

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](#))

Definition statement

This place covers:

Outdoor pavements and their foundations:

- General design or layout of roads;
- Paving made of prefabricated single units;
- Coherent paving made in situ;
- Special paving;
- Details of paving;
- Paving or foundation specially adapted for playgrounds or sports grounds;
- Paving specially adapted for footpaths, sidewalks or cycle tracks;
- Pavements lights.

Machines and methods for making, placing, working or repairing road surfacing and its foundations.

References

Limiting references

This place does not cover:

Bridges	E01D
Equipments for roads; traffic islands; drainage of the sub-base of roads	E01F
Forming roads or like surfaces by compacting or grading snow or ice	E01H

Informative references

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

Foundations in general	E02D
Dredging; Soil shifting	E02F
Indoor flooring	E04F

Special rules of classification

Further details of paving elements not covered by the groups [E01C 5/00](#), [E01C 9/00](#) and [E01C 11/00](#), e.g. spacing features, interlocking, joining or drainage details are additionally classified in [E01C 2201/00](#).

Further machine characteristics, parts or accessories not covered by the groups [E01C 19/00](#), [E01C 21/00](#), [E01C 23/00](#), i.e. feeding devices for pavers, heated screeds, extendable screeds, screed or paver accessories and cabin details are additionally classified in [E01C 2301/00](#).

Outdoor paving surfaces made of, or comprising synthetic grass are always classified in [E01C 13/08](#), even when not disclosed as being adapted for sports.

E01C 1/00

Design or layout of roads, e.g. for noise abatement, for gas absorption (design or layout of sports grounds [A63C 19/00](#); design or layout of airfields [B64F](#) {, of helicopter landing stages [E01F 3/00](#)})

Definition statement

This place covers:

General layout of roads incl.

- street systems and cross-sections of roads, as well as
- special road design for noise abatement or for compelling drivers to slow down,
- arrangements for gas absorption and
- road crossings.

References

Limiting references

This place does not cover:

Design or layout of sports grounds	A63C 19/00
Design or layout of airfields	B64F
Construction of traffic islands	E01F 1/00
Design or layout of helicopter landing stages	E01F 3/00
Speed bumps	E01F 9/529
Ventilation of tunnels	E21F 1/00

E01C 1/002

{Design or lay-out of roads, e.g. street systems, cross-sections ([E01C 1/005](#), [E01C 1/007](#) take precedence; of footpaths, sidewalks, berms, hard shoulders or cycle tracks [E01C 15/00](#)); Design for noise abatement, e.g. sunken road (reducing transmission of structure-born noise [E01C 3/06](#); arrangement of means for absorbing surfacings see the groups for the respective surfacings; other arrangements for absorbing or reflecting air transmitted road traffic noise, e.g. barriers [E01F 8/00](#))}

References

Limiting references

This place does not cover:

Arrangements for absorbing or reflecting air transmitted road traffic noise, e.g. barriers	E01F 8/00
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E01C 1/005

{Means permanently installed along the road for removing or neutralising exhaust gases (collecting exhaust gases with central suction systems, e.g. in workshops or tunnels, [B08B 15/002](#))}

References

Limiting references

This place does not cover:

Ventilation of tunnels	E21F 1/00
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E01C 1/007

{Design or auxiliary structures for compelling drivers to slow down or to proceed with caution, e.g. tortuous carriageway; Arrangements for discouraging high-speed or non-resident traffic (decelerating or arresting surfacings [E01C 9/007](#); road surface configuring or surface arrangements for enforcing reduced speed or required caution, e.g. speed-control humps [E01F 9/529](#))}

References

Limiting references

This place does not cover:

Vehicle decelerating or arresting surfacings	E01C 9/007
Speed bumps	E01F 9/529

E01C 3/00

Foundations for pavings (specially adapted for playgrounds or sports grounds [E01C 13/02](#); foundations in general [E02D](#))

Definition statement

This place covers:

Arrangements of foundations; Use of special materials for building up the foundation layers of the road; Protecting foundations from destructive influences.

Relationships with other classification places

[E01C 3/02](#) is not used: Concrete base for bituminous paving made in situ is usually classified in [E01C 7/32](#) and in the relevant sub-groups of [E01C 7/08](#).

