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DOSSIERS DE PROJET DE DÉFINITION DE LA CIB

MECHANICAL FIELD/
DOMAINE DE LA MÉCANIQUE

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **A44B** **DOMAINE DE LA CIB :**
RAPPORTEUR : **US**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	US	06-FEB-01
2	Comments	Commentaire	CA	06-FEB-01
3	Comments	Commentaire	RO	06-FEB-01
4	Comments	Commentaire	NL	06-FEB-01
5	Comments	Commentaire	EP	06-FEB-01
6	Rapporteur proposal	Proposition du rapporteur	US	06-FEB-01
7	Proposal	Proposition	US	28-AUG-01
8	Comments	Commentaire	JP	01-OCT-01
9	Comments	Commentaire	EP	02-OCT-01
10	Comments	Commentaire	RO	03-OCT-01
11	Comments	Commentaire	SE	25-OCT-01
12	Comments	Commentaire	GB	25-OCT-01
13	Rapporteur report	Rapport du rapporteur	US	16-JAN-02
14	Rapporteur proposal	Proposition du rapporteur	US	16-JAN-02
15	Comments	Commentaire	FR	07-FEB-02
16	Comments	Commentaire	EP	15-FEB-02
17	Comments	Commentaire	RO	04-MAR-02

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Rapporteur report	Rapport du rapporteur	US	29-MAY-02
19	Rapporteur proposal	Proposition du rapporteur	US	29-MAY-02
20	Proposal	Proposition	US	29-MAY-02
21	Comments	Commentaire	EP	28-OCT-02
22	Rapporteur report	Rapport du rapporteur	US	04-MAR-03
23	Rapporteur proposal	Proposition du rapporteur	US	04-MAR-03

United States Patent and Trademark Office

Project: D012 Subclass – A44B Date: March 3, 2003

RAPPORTEUR REPORT

Rapporteur has placed the modified definition (Annex 19) into the new format based on the finally approved "Guidelines for Drafting Classification Definitions" in IPC/WG/8/8, Annex F. Rapporteur has included within the newly proposed definition all changes that were recommended in the Rapporteur Report of Annex 18 and some additional modifications based on EP's last comments. EP (Annex 21) made comments on the last proposal (Annex 19) for a subclass definition of A44B.

In view of EP's comments, Rapporteur changed the synonyms section and removed the example from the defined term "slide fastener". Rapporteur did not alter the defined term "pin" since it is correct, but did add an additional limiting reference to 'thumbtacks' to exclude this art from the subclass. Of course 'drawing-pins' were already clearly excluded.

The defined term "buckles" was altered slightly to clarify it and the alternative related term in the definition has been changed to "strap fasteners" to make it less confusing. However, Rapporteur believes that the EP expert's comments on the use of the secondary term 'strap fasteners' as messy and misleading are incorrect. Rapporteur's suggested solution exactly parallels the solution used in the title of main group 11/00 by the WG and is required for exactly the same reasons. Having over the years reviewed the claims of several thousand patent documents covering fasteners for strap ends, Rapporteur believes that it would be absolutely impossible to expand the meaning of the term 'buckle' to cover all of the patent documents placed in main group 11/00 as suggested by EP's expert. However, Rapporteur suggests that EP present an alternative definition for buckle, hopefully one that does not define the buckle using the term buckle, if the modifications suggested by Rapporteur are not adequate.

Rapporteur has deleted the informative reference to A61B as requested by EP.

Finally, Rapporteur strongly disagrees with EP's position that the scope of the subclass has been significantly widened. Nevertheless, Rapporteur did modify the "other types" of fastener definition and note to clarify them. In Rapporteur's opinion, the definition of this subclass clearly states the actual scope of the groups in its scheme and the patent documents placed into those groups by several Offices. The subclass' boundaries have been adequately contained using limiting references and this is the only method that can be used for residual or general subclasses. For example, all of the additional FI groups that JP included in this subclass are now clearly proper for it and at least the vast majority of ECLA groups (I don't think A44B 15/00C does fit) included by EP. Based on the art included in this subclass by other Offices, Rapporteur believes its scope is now correct.

Title – A44B

Buttons, pins, buckles, slide fasteners, or the like

Definition statement

This subclass covers:

The following fasteners or their essential parts:

- Buttons
- Pins
- Buckles or strap fasteners that are actuated or operated directly by hand and intended to releasably connect either (1) the ends of a single web or strap or (2) the ends of two or more webs or straps together (e.g., safety belt buckles).
- Slide fasteners
- 'Other types' of fasteners that are actuated or operated directly by hand and frequently utilized or associated with accoutrements, garments, or haberdashery (e.g., snap fasteners, collar-studs). Appropriate 'other types' of fasteners must also be readily reusable and their normal securing or releasing operation not destructive or damaging to either the fastener itself or the structure it secures.

Making slide fasteners, touch-and-close fasteners (e.g., VELCRO ®, hook-and-loop, barb-and-pile fabrics), and other fasteners of this subclass.

Accessories or ancillary devices for the fasteners of this subclass when they are used exclusively with one of the varieties of fasteners (e.g., button cards) or have their operations either influencing or being influenced by the operation of the fastener (e.g., slide fastener pulling cords).

The following additional devices associated with either the fasteners of this class or accoutrements, garments, and haberdashery:

- key rings,
- clamping or holding devices, and
- mock-fastening devices that merely look like the fasteners, or one of their essential parts, of this subclass but do not function as fasteners (e.g., ornamental buttons on coats, fake zippers on clothing).

Note. The only 'other types' of fasteners appropriate for this subclass are those that are capable of use with or actually used with accoutrements, garments, or haberdashery. Therefore, it must be either a commonly known practice to use a particular type of fastener with accoutrements, garments, or haberdashery (e.g., snap fasteners) or the patent documents for a particular type of fastener must frequently disclose their use with accoutrements, garments, or haberdashery. However, it is not required that all, or even the majority, of the fasteners covered by a particular category of fastener be specially adapted for use, or disclose their intended use, with accoutrements, garments, or haberdashery.

Relationships between large subject matter areas (e.g. special rules of classification between subclasses)

General relationship of A44B with F16B

Fasteners per se that either (a) require a tool for completing their normal fastening (e.g., screws, nails, stitches) or (b) are destroyed or destructively deformed to fasten or unfasten (e.g., staples, rivets) are excluded from

A44B. These fasteners per se are covered by F16B or other subclasses specifically providing for them (e.g., B23K).
However, when F16B types of fasteners or other tool driven or deformed fasteners are used to mount fasteners or fastener components appropriate for A44B, and are attached to or cooperate with at least one of their components, they are properly classified within A44B as an additional feature of the fasteners with which they are utilized.

General relationship of A44B with subclasses for accoutrements, garments, or haberdashery

Fasteners appropriately classified within A44B are often broadly claimed or disclosed in combination with the structure they secure or fasten. If the detail of the structure they secure or fasten specifies only the portion of the structure (e.g. dress belt tip or holes) necessary for either completing the fastening operation or mounting the fastening means, the combinations are proper for A44B.
If the details of the accoutrements, garments, or haberdashery being secured are more than that needed to complete the fastening operation or mount the fastener, then the combination is appropriate for the accoutrements, garments, or haberdashery subclasses (e.g., A41D, A41F).

References relevant to classification in this subclass

This subclass does not cover:

Fastening devices specially adapted for specific types of garments	A41F
Buttonholes or eyelets for buttonholes	A41F1/02
Corset fasteners	A41F1/04
Glove fasteners	A41F1/06
Garter fasteners	A41F1/08
Belts, girdles, or waistbands for trousers or skirts	A41F9/00
Appliances or methods for marking-out, perforating, or making buttonholes	A41H25/00
Appliances or methods for setting fasteners on garments	A41H37/00
Processing sheet metal, tubes or profiles to make haberdashery	B21D53/46
Processing sheet metal, tubes or profiles to make buttons	B21D53/48
Processing sheet metal, tubes or profiles to make metal slide fasteners parts	B21D53/50
Wire-working to produce devices for fastening (e.g., slide fastener elements, buttons)	B21F45/16
Pressure or injection die casting of slide fasteners and slide fastener parts	B22D17/16
Producing slide fastener elements from plastic or other substances in a plastic state	B29D5/00
Producing buttons or semi-finished button parts from plastic or other substances in a plastic state	B29D19/00
Thumbtacks	B43M15/00
Devices for fastening or securing constructional elements or machine parts together	F16B
Hand-manipulated hooks or eyes (e.g., swivel hook for dog leash)	F16B45/00

Informative references

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

For garments in general	A41D
For protective aprons having fastening devices	A41D13/04
For neckties having fastening or holding devices associated with the knot or collar	A41D25/00
For hats having fastening devices	A42B1/00
For head covering fastening means other than hatpins	A42B7/00
For laces in general and for footwear having fastening devices	A43C
For machines, tools, equipment, or methods for setting fasteners on footwear	A43D100/00
For brooches or clips having decorative or ornamental aspects	A44C1/00
For medals or badges having pin fastening devices	A44C3/00
For hair-holding devices	A45D8/00
For work bench type holding clamps	B25B5/00
For paper clips or like paper fasteners for temporarily attaching sheets together	B42F1/02
For elements specially adapted for fastening, fixing, or finishing upholstery	B68G7/12
For sewing apparatus or machines with mechanism for lateral movement of the needle or the work or both for making ornamental pattern seams, for sewing buttonholes, for reinforcing openings, or for fastening articles (e.g., buttons) by sewing	D05B3/00
For sewing needles	D05B85/00
For hand operated latches or bolts for doors or windows (e.g., door hooks)	E05C

Special rules of classification within this subclass

Decorative mock-fastening devices that do not function as fasteners (e.g., ornamental buttons on coats, fake zippers on clothing), but that look like the fasteners or one of their essential parts covered by A44B, are classified within the main groups of this subclass that provide for the fasteners they are intended to resemble.

Glossary of terms

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

Button	a hand manipulated fastener that includes a rigid or semirigid portion (i.e., button) which is attached (e.g., sewn) to the structure it is intended to fasten or secure (e.g., clothing) in a manner that allows its reorientation by either movement about its attachment or movement of the structure it secures. A button is intended to be used with a complementary opening having a flaccid portion (e.g., buttonholes, looped cords) that forms the second essential part of the fastener.

Buckle	a hand manipulated fastener including engaging or holding means and structure for guiding during fastening, which can selectively hold a cooperating strap or belt that is either the structure secured (e.g., end of a dress belt) or a second portion of the fastener (e.g., securing strap of a backpack flap).
Pin	a hand manipulated fastener that includes both (1) a portion specifically shaped (e.g., pointed) to facilitate impaling of and penetration into the structure fastened or secured and (2) a remaining portion (e.g., head) intended to be manually pushed on that does not penetrate the structure fastened or secured.
Slide fastener	a hand manipulated fastener that includes (1) two, opposed, elongated, configured surfaces that are each attached by mounting means to a secured structure and are intended to directly contact and interlock with each other when fastened and (2) a sliding device that is much shorter in length than the surfaces and which travels along their length to forcibly shift them into or out of interlocking engagement.

Synonyms and Keywords

In patent documents the terms **slide fastener** and **zipper** are often used as synonyms.

In patent documents the terms **cufflink** and **sleeve-link** are often used as synonyms

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **A61B** **DOMAINE DE LA CIB :**
RAPPORTEUR : **US**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	US	01.10.2001
2	Comments	Commentaire	EP	16.10.2001
3	Comments	Commentaire	SE	16.10.2001
4	Rapporteur report	Rapport du rapporteur	US	15.01.2002
5	Rapporteur proposal	Proposition du rapporteur	US	15.01.2002
6	Comments	Commentaire	FR	06.02.2002
7	Comments	Commentaire	EP	15.02.2002
8	Rapporteur report	Rapport du rapporteur	US	22.05.2002
9	Rapporteur proposal	Proposition du rapporteur	US	22.05.2002
10	Proposal	Proposition	US	29.05.2002
11	Rapporteur report	Rapport du rapporteur	US	03.03.2003
12	Rapporteur proposal	Proposition du rapporteur	US	03.03.2003
13	Rapporteur report	Rapport du rapporteur	US	15.01.2004
14	Rapporteur proposal	Proposition du rapporteur	US	15.01.2004
15	Indication of approval		GB	03.02.2004

United States Patent and Trademark Office

Project: D013 Subclass – A61B Date: January 14, 2004

RAPPORTEUR REPORT

Rapporteur has placed the definition into the new format.

Rapporteur received no input on the significant remaining issue that he outlined in the last Rapporteur Report. Since the IB has requested an indication for approval by the Offices by February 27, 2004, Rapporteur was forced to determine the most appropriate modification of the definition without this input.

Therefore, Rapporteur has included within the definition both his proposed additions to the "Relationships Between Large Subject Matter Areas" and the changes to the references that he recommended in the previous Rapporteur Report (i.e., restricted limiting references to both A61H and A61N). Rapporteur also made a few minor editorial changes in the definition for consistency. This project now has no remaining issues.

Rapporteur recommends that the Offices indicate their approval or disapproval based on this last version of the definition by February 27, 2004.

IPC Revision WG – Definition Project US Rapporteur Proposal	Project: D013 Class/subclass: A61B Date : 27/05/04

Title - A61B

Diagnosis;

Surgery;

Identification

Definition statement

This subclass covers:

Apparatus, instruments, implements, or processes that are either specially adapted or intended to be solely utilized for evaluating, examining, measuring, monitoring, studying, or testing particular characteristics and aspects of either living or dead human and animal bodies for medical purposes (i.e., **diagnosis**). Diagnosis consists of scrutinizing the following characteristics or aspects of bodies:

- internal or external portions of the bodies (e.g., lungs),
- abnormal bodily conditions (e.g., sickness, broken bones, detecting foreign bodies, pregnancy),
- mental conditions (e.g., psychotechnics), and
- bodily functions (e.g., heart beat, vision).

Apparatus, instruments, implements, or processes that are either specially adapted or intended to be solely utilized for medical procedures employing physical actions (e.g., laser cutting, pressure of fluid) on portions of human or animal bodies to correct, enhance, or inspect (e.g., autopsies) them for medical purposes (i.e., **surgery**). Surgery consists of the following medical procedures:

- repositioning (e.g. aligning broken bones, opening wounds) parts of bodies,
- stabilizing (e.g., inserting bone pins) to prevent harmful movement of parts of bodies,
- repairing (e.g., fastening skin together, removing cancerous tissue) bodies,
- facilitating the occurrence of naturally occurring bodily functions (e.g., child birth, passing kidney stones) that are out of the ordinary,
- introducing, collecting, or removing cells and organs (e.g., inseminations, tissue sampling, hair transplants, skin grafting, biopsies, organ harvesting) to or from bodies, and
- introducing or taking out foreign objects (e.g., replacement heart valves, bullets) to or from bodies.

Apparatus, instruments, implements, or processes that are either specially adapted or intended to be solely utilized in procedures for identifying individual human beings (e.g., finger printing, by recognition of shape or dimension of body part) using unique characteristics of their bodies (i.e. **identification**).

Adjunct or supplementary means specially adapted for use in, or intended for exclusive use in, diagnosis, surgery, or identification. These adjunct or supplementary means contribute to the effectiveness (e.g., surgical drapes) or safety (e.g., operating gloves) of a medical procedure, but may or may not (e.g., protective covers for scalpels) themselves involve any direct contact with a body.

Components of diagnosis, surgery, or identification means with structural features limiting their usefulness to medical procedures.

Relationship between large subject matter areas

Several subclasses provide for subject matter that is used for 'diagnosis'. The relationship between these subclasses with regard to the type of 'diagnosis' covered by each is as follows:

Subclass A61B provides for diagnosis in general.

A61B also provides for any surgical or identification apparatus or methods when

- the apparatus or methods are combined with diagnosis means or
- the apparatus can be used for diagnosis and either surgery or identification.

A61B additionally provides for any diagnostic apparatus or methods combined with therapy apparatus or method normally covered by subclass A61H or A61N when

- the same apparatus or methods are used for both purposes or
- combined together but only useable separately.

Subclass A61H provides for diagnostic means or steps that are combined with massage and physical therapy apparatus or methods used for the treatment of disease or disability (i.e., an abnormal condition of the body) by utilization of direct mechanical energy; when the diagnostic means or step is used solely for operational feedback purposes to enhance therapy.

Subclass A61N provides for diagnostic means or steps that are combined with medical treatment therapy apparatus or methods used for the treatment of disease or disability by utilization of forms of energy other than direct mechanical energy; when the means or step is used solely for operational feedback purposes to enhance therapy.

References relevant to classification in this subclass

This subclass does not cover:

Tools or instruments for operating on the mouth portion of a human being (e.g., tooth saws)	A61C3/00
Saliva removers combined with instruments for opening or keeping open the mouth (e.g., mouth props, tongue guards, tongue depressors, cheek spreaders)	A61C17/10
Medical instruments, implements, tools, or methods specially adapted so as to limit their usefulness to only animals	A61D
Methods or devices for treatment of eyes, putting in contact lenses, eye surgery, or correcting squinting	A61F9/00
Ear surgery	A61F11/00
Physical therapy apparatus that includes diagnostic feedback means for influencing operation	A61H
Syringes and suction, pumping or atomizing devices for medical use (e.g. cups, breast relievers, irrigators, sprays, powder insufflators, atomizers, inhalers), apparatus for general or local anesthetics, devices or methods for causing a change in the state of consciousness, catheters, dilators, and apparatus for introducing medicines into the body other than orally	A61M

Non-surgical treatment of medical conditions or physical injuries by utilization of forms of energy not directly generated by mechanical apparatus, devices, or means that includes diagnostic feedback means for influencing its operation	A61N
Clinical thermometers for measuring the temperature of body parts	G01K5/00
Methods or arrangements for reading or recognizing patterns, e.g. fingerprints	G06K9/00
Recognizing, identifying, or verifying the identity of human beings by analyzing their voice or speech	G10L17/00

Informative references

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

Operating tables and auxiliary devices for these tables	A61G13/00
Operating chairs	A61G15/00
Apparatus for artificial respiration or heart stimulation	A61H31/00
Containers specially adapted for medical or pharmaceutical purposes	A61J1/00
Devices for administering medicines orally	A61J7/00
Materials for surgical sutures or for ligaturing blood vessels	A61L17/00
Surgical adhesives or cements and adhesives for colostomy devices	A61L24/00
Materials for colostomy devices	A61L28/00
Measuring or testing processes involving enzymes or micro organisms	C12Q1/00
Analyzing samples of biological material	G01N
Obtaining records using waves other than optical waves and viewing such records by using optical means	G03B42/00

Special rules of classification

NONE.

Glossary

NONE.

Synonyms and Keywords

NONE.

