

# CPC COOPERATIVE PATENT CLASSIFICATION

## E FIXED CONSTRUCTIONS

### BUILDING

#### E01 CONSTRUCTION OF ROADS, RAILWAYS, OR BRIDGES

**E01B PERMANENT WAY; PERMANENT-WAY TOOLS; MACHINES FOR MAKING RAILWAYS OF ALL KINDS** ([derailing or rerailing blocks on track, track brakes or retarders B61K](#))

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E01C CONSTRUCTION OF, OR SURFACES FOR, ROADS, SPORTS GROUNDS, OR THE LIKE; MACHINES OR AUXILIARY TOOLS FOR CONSTRUCTION OR REPAIR** ([forming roads or like surfaces by compacting or grading snow or ice E01H](#))

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**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}](#))

##### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  

<a href="#">E01D 24/00</a>	covered by	<a href="#">E01D 22/00</a>
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2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E01F ADDITIONAL WORK, SUCH AS EQUIPPING ROADS OR THE CONSTRUCTION OF PLATFORMS, HELICOPTER LANDING STAGES, SIGNS, SNOW FENCES, OR THE LIKE**

##### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  

<a href="#">E01F 15/10</a>	covered by	<a href="#">E01F 15/02</a>
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2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E01H STREET CLEANING; CLEANING OF PERMANENT WAYS; CLEANING BEACHES; DISPERSING {OR PREVENTING} FOG IN GENERAL {CLEANING STREET OR RAILWAY FURNITURE OR TUNNEL WALLS}**([cleaning in general B08B](#))

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

#### E02 HYDRAULIC ENGINEERING; FOUNDATIONS; SOIL SHIFTING

**E02B HYDRAULIC ENGINEERING** ([ship-lifting E02C](#); [dredging E02F](#))**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E02C SHIP-LIFTING DEVICES OR MECHANISMS****WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E02D FOUNDATIONS; EXCAVATIONS; EMBANKMENTS** ([specially adapted for hydraulic engineering E02B](#)); **UNDERGROUND OR UNDERWATER STRUCTURES** {([tunnels, tunnelling, mining E21](#))}**NOTES**

1. This subclass covers underground structures made by foundation engineering, i.e. involving disturbance of the ground surface.
2. This subclass does not cover underground spaces, made by underground mining methods only, i.e. not involving disturbance of the ground surface, which are covered by subclass [E21D](#).

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  

<a href="#">E02D 29/09</a>	covered by	<a href="#">E02D 29/06</a>
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2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E02F DREDGING; SOIL-SHIFTING** ([winning peat E21C 49/00](#))**NOTE**

This subclass covers :

- primarily equipment for excavating or loosening earth or for moving loose earth;
- equipment for working similarly on other materials and similar equipment for loading or unloading materials

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  

<a href="#">E02F 3/39</a>	covered by	<a href="#">E02F 3/286</a> , <a href="#">E02F 3/306</a> , <a href="#">E02F 3/3402</a>
<a href="#">E02F 3/85</a>	covered by	<a href="#">E02F 3/841</a> , <a href="#">E02F 3/842</a> , <a href="#">E02F 3/844</a> , <a href="#">E02F 3/845</a> , <a href="#">E02F 3/847</a>
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E03 WATER SUPPLY; SEWERAGE****E03B INSTALLATIONS OR METHODS FOR OBTAINING, COLLECTING, OR DISTRIBUTING WATER** ([drilling wells, obtaining fluids in general from wells E21B](#); [pipe-line systems in general F17D](#))**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E03C DOMESTIC PLUMBING INSTALLATIONS FOR FRESH WATER OR WASTE WATER** ([not connected to either water-supply main or to waste pipe A47K](#); [devices of the kind used in the ground E03B](#), [E03F](#)); **SINKS****WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

## **E03D WATER-CLOSETS OR URINALS WITH FLUSHING DEVICES; FLUSHING VALVES THEREFOR**

### **WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

## **E03F SEWERS; CESSPOOLS**

### **WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

## **E04 BUILDING**

### **E04B GENERAL BUILDING CONSTRUCTIONS; WALLS, e.g. PARTITIONS; ROOFS; FLOORS; CEILINGS; INSULATION OR OTHER PROTECTION OF BUILDINGS** (border constructions of opening in walls, floors or ceilings [E06B 1/00](#); {electromagnetic shielding [H05K 9/0001](#)})

### **NOTES**

1. This subclass covers working methods used in constructing new buildings and analogous working methods on existing buildings. Other working methods on existing buildings, except those for insulating, are classified in group [E04G 23/00](#).
2. In this subclass, the following term is used with the meaning indicated:
  - "ceiling" includes all the finishing material concealing the underside of the loadcarrying ceiling structure or roof structure.

