
- 3/04 . of floor mats {or carpets}
- 3/042 . . {of carpets ([B60N 3/046](#), [B60N 3/048](#) take precedence)}
- 3/044 . . {of removable mats ([B60N 3/046](#), [B60N 3/048](#) take precedence)}

- 3/046 . . {characterised by the fixing means}
- 3/048 . . {characterised by their structure}
- 3/06 . . of footrests
- 3/063 . . {with adjustment systems}
- 3/066 . . {with protection systems against abnormal g-forces}
- 3/08 . . of receptacles for refuse, e.g. ash-trays
- 3/083 . . {Ash-trays}
- 3/086 . . . {with refuse evacuation means}
- 3/10 . . of receptacles for food or beverages, e.g. refrigerated
- 3/101 . . {fixed}
- 3/102 . . {storable or foldable in a non-use position}
- 3/103 . . {detachable}
- 3/104 . . {with refrigerating or warming systems}
- 3/105 . . {for receptacles of different size or shape}
- 3/106 . . . {with adjustable clamping mechanisms}
- 3/107 . . . {with different elements of fixed geometry}
- 3/108 . . . {with resilient holding elements}
- 3/12 . . of receptacles for cigarettes or the like
- 3/14 . . of electrically-heated lighters
- 3/16 . . of cooking or boiling devices
- 3/18 . . of drinking-water {or other beverage} dispensing devices
- 5/00 Arrangements or devices on vehicles for entrance or exit control of passengers, e.g. turnstiles**
- 99/00 Subject matter not provided for in other groups of this subclass**

**Indexing scheme associated with groups B60N 2/00 - B60N 99/00 relating to general mechanical or structural details**

- 2205/00 General mechanical or structural details**
- 2205/20 . . Measures for elimination or compensation of play or backlash
- 2205/30 . . Seat or seat parts characterised by comprising plural parts or pieces
- 2205/35 . . . Seat, bench or back-rests being split laterally in two or more parts
- 2205/40 . . Dual or redundant actuating means, e.g. backrest tilting can be actuated alternatively by a lever at the backrest or a lever in the luggage compartment
- 2205/50 . . Interlocking shaft arrangements transmitting movement between hinge mechanisms on both sides of a seat

**Indexing scheme associated with groups B60N 2/00 - B60N 99/00, relating to aspects of seats specially adapted for vehicles or vehicle passenger accommodation not otherwise provided for**

- 2210/00 Sensor types, e.g. for passenger detection systems or for controlling seats**

**WARNING**

Groups [B60N 2210/00](#) - [B60N 2210/50](#) are incomplete pending reclassification of documents from group [B60N 2/002](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 2210/10 . . Field detection presence sensors
- 2210/12 . . . Capacitive; Electric field
- 2210/14 . . . Inductive; Magnetic field
- 2210/16 . . . Electromagnetic waves

- 2210/18 . . . Infrared
- 2210/20 . . . Radar
- 2210/22 . . . Optical; Photoelectric; Lidar [Light Detection and Ranging]
- 2210/24 . . . . Cameras
- 2210/26 . . Ultrasonic, e.g. sonar
- 2210/30 . . Temperature sensors
- 2210/40 . . Force or pressure sensors
- 2210/42 . . Strain gauges
- 2210/44 . . . using fluids
- 2210/46 . . Electric switches
- 2210/48 . . Piezoelectric
- 2210/50 . . Inertial sensors

**2220/00 Computerised treatment of data for controlling of seats**

**WARNING**

Groups [B60N 2220/00](#) - [B60N 2220/30](#) are incomplete pending reclassification of documents from group [B60N 2/002](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 2220/10 . . using a database
- 2220/20 . . using a deterministic algorithm
- 2220/30 . . using a neural network

**2230/00 Communication or electronic aspects**

**WARNING**

Groups [B60N 2230/00](#) - [B60N 2230/30](#) are incomplete pending reclassification of documents from group [B60N 2/002](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 2230/10 . . Wired data transmission
- 2230/20 . . Wireless data transmission
- 2230/30 . . Signal processing of sensor data