

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

*This place covers:*

Man-made devices for using or controlling natural bodies of water;

Artificial bodies of water.

**E02B 1/00**

**Equipment or apparatus for, or methods of, general hydraulic engineering{, e.g. protection of constructions against ice-strains (protection of offshore constructions against ice-loads [E02B 17/0021](#); ice-structures as artificial islands [E02B 17/028](#))}**

**Definition statement**

*This place covers:*

Big scale hydraulic projects for controlling water or water level (groundwater, seawater, rivers, lakes) and small scale models for such projects.

Methods and devices relating to use or control of ice, e.g. protection against ice strains or use of ice formation.

Small-scale models for modelling big scale projects.

**References****Limiting references**

*This place does not cover:*

Protection of offshore constructions against ice-loads	<a href="#">E02B 17/0021</a>
Ice-structures as artificial islands	<a href="#">E02B 17/028</a>
Computer-models of water flow	<a href="#">G06F</a>

**E02B 3/00**

**Engineering works in connection with control or use of streams, rivers, coasts, or other marine sites (barrages or weirs [E02B 7/00](#)); Sealings or joints for engineering works in general**

**Definition statement**

*This place covers:*

Protecting, maintaining or preparing waterways or the border between water and land for use.

**Relationships with other classification places**

Garden ponds per se are classified in [A01K 63/00](#), the constructional features of ponds are classified in [E02B 3/00](#).

## References

### Limiting references

*This place does not cover:*

Barrages or weirs	<a href="#">E02B 7/00</a>
Methods or apparatus for dredging	<a href="#">E02F</a>
Drilling	<a href="#">E21B</a> , <a href="#">E21D</a>

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Garden ponds	<a href="#">A01K 63/00</a>
Foundations under water or at the border between land and water	<a href="#">E02D</a>

## E02B 3/04

**Structures or apparatus for, or methods of, protecting banks, coasts, or harbours ( {[E02B 1/003](#) takes precedence;} sealing or joints [E02B 3/16](#) )**

### Definition statement

*This place covers:*

Structures for protection against beach erosion, in general not completely submerged, but close to shoreline;

Flood protection devices.

## References

### Limiting references

*This place does not cover:*

Sealings or joints	<a href="#">E02B 3/16</a>
Artificial reefs specially adapted to fish farming	<a href="#">A01K</a>
Flood protection for buildings	<a href="#">E04H 9/145</a>
Flood protection for building openings	<a href="#">E06B 9/00</a>

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Breakwaters, which may be similar in construction and effect, but are generally completely submerged in use	<a href="#">E02B 3/06</a>
Sand bags	<a href="#">E02B 3/127</a>

## Special rules of classification

Protection by mechanically induced liquid or gas streams is classified in [E02B 1/003](#) and takes precedence.

## Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Quay wall	fixed construction forming the coast line for mooring boats
Groyne	breakwater perpendicular to coast line
Breakwater	construction for coast protection, generally positioned underwater
Pier	fixed construction on pillars perpendicular to coast line
Mole	massive construction perpendicular to coast line

## E02B 3/12

Revetment of banks, dams, watercourses, or the like, {e.g. the sea-floor} (of slopes in general [E02D 17/20](#))

### Definition statement

*This place covers:*

Devices for covering water borders or the sea floor for protection.

### Relationships with other classification places

Revetment of slopes for other purposes, e.g. roadsides, are classified in [E02D](#).

### References

#### Informative references

Attention is drawn to the following places, which may be of interest for search:

Gabions with vegetation for sound protection	<a href="#">E01F 8/025</a>
Placing concrete under water	<a href="#">E02D 15/06</a>
Gabions in general	<a href="#">E02D 29/0208</a>

### Special rules of classification

Methods are classified in the group of the corresponding product.

## E02B 3/20

Equipment for shipping on coasts, in harbours or on other fixed marine structures, e.g. bollards (tying-up, anchoring [B63B 21/00](#), e.g. bollards for shipping [B63B 21/06](#); buoys [B63B 22/00](#)); equipment specially adapted for use in locks or dry docks [E02C 1/10](#))

### Definition statement

*This place covers:*

Devices on shore or fixed in the water for accommodating ships.