### **WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
 

<a href="#">E04B 1/682</a>	covered by	<a href="#">E04B 1/68</a>
<a href="#">E04B 1/684</a>	covered by	<a href="#">E04B 1/68</a>
<a href="#">E04B 1/686</a>	covered by	<a href="#">E04B 1/68</a>
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

### **E04C STRUCTURAL ELEMENTS; BUILDING MATERIALS** (for bridges [E01D](#); specially designed for insulation or other protection [E04B](#); elements used as building aids [E04G](#); for mining [E21](#); for tunnels [E21D](#); structural elements with broader range of application than for building engineering [F16](#), particularly [F16S](#))

### **WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

### **E04D ROOF COVERINGS; SKY-LIGHTS; GUTTERS; ROOF-WORKING TOOLS** (coverings of outer walls by plaster or other porous material [E04F 13/00](#))

### **NOTE**

In this subclass, the following expression is used with the meaning indicated:

- "roof coverings" includes any similar kind of watertight covering against rain, snow, hail, or the like, for other parts of buildings

### **WARNINGS**

1. The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:
 

<a href="#">E04D 3/3645</a>	covered by	<a href="#">E04D 3/363</a>
<a href="#">E04D 3/367</a>	covered by	<a href="#">E04D 3/364</a>
<a href="#">E04D 13/18</a>	covered by	<a href="#">F24S 20/67</a> , <a href="#">H02S 20/23</a>
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E04F FINISHING WORK ON BUILDINGS, e.g. STAIRS, FLOORS (windows, doors [E06B](#))****WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E04G SCAFFOLDING; FORMS; SHUTTERING; BUILDING IMPLEMENTS OR AIDS, OR THEIR USE; HANDLING BUILDING MATERIALS ON THE SITE; REPAIRING, BREAKING-UP OR OTHER WORK ON EXISTING BUILDINGS****NOTE**

In this subclass the word "scaffolding" includes other supports for like purposes

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  

<a href="#">E04G 23/03</a>	covered by	<a href="#">E04G 23/0266</a>
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2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E04H BUILDINGS OR LIKE STRUCTURES FOR PARTICULAR PURPOSES; SWIMMING OR SPLASH BATHS OR POOLS; MASTS; FENCING; TENTS OR CANOPIES, IN GENERAL (foundations [E02D](#))****NOTES**

1. This subclass deals primarily with the layout of buildings as a whole, but includes details which are peculiar to types of buildings or buildings for special purposes, specified in the groups. The word "buildings" does not exclude engineering structures and other constructions
2. This subclass provides for canopies in general and for canopies similar in construction to tents. For canopies having special application, see the relevant class, e.g. bed canopies [A47C 29/00](#); protecting chairs against the weather [A47C 7/66](#); sunshades or awnings for buildings [E04F 10/00](#)
3. In this subclass, the term "tent" means a tent or canopy having a supporting means, e.g. frame and a flexible cover

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  

<a href="#">E04H 4/02</a>	covered by	<a href="#">E04H 4/0018</a> , <a href="#">E04H 4/0075</a>
<a href="#">E04H 4/04</a>	covered by	<a href="#">E04H 4/0018</a> , <a href="#">E04H 4/0075</a>
2. {In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.}

**E05 LOCKS; KEYS; WINDOW OR DOOR FITTINGS; SAFES****NOTE**

In this class, the following terms are used with the meanings indicated :

- "Wing" is a general term for swingable, slidable, or otherwise movable doors or windows. This term also includes other movable structures such as drawers, lids of chests, car boots, or car bonnets, to which the operating, mounting, latching, or locking means covered by this class may be applied;
- "Frame" means any member to which a wing may be held by a fastening device. It does not include a framework forming part of the wing, but it may be another wing;
- "Lock" means primarily a device for releasing or securing any member, which requires a key or a permutation mechanism for release. In groups [E05B 1/00](#) - [E05B 9/00](#), [E05B 13/00](#) - [E05B 17/00](#), [E05B 39/00](#) - [E05B 47/00](#), [E05B 51/00](#), [E05B 53/00](#), [E05B 63/00](#) and [E05B 65/00](#) however, the term "lock" may include other fastening devices;
- "Bolt" means a sliding, pivoted, or otherwise movable member such as is normally carried by a door to hold it shut by engagement with a keeper on the frame. It may be operated by hand directly or through mechanism or by a key; it may be a latch (see (5) below);
- "Latch" means a bolt arranged to be moved to the releasing position against the force of a spring, or some other returning force, when a wing meets the frame on closing, so that it does not have to be operated by hand to secure the wing, but only to open it;
- "Hasp" means a member hinged to the frame or wing so that it can be moved towards the face of the wing or frame and secured thereto, e.g. by a turn-button, by a padlock and staple.