References

Limiting references

This place does not cover:

Prefabricated foundation elements for prefabricated paving elements	E01C 5/001 , E01C 5/085 , E01C 5/223
Foundations specially adapted for playgrounds or sports grounds	E01C 13/02

Draining the subbase of roads	E01F 5/00
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Informative references

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

Apparatus or processes for surface stabilisation for road building	E01C 21/00
Stabilising soil under existing surfacing	E01C 23/10
Soil-conditioning or soil-stabilising materials	C09K 17/00
Foundations in general	E02D

Special rules of classification

[E01C 3/02](#) is not used.

E01C 5/00

Pavings made of prefabricated single units (specially adapted for playgrounds or sports grounds [E01C 13/04](#), for footpaths, sidewalks or cycle tracks [E01C 15/00](#); making artificial stones [C04B](#); building stones [E04C](#); flooring [E04F](#))

Definition statement

This place covers:

The covering of roads or sidewalks consisting of prefabricated single units:

- paving units characterised by their materials;
- reinforced paving units;
- paving units characterised by the material used for beds or joints or characterised by the way of laying.

Prefabricated foundation elements and individual couplings for these paving units.

Relationships with other classification places

Prefabricated paving units for sidewalk are generally classified here if they concern paving slabs for forming the surface covering the sidewalk; if they concern special paving elements or sets for forming the sidewalk itself, then they should be classified in [E01C 15/00](#).

References

Limiting references

This place does not cover:

Gratings	E01C 9/10
Prefabricated paving units specially adapted for playgrounds or sports grounds	E01C 13/04
Prefabricated pavings specially adapted for footpaths, sidewalks or cycle tracks and not being simple paving slabs (for example prefabricated elements for forming elevated sidewalks).	E01C 15/00

Informative references

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

Special paving	E01C 9/00
Shaping cementitious materials incl. moulds	B28B
Working stone	B28D
Shaping plastic materials incl. moulds	B29C
Making artificial stones	C04B
Structural elements for building incl. building blocks or building slabs	E04C
Indoor flooring	E04F 15/00

Special rules of classification

Paving elements consisting of material not defined or consisting of several possible different materials should be classified in [E01C 5/00](#).

Paving elements consisting of at least two different materials in one element, e.g. rubber topping over concrete layer, should be classified in [E01C 5/22](#).

Details within the paving unit itself concerning special surface design, special paving arrangements, drainage or interconnection should also be classified in [E01C 2201/00](#).

E01C 7/00

Coherent pavings made in situ (specially adapted for playgrounds or sports grounds [E01C 13/06](#); for footpaths, sidewalks or cycle tracks [E01C 15/00](#))

Definition statement

This place covers:

Roads surfaces including road toppings, consisting of coherent paving made at the place of use, the road surfaces being made of road-metal with or without binders or by subjecting soil to stabilisation.

Repairing of concrete or bituminous roads.

Relationships with other classification places

Foundations for paving made in situ are usually classified in [E01C 3/00](#), except of concrete base foundation for bituminous paving, which is classified in [E01C 7/32](#) and in the relevant sub-groups of [E01C 7/08](#).

If the chemical aspect of the composition of the concrete or bituminous paving layer is relevant it should normally belong to [C04B](#) or [C08L 95/00](#) and not to [E01C 7/00](#).

References

Limiting references

This place does not cover:

Foundations for roads	E01C 3/00
Individual units made from concrete cast in situ	E01C 9/001
Coherent pavings made in situ specially adapted for playgrounds or sports grounds	E01C 13/06

Coherent pavings made in situ specially adapted for footpaths, sidewalks or cycle tracks	E01C 15/00
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Informative references

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

Foundations made by soil stabilisation	E01C 3/04
Methods or material for repairing pavings in general	E01C 11/00
Reinforcements in roads	E01C 11/16 , E01C 11/18
Devices for preparing or distributing paving materials, for working the placed materials, or for forming, consolidating, or finishing the paving	E01C 19/00
Apparatus or processes for surface stabilisation for road building	E01C 21/00
Auxiliary devices for constructing, repairing, reconditioning, or taking-up road surfaces	E01C 23/00
Cement like composition	C04B
Bituminous composition	C08L 95/00
Soil stabilising materials	C09K 17/00

Special rules of classification

Classes [E01C 7/20](#), [E01C 7/22](#) and [E01C 7/24](#) are not used.