## References

### Limiting references

*This place does not cover:*

Similar devices mounted on ships	<a href="#">B63B</a>
Anchoring of ships	<a href="#">B63B 21/00</a>
Buoys	<a href="#">B63B 22/00</a>
Equipment specially adapted for use in locks or dry docks	<a href="#">E02C 1/10</a>

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Bollards	<a href="#">B63B 21/06</a>
Access bridges for ships	<a href="#">E01D 15/24</a>
Net barriers for harbour defence	<a href="#">F41H 11/05</a>

## E02B 5/00

**Artificial water canals, {e.g. irrigation canals} (for water-power plants  
[E02B 9/02](#); irrigation of soil [E02B 13/00](#))**

### Definition statement

*This place covers:*

Constructional aspects of canals, e.g. irrigation canals or water traffic canals.

## References

### Limiting references

*This place does not cover:*

Water ways for water power plants	<a href="#">E02B 9/02</a>
Irrigation of soil	<a href="#">E02B 13/00</a>

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Placing concrete under water	<a href="#">E02D 15/06</a>
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## E02B 5/08

**Details, e.g. gates, screens**

### Definition statement

*This place covers:*

Devices used in free flow canals for enhancing usability of the canal.

## References

### Limiting references

*This place does not cover:*

Arresting devices with endlessly moving parts	<a href="#">E02B 8/026</a>
Mechanical filtering in general	<a href="#">B01D 29/00</a> , <a href="#">B01D 33/00</a>
Arresting devices with Archimedean screw	<a href="#">E03F 5/14</a>

## E02B 5/085

{Arresting devices for waterborne materials, e.g. gratings (fish barrages [E02B 1/006](#); removing sediments [E02B 3/023](#); arresting oil or similar pollutants [E02B 15/08](#); for waste water purification [E02F](#); in sewers [E03F 5/14](#))}

### Definition statement

*This place covers:*

Gratings without moving parts for separating solid materials from water or sewage.

## E02B 7/00

Barrages or weirs; Layout, construction, methods of, or devices for, making same (for protecting banks, coasts, or harbours [E02B 3/04](#); sealings or joints [E02B 3/16](#); handling building or like materials for hydraulic engineering [E02D 15/00](#); foundations in general [E02D 27/00](#))

### Definition statement

*This place covers:*

Devices placed perpendicularly to stream direction for controlling or temporarily interrupting water flow.

## References

### Limiting references

*This place does not cover:*

Devices for protection of coasts, banks or harbours	<a href="#">E02B 3/04</a>
High water or flood control devices alongside the river bank	<a href="#">E02B 3/10</a>
Sealings or joints specially adapted for hydraulic engineering	<a href="#">E02B 3/16</a>
Foundations in general	<a href="#">E02D</a>

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Handling material for hydraulic engineering	<a href="#">E02D 15/00</a>
Making embankments	<a href="#">E02D 17/18</a>

### Special rules of classification

[E02B 7/205](#): automatically functioning barrages, the automatic functioning being essential. Those devices are also classified in the respective subclass [E02B 7/26](#) -[E02B 7/50](#) relating to their form.

## E02B 8/00

**Details of barrages or weirs (cleaning or keeping clear the surface of open water [E02B 15/00](#)); Energy dissipating devices carried by lock or dry-dock gates}**

### Definition statement

*This place covers:*

Subparts of barrages or of the water body created by a barrage, devices for maintaining functioning of barrage or body of water; e.g. energy dissipating devices carried by lock or dry-dock gates.

### References

#### Limiting references

*This place does not cover:*

Removing sediments from natural waterways	<a href="#">E02B 3/023</a>
Cleaning or keeping clear the surface of open water	<a href="#">E02B 15/00</a>

#### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Filters with moving filtering elements	<a href="#">B01D 33/00</a>
Devices for removing solid materials from water using archimedian screws for transporting the removed material out of the canal	<a href="#">E03F 5/14</a>

### Special rules of classification

Devices for controlling sedimentation within flowing water, devices for removing sediments from bodies of water behind barrages are classified in [E02B 8/02](#).