**E05B LOCKS; ACCESSORIES THEREFOR; HANDCUFFS****NOTES**

1. Operating or controlling of locks for vehicle wings are classified in groups [E05B 77/00-E05B 81/00](#).
2. Knobs, handles or press buttons for locks of vehicle wings are classified in [E05B 79/00-E05B 85/00](#).
3. {In this subclass, it is desirable to add the indexing code(s) of [E05Y](#).}

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

<a href="#">E05B 1/02</a>	covered by	<a href="#">E05B 1/00</a>
<a href="#">E05B 5/02</a>	covered by	<a href="#">E05B 5/003</a>
<a href="#">E05B 5/04</a>	covered by	<a href="#">E05B 5/003</a>
<a href="#">E05B 9/06</a>	covered by	<a href="#">E05B 9/00</a> - <a href="#">E05B 9/048</a>
<a href="#">E05B 13/02</a>	covered by	<a href="#">E05B 11/00</a> , <a href="#">E05B 15/08</a> and <a href="#">E05B 17/14</a>
<a href="#">E05B 13/06</a>	covered by	<a href="#">E05B 11/00</a> , <a href="#">E05B 15/08</a> and <a href="#">E05B 17/14</a>
<a href="#">E05B 13/08</a>	covered by	<a href="#">E05B 13/00</a>
<a href="#">E05B 15/12</a>	covered by	<a href="#">E05B 17/2007</a>
<a href="#">E05B 17/02</a>	covered by	<a href="#">E05C 7/02</a>
<a href="#">E05B 19/02</a>	covered by	<a href="#">E05B 19/00</a>
<a href="#">E05B 19/06</a>	covered by	<a href="#">E05B 19/00</a>
<a href="#">E05B 19/08</a>	covered by	<a href="#">E05B 19/0017</a> , <a href="#">E05B 19/14</a> , <a href="#">E05B 35/003</a> and <a href="#">E05B 35/14</a>
<a href="#">E05B 19/10</a>	covered by	<a href="#">E05B 19/04</a>
<a href="#">E05B 19/12</a>	covered by	<a href="#">E05B 35/003</a>
<a href="#">E05B 19/16</a>	covered by	<a href="#">E05B 35/007</a> , <a href="#">E05B 27/0028</a> and <a href="#">E05B 29/0006</a>
<a href="#">E05B 21/02-</a>	covered by	<a href="#">E05B 21/00</a>
<a href="#">E05B 21/04</a>	covered by	<a href="#">E05B 21/00</a>
<a href="#">E05B 25/00-E05B 25/10</a>	covered by	<a href="#">E05B 21/00</a> and <a href="#">E05B 23/00</a>
<a href="#">E05B 27/04-E05B 27/06</a>	covered by	<a href="#">E05B 27/0003</a> - <a href="#">E05B 27/0096</a>
<a href="#">E05B 29/02-E05B 29/14</a>	covered by	<a href="#">E05B 29/0006</a> - <a href="#">E05B 29/0093</a>
<a href="#">E05B 35/04</a>	covered by	<a href="#">E05B 35/00</a>
<a href="#">E05B 37/06</a>	covered by	<a href="#">E05B 37/04</a> and <a href="#">E05B 67/00</a>
<a href="#">E05B 37/18</a>	covered by	<a href="#">E05B 37/16</a> and <a href="#">E05B 67/00</a>
<a href="#">E05B 37/22</a>	covered by	<a href="#">E05B 37/20</a> and <a href="#">E05B 67/00</a>
<a href="#">E05B 45/14</a>	covered by	<a href="#">E05B 45/06</a>
<a href="#">E05B 47/04</a>	covered by	<a href="#">E05B 47/02</a>
<a href="#">E05B 47/08</a>	covered by	<a href="#">E05B 47/06</a> and <a href="#">E05B 15/101</a>
<a href="#">E05B 49/02-E05B 49/04</a>	covered by	<a href="#">G07C 9/00</a>
<a href="#">E05B 55/02</a>	covered by	<a href="#">E05B 55/00</a>
<a href="#">E05B 55/04</a>	covered by	<a href="#">E05B 55/00</a> and <a href="#">E05B 13/00</a>
<a href="#">E05B 55/08</a>	covered by	<a href="#">E05B 55/06</a>
<a href="#">E05B 55/10</a>	covered by	<a href="#">E05B 55/06</a>
<a href="#">E05B 55/14-E05B 55/16</a>	covered by	<a href="#">E05B 55/00</a>
<a href="#">E05B 59/02 - E05B 59/04</a>	covered by	<a href="#">E05B 59/00</a>
<a href="#">E05B 59/06</a>	covered by	<a href="#">E05B 15/102</a>
<a href="#">E05B 65/04</a>	covered by	<a href="#">E05C 7/02</a>
<a href="#">E05B 67/12</a>	covered by	<a href="#">E05B 67/10</a>
<a href="#">E05B 67/16</a>	covered by	<a href="#">E05B 67/14</a>
<a href="#">E05B 67/20</a>	covered by	<a href="#">E05B 67/18</a>
<a href="#">E05B 67/30</a>	covered by	<a href="#">E05B 67/28</a>
<a href="#">E05B 67/34</a>	covered by	<a href="#">E05B 67/32</a>
<a href="#">E05B 71/02</a>	covered by	<a href="#">E05B 71/00</a> and <a href="#">E05B 37/00</a>
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E05C BOLTS OR FASTENING DEVICES FOR WINGS, SPECIALLY FOR DOORS OR WINDOWS** (latching means for sideboard or tailgate structures for vehicles [B62D](#), {[B62D 33/02](#)}; fastening devices for constructional or engineering elements [E04](#), [F16B](#); locks, fastening devices structurally or operatively combined or having significant cooperation with locks [E05B](#); means for operating or controlling wing fasteners in conjunction with mechanisms for moving the wing [E05F](#))