If the coherent paving is made of courses of different kind made in situ, it should be classified in [E01C 7/32](#), except for thin intermediate or thin surface layers such as surface dressing, which should be classified in the relevant sub-groups of [E01C 7/35](#).

Glossary of terms

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

Road-metal	Aggregate
Coherent paving	Paving made of a mass of cohering material

E01C 9/00

Special pavings (specially adapted for playgrounds or sports grounds [E01C 13/00](#), for footpaths, sidewalks or cycle tracks [E01C 15/00](#)); Pavings for special parts of roads or airfields (pavement lights [E01C 17/00](#); manholes or like covers or frames [E02D 29/14](#))

Definition statement

This place covers:

Paving elements poured in situ.

Coverings, the surface of which consists partly of prefabricated units and partly of sections made in situ.

Pavings for special parts of roads or with special functionality, incl.:

- pavings specially adapted for allowing vegetation,
- vehicle decelerating or arresting surfacings,

- paving take-off areas for vertically starting aircraft,
- wheel tracks,
- pavings for railroad level-crossings,
- pavings adjacent tramways rails,
- temporary pavings or
- steel gratings.

Relationships with other classification places

Details of special paving should also be classified in the relevant sub-groups of [E01C 5/00](#), [E01C 11/00](#) and/or [E01C 2201/00](#).

References

Limiting references

This place does not cover:

Paving specially adapted for playgrounds or sports grounds	E01C 13/00
Paving specially adapted for footpaths, sidewalks or cycle tracks	E01C 15/00
Pavement lights	E01C 17/00
Removable forms or shutterings for road-building purposes	E01C 19/50
Bridge deck gratings	E01D 19/125
Speed control bumps	E01F 9/529
Manhole or like covers or frames	E02D 29/14
Gully gratings	E03F 5/06

Informative references

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

Protecting plants (trees) in general	A01G 13/00
Moulds and cores for cementitious compositions	B28B 7/00
Machines or methods for applying material to surfaces to form a permanent layer thereon	B28B 19/00
Arresting surface arrangements for aircrafts	B64F 1/02
Rail tracks for guiding vehicles	E01B 25/28
Landing platform for helicopters	E01F 3/00
Revetment of banks, dams, water-courses	E02B 3/12
Indoor flooring	E04F 15/00
Foot scrapers	E04F 19/10

E01C 11/00

Details of pavings {([E01C 1/005](#), [E01C 5/003](#), [E01C 5/005](#), [E01C 7/145](#), [E01C 7/185](#), [E01C 7/325](#) take precedence)}

Definition statement

This place covers:

Methods or materials for repairing paving.

Details of paving incl.:

- joint constructions,
- reinforcements,
- gutters and kerbs and
- methods for preventing slipperiness on roads, including permanently installed heating devices.

Relationships with other classification places

Gutters for roads are normally classified in the relevant sub-groups of [E01C 11/22](#), but if the invention relates to gully gratings, gullies adapted to be used with kerbs or interconnections of pipes with gutters, then it should be classified in [E03F](#).

Methods or arrangements for preventing slipperiness or protecting against influences of the weather are normally classified in [E01C 11/24](#) if they concern methods or arrangements applying within the paving itself, such as use of special additives to the paving material or permanently installed heating elements. If they concern methods or arrangements applying on the surface such as spreading gripping or thawing materials, then they should be classified in [E01H 10/00](#) or in [E01C 19/20](#) if they concern spreading machines for wintry services, which are not specially adapted for treating wintry roads but could also be used for spreading other materials.