Filtering devices for water and sewage having endlessly moving parts are classified in [E02B 8/026](#).

## E02B 9/00

**Water-power plants; Layout, construction or equipment, methods of, or apparatus for, making same**

### Definition statement

*This place covers:*

Constructional aspects of water power plants and their related water bearing parts.

### References

#### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Hydraulic motors	<a href="#">F03B</a>
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Power stations with machines or engines for liquid	<a href="#">F03B 13/00</a>
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### Special rules of classification

Documents with details of means for energy production should also to be classified in subclass [F03B](#).

## E02B 11/00

**Drainage of soil, e.g. for agricultural purposes {(draining sports grounds [E01C 13/083](#); for consolidating foundation soil, e.g. sand drain piles [E02D 3/10](#))}**

### Definition statement

*This place covers:*

Methods and devices for horizontal drainage of ground in general.

### References

#### Limiting references

*This place does not cover:*

Improving or stabilising soil by managing underground water flow	<a href="#">E02D 3/00</a>
Drainage of sewage into the ground	<a href="#">E03F 1/002</a>

#### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Perforated pipes for irrigation	<a href="#">A01G</a>
Draining sports grounds	<a href="#">E01C 13/083</a>
Constructional features of pipes, pipe-laying	<a href="#">F16L</a>

## E02B 13/00

**Irrigation ditches, i.e. gravity flow, open channel water distribution systems {(retaining waterborne material in irrigation canals [E02B 5/085](#)}; other distribution systems for watering or spraying gardens, fields, sports grounds, or the like, [A01G 25/00](#); {built-in irrigation means for sports grounds [E01C 13/083](#))}**

### Definition statement

*This place covers:*

Open free flow water channels for irrigation;

Devices for sequential water distribution, e.g. between several irrigation channels or seepage drains.

## References

### Limiting references

*This place does not cover:*

Retaining waterborne material in irrigation canals	<a href="#">E02B 5/085</a>
Other irrigation methods and systems, e.g. for agriculture, horticulture	<a href="#">A01G 25/00</a>
Built-in irrigation systems for sports fields	<a href="#">E01C 13/083</a>
Open sewage channels	<a href="#">E03F 3/046</a>

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Retaining waterborne material in irrigation canals	<a href="#">E02B 5/085</a>
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## E02B 15/00

**Cleaning or keeping clear the surface of open water; Apparatus therefor (construction of ships or other waterborne vessels [B63B](#), e.g. vessels specially adapted for collecting pollution from open water [B63B 35/32](#); in swimming or splash baths or pools [E04H 4/16](#))**

### Definition statement

*This place covers:*

Floating barriers and devices for controlling and/or collecting oil pollution on open water surfaces, e.g. sea, harbours, lakes, rivers).

## References

### Limiting references

*This place does not cover:*

Separation in general	<a href="#">B01D</a>
General constructional aspects of waterborne vessels	<a href="#">B63B</a>
Emptying sunken ships	<a href="#">B63C 7/006</a>
Covering oil spills on well heads	<a href="#">E21B 43/0122</a>

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Constructional features of waterborne vessels specially adapted for collecting pollution from open water	<a href="#">B63B 35/32</a>
Cleaning of water in swimming or splash baths or pools	<a href="#">E04H 4/16</a>



## E02B 17/00

Artificial islands mounted on piles or like supports, e.g. platforms on raisable legs {or offshore constructions}; Construction methods therefor ({construction methods for floating platforms [B63B 9/065](#)}; anchoring floating platforms [B63B 21/00](#); floating platforms, e.g. anchored, [B63B 35/44](#); {underwater reservoirs [B65D 88/78](#)})

### Definition statement

*This place covers:*

Constructional features of ground-based offshore constructions;

Method for their installation or removal.

### References

#### Limiting references

*This place does not cover:*

Construction methods for floating platforms	<a href="#">B63B 9/06</a>
Anchoring floating platforms	<a href="#">B63B 21/00</a>
Floating or semi-submersible offshore platforms	<a href="#">B63B 35/44</a>
Constructional features of underwater reservoirs	<a href="#">B65D 88/78</a>

#### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Subsea foundations	<a href="#">E02D 27/00</a>
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