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1	Rapporteur proposal	Proposition du rapporteur	US	01.10.2001
2	Comments	Commentaire	EP	16.10.2001
3	Comments	Commentaire	SE	17.10.2001
4	Comments	Commentaire	JP	19.10.2001
5	Rapporteur report	Rapport du rapporteur	US	19.12.2001
6	Comments	Commentaire	FR	06.02.2002
7	Comments	Commentaire	EP	18.02.2002
8	Comments	Commentaire	DE	22.03.2002
9	Rapporteur report	Rapport du rapporteur	US	13.05.2002
10	Rapporteur proposal	Proposition du rapporteur	US	13.05.2002
11	Comments	Commentaire	US	13.05.2002
12	Rapporteur proposal	Proposition du rapporteur	US	27.02.2003
13	Rapporteur report	Rapport du rapporteur	US	27.02.2003
14	Rapporteur proposal	Proposition du rapporteur	US	27.02.2003
15	Comments	Commentaire	SE	15.09.2003
16	Rapporteur report	Rapport du rapporteur	US	15.01.2004
17	Rapporteur proposal	Proposition du rapporteur	US	15.01.2004

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18	Comments	Commentaire	GB	03.02.2004
19	Rapporteur proposal	Proposition du rapporteur	US	13.02.2004
20	Indication of approval		GB	18.02.2004

IPC Revision WG – Definition Project US Rapporteur Proposal	Project: D014 Class/subclass: A61N Date : 27/05/04

Title - A61N

Electrotherapy;

Magneto-therapy;

Radiation therapy;

Ultrasound therapy

Definition statement

This subclass covers:

Specially adapted apparatus, instruments, devices, or processes for the following types of therapy:

- electrotherapy,
- magneto-therapy,
- radiation therapy,
- ultrasound therapy, and
- All other types of therapy utilizing particular forms of energy other than direct mechanical energy (e.g., iontophoresis) that are not specifically provided for elsewhere in another subclass.

Components having specialized structural features that limit their use to the apparatus, instruments, or devices for the types of therapy appropriate for this subclass.

Relationship between large subject matter areas

Several subclasses provide for subject matter that is used for 'therapy' as this terminology is commonly defined in English. The relationship between these subclasses in regard to the type of 'therapy' covered by each is as follows:

Subclass A61N provides for medical treatment-type therapy by apparatus or methods utilizing forms of energy other than direct mechanical energy when they are **not** used for surgical purposes and they are intended to either

- destroy, control, or advance the recovery of sick or abnormal cells within body tissue while minimizing undesirable destruction of adjoining healthy cells, or
- treat other types of abnormal conditions of the body (e.g., disease, impaired organ, injured limb).

In particular, subclass A61N covers implanted devices, when the implanted device is not a replacement or supplementation of an actual portion of the organ or part, utilizing forms of energy other than direct mechanical energy to stimulate organs or body parts in a manner that facilitates, regulates, or improves their normal functioning.

Subclass A61H provides for massage and physical-type therapy apparatus or methods for the treatment of disease or disability (i.e., an abnormal condition of the body) by utilization of direct mechanical energy. The apparatus or methods appropriate for this subclass do not surgically alter any portion of the bodies during

treatment. Usually, the massage and therapy apparatus and methods of this subclass are intended to facilitate the healing of diseases, reduce the impact of injuries, or beneficially influence the condition of disabled body parts by physically moving a part of a body (e.g., devices for exercising a passive body member) solely by direct physical contact with, or stimulation of, external surfaces of the body or naturally occurring cavities in the body. However, stimulation of internal organs or body parts, such as artificial respiration and stimulation of the heart, when it is done by direct mechanical energy is also considered proper for this subclass.

Subclass A61K and Subclass A61P provide for drug-type 'therapy' using chemical compounds or medicinal preparations specially adapted for use in healing, benefiting, or destroying abnormal conditions of the body (e.g., diseases, birth defects) and the specific therapeutic activities that the chemical compounds and medicinal preparations are used for.

Subclass A61B provides for surgery and surgical-type 'therapy' that alters or repairs organs and body parts. It also provides for any surgical or diagnostic apparatus or methods that would otherwise be proper for subclass A61H or A61N when the apparatus or methods are used for both purposes or combined together. In particular, subclass A61B provides for surgical instruments, devices, or methods for transferring non-mechanical forms of energy to or from the body (e.g., electromagnetic radiation surgery) to alter or repair it.

References relevant to classification in this subclass

This subclass does not cover:

Apparatus for diagnosis or surgery combined with, or applicable also as, therapy apparatus	A61B
Apparatus for radiation diagnosis	A61B6/00
Surgical instruments, devices or methods for transferring non-mechanical forms of energy to or from the body (e.g., radiation surgery, electro-surgery).	A61B18/00
Instruments, implements, tools, or methods specially adapted so as to limit their use to only animals	A61D
Apparatus or methods utilizing direct mechanical energy in therapy intended to treat disease or disability	A61H
Percussion or vibration massage apparatus (e.g. using supersonic vibration)	A61H23/00
Apparatus or methods for stimulating specific reflex points by heating or cooling within the cell-life limits	A61H39/06
Devices for applying radioactive material to the body	A61M36/00

Informative references

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

Measuring bioelectrical signals of the body or body parts	A61B5/04
Artificial substitutes or replacements for parts of the body	A61F2/00
Anaesthetic apparatus in general	A61M
Artificial hearts and circulatory assistance means intended for implantation	A61M1/12
Therapeutic chemical compounds or medicinal preparation used to treat sicknesses or abnormal conditions of the body	A61P

Incandescent lamps having general utility	H01K
Infrared radiators for heating	H05B

Special rules of classification

NONE.

Glossary

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

Electrotherapy	utilizes electrical energy directly applied to either an external surface or inside portion of a human or animal body to effect a cure or alleviation of an abnormal condition (e.g., symptoms of a disease, defective functioning of an organ) of the body.
Magneto-therapy	utilizes magnetic force fields directly applied to either an external surface or inside portion of a human or animal body to effect a cure or alleviation of an abnormal condition (e.g., symptoms of a disease, defective functioning of an organ) of the body.
Radiation therapy	utilizes radiant type energy in the form of waves or particles (e.g., radiation emitted by radioactivity, gamma rays, microwaves, x-rays) directly applied to either an external surface or inside portion of a human or animal body to effect a cure or alleviation of an abnormal condition (e.g., symptoms of a disease, defective functioning of an organ) of the body.
Therapy	any medical treatment of an abnormal condition of a human or animal body (e.g., disease, impaired organ, injured limb) by means, instruments, devices, or methods that utilize forms of energy (e.g., ultrasonic energy) and which is not used for surgical purposes. Therapy appropriate for this subclass when it occurs at the cellular level is performed within the limits of healthy cell life and it is (a) intended to destroy, control, or advance the recovery of sick or abnormal cells within the body tissue of human beings or animals and (b) minimizes undesirable destruction of healthy cells adjoining the sick or abnormal cells that are treated.
Ultrasound therapy	utilizes acoustic vibrations at a very high frequency that are above the range audible to the human ear (i.e., acoustic frequency above approximately 20,000 cycles per second) directly applied to either an external surface or inside portion of a human or animal body to effect a

cure or alleviation of an abnormal condition (e.g., symptoms of a disease, defective functioning of an organ) of the body.

Synonyms and Keywords

In patent documents the following abbreviations are often used:

None

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **DOMAINE DE LA CIB :** **B60T**
RAPPORTEUR : **GB**	**TECHNICAL FIELD :** **DOMAINE TECHNIQUE :** **M**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	GB	30.08.2001
2	Comments	Commentaire	SE	17.10.2001
3	Comments	Commentaire	US	26.10.2001
4	Rapporteur report	Rapport du rapporteur	GB	16.11.2001
5	Rapporteur proposal	Proposition du rapporteur	GB	16.11.2001
6	Comments	Commentaire	US	22.01.2002
7	Comments	Commentaire	FR	07.02.2002
8	Comments	Commentaire	RO	15.02.2002
9	Comments	Commentaire	EP	15.02.2002
10	Rapporteur report	Rapport du rapporteur	GB	12.09.2002
11	Rapporteur proposal	Proposition du rapporteur	GB	12.09.2002
12	Comments	Commentaire	FR	25.09.2002
13	Comments	Commentaire	SE	20.11.2002
14	Comments	Commentaire	US	21.11.2002
15	Rapporteur report	Rapport du rapporteur	GB	29.01.2003
16	Rapporteur proposal	Proposition du rapporteur	GB	29.01.2003
17	Rapporteur report	Rapport du rapporteur	GB	22.05.2003

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Rapporteur proposal	Proposition du rapporteur	GB	22.05.2003
19	Comments	Commentaire	US	11.09.2003
20	Rapporteur report	Rapport du rapporteur	GB	11.11.2003
21	Rapporteur proposal	Proposition du rapporteur	GB	12.11.2003
22	Comments	Commentaire	US	05.02.2004
23	Rapporteur report	Rapport du rapporteur	GB	20.02.2004
24	Rapporteur proposal	Proposition du rapporteur	GB	20.02.2004

UK Patent Office **Date: 18 February 2004**

Rapporteur Report on Project D015, Subclass B60T

R notes the approvals of FR, JP and EP in relation to earlier Rapporteur proposals, but also notes comments from US in Annex 22. R has made minor changes to the Annex 21 proposal in response to US comments, and trusts that the approvals from the other above-mentioned offices will still remain valid.

Dealing with US concerns in turn:

General formatting concerns

1. R feels that specifying "(as defined in the Glossary of Terms below)" is helpful and could be kept.

2. R notes the valid US concern and has made a change to the glossary definition of "vehicle".

Formatting concern for Rapporteur

R feels the "Synonyms and Keywords" section is clear because it is merely intended to indicate synonyms and keywords that searchers may wish to consider when searching. R proposes no changes.

Remaining content concern

1. R feels the definition of "vehicle" is in the right place. The definition statement is long enough already and needs no additional content.

2. R believes US has a valid point, but believes that only few members of the patent examining profession would be likely to use B60T 3/00 to classify an anchor, a steering lock or a big block of concrete! However, to cater for these limited cases, the entry in the definition statement that the US objected to has been expanded along the lines suggested by US in its interpretation number 1.

R hopes that this definition is now ready for final approval.

Martin Price

IPC Revision WG – Definition Project GB Rapporteur Proposal	Project: D015 Class/subclass: B60T Date : 27/05/04

Title - B60T

Vehicle brake control systems or parts thereof;
Brake control systems or parts thereof in general;
Arrangement of braking elements on vehicles in general;
Portable devices for preventing unwanted movement of vehicles;
Vehicle modifications to facilitate cooling of brakes.

Definition statement

This subclass covers:

Arrangement of braking elements on **vehicles** (as defined in the Glossary of terms below).
Portable devices for preventing unwanted movement of **vehicles**, and especially where the devices are specially adapted to engage an exterior portion of a stationary **vehicle** to prevent or restrain its movement, e.g. chocks.
Vehicle modifications to facilitate cooling of brakes.
Control systems or parts thereof, in general or specially adapted for **vehicles**, for processing variables which influence the extent or duration of a braking event, for the following purposes:

- For adjusting wheel-braking force to meet varying vehicular or ground-surface conditions, e.g. limiting or varying distribution of braking force.
- For continuous braking making use of fluid or powdered medium, e.g. when descending a long slope.
- For transmitting braking action from initiating means to ultimate brake actuator.

Component parts, details or accessories of brake control systems, for example:

- Brake-action initiating means, e.g. manually or automatically-operated.
- Construction, arrangement or operation of valves incorporated in power brake systems.
- Component parts, details or accessories presenting other characteristic features, e.g. arrangements of pumps or compressors, brake cylinders other than ultimate actuators, safety or monitoring devices.

Relationship between large subject matter areas

B61H covers brakes or other retarding apparatus peculiar to rail vehicles, and arrangement or disposition of brakes or other retarding apparatus in rail vehicles, but the following aspects thereof in relation to rail vehicles are covered in B60T:

- Arrangements in rail vehicles for adjusting wheel-braking force to meet varying vehicular or permanent way conditions (B60T 8/00).
- Transmitting braking action from initiating means to ultimate brake actuator with power assistance or drive, brake systems incorporating such transmitting means, e.g air-pressure brake systems (B60T 13/00).
- Construction, arrangement or operation of valves incorporated in power brake systems (B60T 15/00).
- Component parts, details or accessories of brake systems (B60T 17/00).

References relevant to classification in this subclass

This subclass does not cover:

Brakes or other retarding apparatus peculiar to rail vehicles; Arrangement or disposition of brakes or other retarding apparatus in rail vehicles (see above)	B61H
Electrodynamic brake systems and control thereof for vehicles, and in general	B60L
Conjoint control of brakes and other drive units of vehicles, such as engine, gearing or clutch (this may be particularly significant when traction control systems operating on more than just brakes are being classified)	B60K
Arrangement of braking elements on cycles	B62L
Arrangement of braking elements on aircraft	B64C 25/42
Dynamo-electric brakes	H02K 49/00

Examples of places where the subject matter of this class is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

NONE

Places in relation to which this subclass is residual:

NONE

Informative references

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

Brakes themselves, i.e. the devices where the braking effect actually occurs, and actuators directly acting on those devices	F16D
Railway stops, track brakes or retarding apparatus, fixed to permanent way	B61K 7/00
Safety arrangements on roads for slowing, redirecting or stopping errant vehicles, e.g. guard posts, bollards	E01F 15/00

Special rules of classification within this subclass

In group B60T 8/00, when the subject matter to be classified is characterised by both electronic and non-electronic aspects, it should be classified both in group 8/17 or its subgroups, and in group 8/18.

Glossary of terms

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

Boosters	Means for providing power assistance to the braking effort
Vehicle	This term can have two different meanings here, viz. (1) all vehicles except those restricted to one of the following types of vehicles: rail vehicles, waterborne vessels, aircraft, space vehicles, hand carts, cycles, animal-drawn vehicles, and sledges, which are covered by the relevant subclasses of B61 to B64. The term "vehicle" also includes (i) vehicular characteristics which are common to more than one of the above-listed types, and (ii) certain characteristics restricted to automobiles, road or cross-country trailers. (2) In some instances in this definition, the term "vehicle" has been qualified by another word which takes its meaning outside the scope of (1) above (e.g. "*rail vehicle*"), in which case the word "vehicle" takes its normal dictionary meaning. The reader can determine from the context whether an occurrence of the word "vehicle" in this definition falls within the meaning stated in (1) or (2).

Synonyms and Keywords

In patent documents the following abbreviations are often used:

See below

In patent documents the following expressions/words are often used as synonyms.

- Antilock, anti-lock, anti-skid, antiskid, anti-blocking, ABS
- Wheel slip, wheel-slip, wheel spin, wheel-spin, traction control, ASR
- Electronic Brake Assist (EBA)
- Electronic Brakeforce Distribution (EBD)

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **B66B** **DOMAINE DE LA CIB :**
RAPPORTEUR : **US**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	US	06.02.2001
2	Comments	Commentaire	CA	06.02.2001
3	Comments	Commentaire	RO	06.02.2001
4	Comments	Commentaire	NL	06.02.2001
5	Rapporteur proposal	Proposition du rapporteur	US	06.02.2001
6	Proposal	Proposition	US	28.08.2001
7	Comments	Commentaire	RO	03.10.2001
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9	Comments	Commentaire	SE	25.10.2001
10	Comments	Commentaire	GB	25.10.2001
11	Rapporteur report	Rapport du rapporteur	US	15.01.2002
12	Rapporteur proposal	Proposition du rapporteur	US	15.01.2002
13	Comments	Commentaire	EP	15.02.2002
14	Comments	Commentaire	DE	25.02.2002
15	Comments	Commentaire	RO	04.03.2002
16	Rapporteur report	Rapport du rapporteur	US	30.04.2002
17	Rapporteur proposal	Proposition du rapporteur	US	30.04.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Comments	Commentaire	US	13.05.2002
19	Rapporteur report	Rapport du rapporteur	US	27.02.2003
20	Rapporteur report	Rapport du rapporteur	US	27.02.2003
21	Rapporteur proposal	Proposition du rapporteur	US	27.02.2003
22	Comments	Commentaire	GB	02.05.2003
23	Rapporteur report	Rapport du rapporteur	US	18.12.2003
24	Rapporteur proposal	Proposition du rapporteur	US	18.12.2003

United States Patent and Trademark Office

Project: D017 Subclass – B66B Date: December 17, 2003

RAPPORTEUR REPORT

Rapporteur has placed the modified definition into the format of the definition template.

GB (Annex 22) made comments on the latest proposal (Annex 21) for the subclass definition of B66B.

All but two of the changes suggested by GB were made.

The subheading "Explanatory Notes and Graphics" within the definition statement was not changed to "Explanatory Notes" since this seems to be the standardized subheading for this type of material. However, GB is correct in its statement that no graphics were included under this section. If the IB wants to utilize alternative subheadings for this type of subject matter, then they could make GB's suggested change.

Rapporteur does not agree with GB that it is appropriate to move the explanation of the synonym 'dumbwaiter' under the "Glossary" section. This term is currently not used in any of the titles of the scheme or in the definition. GB's suggestion may be appropriate the future if this body of art is separately provided for in the scheme.

There does not seem to be any remaining issues based on all previous comments.

IPC Revision WG – Definition Project US Rapporteur Proposal	Project: D017 Class/subclass: B60B Date : 08/01/04

Title - B60B

Elevators;

Escalators or moving walkways

Definition statement

This subclass covers:

Transporting apparatus of the types specified herein for people or discrete loads when used in conjunction with buildings, complexes of buildings, mines, or similar scale manmade structures or natural formations (e.g. caves).

Elevating apparatus (i.e., elevators or lifts) for shifting a discrete load (e.g., person(s), freight), in its entirety, a significant distance (e.g., at least the height of a normal floor of a building) from an entry level (e.g., **landing)** to a vertically spaced exit level along a **shaft**. To be proper for this subclass, the elevating apparatus must include:

- a support surface (e.g., elevator car/lift cage) that underlies the load and to which the load is confined during travel,
- rigid or semirigid means for contacting and limiting the travel of the load support surface to back and forth travel along its vertically extending **shaft** (e.g., inclined way), and
- **drive means** (e.g., fluid motors, manually operated **cable**) for transmitting to the load support surface the force necessary to shift the load between the levels or motion resisting means (e.g., **cable** linked counterweights) for slowing the travel of the load-supporting surface when moving from a higher load entry level to a lower load exit level.

Conveying apparatus (i.e., an assemblage of elements for moving a load along a predetermined path) for transporting pedestrians (i.e., escalators or moving walkways) from an entrance location to at least one horizontally spaced egress location. To be proper for this subclass, the conveying apparatus must:

- include an underlying surface, or a series of interlinked underlying surfaces, that is intended to **normally** support and carry individuals to their egress location,
- be arranged or constructed either with structure that specially adapts the conveying apparatus to the transporting of people or to facilitate potential alternative traversal of the surface(s) by the individuals carried thereon utilizing their standard mode of locomotion (e.g., stepping, walking, manually powering their wheelchair) whenever the underlying surface is idle or the pedestrian wishes to supplement their pace of travel over the underlying surface,
- include rigid or semirigid means for limiting the travel of the supporting surface to a fixed horizontally extending path along which individuals are carried when travelling between the spaced locations, and
- include **drive means** (e.g., endless chain) for transmitting to the underlying surface the force necessary to shift people between the horizontally spaced locations.

Components of the elevating or conveying apparatus when:

- no specific place for the components exists in another subclass and
- the components are limited to use with the above types of apparatus by a structural modification (e.g., escalator handrails or guards).

Ancillary devices (e.g., elevator call registration systems) for either the elevating or conveying apparatus which are:

- used exclusively with elevating or conveying apparatus and
- have their operations influencing or being influenced by the operation of the elevating or conveying apparatus.

Explanatory Notes or Graphics

(1) Note. Examples of special adaptations for escalators or moving walkways that facilitate the transport of pedestrians are:

- moving steps,
- conveyors combined with handrails,
- conveyors having serrated foot engaging surfaces,
- entrance or exit comb plates,
- passenger operated control of **drive means**, or
- special layouts facilitating walking along conveying apparatus' path.