**NOTES**

1. In this subclass only the movement essential for securing the wing is considered, e.g. a sliding bolt which is rotated on its axis to prevent its withdrawal is classified as having only a sliding movement
2. Attention is drawn to the definition following the title of class [E05](#)
3. {In this subclass, it is desirable to add the indexing code(s) of [E05Y](#).}

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
 

<a href="#">E05C 3/32</a>	covered by	<a href="#">E05C 3/30</a>
<a href="#">E05C 17/06</a>	covered by	<a href="#">E05C 17/04</a>
<a href="#">E05C 17/10</a>	covered by	<a href="#">E05C 17/04</a>
<a href="#">E05C 21/02</a>	covered by	<a href="#">E05C 21/00</a>
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E05D HINGES OR SUSPENSION DEVICES FOR DOORS, WINDOWS OR WINGS** (pivotal connections in general [F16C 11/00](#))

**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E05F DEVICES FOR MOVING WINGS INTO OPEN OR CLOSED POSITION; CHECKS FOR WINGS; WING FITTINGS NOT OTHERWISE PROVIDED FOR, CONCERNED WITH THE FUNCTIONING OF THE WING**

**NOTE**

In this subclass, the following terms are used with the meanings indicated:

- "closer" or "opener" includes devices for assisting wing-movement or for wing-counterbalancing.

**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E05G SAFES OR STRONG-ROOMS FOR VALUABLES; BANK PROTECTION DEVICES; SAFETY TRANSACTION PARTITIONS** ({devices to prevent theft of bags, trunks or baskets [A45C 13/18](#)}; alarm arrangements per se [G08B](#))

**NOTE**

In this subclass, the following terms are used with the meanings indicated:

- "bank" is a building or portion of a building devoted to the safekeeping or exchange of valuables between the "bank" and its customers;
- "bank protection device" is a mechanism in or on a bank for protecting the valuables or repelling attacks by stealth or force.

