

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