(2) Note. Elevating or conveying apparatus otherwise proper for the definition which is either specially modified for use with, or combined with, apparatus for doing work on or treating (e.g., machine tools, furnaces) the discrete loads being carried (e.g., tools shaping load during elevation, transporting human body during its cremation) are covered in appropriate subclasses for this subject matter.

(3) Note. The load support surfaces of elevators or lifts are intended to support their loads only for a short period of time during handling. Surfaces intended to either support an article in a nonuse storage location, support a useable machine or tool, or move one portion of a machine or article relative to another portion thereof are covered in appropriate subclasses for this subject matter.

(4) Note. The discrete load transported by the elevating apparatus of this subclass is either

- a human,
- an animal or other living thing,
- an article,
- unitized bulk material (e.g., cotton bail, ice block), or
- a group or mix of the above types of loads that is moved as a unit between levels.

Relationship between large subject matter areas

NONE.

References relevant to classification in this subclass

This subclass does not cover:

Life-saving devices used as an alternative to normal egress means (e.g., stairs) during rescue to lower persons in cages, bags, or similar supports from buildings or other structures	A62B1/02
Amusement rides (e.g., roundabouts, and Ferris wheels) that are, or may include as a part of their structure, elevating or conveying apparatus	A63G
Arrangements of ammunition handlers in military-type sea vessels	B63G
Equipment for handling freight or for facilitating passenger embarkation or the like to aircraft	B64D9/00
Hoists, lifts, or conveyers for loading or unloading in general	B65G
Hoists, lifts, or conveyers for storing articles, individually or in	B65G1/00

orderly arrangement, in warehouses or magazines	
Braking or detent devices controlling normal movements of winding drums or barrels for capstans, hoist, or winches	B66D
Lifting or elevating devices for ships	E02C
Multi-vehicle garages provided with mechanical means for lifting vehicles	E04H6/12
Hoists for feeding ammunition or projectiles to launching apparatus or to loading mechanisms for weapons	F41A9/00

Informative references

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

Lifting and lowering devices for moving disabled persons or patients	A61G
Hoisting or lowering devices for coffins	A61G19/00
Funicular rail-bound systems with rigid ground-supported tracks and cable traction (e.g., cliff railways)	B61B9/00
Ski-lift, sleigh-lift, or the like trackless systems with only guided towing cables	B61B11/00
Devices for lifting or lowering bulky or heavy goods for loading or unloading purposes	B66F

Special rules of classification

NONE.

Glossary

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

Cable	a flaccid, elongated, flexible element that can transmit force only when under tension (e.g., rope, wire, chain).
Drive means	means for supplying motive force to an element to be moved which includes both force generating means (e.g., motor) and structural linkage (e.g., gears) needed to transmit the force from the generating means to the element.
Landing	an in situ floor within a structure (e.g., building) (a) that is located adjacent to an elevator **shaft** or the entrance or egress points of the conveying apparatus' path and (b) to or from which a load (e.g., passenger, cargo, pedestrian) transfers during the charging or discharging

of the load-underlying support surface of an elevator or conveying apparatus.

Shaft

a long, narrow, in situ passageway within a structure (e.g., building, ship, mine) which defines the fixed path between the vertically spaced load entrance and exit levels traveled by the load-underlying support surface of an elevator.

Synonyms and Keywords

In patent documents the following abbreviations are often used:

In patent documents the terms **elevator** and **lift** are often used as synonyms.

In patent documents the term **dumbwaiter** is often used with the meaning of a very small **elevator** or **lift** (e.g., normally the support is too small for a person) for moving housekeeping or food items between floors.

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **F04C** **DOMAINE DE LA CIB :**
RAPPORTEUR : **EP**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	EP	19.03.2001
2	Proposal	Proposition	EP	16.08.2001
3	Comments	Commentaire	JP	01.10.2001
4	Comments	Commentaire	RO	03.10.2001
5	Comments	Commentaire	US	31.10.2001
6	Rapporteur report	Rapport du rapporteur	EP	09.11.2001
7	Comments	Commentaire	US	22.01.2002
8	Comments	Commentaire	RO	15.02.2002
9	Comments	Commentaire	RO	15.02.2002
10	Rapporteur report	Rapport du rapporteur	EP	18.03.2002
11	Rapporteur proposal	Proposition du rapporteur	EP	18.03.2002
12	Proposal	Proposition	EP	05.04.2002
13	Rapporteur proposal	Proposition du rapporteur	EP	12.09.2002
14	Comments	Commentaire	DE	02.10.2002
15	Comments	Commentaire	JP	09.10.2002
16	Rapporteur report	Rapport du rapporteur	EP	17.10.2002
17	Rapporteur proposal	Proposition du rapporteur	EP	17.10.2002

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18	Comments	Commentaire	US	01.12.2002
19	Rapporteur report	Rapport du rapporteur	EP	11.02.2003
20	Rapporteur proposal	Proposition du rapporteur	EP	11.02.2003
21	Comments	Commentaire	SE	15.09.2003
22	Rapporteur proposal	Proposition du rapporteur	EP	11.03.2004
23	Indication of appoval		GB	12.03.2004

Title - F04C

Rotary-piston, or oscillating-piston, positive-displacement machines for liquids;
Rotary-piston, or oscillating-piston, positive-displacement pumps

Definition statement

This subclass covers:

Pumps with rotary or oscillating pistons for liquids, for elastic fluids, or for combination of liquid and elastic fluid.
Positive displacement machines, i.e. devices which could be equally be an engine or pump, with rotary or oscillating pistons for liquids.

Relationship between large subject matter areas

Related subclasses F01C and F04C cover the same type of apparatus using rotary or oscillating pistons for positive displacement. The distinguishing characteristic used for classifying the machines, i.e. devices which could be equally be an engine or pump, is the working fluid used. Machines with rotary or oscillating pistons for working fluids containing elastic fluids, e.g. a combination of liquids and elastic fluids are classified in F01C. If only liquid is used as working fluid for these machines with rotary or oscillating pistons they are classified in F04C. However, devices with rotary or oscillating pistons that are only pumps, i.e. cannot be used as engines, are classified in F04C, irrespective of the working fluid.
F04B covers machines or pumps with reciprocating pistons, or other kinds of positive displacement mechanisms with the exception of rotary or oscillating piston type machines or pumps.
Subject matter like cyclically operating valves, lubricating or cooling are classified in subclasses F01L, F01M, F01P irrespective of their stated application, unless their novel and non-obvious features are peculiar to their application, in which case they are classified only in the relevant subclass of F04. The subclasses F01L, F01M, F01P do not cover pump or machine features per se.
Class F15 covers hydraulic or pneumatic systems in general.

Limiting references

This subclass does not cover:

Positive displacement machines for liquids, or pumps in which the working-fluid is displaced by one or more reciprocating pistons or by flexible working members	F04B

Informative references

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

Rotary-piston or oscillating piston machines for elastic fluids	F01C

Rotary-piston or oscillating piston machines for liquids and elastic fluids	F01C
Cyclically operating valves for machines or engines	F01L
Lubrication of machines or engines in general	F01M
Gas-flow silencer or exhaust apparatus for machines or engines in general	F01N
Cooling of machines or engines in general	F01P
Combustion engines with pumps for charging	F02B33/34
	F02B53/08
Rotary fluid gearing using pumps and motors of the volumetric type for conveying rotary motion	F16H
Sealing in general	F16J
Means for thermal insulation in general	F16L
Refrigeration machines, plants or systems	F25B

Glossary

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

pump means a device for continuously raising, forcing, compressing, or exhausting fluid by mechanical means

machine means a device that could equally be both an engine and a pump and not a device which is restricted to an engine or one which is restricted to a pump

positive displacement pumps pumps using pistons or other mechanical members to displace a working fluid in a working chamber, the dynamic effect on the fluid being of minor importance

positive displacement engines the energy of a working fluid is transformed into mechanical energy, in which variations of volume created by the working fluid in a working chamber produce equivalent movement of mechanical members, e.g. pistons transmitting the energy, the dynamic effect of the fluid being of minor importance

oscillating piston machine means a positive-displacement machine in which a fluid-engaging, work-transmitting member oscillates, e.g. a vane piston oscillating around a fixed axis

rotary piston machine means a positive-displacement machine in which a liquid-engaging, work-transmitting member rotates about a fixed axis or about an axis moving along a circular or similar orbit, e.g. machine with a rotor having vanes or teeth

rotary piston means the work-transmitting member of a rotary-piston machine or pump, of any suitable form, e.g. rotor having vanes or teeth

cooperating members means the "oscillating piston" or "rotary piston" and another member, e.g., the working-chamber wall, which assists in the pumping action or machine's action

movement of the cooperating members is to be interpreted as relative, so that one of the "cooperating members" may be stationary, even though reference may be made to its rotational axis, or both may move

teeth or tooth equivalents include lobes, projections or abutments

internal axis type means that the rotational axes of the inner and outer co-operating members remain at all times within the outer member, e.g., in a similar manner to that of a pinion meshing with the internal teeth of a ring gear

working fluid means the driven fluid in a pump or driving or driven liquid in a machine. The working fluid can be in a compressible, gaseous state, e.g. steam, called elastic fluid, a liquid state, or a state where there is coexistence of elastic fluid and liquid state

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DEFINITION PROJECT FILE
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PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **F23B** **DOMAINE DE LA CIB :**
RAPPORTEUR : **SE**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	SE	06.02.2001
2	Comments	Commentaire	CA	06.02.2001
3	Comments	Commentaire	RO	06.02.2001
4	Comments	Commentaire	NL	06.02.2001
5	Proposal	Proposition	US	06.02.2001
6	Proposal	Proposition	SE	29.08.2001
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10	Comments	Commentaire	US	31.10.2001
11	Rapporteur report	Rapport du rapporteur	SE	23.11.2001
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13	Comments	Commentaire	RO	15.02.2002
14	Comments	Commentaire	EP	15.02.2002
15	Comments	Commentaire	US	26.02.2002
16	Rapporteur report	Rapport du rapporteur	SE	06.05.2002
17	Rapporteur proposal	Proposition du rapporteur	SE	27.05.2002

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Comments	Commentaire	JP	30.05.2002
19	Rapporteur proposal	Proposition du rapporteur	SE	19.11.2002
20	Comments	Commentaire	GB	07.02.2003
21	Comments	Commentaire	RO	19.02.2003
22	Comments	Commentaire	RO	04.03.2003
23	Comments	Commentaire	US	12.09.2003
24	Rapporteur report	Rapport du rapporteur	SE	26.09.2003
25	Rapporteur proposal	Proposition du rapporteur	SE	26.09.2003
26	French version	Version française	CH	17.05.2004

Swedish Patent and Registration Office

IPC Definition Project D019, subclass F23B **September 26th, 2003**

Rapporteur Report
(in response to annexes 20-23)

Comments have been received from GB, RO and US. These are summarised below under the respective headings. GB point out that the section titles have not been updated. This has been corrected.

Definition statement

US make several proposals for modifying the definition statement:
Rapporteur thinks it is confusing to talk of "phases of fuel", since combustion inherently involves phase changes. In order to be clearer, Rapporteur instead proposes to list the relevant types of fuels.
Rapporteur also thinks it is confusing to talk about the "primary portion" of fuel, since it might be confused with the portion of fuel undergoing primary combustion. Rapporteur thinks "the main body of fuel" should be clear enough.
Rapporteur sees some merit in getting rid of a couple of bullets, but does not necessarily see the proposed structure as an improvement. Rapporteur makes an alternative proposal, which starts with the most important features and ends with the less important listing of fuel forms.

RO disagrees with the exclusion of combustion of fuels other than solid fuels.
Rapporteur thinks this exclusion is necessary in view of the first of the limiting references and the existence of F23C 1/00 and its subgroups.

Relationships

US state that F23B is only general for the function-oriented aspects of combustion that are not specifically provided for in other related subclasses and propose several modifications of the wording:
Rapporteur agrees with the modifications proposed for the first paragraph.
Rapporteur has replaced "a solid fuel" in the second bullet with "specific solid fuels".
Rapporteur does not see any improvement in adding "either … or the disclosure is limited to the" in the introduction to the second set of bullets. If the disclosure is limited to a particular substance, but the apparatus is not specially adapted, then classification should not be limited to F23G. Rapporteur does not agree that special adaptation is not required for some of the types of fuels.
Rapporteur agrees to replace "fuels" with "types of substances". As a consequence the second occurrence of "fuels" ("e.g. waste fuels") in the first bullet has been removed. This should solve the similar objection raised by **GB**. The list of types of substances has been harmonised with the one in F23G.

GB and **RO** state that the expression "a detail subclass related to F23C" is unclear and inconsistent with the expression "detail subclasses of class F23" that is used elsewhere.
Rapporteur has changed to the latter expression.

RO state that it should be preferable to use "F23B", rather than "this subclass".

Rapporteur agrees that the latter is not always an improvement, but suggests that the editing board looks into the question from a broader perspective.

Limiting references

GB and **RO** remind that the word "alternately" should be used instead of "alternatively". This is corrected.

Informative references

GB state that in the section "Other places", there is an unclear reference to "heat-producing combinations of chemical substances other than combustion". They suggest replacing "combinations" with "reactions" and adding a comma, making the entry read: "Heat-producing reactions of chemical substances, other than combustion". **RO** agree to this.

Rapporteur agrees that although the original wording was taken from the existing note after class F23 the GB proposal is an improvement, and has made the proposed modification.

Special rules

US state that the reference to indexing must be removed. **GB** wonder whether indexing should be mentioned here and note that the Revision Working Group does not have any instructions regarding this matter.

Rapporteur does not see any reasons why indexing should not be mentioned in the definitions. It is a classification rule stated in a note in the scheme, and it is valid in the entire subclass. It is of the same relevance as rules for additional non-obligatory classification, which have been introduced in other definitions.

Rapporteur has added a reference to the first place rule applied in this subclass.

Glossary

RO state that the entries for "primary air" and "secondary air" would look better as separate independent entries, instead of being bulleted points under "air". **Rapporteur** has made the proposed modifications, but left the entries immediately below "air", rather than placing them according to alphabetic order.

Synonyms and keywords

RO suggest removing the words "boiler" and "burner".

Rapporteur does not understand why, since their inclusion could serve to avoid misclassifications. No other office has commented on this, so the words are left in.

Unless US want to press their opinions about the borderline between F23C and F23G Rapporteur thinks this definition is ready for approval. If discussions about the borderline between F23G and other subclasses continue Rapporteur would like to invite more offices to state their opinions.

Anders Bruun

Title - F23B

Methods or apparatus for combustion using only solid fuel

Definition statement

This subclass covers:

General function-oriented aspects of methods and apparatus for combustion of solid fuel wherein the main body of fuel is either

- essentially stationary during combustion or
- mechanically transported, as opposed to pneumatically transported or suspended in air, during combustion

and wherein the combustion does not involve liquid or gaseous fuels, or pulverulent fuel burned in suspension. The solid fuel can be in the form of lumps or pieces (e.g. coal, briquettes or firewood) or pulverulent or granulated (e.g. coal powder, wood pellets or wood chips)

Relationship between large subject matter areas

Relationship between this subclass and application subclasses of class F23

Subclass F23G (Cremation furnaces; Consuming waste by combustion) is to be seen as an application place in relation to the function-oriented aspects of this subclass. In case of doubt, classification should be made in both subclasses, or in both F23G and detail subclasses of class F23.

Classification is made in this subclass if the method or apparatus is

- of general interest for combustion of different types of solid fuel, for example not specially adapted for a particular fuel, or
- specially adapted for specific solid fuels other than those provided for in F23G (see the list below), for example "normal" commercial fuel, such as coal, firewood, wood chips, wood pellets or straw.

Classification is made in F23G if a method or apparatus is specially adapted for combustion of any of the following types of substances:

- Human corpses or amputated body parts
- Animal carcasses or their discarded body parts
- Fuels, e.g. waste, presenting particular fuel-related environmental problems requiring specially adapted methods or apparatus for combustion, for example toxic, explosive, radioactive or corrosive fuels
- Waste having a special physical form requiring specially adapted methods or apparatus for combustion, for example packaged waste, rubber tyres or discarded cars
- Low-grade fuels presenting particular problems of combustion requiring specially adapted methods or apparatus for combustion, for example fuels containing high amounts of water or other non-combustible substances
- Fuels that vary considerably in composition or form and therefore require specially adapted methods or apparatus for combustion
- Household, municipal, or similar waste that is solely or primarily burned for the purpose of its destruction

Subclass F23R (Generating combustion products of high pressure or high velocity), especially group 5/00, is also to be seen as an application place in relationship to this subclass. Classification is made in F23R if the apparatus or method is specially adapted for generating combustion products of high pressure or high velocity.

Relationship between this subclass and other application places

Combustion of solid fuel is often used for purpose of heating or performing different operations. Apparatus for combustion of solid fuel can be self-contained devices, but are often part of, or used in connection with, heat-consuming apparatus, such as heating boilers. This subclass is therefore related to several places providing for uses of heat. In many of these fields the solid fuel combustion apparatus can be considered a detail of a bigger entity. A non-exhaustive list of examples of such classes or subclasses will be found under the heading "Informative references" below.
Combinations of combustion apparatus with other apparatus, where the combustion apparatus can be seen as a detail of the complete apparatus (for example of a steam boiler), are classified as a whole, in the place for the other apparatus. Additional classification is made in this subclass only if features relating to the combustion apparatus per se are of interest apart from its application.

Relationship between this subclass and detail subclasses of class F23

Subclasses F23H - F23Q are to be seen as detail places in relation to this subclass. Classification is made in this subclass if the apparatus as a whole is of interest, or if a detail is of use only for a particular type of combustion apparatus and not specifically provided for in any of subclasses F23H - F23Q. If a detail of a combustion apparatus is of interest, classification is made in the relevant subclass providing for such matter.

Relationship between this subclass and places for gasification or destructive distillation

- C10B covers destructive distillation of carbonaceous material for production of gas, coke, tar or similar matter.
- C10J covers production of combustible gases containing carbon monoxide from solid carbonaceous fuels.

Classification is made in these subclasses if the combustible substances produced, e.g. gases or coke, are burned in an apparatus separate from the gasification or distillation apparatus.
Classification is made in this subclass if complete combustion takes place in the same apparatus as the gasification, for example in different parts of the same combustion chamber or in an afterburner immediately connected to a primary combustion chamber.

Limiting references

This subclass does not cover:

Limiting references

Combustion of both solid fuel and fluent fuel, simultaneously or alternately	F23C 1/00 F23D 17/00
Combustion of solid fuel suspended in a stream of air, e.g. combustion in fluidised beds or combustion of pulverised fuel using burners where the fuel is transported into the combustion chamber by an air stream	F23C F23D 1/00
Combustion of solid fuel suspended in a liquid, e.g. combustion of coal-water slurry	F23C F23D
Combustion of fuels that are solid at room temperatures, but burned in melted form, e.g. candle wax	C11C 5/00 F23C F23D

References to application places

Baking ovens	A21B
Cooking apparatus	A47J
Lighting	F21

Generating steam	F22B
Combustion specially adapted for waste or low grade fuel	F23G
Generating combustion products of high temperature or high pressure	F23R
Domestic stoves or ranges for cooking or local heating	F24B F24C
Domestic heating systems or space-heating systems	F24D
Heating of fluids, e.g. air or water	F24H
Drying	F26B
Heat treatment of material or articles	F27

Informative references

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

Places for details of general applicability for combustion apparatus

Grates, cleaning or raking of grates	F23H
Removal or treatment of combustion products (e.g. flue gases) or combustion residues (e.g. ash)	F23J
Feeding fuel	F23K
Supplying air or other non-combustible liquids or gases (e.g. water or steam)	F23L
Constructional details of combustion chambers, not otherwise provided for	F23M
Regulating or controlling combustion	F23N
Ignition	F23Q

Other places

Chemical or biological purification of waste gases	B01D 53/34
Chemical or physical processes or apparatus in general	B01J
Heat-producing reactions of chemical substances, other than combustion (e.g. of hydrogen peroxide and methane, or iron oxide and aluminium)	C F24J
Combustion apparatus using fluent fuel	F23C
Burners for fluent fuel (e.g. pulverulent fuel)	F23D

Special rules of classification

In this subclass, the first place priority rule is applied, i.e. at each hierarchical level, classification is made in the first appropriate place
In this subclass methods are classified in the groups that cover the apparatus used. Methods that are of general applicability are classified in group 26/00.
When classifying in the advanced level in this subclass it is desirable to add the indexing codes of groups 101/00 to 103/02.

