

**CPC****COOPERATIVE PATENT CLASSIFICATION****E01D**

**CONSTRUCTION OF BRIDGES, {ELEVATED ROADWAYS} OR VIADUCTS; ASSEMBLY OF BRIDGES** (bridges extending between terminal buildings and aircraft for embarking or disembarking passengers [B64F 1/305](#); {tracks for special kinds of railways [E01B 25/00](#); culverts [E01F 5/005](#)})

**E01D 1/00**

**Bridges in general** (characterised by their structural type [E01D 4/00](#) to [E01D 15/00](#))

**E01D 1/005**

. {Bowstring bridges (truss-type bowstring bridges [E01D 6/02](#))}

**E01D 2/00**

**Bridges characterised by the cross-section of their bearing spanning structure**

**E01D 2/02**

. of the I-girder type

**E01D 2/04**

. of the box-girder type

**E01D 4/00**

**Arch-type bridges**

**E01D 6/00**

**Truss-type bridges**

**E01D 6/02**

. of bowstring type

**E01D 11/00**

**Suspension or cable-stayed bridges**

**E01D 11/02**

. Suspension bridges

**E01D 11/04**

. Cable-stayed bridges

**E01D 12/00**

**Bridges characterised by a combination of structures not covered as a whole by a single one of groups [E01D 2/00](#) to [E01D 11/00](#)**

**E01D 15/00**

**Movable or portable bridges; Floating bridges**

**E01D 15/005**

. {Movable bridges in general (floating bridges with sections movable to allow passing of water-borne traffic [E01D 15/145](#); lock gates [E02B 7/20](#)); Constructional elements peculiar to movable bridges}

**E01D 15/02**

. Vertical lift bridges

**E01D 15/04**

. Swing bridges

**E01D 15/06**

. Bascule bridges; Roller bascule bridges, e.g. of Scherzer type

**E01D 15/08**

.. Drawbridges

**E01D 15/10**

. Travelling bridges {i.e. roller bridges}; Sliding bridges; Rotary cylinder bridges, i.e. rotating about longitudinal axis to invert and raise the road

**E01D 15/12**

. Portable or sectional bridges (floating bridges [E01D 15/14](#))

**E01D 15/122**

.. {Inflatable or unreelable bridges (inflatable or unreelable girders in general [E04C 3/005](#)); Bridges with main load-supporting structure consisting only of non-rigid elements, e.g. cables}

**E01D 15/124**

.. {Folding or telescopic bridges; Bridges built up from folding or telescopic sections ([E01D 15/122](#), [E01D 15/127](#) take precedence; folding or telescopic girders in general [E04C 3/005](#))}

- E01D 15/127 . . combined with ground-supported vehicles for the transport, handling or placing of such bridges or of sections thereof
- E01D 15/133 . . built-up from readily separable standardised sections or elements, e.g. Bailey bridges ([E01D 15/127](#) takes precedence)
- E01D 15/14 . Floating bridges, e.g. pontoon bridges ([landing bridges E01D 15/24](#); [floating bodies or pontoons B63B](#))
- E01D 15/145 . . {displaceable or with sections movable to allow passing of water-borne traffic (movable bridges actuated by floating bodies [E01D 15/005](#) to [E01D 15/10](#))}
- E01D 15/20 . . collapsible, expandable, inflatable or the like {with main load supporting structure consisting only of non-rigid members} ([E01D 15/22](#) takes precedence)
- E01D 15/22 . . designed as, or mounted on, vehicles
- E01D 15/24 . Bridges or similar structures, based on land or on a fixed structure and designed to give access to ships or other floating structures ([arrangement of ship-based ramps B63B 27/14](#); [loading ramps B65G 69/28](#))
  
- E01D 18/00** **Bridges specially adapted for particular applications or functions not provided for elsewhere, e.g. aqueducts, bridges for supporting pipe-lines**
  
