

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 3/00B](#)); 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