Glossary

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

air a mixture of gases containing free oxygen and able to promote or support combustion

primary air air supplied to the burning fuel in order to liberate combustible gases

secondary air air supplied to the combustible gases liberated by the primary air in order to complete their combustion. The term "secondary air" covers "tertiary air" etc.

ash means any solid combustion residues, for example remaining in the fuel bed or suspended in the flue gases

burner a device by which fluent fuel is passed to a combustion space where it burns to produce a self-supporting flame

combustion means the direct combination of oxygen gas (e.g. in air) and a burnable substance

combustion chamber a chamber in which fuel is burned to establish a self-supporting fire or flame and which surrounds that fire or flame

combustion zone the part of the apparatus where the reaction takes place between air and fuel

flue gases any gaseous products of combustion

grate a perforated surface (e.g. a grid) which supports or delimits a bed of burning fuel and serves to supply primary air

heated apparatus any apparatus (e.g. air heater, water heater, boiler or heat exchanger) that uses the heat generated by combustion and has a primary function other than mere facilitation of the combustion process or its completion

Synonyms and Keywords

boiler The word **"boiler"** is often used in the art as a synonym to "combustion apparatus", even when heating of water or other liquids is of no interest

burner The word **"burner"** is often used in the art in a wider manner, and not restricted to the apparatus defined above

IPC Revision WG – Definition Project CH Proposition du Rapporteur	Projet: D019 Class/subclass: F23B Date : 27/05/04

Titre - F23B

PROCÉDÉS DE COMBUSTION OU APPAREILS À COMBUSTION UTILISANT UNIQUEMENT DES COMBUSTIBLES SOLIDES

Énoncé de la définition

La présente sous-classe couvre:

Les aspects généraux axés sur la fonction des procédés de **combustion** et des appareils à **combustion** utilisant des combustibles solides où le combustible est

- essentiellement stationnaire durant la combustion ou
- transporté mécaniquement durant la combustion, par opposition à transporté pneumatiquement ou en suspension dans l'air et où la combustion n'implique ni des combustibles liquides ou gazeux ni des combustibles pulvérulents brûlés en suspension. Le combustible solide peut être sous forme de morceaux (p. ex. charbon, briquettes ou bois), pulvérulent ou en grains (p. ex. poudre de charbon, morceaux ou copeaux de bois)

Liens entre secteurs d'une large portée

Liens entre cette sous-classe et les sous-classes d'application de la classe F23

La sous-classe F23G (Fours crématoires; Incinération des déchets) doit être considérée comme un endroit axé sur l'application des aspects de cette sous-classe axés sur la fonction. En cas d'hésitation, l'objet devrait être classé dans les deux sous-classes ou dans F23G et dans des sous-classes de F23 couvrant les détails de tels objets.

Le classement s'effectue dans cette sous-classe si le procédé ou l'appareil est

- d'intérêt général pour la combustion de différents types de combustibles solides, par exemple pas spécialement adapté à un combustible particulier, ou
- spécialement adapté à des combustibles solides spécifiques autre que ceux couverts par F23G (voir la liste ci-après), par exemple à un combustible solide commercial « usuel », tel que charbon, bois, copeaux, morceaux ou fibres de bois.

Le classement s'effectue dans F23G si un procédé ou un appareil est spécialement adapté à la combustion d'une quelconque des substances suivantes :

- Cadavres humains ou parties amputées du corps humain
- Carcasses animales ou leurs rebuts
- Combustibles, p. ex. déchets, posant des problèmes d'environnement particuliers exigeant des procédés de combustion ou des appareils à combustion spécialement adaptés, par exemple combustibles toxiques, explosifs, radioactifs ou corrosifs

- Déchets ayant un aspect physique particulier exigeant des procédés ou des appareils spécialement adaptés à leur combustion, par exemple déchets emballés, pneumatiques en caoutchouc ou voitures usagées
- Combustibles pauvres posant des problèmes de combustion particuliers exigeant des procédés de combustion ou des appareils à combustion spécialement adaptés, par exemple combustibles contenant de grandes quantités d'eau ou d'autres substances non combustibles
- Combustibles présentant des variations importances de leurs composition ou de leurs formes et exigeant de ce fait des procédés de combustion ou des appareils à combustion spécialement adaptés
- Déchets domestiques, de ville ou analogues brûlés essentiellement ou principalement pour leur destruction

La sous-classe F23R (Élaboration des produits de combustion à haute pression ou à grande vitesse), en particulier le groupe 5/00, doit être considérée, en relation avec cette sous-classe, comme un endroit axé sur l'application. Le classement s'effectue dans F23R si le procédé ou l'appareil est spécialement adapté à l'élaboration des produits de combustion à haute pression ou à grande vitesse.

Liens entre cette sous-classe et d'autres sous-classes d'application

La combustion de combustibles solides est fréquemment destinée au chauffage ou à la réalisation d'autres opérations. Les appareils à combustion utilisant des combustibles solides peuvent être autonomes mais font fréquemment partie, ou sont utilisés en conjonction avec, des appareils consommateurs de chaleur, tels que des chaudières. Cette sous-classe est de ce fait liée à plusieurs endroits de classement couvrant les utilisations de la chaleur. Dans beaucoup de ces domaines l'appareil à combustion utilisant des combustibles solides peut être considéré comme un détail d'un ensemble l'englobant. Voir ci-après le titre « Renvois indicatifs » pour une liste non exhaustive d'exemples de telles classes et sous-classes.

Les combinaisons d'appareils à combustion avec d'autres appareils, dans lesquelles l'appareil à combustion peut être considéré comme un détail de l'appareil complet (par exemple d'une chaudière à vapeur) sont classés comme un tout, à l'endroit prévu pour l'autre appareil. Une classification complémentaire dans cette sous-classe n'est effectuée que si des aspects relatifs à l'appareil à combustion en soi présentent un intérêt, en dehors de son application.

Liens entre cette sous-classe et les sous-classes de F23 couvrant des détails

Les sous-classes F23H – F23Q doivent être considérées comme des sous-classes couvrant des détails en relation avec cette sous-classe. Un objet est classé dans cette sous-classe si l'appareil en soi présente un intérêt, ou si un détail n'est utilisé que pour un type particulier d'appareil à combustion et n'est spécifiquement prévu dans aucune des sous-classes F23H – F23Q. Si un détail d'un appareil à combustion présente un intérêt, le classement s'effectue dans la sous-classe prévue pour cette matière.

Liens entre cette sous-classe et les endroits prévus pour la production de gaz combustibles et pour la distillation destructive

- La sous-classe C10B couvre la distillation destructive des matières carbonées en vue de la production de gaz, coke, goudron ou matières analogues.
- La sous-classe C10J couvre la production de gaz combustibles contenant de l'oxyde de carbone à partir de combustibles carbonés solides.

Le classement s'effectue dans ces sous-classes si les substances combustibles produites, p. ex. gaz or coke, sont brûlées dans un appareil distinct de l'appareil de production de gaz ou de distillation.

La classement s'effectue dans cette sous-classe si la combustion complète a lieu dans l'appareil de production de gaz, par exemple dans des parties différentes de la chambre de combustion ou dans un dispositif de postcombustion connecté immédiatement à une chambre de combustion primaire.

Renvois influençant le classement dans la présente sous-classe

La présente sous-classe ne couvre pas:

Renvois de limitation

Combustion de combustibles solides et fluides ou fluidisés, simultanément ou alternativement	F23C 1/00 F23D 17/00
Combustion de combustibles solides dans un flux d'air, p. ex. combustion à lit fluidisé ou combustion de combustibles pulvérisés en utilisant des brûleurs où le combustible est transporté jusqu'à la chambre de combustion par un flux d'air	F23C F23D 1/00
Combustion de combustibles solides en suspension dans un liquide, p. ex. combustion d'une suspension de charbon dans l'eau	F23C F23D
Combustion de combustibles solides à température ambiante, mais brûlés sous forme fondue, p. ex. cire de bougies	C11C 5/00 F23C F23D

Exemples d'endroits couvrant la matière de la présente sous-classe lorsque cette matière est spécialement adaptée á une application, utilisée á des fins particulières ou incorporée dans un système plus vaste:

Fours de boulangerie	A21B
Appareils de cuisson	A47J
Éclairage	F21
Production de vapeur	F22B
Appareils ou procédés spécialement adaptés à la combustion de déchets ou de combustibles pauvres	F23G
Élaboration de produits de combustion à haute température ou à haute pression	F23R
Poêles ou fourneaux à usage domestique pour la cuisson ou pour chauffer localement	F24B

	F24C
Systèmes de chauffage domestique ou d'autres locaux	F24D
Chauffage de fluides, p. ex. d'air ou d'eau	F24H
Séchage	F26B
Traitement thermique de matériaux ou d'objets	F27

Renvois indicatifs

Il est important de tenir compte des endroits suivants, qui peuvent présenter un intérêt pour la recherche:

Entrées couvrant des détails d'application générale des appareils à combustion

Grilles, nettoyage ou grattage des grilles	F23H
Enlèvement ou traitement des produits (p. ex. fumées) ou des résidus de combustion (p. ex. cendres)	F23J
Alimentation en combustible	F23K
Amenée d'air ou alimentation en liquides ou gaz non combustibles (p. ex. eau ou vapeur)	F23L
Détails de structure des chambres de combustion non prévus ailleurs	F23M
Réglage ou commande de la combustion	F23N
Allumage	F23Q

Autres entrées

Épuration chimique ou biologique des gaz résiduaires	B01D 53/34
Procédés chimiques ou physiques, appareillages appropriés, en général	B01J
Réactions de substances chimiques productrices de chaleur, autres que la combustion (p. ex. de l'eau oxygénée et du méthane, de l'oxyde de fer et de l'aluminium)	C F24J
Appareils à combustion utilisant des combustibles fluides ou fluidisés	F23C
Brûleurs à combustibles fluides, p. ex. pulvérulent	F23D

Règles particulières de classement dans la présente sous-classe

Dans cette sous-classe, la règle de la première place est appliquée, c.-à-d. que, pour chaque niveau hiérarchique, la classement s'effectue à la première place appropriée.

Dans cette sous-classe, les procédés sont classés dans les groupes couvrant les appareils utilisés. Les procédés d'application général sont classés dans le groupe 26/00.

Dans cette sous-classe, lors du classement dans le niveau élevé, il est souhaitable d'ajouter les codes d'indexation des groupes 101/00 à 103/02.

Glossaire

Dans la présente sous-classe, les termes (ou expressions) suivant(e)s ont la signification ci-dessous indiquée:

Air	Mélange de gaz contenant de l'oxygène libre et capable de provoquer ou d'entretenir une combustion
Air primaire	Air fourni au combustible en combustion afin de libérer les gaz combustibles
Air secondaire	Air fourni aux gaz combustibles libérés par l'air primaire de façon à achever leur combustion. Le terme « air secondaire » englobe « air tertiaire » etc.
Appareil chauffant	Tout appareil (p. ex. réchauffeur d'air, chaudière ou échangeur de chaleur) qui utilise la chaleur générée par la combustion et qui a une fonction primaire autre que la seule facilitation ou l'achèvement de la combustion
Brûleur	Dispositif amenant un combustible à l'état fluide dans une enceinte où il brûle en donnant naissance une flamme auto-entretenue
Cendre	Tout résidu solide de combustion, par exemple restant dans la couche de combustible ou en suspendion dans les fumées
Chambre de combustion	Enceinte à l'intérieur de laquelle un combustible est brûlé en donnant naissance à un feu ou à une flamme auto-entretenus et qui entoure ce feu ou cette flamme
Combustion	Combinaison directe de l'oxygène sous forme gazeuse (p.ex. oxygène de l'air) avec une substance combustible.
Fumées	Tout produit de combustion gazeux
Grille	Surface perforée supportant ou délimitant une couche de combustible en combustion et permettant l'alimentation en air primaire
Zone de combustion	Partie de l'appareil où l'air réagit avec le combustible

Synonymes et mots clés

· *Dans les documents de brevet, les abréviations suivantes sont souvent utilisées :*

Chaudière	Le mot « chaudière » est souvent utilisé dans ce domaine comme synonyme d' « appareil à combustion », même si le chauffage de l'eau ou d'autres liquides ne présente pas d'intérêt

Brûleur	Le mot « brûleur » est souvent utilisé dans ce domaine dans un sens plus large et non restreint à celui de l'appareil décrit ci-dessus

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WORLD INTELLECTUAL PROPERTY ORGANIZATION
ORGANISATION MONDIALE DE LA PROPRIÉTÉ INTELLECTUELLE

GENEVA/GENÈVE

COMMITTEE OF EXPERTS OF THE IPC UNION
COMITÉ D'EXPERTS DE L'UNION DE L'IPC

DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **DOMAINE DE LA CIB :** **F23C**
RAPPORTEUR : **SE**	**TECHNICAL FIELD :** **DOMAINE TECHNIQUE :** **M**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	SE	22.03.2001
2	Proposal	Proposition	SE	29.08.2001
3	Comments	Commentaire	JP	01.10.2001
4	Comments	Commentaire	EP	02.10.2001
5	Comments	Commentaire	RO	03.10.2001
6	Comments	Commentaire	US	31.10.2001
7	Rapporteur report	Rapport du rapporteur	SE	23.11.2001
8	Comments	Commentaire	JP	12.02.2002
9	Comments	Commentaire	RO	15.02.2002
10	Comments	Commentaire	EP	18.02.2002
11	Comments	Commentaire	US	26.02.2002
12	Rapporteur report	Rapport du rapporteur	SE	06.05.2002
13	Rapporteur proposal	Proposition du rapporteur	SE	27.05.2002
14	Rapporteur proposal	Proposition du rapporteur	SE	19.11.2002
15	Comments	Commentaire	GB	07.02.2003
16	Comments	Commentaire	RO	03.03.2003
17	Comments	Commentaire	US	12.09.2003

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Rapporteur report	Rapport du rapporteur	SE	26.09.2003
19	Rapporteur proposal	Proposition du rapporteur	SE	26.09.2003
20	Comments	Commentaire	US	12.02.2004
21	Comments	Commentaire	JP	01.06.2004

Swedish Patent and Registration Office

IPC Definition Project D020, subclass F23C **September 24th, 2003**

Rapporteur Report
(in response to annexes 15 - 17)

Comments have been received from GB, RO and US. These are summarised below under the respective headings. GB and RO point out that the section titles have not been updated. This has been corrected.

Definition statement

US state that an additional bullet is needed in order to completely cover the scope of F23C 1/00.
Rapporteur thinks US are right and have made the addition proposed by US.

Relationships

US state that F23C is only general for the function aspects of combustion that are not specifically provided for in other related subclasses and propose several modifications of the wording.
Rapporteur agrees with the modifications proposed for the first paragraph.
Rapporteur does not agree with the addition of a third bullet relating to methods or apparatus "alternately usable to burn a fluent fuel of the above type and a fuel provided for in F23G", since rapporteur thinks this matter should be classified in the more specific place, that is in F23G. Such methods or apparatus are specially adapted for fuels provided for in F23G, so the proposed addition would mean a contradiction of the statement of what is covered by F23G. Rapporteur has changed singular form to plural in a couple of places in order to clarify the situation.
Rapporteur does not see any improvement in adding "either … or the disclosure is limited to the" in the introduction to the second set of bullets. If the disclosure is limited to a particular substance, but the apparatus is not specially adapted, then classification should not be limited to F23G.
Rapporteur agrees to replace "fuels" with "types of substances". As a consequence the second occurrence of "fuels" ("e.g. waste fuels") in the first bullet has been removed.

GB and **RO** state that the expression "a detail subclass related to F23C" is unclear and inconsistent with the expression "detail subclasses of class F23" that is used elsewhere.
Rapporteur has changed to the latter expression.

Informative references

GB and **RO** state that in the section "Places for details of general applicability for combustion apparatus" the third reference incorrectly mentions "other non-combustible liquids or gases", since they think "air" that precedes this expression is not in this category.
Rapporteur does not see the point; the non-oxygen ingredients of air would not normally be considered as combustible. Furthermore, the text repeats the structure of the title of F23L 7/00, which admittedly is not consistent with the title of F23L.

GB state that in the section "Other places", there is an unclear reference to "Heat-producing combinations of chemical substances other than combustion". For clarity's

sake they suggest replacing "combinations" with "reactions" and add a comma making the entry read: "Heat-producing reactions of chemical substances, other than combustion". **RO** agree to this.
Rapporteur agrees that although the original wording was taken from the existing note after class F23 the GB proposal is an improvement, and has made the proposed modification.

Glossary

GB state that the entries for "primary air" and "secondary air" would look better as separate independent entries, instead of being bulleted points under "air". **Rapporteur** has made the proposed modifications, but left the entries immediately below "air", rather than placing them according to alphabetic order.

RO have some doubts regarding the term "heated apparatus" and think "heating apparatus" would be more appropriate. **Rapporteur** does not agree, since this would put the emphasis on the end use of the generated heat, rather than on the removal of heat from the combustion process.

Unless US want to press their opinions about the borderline between F23C and F23G Rapporteur thinks this definition is ready for approval. If discussions about the borderline between F23G and other subclasses continue Rapporteur would like to invite more offices to state their opinions.

Anders Bruun

Title - F23C

Methods or apparatus for combustion using fluent fuel

Definition statement

This subclass covers:

General function-oriented aspects of methods and apparatus for combustion of

- Fluent fuels, alone or in combination with other fluent or non-fluent fuels
- Fluent fuels alternately with non-fluent fuels
- Pulverised solid fuel suspended in a stream of air or other gas (e.g. combustion in fluidised beds or combustion of pulverised fuel using burners where the fuel is transported into the combustion chamber by an air stream)
- Solid fuel suspended in a liquid (e.g. combustion of coal-water slurry)

Relationship between large subject matter areas

A. Relationship between this subclass and application subclasses of class F23

F23G (Cremation furnaces; Consuming waste by combustion) is to be seen as an application place in relation to the function-oriented aspects of combustion covered by this subclass. In case of doubt, classification should be made in both subclasses, or in both F23G and detail subclasses of class F23.
Classification is made in this subclass if the methods or apparatus are

- of general interest for combustion of different types of fluent fuel, for example not specially adapted for a particular fuel, or
- specially adapted for fluent fuels other than those provided for in F23G (see the list below), for example "normal" commercial fluent fuel, such as oil, natural gas or pulverised coal.