References

Limiting references

This place does not cover:

Tactile arrangements on paving surface for the visually impaired	A61H 3/066
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E01C 11/005

{Methods or materials for repairing pavings ([E01C 7/35](#) takes precedence; for concrete coverings [E01C 7/147](#); for bituminous coverings [E01C 7/187](#); devices for repair works [E01C 23/06](#); repairing bridge floorings [E01D 22/00](#))}

References

Limiting references

This place does not cover:

Methods or materials for repairing specific concrete paving	E01C 7/147
Methods or materials for repairing specific bituminous paving	E01C 7/187
Repairing bridge floorings	E01D 22/00

Informative references

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

Devices for repairing the surface of roads	E01C 23/06
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E01C 11/02

Arrangement or construction of joints {(for pavings consisting of prefabricated units [E01C 5/00](#))}; Methods of making joints {(machines therefor [E01C 23/02](#), [E01C 23/09](#); removable joint shutterings [E01C 23/021](#))}; Packing for joints (sealing joints not restricted to road or airfield paving [E04B 1/68](#))

References**Limiting references**

This place does not cover:

Prefabricated paving characterised by the material used for joints	E01C 5/003
Bridge joints	E01D 19/06

Informative references

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

Machines for making joints	E01C 23/02 , E01C 23/09
Removable joint shuttering	E01C 23/021
Sealing joints for buildings and the like	E04B 1/68

E01C 11/16

Reinforcements ({as anchoring elements between layers [E01C 7/145](#), [E01C 7/185](#), [E01C 7/325](#)} ; for building in general [E04C](#))

References**Limiting references**

This place does not cover:

Reinforced paving elements	E01C 5/08 , E01C 5/10
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Informative references

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

Bituminated textile webs	E01C 5/12
Removable holder for dowel	E01C 23/045
Reinforcements for building in general	E04C 5/00

E01C 11/22

**Gutters; Kerbs (kerbs specially adapted for alerting road users [E01F 9/535](#))
{; Surface drainage of streets, roads or like traffic areas (for sports grounds [E01C 13/00](#))}**

References

Limiting references

This place does not cover:

Kerbs for sport grounds	E01C 13/00
Preformed sidewalk paving with integral kerb	E01C 15/00
Surface drainage of bridges	E01D 19/086
Kerbs specially adapted for traffic islands	E01F 1/00
Draining the sub-base of roads	E01F 5/00
Kerbs for guiding traffic or for display purposes	E01F 9/535
Sewers and surface drainage in general, incl. pipe connections in sewer systems	E03F 5/04 , E03F 3/00
Gully gratings	E03F 5/06

Informative references

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

Edging for beds, lawns, e.g. using tiles	A01G 9/28
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E01C 11/24

Methods or arrangements for preventing slipperiness or protecting against influences of the weather {(measures taken in connection with the foundation [E01C 3/06](#); paving elements with anti-slip inlays [E01C 5/22](#); aggregates resisting to grinding [E01C 7/085](#), [E01C 7/142](#), [E01C 7/182](#); specially for surface layers [E01C 7/35](#); reinforcements extending up to the surface [E01C 11/16](#), [E01C 11/18](#), [E01C 11/185](#); drainage [E01C 11/22](#); windscreens [E01F 7/02](#); snow fences [E01F 7/02](#); combating fog [E01H 13/00](#))}

References

Limiting references

This place does not cover:

Spreading machines for wintry services, if they are not specially adapted for treating wintry roads but could also be used for spreading other materials	E01C 19/20
Thawing materials in general	C09K 3/18
Improving gripping of ice bound or other slippery traffic surfaces by spreading gritting or thawing materials on the surface of the road	E01H 10/00

E01C 13/00

Pavings or foundations specially adapted for playgrounds or sports grounds; {Drainage, irrigation or heating of sports grounds} (general layout [A63C 19/00](#))

Definition statement

This place covers:

Pavings for playgrounds or sports grounds (made of prefabricated single units or in situ) and their foundations, also including:

- construction of rinks or tracks for roller skating or the like;
- construction of grass surfaces (natural grown or synthetic);
- artificial surfaces for outdoor or indoor practice of snow or ice sports.

Relationships with other classification places

Details of paving should also be classified in the relevant sub-groups of [E01C 5/00](#), [E01C 11/00](#) and/or [E01C 2201/00](#), if necessary.