**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E05Y INDEXING SCHEME RELATING TO HINGES OR OTHER SUSPENSION DEVICES FOR DOORS, WINDOWS OR WINGS AND DEVICES FOR MOVING WINGS INTO OPEN OR CLOSED POSITION, CHECKS FOR WINGS AND WING FITTINGS NOT OTHERWISE PROVIDED FOR, CONCERNED WITH THE FUNCTIONING OF THE WING**

**E06 DOORS, WINDOWS, SHUTTERS, OR ROLLER BLINDS IN GENERAL; LADDERS**

**E06B FIXED OR MOVABLE CLOSURES FOR OPENINGS IN BUILDINGS, VEHICLES, FENCES OR LIKE ENCLOSURES IN GENERAL, e.g. DOORS, WINDOWS, BLINDS, GATES** (shades or blinds for greenhouses [A01G 9/22](#); curtains [A47H](#); lids for car boots or bonnets [B62D 25/10](#); skylights [E04B 7/18](#); sunshades, awnings [E04F 10/00](#))

#### NOTES

1. This subclass does not cover combinations of wings or frames with operating, mounting, latching or locking means of the type found in class [E05](#), which are covered by the relevant subclasses of class [E05](#), except such as are covered by groups [E06B 7/086](#), [E06B 9/00](#), or [E06B 11/02](#) of this subclass.
2. In this subclass, the following terms or expressions are used with the meanings indicated:
  - "wing" means a swingable, slidable or otherwise movable member such as a door or window, for closing an opening;
  - "wing frame" means the peripheral edge or edges which define the outer border of the wing.
3. For vehicle door or window arrangements, attention is drawn to Note (1) following the title of subclass [B60J](#).

#### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  

<a href="#">E06B 11/06</a>	covered by	<a href="#">E05B 65/0007</a>
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2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E06C LADDERS** ([E04F 11/00](#) takes precedence; step-stools [A47C 12/00](#); adaptation of ladders to use on ships [B63B](#), to use on aircraft [B64](#); scaffolding [E04G](#))

#### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

## **EARTH DRILLING; MINING**

**E21 EARTH DRILLING; MINING**

**E21B EARTH DRILLING, e.g. DEEP DRILLING** (mining, quarrying [E21C](#); making shafts, driving galleries or tunnels [E21D](#)); **OBTAINING OIL, GAS, WATER, SOLUBLE OR MELTABLE MATERIALS OR A SLURRY OF MINERALS FROM WELLS**

#### WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
 

<a href="#">E21B 7/08</a>	covered by	<a href="#">E21B 7/06</a>
<a href="#">E21B 43/22</a>	covered by	<a href="#">C09K 8/58</a>
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

**E21C MINING OR QUARRYING**

#### NOTES

1. This subclass covers methods or apparatus specific to mining or quarrying

E21C  
(continued)

2. This subclass does not cover, even though they may be disclosed only for mining or quarrying, drill bits, bore reamers, core taking devices, drilling pipes or rods, handling, racking or connecting arrangements for drilling pipes or rods, counterboring or enlarging drilled holes, flame drilling, or other drilling apparatus, which are covered by subclass [E21B](#)

**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

E21D

**SHAFTS; TUNNELS; GALLERIES; LARGE UNDERGROUND CHAMBERS** (soil-conditioning or soil-stabilising materials [C09K 17/00](#); drilling or cutting machines for mining or quarrying [E21C](#); safety devices, transport, rescue, ventilation or drainage [E21F](#))

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
- |                             |            |   |
|-----------------------------|------------|---|
| <a href="#">E21D 13/02</a>  | covered by | <a href="#">E21D 13/00</a>                                |
| <a href="#">E21D 13/04</a>  | covered by | <a href="#">E21D 13/00</a>                                |
| <a href="#">E21D 15/582</a> | covered by | <a href="#">E21D 15/58</a>                                |
| <a href="#">E21D 15/59</a>  | covered by | <a href="#">E21D 15/44</a> , <a href="#">E21D 15/58</a>   |
| <a href="#">E21D 17/022</a> | covered by | <a href="#">E21D 17/02</a>                                |
| <a href="#">E21D 17/05</a>  | covered by | <a href="#">E21D 17/0206</a> , <a href="#">E21D 17/04</a> |
| <a href="#">E21D 17/054</a> | covered by | <a href="#">E21D 17/04</a>                                |
| <a href="#">E21D 19/06</a>  | covered by | <a href="#">E21D 19/02</a> , <a href="#">E21D 19/04</a>   |
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

E21F

**SAFETY DEVICES, TRANSPORT, FILLING-UP, RESCUE, VENTILATION, OR DRAINING IN OR OF MINES OR TUNNELS**

**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

E99

**SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

E99Z

**SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

**NOTE**

- This subclass covers subject matter that:
- a. Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and

b. Is not explicitly covered by any subclass of another section.