Classification is made in F23G if the methods or apparatus are specially adapted for combustion of the following types of substances:

- Fuels, e.g. waste, presenting particular fuel-related environmental problems requiring specially adapted methods or apparatus for combustion, for example toxic, explosive, radioactive or corrosive fuels
- Waste having a special physical form requiring specially adapted methods or apparatus for combustion, for example packaged waste
- Low-grade fuels presenting particular problems of combustion requiring specially adapted methods or apparatus for combustion, for example contaminated oil or gas of low heating value.

F23R (Generating combustion products of high pressure or high velocity) is also to be seen as an application place in relationship to this subclass.
Classification is made in F23R if the apparatus or method is specially adapted for generating combustion products of high pressure or high velocity.

B. Relationship between this subclass and other application places

Combustion of fluent fuel is often used for the purpose of heating or performing different operations. Apparatus for combustion of fluent fuel can be self-contained devices, but are often part of, or used in connection with, heat-consuming apparatus, such as heating boilers. This subclass is therefore related to several places providing for uses of heat. In many of these fields the fluent fuel combustion apparatus can be considered a detail of a bigger entity. A non-exhaustive list of examples of such classes or subclasses will be found under the heading "Informative references" below.
Combinations of combustion apparatus with other apparatus, where the combustion apparatus can be seen as a detail of the complete apparatus (for example of a steam boiler), are classified as a whole, in the place for the other apparatus. Additional classification is made in this subclass only if features relating to the combustion apparatus per se are of interest apart from its application.

C. Relationship between this subclass and detail subclasses of class F23

Subclass F23D covers burners per se, as defined in the section "Glossary" below. Classification is made in F23C if the subject matter to be classified, in addition to a burner, includes further features that are of interest, such as a particular form of combustion chamber or a particular arrangement of burners in a combustion chamber. Air supply means that are arranged in immediate connection with the fuel-feeding conduit of a burner, for example concentric with it, should be considered to be part of the burner. Means for feeding air otherwise than in immediate connection with the fuel-feeding conduit of a burner are classified in F23C or F23L, for example arrangements for feeding secondary air at points distant from a burner.
Subclasses F23J - F23Q are to be seen as detail places in relation to this subclass. Classification is made in this subclass if the apparatus as a whole is of interest, or if a detail is of use only for a particular type of combustion apparatus and not specifically provided for in any of subclasses F23J - F23Q. If a detail of a combustion apparatus is of interest, classification is made in the relevant subclass providing for such matter.

References relevant to classification in this subclass

This subclass does not cover:

Burners	F23D
Candles	C11C 5/00

Examples of places where the subject matter of this subclass is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Baking ovens	A21B
Cooking apparatus	A47J
Gas turbine plants	F02C
Lighting	F21
Generating steam	F22B
Combustion specially adapted for waste or low grade fuel	F23G
Generating combustion products of high temperature or high pressure	F23R
Domestic stoves or ranges for cooking or local heating	F24C
Domestic heating systems or space-heating systems	F24D
Heating of fluids, e.g. air or water	F24H
Drying	F26B
Heat treatment of material or articles	F27

Informative references

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

D. Places for details of general applicability for combustion apparatus

Removal or treatment of combustion products (e.g. flue gases) or combustion residues (e.g. ash)	F23J

Feeding fuel	F23K
Supplying air or other non-combustible liquids or gases (e.g. water or steam)	F23L
Constructional details of combustion chambers, not otherwise provided for	F23M
Regulating or controlling combustion	F23N
Ignition	F23Q

E. Other places

Chemical or biological purification of waste gases	B01D 53/34
Chemical or physical processes or apparatus in general	B01J
Heat-producing reactions of chemical substances, other than combustion (e.g. of hydrogen peroxide and methane, or iron oxide and aluminium)	C F24J
Combustion using solid fuel only	F23B

Special rules of classification

In this subclass methods are classified in the groups that cover the apparatus used.

Glossary

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

air a mixture of gases containing free oxygen and able to promote or support combustion

primary air air supplied to the burning fuel (e.g. together with the fuel) in order to liberate combustible gases

secondary air air supplied to the combustible gases liberated by the primary air in order to complete their combustion. The expression "secondary air" covers "tertiary air" etc.

burner a device by which fluent or pulverised fuel is passed to a combustion space where it burns to produce a self-supporting flame. A burner includes means for feeding air that are arranged in immediate connection with a fuel feeding conduit, for example concentric with it.

combustion the direct combination of oxygen gas, e.g. in air, and a burnable substance

combustion chamber a chamber in which fuel is burned to establish a self-supporting fire or flame and which surrounds that fire or flame

combustion zone the part of an apparatus where the reaction takes place between air and fuel

heated apparatus any apparatus (e.g. air heaters, water heaters, boilers or heat exchangers) that uses the heat generated by combustion and has a primary function other than mere facilitation of the combustion process or its completion

Synonyms and Keywords

- In patent documents the expression **"boiler"** is often used instead of **"combustion apparatus"**, even when heating of water or other liquids is of no interest
- In patent documents the expression **"burner"** is often used instead of **"combustion apparatus"** and not in the restricted meaning defined in the glossary above.
- **In patent documents the following abbreviations are often used:**

CFB = Circulating fluidised bed

CWS = Coal-water slurry

EHC = Electrically-heated catalyst

FBN = Fuel bound nitrogen

HC = Hydrocarbons

NOx = Nitrous oxides

PFBC = Pressurised fluidised bed combustion

SOx = Sulfur oxides

UHC = Unburned hydrocarbons

United States Patent and Trademark Office

Project: D020 Subclass – F23C Date: February 11, 2004

Comments

While US thinks that the proposal of Annex 19 is almost acceptable, we still have one remaining problem with it. The definition statement of F23C now positively covers the subject matter of the 3rd bullet we previously suggested for the "Relationship between large subject matter areas". We are confused by Rapporteur's acceptance that this subject matter belongs in F23C and then Rapporteur's refusal to include the same subject matter within the proposed bullet. Therefore, based on Rapporteur's invitation in the last paragraph of the Rapporteur Report, US request reconsideration of this remaining issue.

In our opinion, it is obligatory based on the 'What to classify' guidelines and the Reformed IPC Guide to classify this art in F23C. However, in certain situations, it would also be obligatory to classify the patent document based on the combustion of either of the individual types of fuels. According to the guidelines, when the combustion of one of the types of fuel that is an alternately burned is novel and unobvious per se, this subject matter should also be classified in the subclass that provides for this combustion. To make this requirement clearer in the definition to those examiners that may not have read the guidelines, we suggest modifying our previously proposed 3rd bullet to the following:

- alternately usable to burn a fluent fuel of one or more of the above types and another type of fuel that is provided for elsewhere in class F23, however, if the combustion of one of the burnt fuels per se is novel and unobvious, classification to the subclass appropriate for this fuel is also required.

Japan Patent Office	June 1, 2004
Project: D020	Subclass: F23C

JP Comments on Annex 19

JP agrees to approve the Rapporteur proposal of Annex 19.

There is no necessity to modify the Rapporteur proposal as US recommended in Annex 20 since this modification might cause users' misunderstandings over some parts of the scheme.

We have some concerns that the US proposal may give a false interpretation to users that the subclass F23C covers certain arts such as supplementary heating with fluid fuel, which are covered by other existing subclasses, e.g. F23G5/12.

In view of the said above, if it is still necessary to adopt the US proposal, we prefer to modify it to exclude the arts like supplementary heating with fluid fuel.

IPC/D 029
ORIGINAL: English/French
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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **A61G** **DOMAINE DE LA CIB :**
RAPPORTEUR : **US**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	US	28.08.2001
2	Comments	Observations	JP	01.10.2001
3	Comments	Observations	EP	02.10.2001
4	Comments	Observations	RO	22.10.2001
5	Rapporteur report	Rapport du rapporteur	US	14.11.2001
6	Comments	Observations	FR	06.02.2002
7	Comments	Observations	EP	18.02.2002
8	Rapporteur report	Rapport du rapporteur	US	29.04.2002
9	Rapporteur proposal	Proposition du rapporteur	US	29.04.2002
10	Comments	Observations	US	13.05.2002
11	Rapporteur report	Rapport du rapporteur	US	27.02.2003
12	Rapporteur proposal	Proposition du rapporteur	US	27.02.2003
13	Working Group decision	Décision du groupe de travail	WG	08.04.2003
14	Comments	Observations	EP	14.04.2003
15	Comments	Observations	GB	02.05.2003
16	Rapporteur report	Rapport du rapporteur	US	10.09.2003
17	Rapporteur report	Rapport du rapporteur	US	10.09.2003

United States Patent and Trademark Office

Project: D029 Subclass – A61G Date: September 9, 2003

RAPPORTEUR REPORT

GB and EP have made additional comments on this project. In particular, both Offices have responded to the Committee of Experts' request found in paragraph 11 of IPC/CE/32/12, "The IPC Revision Working Group was requested to clarify, within the scope of Definition Project D 029, whether in this subclass the term 'disabled persons' includes also 'patients'."

EP stated that the term 'disabled persons' does not include the term 'patients' because there is a clear difference in their scope. EP also stated transporting apparatus or lifting devices can be used for both and to clearly indicate this broader usage both terms should be included in the English titles of these groups. GB agreed with EP that these terms are not of the same scope and that both should be used in the titles of relevant groups.

Rapporteur agrees with both GB and EP on this question. Obviously, the terms have some overlapping scope, but a 'patient' need not be a 'disabled person'. For example, a mother after giving birth, or a baby when born, could be a hospital patient and yet neither of them is disabled. The same is true of 'patients' being tested for an illness, getting injections, and being under observation in a hospital. The use of both terms in the title of the subclass and appropriate groups clarifies the common, and ever increasing, usage of a number of the devices specified in this subclass outside of hospitals or emergency situations.

GB suggests that the term 'funeral' would be a much better term than 'funereal' to use in this definition, the IPC, and the Catchword Index since its definition is much more connected with the process of conducting burials. Rapporteur notes that also in the United States, the term 'funereal' is almost never used and that the term 'funeral' would be more appropriate for this subclass title and within the subclass scheme. Rapporteur recommends substituting the term 'funeral' for 'funereal' in the subclass scheme and definition (see Annex for changes needed in scheme).

GB would like to see sanitary devices for bed-ridden persons mentioned in the definition since they are specified in A61G 9/00 and references added to A47K. Rapporteur notes the term 'bedpans' (newest spelling) is already an example after "devices" in the portion of the definition that covers specially adapted devices for the personal needs and convenience of patients and disabled persons. Rapporteur has added appropriate informative references to A47K. GB also expressed concern that the terms "personal conveyances" and "funereal devices" appeared displayed in blue by themselves in the definition. They suggest that it might be useful to users if the terms were displayed with an explanatory statement (e.g., Personal conveyances as defined in the Glossary section below). In Rapporteur's opinion, if we make this change in this definition, then for consistency the WG will need to make it for all similar situations in other definitions. Rapporteur believes that users of the definitions will merely use the common method provided by the IB for linking a term's definition to the term in the electronic layer of the IPC and this addition is not needed. For printed versions, this type of statement may be useful in the 1st occurrence of the defined terminology in the

definitions of a subclass scheme, but it will quickly become a problem if used in all occurrences. The IB and WG should discuss the general policy for the printed versions of the definitions at the meeting.

Rapporteur has included within the proposed definition all of the above recommended changes.

No significant issues remain regarding the definition of A61G.

ANNEX

A61G TRANSPORT OR ACCOMMODATION FOR PATIENTS; OPERATING TABLES OR CHAIRS; CHAIRS FOR DENTISTRY; **FUNERAL** DEVICES

Subclass Index
FUNERAL DEVICES A61G 17/00 to A61G 21/00

Funeral devices (embalming corpses A01N 1/00)

21/00 Funeral aspects of hearses or like vehicles

Title – A61G

Transport, personal conveyances, or accommodation specially adapted for disabled persons or patients;

Operating tables or chairs;

Chairs for dentistry;

Funeral devices

Definition statement

This subclass covers:

Specially adapted vehicles (e.g., ambulances), handling apparatus (e.g., wheelchair lifts), or methods or devices (e.g., stretchers) for moving patients or disabled persons who are passive participants in their relocation (e.g., the persons are handled in a manner similar to loads).

Personal conveyances

Specially adapted structures (e.g., hospital or treatment rooms for medical purposes, baby incubators) or devices (e.g., bedpans, hospital beds, trapeze or pull-up bars) used

- by patients or disabled persons for their personal physical needs and convenience or
- for controlling the local environment of patients or disabled persons during treatment or recovery.

Specially adapted supporting surfaces for sustaining patients in a recumbent or seated position during recovery, surgery, dental work, or similar types of medical treatment.

Funeral devices

Auxiliary appliances (e.g., trolleys for medicine) or accessories (e.g., prescription list) specially adapted for use with the other invention information covered by this subclass.

Relationships between large subject matter areas (e.g. special rules of classification between subclasses)

General relationship of A61G with subclasses for care or alteration of the human body

A61G does not cover apparatus or methods that are directly used on an individual's body to perform medical care and therapy or to alter it after death. The types of medical care, therapy, and body alterations not covered by A61G consist of:

- treating a part of the body (e.g., filling teeth - A61C),

- monitoring the body (e.g., eye testing - A61B),
- determining a medical condition or illness of the body (e.g., radiation diagnosis – A61B),
- investigating the body (e.g., autopsy equipment – A61B),
- physically correcting or altering the body of living individuals (e.g., cataract surgery – A61F), and
- physically preparing or altering the body of deceased individuals (e.g., embalming equipment - A01N, cremation furnaces – F23G).

Subclasses A01N, A61B, A61C, A61F, A61H, A61K, A61M, A61N, and F23G provide appropriately for apparatus or methods for medical care, therapy, or body alterations of these types. The specific classifications that are of interest for search purposes are specified in the references of A61G or its groups.
However, A61G does provide for specific structural modifications that merely facilitate the use of apparatus or methods of these types for medical care or therapy when in combination with subject matter that is otherwise appropriate for this subclass (e.g., special supports for patients with burns).
A61G also provides for life supporting or sustaining devices that control the local environment during treatment or recovery of patients (e.g., baby incubators).

General relationship of A61G with vehicles adapted for use by disabled

A61G covers personal conveyances and 'vehicle-like' conveyances (e.g., wheelchairs, stretchers) that are explicitly designed for use by only a single patient or disabled person and intended to normally travel relatively short distances along the ground or similar support surface (e.g., hallway).

The subclass for a specific type of standard roadway vehicle (i.e., vehicles designed and intended for general thoroughfare usage over long distances, such as B62K for cycles) covers their vehicles that have been specially adapted for use by a disabled operator.

The subclass for a specific type of 'special-utility' vehicle (i.e., vehicles that have another primary purpose other than transport, such as riding lawn mowers or forklifts) covers their vehicles that have been specially adapted for use by a disabled operator.

References relevant to classification in this subclass

This subclass does not cover:

Devices per se for enabling *disabled persons* to operate an apparatus or device not forming part of the body	A61F4/00
Restraining devices for the body or for body parts and restraining shirts that are used for non-surgical treatment of *patients*' bones or joints	A61F5/37
Equipment for beds, treatment tables, floor frames or the like for extending or stretching	A61F5/045
Appliances for aiding invalids to walk about	A61H3/00
Bathing devices for special therapeutic or hygienic purposes	A61H33/00
Inclined lifts associated with stairways for transporting disabled persons or wheelchairs	B66B9/08

Informative references

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

For preserving of the dead bodies of humans, animals, or the parts thereof	A01N1/00
For sanitary equipment not otherwise provided for	A47K
For body washing or cleaning implements	A47K7/00
For sanitary closets or urinals without flushing and chamber pots	A47K11/00
For appliances for supporting or fettering animals during operations	A61D3/00
For vehicles adapted to transport meat	B60P3/05
For vehicles adapted to transport refrigerated goods	B60P3/20
For bicycles specially adapted for disabled riders	B62K3/16

Special rules of classification within this subclass

None

Glossary of terms

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

Disabled person	a human being that is unable to do a basic physical task (e.g., walking) due to a physical or mental impairment/condition.
Funeral device	apparatus associated with (e.g., coffin) or for performing (e.g., casket lowering device) activities connected with the burial, cremation, entombment, or other methods of honoring or disposing of (e.g., freeze drying) the remains of the body of a deceased individual.
Patient	a human being awaiting or undergoing any form of (a) medical care (e.g., testing) or treatment by medical staff (e.g., doctors, dentists, midwifes, chiropractors) or (b) physical tending (e.g., feeding) by caretakers (e.g., hospice or nursing home staff) due to impairment.
Personal conveyance	a vehicle-like device (e.g., wheelchairs) that is: • not specifically adapted for traveling significant distances (e.g., between cities) along thoroughfares (e.g., railways, roads, sidewalks) with normal traffic (e.g., trucks), • explicitly designed (i.e., not merely adaptations of a standard production vehicle) for carrying, and intended to be limited to use by, a single **patient** or **disabled person** at any given time, and • potentially capable of having either its movement controlled or powered by the **patient** or **disabled person** carried by it.

Synonyms and Keywords

None

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **B32B** **DOMAINE DE LA CIB :**
RAPPORTEUR : **EP**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	EP	10.09.2001
2	Comments	Commentaire	CA	24.09.2001
3	Comments	Commentaire	JP	05.10.2001
4	Comments	Commentaire	RO	22.10.2001
5	Comments	Commentaire	US	26.10.2001
6	Rapporteur proposal	Proposition du rapporteur	EP	20.11.2001
7	Comments	Commentaire	US	04.02.2002
8	Comments	Commentaire	RO	04.03.2002
9	Rapporteur proposal	Proposition du rapporteur	EP	22.03.2002
10	Proposal	Proposition	EP	16.09.2002
11	Comments	Commentaire	FR	25.09.2002
12	Comments	Commentaire	DE	30.09.2002
13	Comments	Commentaire	RO	30.09.2002
14	Comments	Commentaire	GB	04.10.2002
15	Comments	Commentaire	US	01.12.2002
16	Rapporteur proposal	Proposition du rapporteur	EP	20.01.2003
17	French version	Version francaise	EP	21.05.2003

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Comments	Commentaire	FR	28.05.2003
19	Comments	Commentaire	CH	17.05.2004

FR VERSION FRANCAISE	
Révision de la CIB – Projet de définition-D030, Sous-classe B32B	Date: 20 mai 2003

Titre – B32B

PRODUITS STRATIFIÉS, c.-à-d. FAITS DE PLUSIEURS COUCHES DE FORME PLANE OU NON-PLANE, p.ex. CELLULAIRE OU EN NID D'ABEILLES

Énoncé de la définition

La présente sous-classe couvre:

Les produits stratifiés comportant plusieurs sortes de matériaux ;

Les produits stratifiés non caractérisés par l'utilisation d'un type déterminé de matériau ;

Les produits similaires à un produit stratifié comportant uniquement un matériau sous forme de feuille ou de grille enrobée dans la masse d'une matière plastique ou d'une substance aux propriétés physiques analogues, laquelle masse pénètre la dite feuille ou grille et en recouvre les deux faces, p.ex. de manière à ce que la dite feuille ou grille renforce la matière plastique, à condition toutefois que la feuille ou la grille ainsi enrobée occupe pratiquement toute la zone couverte par le produit, soit d'une manière continue, soit sous forme d'assemblage ; la feuille ou la grille peut donc être un tissu ou une série de tiges reliées par des fils transversaux ;

Les procédés ou les appareils utilisés pour la fabrication de produits stratifiés ;

Les procédés ou les appareils utilisés pour le traitement des couches ou des produits stratifiés, ce traitement pouvant être préalable ou consécutif à la fabrication.