References

Limiting references

This place does not cover:

Golf courses	A63B 69/3691
General layout of sport grounds	A63C 19/00
Mechanical ski trails	A63C 19/10
Race tracks	A63K 1/00

Informative references

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

Layered products in general	B32B
Materials for simulating ice or snow	C09K 3/24
Yarns or threads	D02G 3/44
Drainage of soil in general	E02B 11/00
Indoor sport flooring	E04F 15/00

E01C 15/00

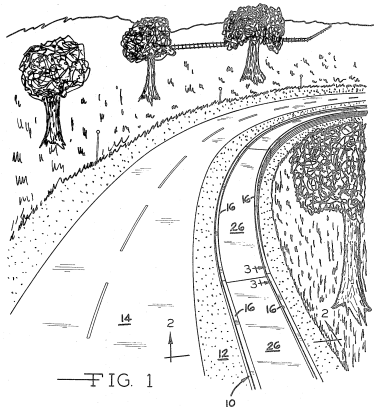
Pavings specially adapted for footpaths, sidewalks or cycle tracks

Definition statement

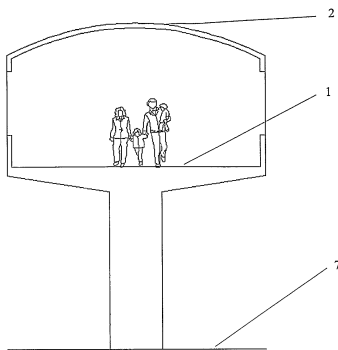
This place covers:

Specially adapted paving elements or systems for footpaths, sidewalks or cycle tracks, such as:

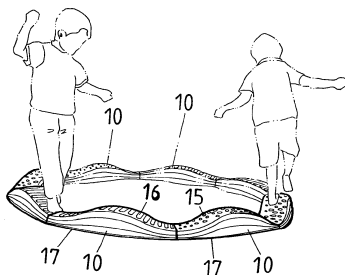
a walkway or cycle track in the countryside, see for example US4176982:



a set of paving elements for constructing an elevated walkway, see for example WO2008025201:



or a tactile walk path, see for example US2009162143:



E01C 17/00

Pavement lights, i.e. translucent constructions forming part of the surface (blocks specially designed for marking roads [E01F 9/524](#))

Definition statement

This place covers:

Lamp constructions incorporated in pavings or paving elements, e.g. paving block or tile.

References

Limiting references

This place does not cover:

Blocks specially designed for marking roads	E01F 9/50
Illuminated advertising or display means on roads	G09F 19/22

Informative references

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

Lamp or lighting constructions in general	F21S , F21V
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E01C 19/00

Machines, tools or auxiliary devices for preparing or distributing paving materials, for working the placed materials, or for forming, consolidating, or finishing the paving (surface stabilisation [E01C 21/00](#); apparatus specially adapted for reconditioning or repairing paving [E01C 23/00](#))

Definition statement

This place covers:

Devices or methods for preparing and/or applying paving material, and/or consolidating and/or finishing the road surface.

Devices for guiding or controlling the machines along a predetermined path.

Removable forms or shutterings for road-building purposes.

Devices or arrangements for forming individual paving elements, e.g. kerbs or by sectioning a freshly laid slab, in situ.

Apparatus for laying individual preformed surfacing elements.

Relationships with other classification places

The devices or methods for placing paving material treat paving material as such and not joint material, curing means, prefabricated underlays, reinforcing elements or traffic markings, which are classified in the relevant sub-groups of [E01C 23/00](#).

The devices or methods for finishing the road surface are devices for smoothing, roughening or patterning freshly laid paving. Devices for working existing road surfaces are classified in [E01C 23/06](#). Devices for making grooves or like channels in not-yet-hardened paving, or for curing, heating or drying paving are classified in the relevant sub-groups of [E01C 23/00](#).

Spreaders for gripping or thawing materials are also classified in the relevant sub-groups of [E01C 19/20](#), if they concern spreaders for wintry services, which are not specially adapted for treating wintry roads but could also be used for spreading other materials. If they are specially adapted for that use, they are classified in [E01H 10/00](#).