- E01D 19/00** **Structural or constructional details of bridges**
- E01D 19/005 . {Piers, trestles, bearings, expansion joints or parapets specially adapted for portable or sectional bridges}
- E01D 19/02 . Piers {([E01D 19/005](#) takes precedence; [towers for suspension bridges E01D 19/14](#))}; Abutments ([foundations E02D](#)); {Protecting same against drifting ice (against colliding vehicles [E01F 15/00](#))}
- E01D 19/04 . Bearings {([E01D 19/005](#) takes precedence; specially for movable bridges [E01D 15/005](#) to [E01D 15/10](#))}; Hinges
- E01D 19/041 . . {Elastomeric bearings ([E01D 19/048](#) takes precedence)}
- E01D 19/042 . . {Mechanical bearings ([E01D 19/048](#) takes precedence)}
- E01D 19/043 . . . {Roller bearings}
- E01D 19/045 . . . {Line and point rocker bearings}
- E01D 19/046 . . . {Spherical bearings}
- E01D 19/047 . . . {Pot bearings}
- E01D 19/048 . . {Bearings being adjustable once installed; Bearings used in incremental launching}
- E01D 19/06 . Arrangement, construction or bridging of expansion joints {([E01D 19/005](#) takes precedence; in movable bridges [E01D 15/005](#) to [E01D 15/10](#)}; [sealing joints not restricted to expansion joints for bridges E04B 1/68](#))}
- E01D 19/062 . . {Joints having intermediate beams}
- E01D 19/065 . . {Joints having sliding plates}
- E01D 19/067 . . {Flat continuous joints cast in situ}
- E01D 19/08 . Damp-proof or other insulating layers; Drainage arrangements or devices {Bridge deck surfacings ([bridge decks per se E01D 19/125](#))}
- E01D 19/083 . . {Waterproofing of bridge decks; Other insulations for bridges, e.g. thermal (insulation for buildings in general [E04B 1/62](#)); Bridge deck surfacings ([road surfacings in general E01C](#))}
- E01D 19/086 . . {Drainage arrangements or devices (surface drainage of roads in general [E01C 11/224](#); roof drainage [E04D 13/04](#))}

- E01D 19/10 . Railings; Protectors against smoke or gases, e.g. of locomotives; Maintenance travellers; Fastening of pipes or cables to bridges ({[pipe-line bridges E01D 18/00](#)}; supports for pipes, cables or protective tubing, e.g. hangers, holders, clamps, cleats, clips, brackets, [F16L 3/00](#))
- E01D 19/103 . . {[Parapets, railings \(E01D 19/005 takes precedence; balustrades in general E04F 11/18\)](#); [Guard barriers or road-bridges \(in general E01F 15/00\)](#)}
- E01D 19/106 . . {[Movable inspection or maintenance platforms, e.g. travelling scaffolding or vehicles specially designed to provide access to the undersides of bridges \(lifting devices for movable platforms on vehicles in general B66F 11/04\)](#)}
- E01D 19/12 . Grating or flooring for bridges; Fastening railway sleepers or tracks to bridges ([sleepers E01B 3/00](#))
- E01D 19/125 . . {[Grating or flooring for bridges \(waterproofing thereof E01D 19/083; floors in general E04B 5/00\)](#)}
- E01D 19/14 . Towers; Anchors; {[Connection of cables to bridge parts](#)}; Saddle supports
- E01D 19/16 . Suspension cables; Cable clamps for suspension cables; {[Pre- or post-stressed cables](#)}

**E01D 21/00****Methods or apparatus specially adapted for erecting or assembling bridges**

- E01D 21/06 . by translational movement of the bridge or bridge sections ({[E01D 15/127](#), [E01D 15/133](#) and [E01D 21/10](#) take precedence})
- E01D 21/065 . . {[Incremental launching](#)}
- E01D 21/08 . by rotational movement of the bridge or bridge sections
- E01D 21/10 . Cantilevered erection
- E01D 21/105 . . {[Balanced cantilevered erection](#)}

**E01D 22/00****Methods or apparatus for repairing or strengthening existing bridges**  
{([electrochemical desalination or re-alkalisation C04B 41/00](#)); [Methods or apparatus for dismantling bridges](#)}**E01D 2101/00****Material constitution of bridges**

- E01D 2101/10 . Wood
- E01D 2101/20 . Concrete, stone or stone-like material
- E01D 2101/22 . . Masonry; Bricks
- E01D 2101/24 . . Concrete
- E01D 2101/26 . . . reinforced
- E01D 2101/262 . . . . with steel fibres
- E01D 2101/264 . . . . with glass fibres
- E01D 2101/266 . . . . with fibres other than steel or glass
- E01D 2101/268 . . . . Composite concrete-metal
- E01D 2101/28 . . . . prestressed
- E01D 2101/285 . . . . . Composite prestressed concrete-metal
- E01D 2101/30 . Metal ([E01D 2101/26](#) takes precedence)
- E01D 2101/32 . . prestressed
- E01D 2101/34 . . non-ferrous, e.g. aluminium
- E01D 2101/40 . Plastics