Liens entre secteurs d'une large portée (p.ex. règles particulières de classement entre sous-classes)

Le classement des produits stratifiés est prévu à divers endroits de CIB, la plupart se limitant à un type particulier de matériau; Cependant, afin que la présente sous-classe constitue une base de recherche complète pour ce qui concerne les produits stratifiés, tout produit stratifié divulguant des informations utiles et pertinentes sera classé dans cette sous-classe même s'il est aussi classé dans d'autres classes.

Cependant, cette sous-classe ne couvre pas
les procédés ou les appareils utilisés pour la fabrication ou le traitement d'un produit, ou en rapport avec ces opérations, lorsque ces procédés ou appareils peuvent être classés en totalité dans une seule autre classe de procédés ou d'appareils auxquels ils sont destinés, p.ex. B05, B29, B44D, C08J, C09J, C23

les compositions, leur préparation ou leur traitement, sauf s'ils sont par essence restreints à des produits stratifiés et s'ils ne peuvent être classés en totalité dans une autre classe sans ignorer cette restriction

Renvois influençant le classement dans la sous-classe B32B

La présente sous-classe ne couvre pas:

Les configurations de métal gravé à la surface des cartes de circuits imprimés H05K1/00

Règles particulières de classement

Dans les groupes 1/00 à 33/00, à chaque niveau de subdivision, sauf indication contraire, le classement s'effectue à la première place appropriée.
Dans les groupes 9/00 à 29/00, "substance spécifique" désigne l'une ou l'autre des substances spécifiées à condition qu'elles soient toutes couvertes par un seul et même groupe principal

Les produits stratifiés sont classés dans les groupes 37/00 ou 38/00 s'ils ne sont pas caractérisés par leur structure ou leur composition

Glossaire

Dans la présente sous-classe, les termes (ou expressions) suivant(e)s sont souvent utilisés avec le sens ci-dessous indiqué:

Adhésif :	désigne une substance introduite uniquement dans le but de coller, quel que soit son état ou son procédé d'application.
Stratification :	désigne l'action qui consiste à combiner une couche de base formée d'une feuille (p.ex. tissus) ou d'une grille (p.ex. une série de tiges reliées par des fils transversaux) à une masse de plastique, ou autre substance similaire, de manière à ce que cette masse entoure ou ~~insère~~ enserre la couche de base (p.ex. recouvre les deux faces opposées de la couche) par recouvrement ou pénétration de ladite couche.
Stratification partielle :	stratification où une couche ne recouvre pas complètement la surface d'une autre couche
Couche :	une feuille, bande ou tout autre élément d'épaisseur relativement faible par rapport à ses autres dimensions, qui existe, en conjonction avec au moins une autre couche, dans un produit, soit qu'elle y préexistait, p.ex. en tant que feuille ou bande séparée, soit qu'elle ait été formée pendant la fabrication même du produit stratifié. Cette couche peut être ou non de nature homogène ou cohésive; elle peut être faite d'un assemblage de fibres ou de morceaux; elle peut être discontinue, p.ex. à claire-voie, en nid d'abeilles ou en forme d'armature; elle peut être en contact total ou non avec la couche adjacente, p.ex. comme lorsqu'une couche ondulée jouxte une couche plate.
Produit stratifié:	produit constitué de couches (continues, discontinues ou perforées), quelle que soit leur forme (p.ex nid d'abeilles, ondulée) liées les une aux autres par tout moyen. Globalement d'épaisseur sensiblement uniforme (c.à.d. ignorant les variations locales telles qu'occasionnées par une couche externe ondulée) ; peut présenter la forme d'un article, p.ex. un réceptacle. Ce terme a une portée plus large que le terme « laminé », dans la mesure où il couvre des matériaux présentant des vides entre les couches ou dans les couches.

*commentaire: cette définition est pratiquement semblable à celle du guide (§ 99) il semble inutile de la reprendre ici, il serait préférable d'utiliser celle de la note 4 spécifique au B32B
** comm CH : nous sommes d'accord avec la proposition FR

Couche filamenteuse :	couche constituée de fils ou filaments quelle qu'en soit la nature (p.ex. des fils métalliques) de longueur pratiquement illimitée, ordonnés et ~~reliés~~ solidaires les uns ~~aux~~ des autres ; elle peut être tissée, tricotée, tressée, ou formée de fils croisés ou disposés côte à côte et liés ensemble.
Couche fibreuse :	assemblage ~~au hasard~~désordonné de fibres ou de filaments, généralement de longueur réduite, p.ex feutre, molleton ; les fibres peuvent être ou non imbriquées ou liées, p.ex par un adhésif.
Couche particulaire :	couche composée de nombreuses particules séparées, p.ex copeaux, fibres très courtes, poudre
Film (ou pellicule) :	est formé sur une couche par pulvérisation d' une substance sur celle-ci ; un film ne constitue pas par lui-même une couche s'il est utilisé uniquement comme adhésif ou pour la finition de surface d'une couche.

* Les termes" film" ou "pellicule" ne sont pas utilisés dans la sous-classe, il n'y a pas lieu de faire apparaître cette définition, la note 3 après le titre de la sous classe est plus adaptée

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **E01D** **DOMAINE DE LA CIB :**
RAPPORTEUR : **US**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	US	28.08.2001
2	Comments	Commentaire	JP	01.10.2001
3	Comments	Commentaire	EP	02.10.2001
4	Comments	Commentaire	RO	22.10.2001
5	Rapporteur report	Rapport du rapporteur	US	15.01.2002
6	Rapporteur proposal	Proposition du rapporteur	US	15.01.2002
7	Comments	Commentaire	FR	07.02.2002
8	Comments	Commentaire	EP	15.02.2002
9	Comments	Commentaire	DE	22.02.2002
10	Comments	Commentaire	RO	04.03.2002
11	Rapporteur report	Rapport du rapporteur	US	20.03.2002
12	Rapporteur proposal	Proposition du rapporteur	US	20.03.2002
13	Comments	Commentaire	US	13.05.2002
14	Rapporteur report	Rapport du rapporteur	US	25.02.2003
15	Rapporteur proposal	Proposition du rapporteur	US	25.02.2003
16	Comments	Commentaire	GB	10.09.2003
17	Comments	Commentaire	SE	20.10.2003

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Comments	Commentaire	DE	20.11.2003
19	Rapporteur report	Rapport du rapporteur	US	17.12.2003
20	Rapporteur proposal	Proposition du rapporteur	US	17.12.2003
21	Comments	Commentaire	GB	23.12.2003
22	Rapporteur report	Rapport du rapporteur	US	13.02.2004
23	Proposal	Proposition	US	13.02.2004
24	Comments	Commentaire	GB	03.03.2004
25	Rapporteur report	Rapport du rapporteur	US	19.05.2004
26	Rapporteur proposal	Proposition du rapporteur	US	19.05.2004
27	Indication of approval		GB	20.05.2004

United States Patent and Trademark Office

Project: D031 Subclass – E01D Date: May 18, 2004

RAPPORTEUR REPORT

GB (Annex 24) has made comments on the last definition proposal (Annex 23) for subclass E01D.

Summary of Comments

GB was concerned with a couple of the phrases used in the "Relationship between large subject matter" section of the definition. The meaning of "located along right of ways of power or information transmittal systems" in the second paragraph was confusing. Rapporteur has restructured this paragraph to make it easier to read and has changed the confusing phrase to "--- positioned serially along the paths followed by the cables of power or information transmittal systems, ---". This should solve this problem. In addition to this, the terminology "larger spanning structures" in line 1 of paragraph 4 of this section was also confusing. Rapporteur has also restructured this paragraph and the introduction now reads "Subclass E01D provides for this type of spanning structures when they are of a unique design or larger in size than those proper for subclasses E01F, H01B, and H02G. A spanning structure proper for subclass E01D must include ----". This should solve this problem.

GB would like the term "bridge" defined in the glossary. EP has stated that this definition is not needed. A problem with GB's suggested glossary definition is that it required bridges to be 'over' or 'above' the obstruction. However, floating bridges are supported 'on' the obstruction and would not fit the suggested glossary definition.

Rapporteur has attempted to address GB's concern with a slight modification in the introduction of paragraphs 1 and 3 of the definition statement. The introductions have been modified respectively as follows "Spanning structures (i.e., traffic-type bridges) for allowing --" and "Floating spanning structures (i.e., floating-type bridges) for supporting ---". This should make it clear to users what portions of the definition statement cover different types of bridges.

IPC Revision WG – Definition Project US Rapporteur Proposal	Project: D031 Class/subclass: E01D Date : 27/05/04

Title - E01D

BRIDGES

Definition statement

This subclass covers:

Spanning structures (i.e., traffic-type bridges) for allowing traffic to travel across naturally occurring obstructions (e.g., river gorges, depressions) or over manmade obstacles (e.g., roads). Each spanning structure including:

- supports located at least on opposite sides of the obstruction or obstacle and
- intervening structure that links the supports and provides a passageway for pedestrians or vehicles (e.g., automobiles, trains).

Spanning structures for allowing (a) bulk-material carrying or directing means (e.g., natural gas pipes, aqueducts) or (b) information or power carrying means to traverse either naturally occurring obstructions of significant size (e.g., river gorges) or outdoor-manmade obstacles of a similar significant size that are located beneath them. Each spanning structure including:

- supports located at least on opposite sides of the obstruction or obstacle and
- intervening bulk-material carrying or directing means that provides a path along which the material moves or intervening linking structure for supporting information or power carrying means (e.g., telegraph cables) between the supports.

Floating spanning structures (i.e., floating-type bridges) for supporting either (a) bulk-material carrying or directing means (e.g., natural gas pipes), (b) information or power carrying means (e.g., telephone cables), or (c) traffic (e.g., pedestrians, automobiles) that travel across or traverse a naturally occurring or manmade body of water of significant size (e.g., lake, river). Each spanning structure including:

- intervening linking structure on or above the surface of the water that provides a passageway for traffic or a support for bulk material, power, or information carrying means across the body of water and
- wherein one or more buoyant supports sustains the intervening linking structure or the intervening linking structure is formed from at least some buoyant parts that sustain it.

Specially adapted components of the above types of spanning structures (e.g., suspension cable clamps).

Accessories or ancillary devices specially adapted for use with the above types of spanning structures (e.g., drawbridge gates that are actuated when the span moves).

Methods specially adapted for constructing the above types of spanning structures (e.g., specially adapted bridge erecting or assembling techniques).

Methods specially adapted for restoring damaged (e.g., replacing dilapidated decking) or structurally augmenting (e.g., strengthening existing component to allow increased traffic load) existing spanning structures.

Methods specially adapted for demolishing or dismantling the above types of spanning structures.

Apparatus specially adapted for constructing, restoring, augmenting, or demolishing the above types of spanning structures.

Relationship between large subject matter areas

Several subclasses provide for supports that are used for bulk-material carrying pipes or information/power carrying cables in out-of-doors locations. The relationship between this subclass and the other subclasses with regard to the various types of 'pipe or cable' supports covered by each is as follows:
Subclasses E01F, H01B, and H02G provide for standard types or sizes of supports:

- used for power or information cables that extend across motorways,
- used to display traffic indicators,
- positioned serially along the paths followed by the cables of power or information transmittal systems, or
- which float upon water without any significant superstructure supporting or housing them.

Subclasses F16L and F17D provide for standard types or sizes of supports used by pipelines or pipeline systems for elevating pipes above the ground or water.
Subclass E01D provides for this type of spanning structures when they are of a unique design or larger in size than those proper for subclasses E01F, H01B, and H02G. A spanning structure proper for subclass E01D must include substantial superstructure extending between two fixed locations for supporting large pipes, information transmitting cables, or power transmitting cables above naturally occurring obstructions or outdoor-manmade obstacles of significant size located beneath them. The spanning structure of this subclass is equivalent in size to standard traffic bridges and is normally specially adapted or modified for the particular obstacle or obstruction it spans.

References relevant to classification in this subclass

This subclass does not cover:

Highways or trackways for toys that may include bridges	A63H18/00
Model railway bridges	A63H19/34
Arrangement of ship-based onboard ramps or gangways	B63B27/14
Bridges extending between terminal buildings and aircraft for embarking or disembarking passengers	B64F1/305
Loading ramps	B65G69/28
Supports that may include structure for spanning a road and supporting electric lines or communication cable going to overhead road signs or traffic signals	E01F9/011
Floating tunnels or submerged bridge-like tunnels	E02D29/067
Laying or reclaiming pipes; Repairing or joining pipes on or under water	F16L1/00
Supports for pipes, cables or protective tubing	F16L3/00
Hoses	F16L11/00
Floating power or information cables	H01B7/12
Overhead installations of electric lines or cables	H02G7/00
Installations of electric cables or lines in or on the ground or water	H02G9/00
Installations of electric cables or lines in or upon bodies of water that are supported by floats	H02G9/12

Informative references

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

Constructions in general and structures which are not restricted to walls	E04B1/00
Wrecking of buildings in general	E04G23/08
Towers, masts, poles and methods of erecting such structures	E04H12/00
Flexible rubber or plastic pipes that are buoyant	F16L11/133
Pipeline systems for gases, liquids, or viscous products	F17D1/00
Demolition of tall structures	F42D3/02

Special rules of classification

NONE.

Glossary

None

Synonyms and Keywords

None

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **F23G** **DOMAINE DE LA CIB :**
RAPPORTEUR : **SE**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Proposal	Proposition	SE	29.08.2001
2	Comments	Commentaire	JP	01.10.2001
3	Comments	Commentaire	EP	02.10.2001
4	Comments	Commentaire	RO	03.10.2001
5	Comments	Commentaire	US	31.10.2001
6	Rapporteur report	Rapport du rapporteur	SE	23.01.2002
7	Comments	Commentaire	JP	12.02.2002
8	Comments	Commentaire	RO	15.02.2002
9	Comments	Commentaire	US	26.02.2002
10	Rapporteur report	Rapport du rapporteur	SE	06.05.2002
11	Rapporteur proposal	Proposition du rapporteur	SE	27.05.2002
12	Comments	Commentaire	JP	30.05.2002
13	Comments	Commentaire	DE	14.10.2002
14	Rapporteur report	Rapport du rapporteur	SE	31.01.2003
15	Rapporteur proposal	Proposition du rapporteur	SE	31.01.2003
16	Comments	Commentaire	GB	13.02.2003
17	Comments	Commentaire	US	15.09.2003

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
18	Rapporteur report	Rapport du rapporteur	SE	26.09.2003
19	Rapporteur proposal	Proposition du rapporteur	SE	26.09.2003

Swedish Patent and Registration Office

IPC definition Project D032, subclass F23G **September 26th, 2003**

Rapporteur Report
(in response to Annexes 16 and 17)

Comments have been received from GB and US. These are summarised below under the respective headings. GB point out that the section headings have not been updated - this has been corrected.

Title

GB support the title proposed in Annex 15
Rapporteur does not think there is a procedure for modifying the IPC as a result of definition projects. This would be desirable, as has also been indicated in a couple of other D projects. Rapporteur personally thinks a modification of the title is a straightforward consequence of the note after the subclass title, which in fact has exactly the same effect as a third part of the title. However, there have been some previous objections to changing the title, so it should perhaps be left for future maintenance.

Definition statement

GB propose to delete the word "fuels" from the first line. **US** propose to replace fuels with "substances".
Rapporteur has replaced "fuels" with "substances".

GB state that the last part of the definition statement should be made part of the list of bullets, to which **US** agree. Both have submitted proposals for new entries.
Rapporteur has tried to make a synthesis of the GB and US proposals.

Relationship between large subject matter areas

US have made a number of comments regarding the status of F23G as a general place rather than an application-oriented place, and made several proposals for modifications. They state that all of F23B, F23C and F23G are distinct application places in relation to class F23, which is the general place in the area, and that there is no application-to-general relationship between these subclasses. **GB** have not commented on this question.

Rapporteur does not agree with the US position. On the contrary, Rapporteur thinks that although both F23B and F23C also cover some application aspects the relationship between F23B and F23C is mainly a typical application-to-general relationship. Waste can be solid, liquid or gaseous, or a mixture thereof. Combustion of solid, liquid or gaseous fuels, or mixtures thereof, in general is covered by F23B or F23C. F23B contains no reference relating to waste, only to low grade fuel. F23C contains only one reference to F23G - a specific reference at subgroup level. The difference between "combustion of solid fuel" and "burning of solid waste" can only be defined in terms of application, since "waste" can not be technically defined.

"Waste" is a very wide and heterogeneous material. It can be of high or low fuel value, and of high or low commercial value. So called "refuse-derived fuel" is a commercial industrial product. Several types of waste are bought and sold in large quantities as

commercial fuels. Waste can not be defined as a fuel in technical terms, for example by its chemical properties, but only in economic terms.

In previous comments it appears that US is the only office to have objections against the philosophy expressed in Annex 15. Therefore **Rapporteur** proposes not to change it.

US also propose several detail modifications, which has led to the following modifications:
Rapporteur has modified the beginning of the section to harmonise with the corresponding parts of the definitions of F23B and F23C (projects D019 and D0120).
Rapporteur would like to draw the attention to the subsection "Relationship to detail subclasses of class F23". Rapporteur's intention with this section is to make it clear that details that are specifically covered in the detail subclasses, such as for example control systems using light-sensitive elements (F23N 5/08), devices for removal of ashes from travelling grates (F23H 11/24) or arrangements for cooling burner parts (F23D 14/78), should normally not be classified in F23G. In order to make this clearer the wording has been limited to details of apparatus. The US proposal would encourage classification of details of apparatus in F23G, which does not seem desirable.
Rapporteur does not agree that F23G is an application place in relation to B09B or B09C. Rapporteur can not see how matter of F23G could be regarded as a special adaptation or special use of matter covered by B09B or B09C, or incorporation of matter of B09B or B09C into a larger system. For B09B the relationship is defined by Note (1) after that subclass - B09B is residual to F23G. For B09C the relationship is defined by the reference in B09C 1/06. However, Rapporteur proposes to move the references to the B09 subclasses to the section "References relevant…".

Glossary of terms

GB make a proposal for definitions of the words fuel and waste. **US** support this definition.
Rapporteur sees these definitions as being of purely semantic interest. The definitions could even be harmful for classification, since they would draw attention away from the definition of the scope of the subclass that is given in the definition statement.
In previous comments there has been disagreement over the desirability of definitions, but there seems to be a slight majority in favour of them.

In view of this, **Rapporteur** has added the proposed definition of "waste" to the glossary. However, adding the proposed definition of "fuel" to the glossary would require substantial rewording of the definitions, where in several places "fuel" would have to be replaced by other terms. In order to avoid this Rapporteur has made an attempt at an alternative definition, which also includes waste.

Unless US want to press their opinions about the borderline between F23G and other subclasses of F23 Rapporteur thinks this definition is ready for approval. If discussions about the borderline between F23G and other subclasses continue Rapporteur would like to invite more offices to state their opinions.