References

Limiting references

This place does not cover:

Apparatus or process for surface stabilisation for road building	E01C 21/00
Devices for setting-out or checking the configuration of new surfacing	E01C 23/01
Producing hydraulic cement concrete in general	B28C 5/00 - B28C 9/00
Stationarily-arranged melting boiler for tar or asphalt	C10C 3/12
Smoothing tools for mass made in situ for indoor paving	E04F 21/24

Informative references

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

Apparatus specially adapted for reconditioning or repairing paving	E01C 23/06 , E01C 23/065
Fertiliser distributors	A01C 15/00 , A01C 17/00
Crushing, pulverising or disintegrating in general	B02C
Apparatus for generating vibrations in general	B06B
Spreaders specially adapted for treating wintry roads	E01H 10/00
Compacting soil in general	E02D 3/00
Drives or control devices for graders	E02F 3/84
Drives or control devices for other soil-shifting machines	E02F 9/20

Special rules of classification

Only the sub-groups of [E01C 19/50](#) are used, [E01C 19/50](#) itself is not used.

[E01C 19/20](#) and its lower groups are subdivided by way of spreading. Classifying additional information in [E01C 19/20](#).

E01C 21/00

Apparatus or processes for surface {soil} stabilisation for road building or like purposes, e.g. mixing local aggregate with binder ({recycling in place or on the road involving soil stabilisation [E01C 23/065](#)} ; stabilising soil under existing surfacing [E01C 23/10](#); soil-conditioning or soil-stabilising materials [C09K 17/00](#); soil consolidation in general [E02D 3/12](#))

References

Limiting references

This place does not cover:

Recycling in place or on the road involving soil stabilisation	E01C 23/065
Stabilising soil under existing surfacing	E01C 23/10

Informative references

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

Foundations made by soil stabilisation	E01C 3/04
Road surfaces made by soil stabilisation	E01C 7/36
Soil-conditioning or soil-stabilising materials	C09K 17/00
Soil consolidation in general	E02D 3/12

E01C 23/00

Auxiliary devices or arrangements for constructing, repairing, reconditioning, or taking-up road or like surfaces (apparatus for reconditioning of salvaged non-hydraulic compositions {for- in plant recycling of salvaged bituminous mixtures} [E01C 19/10](#))

Definition statement

This place covers:

Apparatus or methods focussed on work carried out on existing surfaces, like roughening, cutting, reconditioning or marking out.

Devices for setting-out or checking the configuration of new surfacing; Applications of apparatus for measuring, indicating, or recording the surface configuration of existing surfacing.

Devices for making, treating or filling grooves in not-yet-hardened paving; Devices for introducing inserts or removable insert-supports in not-yet-hardened paving.

Arrangements for curing paving; Devices for applying curing means; Devices for laying prefabricated underlay; Protecting paving under construction or while curing.

Devices for laying reinforcing elements or dowel bars; Removable support for reinforcing elements; Devices for making essentially horizontal ducts in paving.

Devices for installing or removing forms.

Devices for heating or drying foundation, paving, or materials thereon.

Relationships with other classification places

Devices for working existing road surfaces are classified in the relevant sub-groups of [E01C 23/06](#). Devices for smoothing, roughening or patterning freshly laid paving are classified in [E01C 19/42](#) - [E01C 19/44](#).

Milling drums for working road surfaces are classified in [E01C 23/088](#); however, if the invention concerns the cutter bits as such, then it should be classified in [B28D 1/186](#).

References**Limiting references**

This place does not cover:

Apparatus for reconditioning of salvaged non-hydraulic compositions for in plant recycling of salvaged bituminous mixtures	E01C 19/10
Marking out playing courts	A63C 19/06
Removing matter not bonded to the road surface	E01H 1/00

Roughening or detaching ice	E01H 5/12
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Informative references

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

In plant recycling	E01C 19/1004 , E01C 19/1036
Working stone or stone-like materials by milling	B28D 1/18
Road surface markings per se	E01F 9/50
Hydraulic cleaning	E01H 1/101
Measuring in general	G01B

Special rules of classification

Filling potholes is classified in [E01C 23/06](#) if the potholes are filled with new material, and in [E01C 23/065](#) if the potholes are filled with material which has been reprocessed in place.