Anders Bruun

Title - F23G

Cremation furnaces;
Consuming waste by combustion

Definition statement

This subclass covers:

Methods or apparatus specially adapted for combustion of the following substances:

- Human corpses or amputated body parts
- Animal carcasses or their discarded body parts
- Fuels, e.g. waste fuels, presenting particular fuel-related environmental problems requiring specially adapted methods or apparatus for combustion, for example toxic, infectious, explosive, radioactive or corrosive fuels
- Waste having a special physical form requiring specially adapted methods or apparatus for combustion, for example packaged waste, rubber tyres or discarded cars
- Low-grade fuels presenting particular problems of combustion requiring specially adapted methods or apparatus for combustion, for example fuels containing high amounts of water or non-combustible substances, green biomass, contaminated oil, or gas of low heating value.
- Fuels that vary considerably in composition or form and therefore require specially adapted methods or apparatus for combustion
- Household, municipal, or similar waste that is solely or primarily burned for the purpose of its destruction

Relationship between large subject matter areas

Relationship with general function-oriented places in class F23

This subclass is to be seen as an application place in relation to the function-oriented aspects covered by F23B (Combustion apparatus using only solid fuel) and F23C (Combustion apparatus using fluent fuel).
Classification is made in F23B or F23C if the method or apparatus is

- of general interest for combustion of different types of solid or fluent fuel, for example not specially adapted for a particular fuel, or
- specially adapted for fuels other than those provided for in this subclass, for example "normal" commercial fuels, such as oil, natural gas, coal, firewood, wood chips, wood pellets or straw.

If methods or apparatus covered by this subclass are also of general interest for combustion of "normal" commercial fuels classification should also be made in other subclasses of F23. The decision on whether an apparatus is specially adapted or not is sometimes not easy to decide. In doubtful situations classification should therefore always be made in both this subclass and other subclasses of F23.

Relationship between this subclass and detail subclasses of class F23.

Subclasses F23D and F23H - F23Q are to be seen as general detail places in relation to this subclass. Classification of details of apparatus in this subclass should be restricted to inventions that are clearly specially adapted for methods or apparatus that are covered by the subclass. If a detail of an apparatus is specifically covered in a group of F23D or F23H - F23Q, classification should be made in that group and not in this subclass.

Relationship between this subclass and other application places

Combustion is often used for purpose of heating or performing different operations. This subclass is therefore related to many places providing for uses of heat. In many of these fields the combustion apparatus can be considered a detail of a bigger entity. A non-exhaustive list of examples of such classes or subclasses will be found under the heading "Informative references".

Relationship between this subclass and places for gasification or destructive distillation

- C10B covers destructive distillation of carbonaceous material for production of gas, coke, tar or similar matter.
- C10J covers production of combustible gases containing carbon monoxide from solid carbonaceous fuels.

Classification is made in these places if the combustible substances produced, e.g. gas or coke, are burned in an apparatus separate from the gasification or distillation apparatus.
Classification is made in this subclass if complete combustion takes place in the same apparatus as the gasification, for example in different parts of the same combustion chamber or in an afterburner immediately connected to a primary combustion chamber.

Relationship between this subclass and class B09

- B09B covers disposal of solid waste
- B09C covers reclamation of contaminated soil

These subclasses only cover matter that is not completely covered by this subclass. Examples of such matter are processes that include a combustion step in combination with other steps that together form a process for disposal of waste or reclamation of contaminated soil.

References relevant for classification in this subclass

Examples of places where the subject matter of this subclass is covered when specially adapted, used for a particular purpose, or incorporated in a larger system.

Disposal of solid waste	B09B
Reclamation of contaminated soil	B09C
Gas turbine plants	F02C
Generating steam	F22B
Generating combustion products of high temperature or high pressure	F23R
Domestic stoves or ranges for local heating or cooking	F24B F24C
Apparatus for heat treatment of materials or articles	F27B

Informative references

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

Places for details of general applicability for combustion apparatus

Grates, cleaning or raking of grates	F23H
Removal or treatment of combustion products (e.g. flue gases) or combustion residues (e.g. ash)	F23J
Feeding fuel	F23K
Supplying air or other non-combustible liquids or gases (e.g. water or steam)	F23L
Constructional details of combustion chambers, not otherwise provided for	F23M
Regulating or controlling combustion	F23N

Ignition	F23Q

Other places

Chemical means for combating harmful chemical agents or for making them harmless	A62D 3/00
Chemical or biological purification of waste gases	B01D 53/34
Chemical or physical processes or apparatus in general	B01J
Gathering of domestic or like refuse	B65F
Treatment of water, waste water, sewage or sludge	C02F
Destructive distillation of carbonaceous material for production of gas, coke, tar or similar matter	C10B
Production of combustible gases containing carbon monoxide from solid carbonaceous fuels	C10J
Fuels, treatment of fuels	C10L
Regeneration of pulp liquors by combustion	D21C 11/12
Combustion of "normal" commercial fuels	F23B F23C
Treatment of solid radioactively contaminated material by incineration	G21F 9/32

Special rules of classification

None

Glossary

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

air a mixture of gases containing free oxygen and able to promote or support combustion

primary air air supplied to the burning fuel in order to liberate combustible gases

secondary air air supplied to the combustible gases liberated by the primary air in order to complete their combustion. The expression "secondary air" covers "tertiary air" etc.

burner a device by which fluent or pulverised fuel is passed to a combustion space where it burns to produce a self-supporting flame. A burner includes means for feeding air that are arranged in immediate connection with a fuel feeding conduit, for example concentric with it.

combustion the direct combination of oxygen gas, e.g. in air, and a burnable substance

combustion chamber a chamber in which fuel is burned to establish a self-supporting fire or flame and which surrounds that fire or flame

combustion zone the part of a combustion apparatus where the reaction takes place between air and fuel

fuel any combustible material that can be burned, regardless of whether the main purpose of burning it is for releasing energy therefrom or for disposing of it or rendering it less harmful

waste an undesired material that can be consumed by combustion for the primary purpose of disposing of it or rendering it less harmful, and not solely for releasing energy therefrom

Synonyms and keywords

- In patent documents the expression **"boiler"** is often used instead of **"combustion apparatus"**, even when heating of water or other liquids is of no interest
- In patent documents the expression **"burner"** is often used instead of **"combustion apparatus"** and not in the restricted meaning defined in the glossary above.
- **In patent documents the following abbreviations are often used:**

CFB = Circulating fluidised bed

EHC = Electrically heated catalyst

FBN = Fuel-bound nitrogen

HC = Hydrocarbons

NOx = Nitrous oxides

PFBC = Pressurised fluidised bed combustion

SOx = Sulfur oxides

UHC = Unburned hydrocarbons

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **B60R** **DOMAINE DE LA CIB :**
RAPPORTEUR : **US**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	US	20.06.2003
2	Comments	Commentaire	CA	09.09.2003
3	Comments	Commentaire	GB	10.09.2003
4	Comments	Commentaire	SE	16.09.2003
5	Rapporteur report	Rapport du rapporteur	US	29.01.2004
6	Rapporteur proposal	Proposition du rapporteur	US	29.01.2004

United States Patent and Trademark Office

Project: D034 Subclass – B60R Date: January 23, 2004

RAPPORTEUR REPORT

Rapporteur has placed the modified definition into the new definition template format. Rapporteur has also reviewed the modifications to the scheme that were approved in revision project C354 to ensure that the proposed subclass definition fully embraces the newly added groups.

CA (Annex 2), GB (Annex 3), and SE (Annex 4), have made comments on the initial proposal (Annex 1) on the subclass definition for B60R.

Summary of Comments

CA believes that the word "remaining" should be removed from the 1st line of the first statement of the definition statement. Rapporteur agrees.

CA also believes that "DEFINITION STATEMENT" should be terminated at the end of the paragraph finishing with "(...) or through the countryside" and that the remaining paragraphs in the definition statement should now be made a note. The note would cover the section that begins with "Vehicle components or parts of (...)"and terminate at the end of the paragraph that finishes with "(...) for marketing and promotional purposes (e.g. advertising signs)". Rapporteur does not support this change since the components and parts, which are covered by the section CA wants to make a note, are intended to explicitly provide within the definition statement for the "vehicle fittings, or vehicle parts, not otherwise provided for" that are specified in the subclass title.

CA suggests the addition of informative references to "Vehicle Wheels and Axles" (B60B) and to "Vehicle Tyres" (B60C). Rapporteur agrees this would be helpful.

While GB supports the definition, it does have a few problems with it. GB notes that the second bullet under "vehicle categories" defines categories of vehicle using wording that is slightly different from the corresponding wording for these categories found in the Note under the B60 class title. GB feels that the "official" wording under the B60 class title should be used for these vehicles and that it should preferably be added to a definition for vehicle in the "Glossary of Terms" section. Rapporteur has modified the second bullet to read more like the B60 definition, but believes that it would be confusing to users to add this definition of 'vehicles' to the "Glossary of Terms". This is because 'vehicle' components are covered in the last section of this definition statement and these components are often disclosed or claimed as parts of the very vehicles that 'per se' are restricted out of the scope of this subclass by the 1st paragraph of the definition statement.

GB also notes that the first bullet under the last section of the definition statement covering "vehicle components" refers to "hygiene" purposes, whereas the relevant main group (15/00) refers to 'sanitation'. Looking at the subgroups for main group 15/00, Rapporteur believes he understands GB's concern with this difference in terminology. The definition of 'sanitary' that was assumed by Rapporteur is the most common one "free from, preventing, or checking an agent (such as filth or infection) that is injurious to health". This is hygiene. A less common and more restricted definition of 'sanitary' is "water closet, urinal, or similar equipment fitted with plumbing". This seems to be the type sanitary device intended within the main group. Although Rapporteur does not know where devices for holding 'wet wipes' for babies will now be located (perhaps B60R 7/14), he has narrowed the definition to the more restrictive alternative meaning.

GB states, "B60R does cover residual vehicle types, but this is such a small part of B60R and that most categories of vehicle do not fall under B60R. Therefore, references relating to specific types of vehicle should probably be placed under informative references". These references are to B60F 1/00, B60F 3/00, B60F 5/00, B60P, and B60V. Rapporteur agrees that the definition statement would preclude these types of vehicles per se from being classified in B60R and so these references could be informative and not be limiting. Rapporteur has done this.

GB does not think including F-terms within the synonyms and keywords section is helpful. Rapporteur has not added these F-terms to the definition at this time.

SE is deeply concerned about the practice of 'inventing' alternative wordings for the subject matter covered by group titles. SE thinks the definition statements should preferably use the same expressions as the titles, and give extra explanations only when needed. Of course, Rapporteur disagrees with SE's general statement. The purpose of the Reformed IPC is to exactly define the subject matter within each level of classification. Normally, defining the title using exactly the same terms adds nothing to the users actual understanding of the intended subject matter. The specificity of scope needed for an actual international classification system that can share a common database did not exist in the old IPC. The example of the many potential meanings of 'sanitation devices' given above clearly demonstrates this point. Another example would be a group titled "oxygen". For this title, it at first seems redundant to create a definition using different terms. However, it remains unclear to users if this group is intended to cover all forms of oxygen. The group may or may not intend to cover ozone (O_3) and this intent must be made clear in the definition statement.

SE would prefer to start the definition statement with the current last statement that covers the subject matter of groups 1/00 - 25/00 (i.e., from "Vehicle components…" downward). SE

notes that these groups are not stated as being residual and they agree with this, but it seems better to them to finish the definition statement with the residual matter of 27/00. Rapporteur partially agrees with SE's suggestion. A new section covering just residual types of components or parts has been placed at the bottom of the definition statement. However, Rapporteur has left the 1st statement that covers 'residual' types of vehicles at its current location since these are a combination of components and more complex in structure than the mere components of a vehicle.

SE does not think the requirements of being "explicitly designed for carrying people" and "specifically adapted for travelling significant distances" are correct. Rapporteur believes these restrictions are essential and constitute the implicit distinctions between the vehicles of this subclass and the conveying structures of other classes. A "significant distance" should be understood to be more than the travel distances normally found within a building or series of interconnected buildings since handlers, such as wheeled machines for placing goods in racks, are otherwise vehicles. Rapporteur has clarified this point in the definition statement. Rapporteur notes that the broadest definition of a vehicle that he could find is "a device for carrying either people or goods (e.g., packages or scientific equipment on robotic vehicles) between locations".

SE states that B60R is residual to the entire IPC, not only to other subclasses of B60. Rapporteur believes this is partially true and that the 2nd bullet of the first statement accurately reflects the actual residual scope of B60R. This scope is also used in the newly added last statement for residual components. All of this residual subject matter is covered in 27/00.

SE is concerned with the wording of several of the bullets in the last paragraph of the definition statement. Rapporteur would like the Working Group to note that each of these bullets is not intended to correspond completely with a particular main group in its entirety. Many of SE's problems with wording are caused by this misunderstanding. The addition of a residual section for vehicle components should solve most of SE's stated wording problems. A few of their suggestion are specifically discussed below.

SE is concerned that the fifth bullet covering group 1/00 "optical viewing arrangements" is much too wide. Rapporteur does not believe the proposed definition is wider than the potential scope of the title of this main group; it may actually be narrower since it specifies that the optical devices be "used during travel to assist vehicular operation". SE also does not think the example "camera/screen traffic viewers" is correct for "optical viewing arrangements". Rapporteur notes that JP has included this type of art in this main group within its FI subgroups 1/00A "Equipped with cameras" and 1/00C "Equipped with optic fibre and image-projecting parts. Rapporteur again notes that this section merely states that this type device is in B60R and not that it is in B60R 1/00 per se as SE states.

Most of the difference in interpretation of scope concerning group 1/00 is caused by the multiple meanings of the term 'optical'. What subject matter does the term 'optical' in the main group title define? Optical can mean, "relating to the vision of the eye" which is the meaning JP and Rapporteur have assumed. It can also mean, "relating to lenses, prisms, or mirrors" which seems to be the narrower meaning SE has assumed. Obviously, the mere mounting of mirrors specially adapted for vehicles is covered by 1/00. However, Rapporteur believes SE is incorrect with regard to the example since it is obviously proper for either group 1/00 or 11/04. Rapporteur has reworded the bullet so that it requires special adaptation for vehicles when it is an optical device. However, this bullet remains limited to helping in the vehicle's operation (mirrors mounted on visors to help put on makeup are covered by other bullets). The final line between main groups 1/00, group 11/04, and actuators proper for main group 21/00 can be clarified when their definitions are written and, because of

Rapporteur's approach, there will be no need to redo the definition of this subclass at that time.

SE is also concerned that the eighth bullet does not completely cover all of the subject matter proper for group 16/00. The title of this group contains "not otherwise provided for" and SE thinks it is necessary to include a statement of the residual nature in the definition. Rapporteur believes the introductory portion of this set of bullets already does this. SE is also concerned with the 9th bullet that covers group 17/00. Rapporteur notes that the definition statement is clearer than the title in that it restricts out the general subject matter that is not 'specially adapted' for a vehicle and is proper for F16N.

SE is concerned too with the tenth bullet covering group 3/00. SE thinks that the proposed wording is too wide - it covers steps that are separate from the vehicle and it also covers "other vehicle components". SE states that while the title of group 3/00 only covers "arrangements of steps" and that the proposed bullet's wording would, for example, cover lifts for disabled persons. Rapporteur notes that vehicle parts need not be attached to the remainder of the vehicle and that running boards (which many people do not consider steps since they can be used by James Bond types as a platform for machine gunning) are also covered by this main group. The best solution is to merely require that the steps be specially adapted for vehicles. Vehicle lifts are clearly elsewhere classifiable which can be specified by a reference in this main group. SE also notes that the title of 19/00 does not cover its subgroups, however the scope of the definition, "exterior components of vehicles primarily designed to protect vehicles or particular components of vehicles from damage caused by impact with other objects" may be too wide and it still does not cover 19/54 or 19/56. Rapporteur notes that group 19/54 is covered by 'other object' statement and group 19/56 is covered by the new residual paragraph for components. Again, each bullet was not intended by Rapporteur to exactly correspond to an existing scope of a particular main group. Examples have been added to make this clearer.

SE suggested some minor changes within the section "relationship between large subject matter area" that were made.

IPC Revision WG – Definition Project US Rapporteur Proposal	Project: D034 Class/subclass: B60R Date : 27/05/04

Title - B60R

Vehicles, vehicle fittings, or vehicle parts, not otherwise provided for

Definition statement

This subclass covers:

Any category of vehicles per se that:

- is not explicitly covered by another subclass of the class (B60) for this subclass or
- is not structurally restricted to the vehicular categories fully covered by subclasses providing for rail vehicles, waterborne vessels, aircraft, space vehicles, handcarts, cycles, animal-drawn vehicles, or sledges.

The categories of vehicles appropriate for this subclass must be explicitly designed for carrying people or goods and specifically adapted for traveling significant distances (e.g., between cities, to or from separate building complexes) along thoroughfares or through the countryside.

Vehicle components or parts of the following types when they are either of general utility or specially adapted for a category of vehicle proper for this subclass:

- Devices utilizing plumbing that are specially adapted for vehicles, or modification to vehicles for accommodating such devices, which are used by vehicle occupants for sanitary purposes (e.g., water closets, urinals, sinks).

- Specially adapted arrangements, devices, or fittings for preventing or reducing **direct-impact type injuries** to occupants of vehicles (e.g., air bags, seat belts) or otherwise directly protecting (e.g., from a physical attack) occupants of vehicles.

- Specially adapted arrangements, devices, or fittings for preventing or reducing **direct-impact type injuries** to people that are not occupying vehicles (e.g., pedestrians).

- Arrangements or devices for indicating or stopping the unauthorized use of vehicles.

- Mirrors or other optical-type devices (e.g., camera/screen traffic viewers) specially adapted for vehicles, or arrangements of such mirrors or optical devices on vehicles, that are used during travel or vehicular operation to assist in viewing external objects.

- Compartments or devices located on the interior or exterior of vehicles that are primarily intended to hold or contain stowed articles (e.g., luggage, maps, skis) for their occupants.

- Devices or arrangements located on the interior or exterior of vehicles for holding articles used for vehicular maintenance (e.g., tools, jacks)

- Devices or arrangements located on the interior or exterior of vehicles for mounting articles (e.g., television sets, makeup mirrors) or vehicle components (e.g., loud speakers) used by occupants for functions that are non-essential to the operation of vehicles.

- Electrical or fluid circuits, or arrangements of electrical or fluid components used in such circuits, that are specially adapted for use with vehicles.

- Specially adapted arrangements, devices, or fittings for the lubrication of vehicles.

- Specially adapted steps, or other vehicle components for supporting occupants (e.g., running boards), which are used by occupants when accessing vehicles or exterior portions of vehicles.

- Exterior components of vehicles primarily designed to protect vehicles (e.g., bumpers), or particular components of vehicles (e.g., radiator guards), from damage caused by impact with other vehicles or objects.

- Ornamental or functional vehicle components used in the finishing of vehicle bodies or interiors.

- Vehicle components used for the identification of vehicles or parts of vehicles.

- Devices mounted on or attached to vehicles, or modifications to the body components of vehicles, used for marketing or promotional purposes (e.g., advertising signs).

Any components or parts that are intended for uses other than those specified above and that are not specially adapted for vehicles which:

- are provided for in another subclass of the class (B60) for this subclass or

- are restricted to use with a vehicular category fully covered by subclasses providing for rail vehicles, waterborne vessels, aircraft, space vehicles, handcarts, cycles, animal-drawn vehicles, or sledges.

Relationship between large subject matter areas

General relationship between B60R and other subclasses providing for devices or fittings for preventing injuries to passengers of vehicles

B60R covers safety devices or fittings for preventing or reducing **direct-impact type injuries** to occupants of vehicles when they are specifically for the types of vehicles proper for class B60 or are of general utility (i.e., usable on vehicles of any type). In addition to this, B60R covers safety belts or harnesses used in motor or rail-type vehicles of all types (i.e., land vehicles).
B60P covers safety devices for securing or bracing loads other than occupants on vehicles.
B64D (in particular 25/00) covers safety devices or fittings for aircraft and, in particular, safety belts and harnesses used on aircraft.
B63B (in particular 23/00) and B63C (in particular 9/00) cover safety devices or fittings for boats or ships.
A62B 35/00 covers safety belts or harnesses that are not used in vehicles or that are not limited to use in vehicles.

General relationship between B60R and other subclasses providing compartments, holding devices, or mounting devices in vehicles

B60R includes vehicle compartments or holding devices for storing or mounting articles in a non-use position when they are of general utility or not specifically provided for in an appropriate subclass for the category of vehicle they are on. Normally the 'articles' stored or held are not the primary payload of the vehicle (see B60P reference) and are limited to stowed articles that are the personal property of their occupants (e.g., luggage, skis), used by their occupants when traveling (e.g., maps, flashlights), or used for vehicle maintenance (e.g., jacks, tools). The 'articles' stored or held may also be an essential or primary vehicle component of the types specified in the main group titles of B60R (e.g. mirrors, air bags). Moreover, B60R also provides for devices for holding or mounting other types of 'articles' in a use position, but only when the 'articles' held or mounted are not essential to the operation of the vehicle (e.g., ceiling/roof liner, radio) or are secondary-type vehicle components (e.g., electrical wiring for circuits).

Other vehicle subclasses provide for compartments or component mounting devices when they are structurally limited to use only with a specific vehicle type provided for elsewhere. The exception to this statement is for those essential or primary vehicle components that are expressly provided for in specific groups of B60R (e.g., vehicle mirrors, bumpers, seat belts). Other vehicle subclasses provide for compartments or component mounting devices when they are for housing, positioning, or holding 'articles' that are the distinguishing essential or primary operational components for their category of vehicle (e.g., curtain-forming nozzle for

aircushion vehicle). However, in these situations, the operational components of vehicles must be useable in the held or housed position, or easily repositioned from a stored position to a position for use, for their primary purpose (e.g., B62D 25/08 for engine compartments, B60J 1/16 for vehicle windows slidable into non-use area of doors, B60Q 1/05 for retractable vehicle head lights) versus merely being transported freight.

References relevant to classification in this subclass

This subclass does not cover:

Fire prevention, containment, or extinguishing specially adapted for vehicles	A62C3/07
Cooling, heating, or ventilating devices for compartments that store goods within passenger vehicles	B60H1/00
Special receptacles, compartments, or holders on vehicles for the refuse, food, beverages, or cigarettes of occupants	B60N3/00
Vehicles with living accommodations for people (e.g., caravans with closets or bathrooms)	B60P3/32
Vehicle safety devices for securing or bracing loads other than the occupants	B60P7/06

Informative references

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

Wheels and axles for vehicles	B60B
Tyres for vehicles	B60C
Vehicles for use both on rail and on road	B60F1/00
Vehicles for use on land and in or on water	B60F3/00
Vehicles convertible to travel in or on different media	B60F5/00
Vehicles predominantly for transporting loads	B60P
Air-cushion vehicles	B60V

Special rules of classification

NONE.

Glossary

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

Direct-impact type injury	for drivers or passengers within a vehicle this consists of the types of injuries caused by a portion of an occupant's body striking a component that is within or encloses the passenger compartment of their vehicle (e.g. a bumper actuated air bag protecting a passenger from hitting a steering wheel in contrast to an energy absorbing bumper protecting the vehicle) and for non-occupants this consists of the types of injuries caused by a portion of a non-occupant's body striking an exterior component of a vehicle (e.g. a bumper actuated safety net catching a pedestrian prior to hitting the vehicle in contrast to a flexible vehicle body part that is intended to resist damage due to any type of impact).

Synonyms and Keywords

NONE.

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **B60V** **DOMAINE DE LA CIB :**
RAPPORTEUR : **US**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	US	13.12.2001
2	Comments	Commentaire	EP	15.02.2002
3	Comments	Commentaire	RO	30.09.2002
4	Comments	Commentaire	JP	11.10.2002
5	Comments	Commentaire	DE	19.11.2002
6	Rapporteur report	Rapport du rapporteur	US	10.03.2003
7	Rapporteur proposal	Proposition du rapporteur	US	10.03.2003
8	Comments	Commentaire	CA	10.09.2003
9	Comments	Commentaire	SE	17.09.2003
10	Rapporteur report	Rapport du rapporteur	US	23.01.2004
11	Rapporteur proposal	Proposition du rapporteur	US	23.01.2004
12	Indication of approval		GB	05.02.2004

United States Patent and Trademark Office

Project: D035 Subclass – B60V Date: January 20, 2004

RAPPORTEUR REPORT

Rapporteur has placed the modified definition into the new definition template format.

CA (Annex 8) and SE (Annex 9) have made comments on the last proposal (Annex 7) for the subclass definition for B60V.

Summary of Comments

CA recommends that the portion of the proposed definition statement defining the types of 'vehicles' that are appropriate for this subclass be made a Note. Rapporteur agrees that this change would make the definition statement easier for users to understand and has created a note specifying the appropriate scope of the term 'vehicle' in this subclass.

CA suggests making a new main group 5/00 to cover the manufacture of vehicles with air cushions. Rapporteur would support this proposal at a later time during standard maintenance.

CA also suggests more specific additional/alternative wording for use in the section "Relationship between large subject matter areas" to state the subject matter appropriate for subclasses B62D, B63B, and B64F. Rapporteur has attempted to incorporate most of CA's wording into this section and has reordered the existing wording to make its intent clearer to users. Rapporteur has also attempted, within the definition statement, to clarify that method steps used exclusively to form air cushion structure are appropriate for subclass B60V even when the structure formed by the total manufacturing process is a combination or convertible type vehicle that is classifiable in another subclass. Based on the 'What to Classify Guidelines' and paragraph 98 of the Reformed IPC Guide, this change will require classification of this type of subcombination within B60V when it is novel and unobvious. This change should help address SE's concern for symmetry.

CA proposed additional informative references to subclass B23P that Rapporteur agrees are useful.

SE believes the term "thin" in the introductory statement of the definition should be deleted. Rapporteur notes that JP requested the addition of this term. Rapporteur agrees with JP that the term is useful since it is one of the primary distinctions between aircraft, helicopters, rockets, and hovercraft. Later in the definition statement, it is made clear that 'thin' in this situation is less than the height of the vehicle.

SE does not like the requirement that "the gaseous fluid is supplied or generated from the vehicle". Rapporteur believes that this is clearly an implicit requirement of the subclass. Rapporteur suggests that it would only be appropriate to modify this requirement slightly to "the gaseous fluid must be supplied or generated **at least partially** from the vehicle". As

Rapporteur has previously indicated, without this requirement there is no actual distinction between this subclass and B61B 13/00 (particularly groups 13/08 and 13/12).

SE does not like the requirement "must be explicitly designed for carrying people or goods **and** specifically adapted for traveling significant distances". SE is concerned with classification of unmanned hovercraft vehicles and that these restrictions have no bases in the subclass title. Rapporteur believes these are the implicit distinctions between the vehicles of this subclass and the conveying structure of B65G that is found in groups 7/06, 51/00+, and 53/00+. Therefore, to establish a basis for distinguishing between these two bodies of art, a "significant distance" should be understood to be more than the travel distances normally found within a building or series of interconnected buildings.

It should be noted by the Working Group that all of the vehicles appropriate for class B60, based on its note, meet both the inherent significant distance requirement and the inherent requirement for a vehicle to carry either people or goods (e.g., packages or scientific equipment on robotic vehicles). Basically, the significant distance requirement is a very common, even if it is a somewhat inexact distinction, used extensively in the 'real world' and the existing IPC. For example, it is actually one of the main distinctions between pipelines for conveying (B65G 53/00), the plumbing within buildings for waste water (E03C 1/12), sewer pipeline systems (E03F 3/00), and pipes in general (F16L). As SE has experienced in the furnace arts, one person's concept of waste may be another person's definition of a potential sellable product (e.g., sewage may be changed into fertilizer or fuel after processing). Including these inherent restrictions is essential because without them there is no actual distinction in this situation.

SE would like to change the portion of the definition covering manufacture to "Manufacturing methods specially adapted for vehicles covered by this subclass or for components that are specially adapted for the vehicles covered by this subclass". Obviously the underlined portion of this statement is incorrect since combination type vehicles are covered by B60V 3/00, but their manufacture, as CA and JP have stated, is not. Nevertheless, Rapporteur does agree with SE that the scope of B60V should also include the manufacture of air cushion components in general for all types of vehicles and has added, as noted above, an additional statement in the definition statement to cover this subject matter.

SE thinks that the manufacture of all vehicles appropriate for B60V should be within this subclass and not elsewhere. Unfortunately, as Rapporteur has already pointed out, the current IPC schemes do not make it absolutely clear where the manufacture of any of the air-cushioned vehicles (those partially or wholly supported by air) is currently classified. Since the making of boats and aircraft is already clearly provided for in other subclasses as stated by CA and the making of other land vehicles is covered in general in B62D 65/00, it is impossible to now move any body of art clearly within their scope to B60V. The fact that many Offices have classified the making of hovercraft per se in B60V, even though there are no specific groups providing for this subject matter included within the scheme, is the only reason Rapporteur has proposed to include even this limited subject matter within the scope of B60V.

The approach recommended by Rapporteur is the appropriate one based on the current situation. According to paragraph 98 of the Reformed IPC Guide, "If no such place exists, it (the process) is classified in the place for the product obtained by the process or plant. When the subject of the invention concerns also an element of the combination, e.g. an individual step of the process or machine of the plant, the element is also separately classified." However, as both CA and JP have stated, places already exist for the manufacture of combination and convertible vehicles. This situation is completely consistent with the Working Groups agreement that function-oriented places, such as B62D 65/00, also provide for application places not specifically provided for elsewhere. The Guide also states in paragraph 92 that "Definitions, where present, should provide specific information about the appropriate classification places for related categories of subject matter not specified in classification titles." Rapporteur has now done this.

SE thinks that the references to B61B 31/08 and B65G 7/06 are limiting and the reference to B61B 31/10 is correct. If the reference to B61B 13/08 is made limiting then none of the art now in B60V 3/04 could possibly

be classified there. Therefore, Rapporteur has not changed this reference. Rapporteur does not recommend that the reference to B65G 7/06 be made limiting, since this body of art will not fit the definition statement of B60V so long as the requirement that vehicles must be capable of transporting loads a significant distance outside of a building is maintained. In this situation, there is no overlap between the subclasses.

Rapporteur agrees with SE that the terminology “ground-effect vehicle” should be added as a synonym to the other ones and has done this.

IPC Revision WG – Definition Project US Rapporteur Proposal	Project: D035 Class/subclass: B60V Date : 27/05/04

Title - B60V

Air-cushion vehicles

Definition statement

This subclass covers:

Vehicles that are specifically designed, or specially adapted, to be wholly or partially supported, at least some of the time during their travel over a surface (e.g., water, land, floors), by a thin cushion or film of gaseous fluid (e.g., air).
The gaseous fluid for the cushion or film being at least partially

- supplied or generated by means located on the vehicle and
- propelled from the lower portion of the vehicle towards a nearby reaction surface that does not form a part of the vehicle (e.g., ground, lake surface) and against which the fluid pushes to sustain the vehicle a relatively short distance (i.e., less than the height of the vehicle) above the reaction surface.

The vehicles of this subclass must be explicitly designed for carrying people or goods and specifically adapted for traveling significant distances (e.g., between cities, to or from separate building complexes) along thoroughfares (e.g., railways, roads, sidewalks), through the air, over water, or throughout the countryside.
Any components of vehicles having specialized structural features that limit them to the function of forming or maintaining the thin cushion or film of gaseous fluid used by the vehicles for support during travel.
The making of vehicles that are specifically designed to be

- exclusively supported solely by a thin cushion or film of gaseous fluid when traveling between start and destination points and
- not restricted by guiding structure to a particular path.

Method steps in manufacturing processes which are intended for the manufacture of components utilized to form or maintain a thin cushion or film of gaseous fluid that at least partially supports a vehicle covered by this subclass during travel.

Explanatory Notes

The term ‘vehicle’ is used within this subclass to encompass only the following types of vehicles:

- Vehicles specifically designed to be exclusively supported solely by a thin cushion or film of gaseous fluid when traveling between start and destination points and which are not restricted by guiding structure to a particular path.
- Vehicles having alternative or supplemental types of supporting means, each of which is capable of wholly or partially supporting the vehicle during travel over a solid surface (e.g., land, rail). The alternative or supplemental types of supporting means consisting of (1) wheels or wheel substitutes (e.g., endless tracks, skids) that engage the solid surface and (2) a thin cushion or film of gaseous fluid.
- Vehicles specifically designed to be exclusively supported solely by a thin cushion or film of gaseous fluid and restricted to a specific path by solid guiding structure (e.g., channel, trough) when traveling between start and destination points
- Vehicles having alternative or supplemental types of supporting means, each of which is capable of wholly or partially supporting the vehicle during travel across a body of water. The alternative or supplemental types of supporting means consisting of (1) structure (e.g., a hull) that allows the vehicle (i.e., waterborne vessel) to be supported directly (i.e. float) by contact with the water that it engages and (2) a thin cushion or film of gaseous fluid.

- Vehicles specifically designed for traveling significant distances above the surface of the earth (i.e., higher than most manmade obstructions such as buildings) while supported by air (i.e., aircraft), which are provided with alternative supporting means for use only when the aircraft is not fully airborne that includes a thin cushion or film of gaseous fluid.

Relationship between large subject matter areas

Between B60V and other vehicle manufacturing subclasses

B60V covers the manufacture of vehicles that are designed to be exclusively supported by a thin cushion or film of gaseous fluid at all times when traveling.
Even though B60V covers the structure of certain combination or convertible types of vehicles, it does not cover the methods or means for making or assembling these types of vehicles. In the situations where a vehicle includes an alternative, supplemental, or primary means for supporting it during travel that is not an air cushion, the manufacture of this type of vehicle is covered in the same subclass that provides for the manufacture of vehicles relying solely for support on its particular type of alternative, supplemental, or primary means.
Subclasses B62D, B63B, and B64F cover the manufacture of the various types of combination or convertible vehicles.

B62D 65/00 "Designing, manufacturing, e.g. assembling, facilitating disassembly, or structurally modifying motor vehicles or trailers, not otherwise provided for" covers subject matter pertaining to the designing and manufacturing of motor vehicles, rail vehicles and trailers, as well as the designing and manufacturing of convertible types and/or combination types of these vehicles.

B63B "Ships or other waterborne vessels; Equipment for shipping" provides for the construction of hulls in group 3/00 and the methods of designing, building, maintaining, converting, refitting, repairing or determining properties of vessels in group 9/00.

B64F 5/00 "Designing, manufacturing, assembling, cleaning, maintaining or repairing aircraft, not otherwise provided for" covers the manufacture or assembly of aircraft.

References relevant to classification in this subclass

This subclass does not cover:

Hydrodynamic or hydrostatic features of hulls or of hydrofoils that reduce surface friction by using air bubbles or air layers	B63B1/38

Informative references

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

Mowers supported by an air-cushion	A01D34/695
General manufacturing of various vehicle parts	B23P15/00
Assembling and disassembling of various metal parts	B23P19/04
Assembling of a multiplicity of different parts to compose units	B23P21/00
Railway systems that include sliding or levitation means	B61B13/08
Pneumatic tunnel-type railway system (e.g., atmospheric railways)	B61B13/10
Designing, manufacturing, assembling, facilitating disassembly, or structurally modifying motor vehicles or trailers	B62D65/00
The construction of hulls	B63B3/00
Methods of designing, building, maintaining, converting,	B63B9/00

refitting, repairing, or determining properties of vessels	
Devices that assist either manually moving over a short distance (e.g., within a building or buildings) or tilting heavy loads by using pressurized fluid supplied from an independent source to provide a cushion of fluid between a load and floor	B65G7/06
Conveying articles through pipes or tubes by fluid flow or pressure and the conveying of articles over a surface using pressurized fluid jets located in the surface	B65G51/00

Special rules of classification

NONE.

Glossary

NONE.

Synonyms and Keywords

In patent documents the terms **hovercraft**, **ground-effect vehicle**, **surface-effect vehicle,** and **air-cushion vehicle** are often used as synonyms.

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **F01M** **DOMAINE DE LA CIB :**
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1	Rapporteur proposal	Proposition du rapporteur	GB	10.01.2003
2	Comments	Commentaire	SE	17.09.2003
3	Rapporteur proposal	Proposition du rapporteur	GB	12.11.2003
4	Rapporteur proposal	Proposition du rapporteur	GB	12.11.2003
5	Comments	Commentaire	JP	18.11.2003
6	Rapporteur proposal	Proposition du rapporteur	GB	21.11.2003
7	Comments	Commentaire	US	10.02.2004
8	Rapporteur proposal	Proposition du rapporteur	GB	20.02.2004
9	Rapporteur proposal	Proposition du rapporteur	GB	20.02.2004

United States Patent and Trademark Office

Project: D041 Subclass – F01M Date: February 9, 2004

Comments

We have only a few minor suggestions:

1. The terms defined in the 'Glossary of terms' section should be highlighted in the definition statement (e.g., Lubrication of **machines** or **engines** in general, where the lubrication system, or device for lubricating parts of the **machine** or **engine** --).
2. We suggest deleting the terminology "Pressure lubrication, i.e.," from the 2nd part of the definition statement.
3. We suggest changing the terminology "--- for machines or engine run-in" to "---for facilitating the breaking in of machines or engines" in the 6th part of the definition statement.
4. We suggest changing the terminology "Lubricating means having special characteristics----" in the 7th part of the definition statement to "Lubrication characterized by other significant features or means---". It is unclear to US what the scope of 'special' is here.
5. We suggest changing the terminology "Crankcase ventilating--" in the 10th part of the definition statement to "Ventilating or breathing features or devices for crankshaft housings, e.g.---".

UK Patent Office **Date: 18 February 2004**

Rapporteur Report on Project D041, Subclass F01M

Comments on Annex 6 were received from US (Annex 7). In response to these comments, R has made a few minor changes as follows.

Taking in turn the numbered points in the US comments:

1. R agrees.

2. R does not agree with this suggestion, and prefers to keep to the exact wording of the title of group 1/00. However the i.e. has been changed to e.g. since the items after the i.e. are not a comprehensive enunciation of all the aspects of pressure lubrication.

3. R agrees.

4. R agrees.

5. R does not agree with this suggestion, and prefers to keep to the exact wording of the title of group 13/00. No changes have been made here.

R hopes that this definition is now ready for final approval.

Martin Price

IPC Revision WG – Definition Project GB Rapporteur Proposal	Project: D041 Class/subclass: F01M Date : 27/05/04

Title – F01M

Lubricating of machines or engines in general;

Lubricating internal combustion engines;

Crankcase ventilating

Definition statement

This subclass covers:
Lubrication of **machines** or **engines** in general, where the lubrication system, or device for lubricating parts of the **machine** or **engine**, does not form part of the structure of the **machine** or **engine**.
Pressure lubrication, e.g. using pressure from pumps, crankcase pressure or the like to circulate the lubricant; including provision of lubricant passageways in crankshafts or conecting rods.
Lubrication specially adapted for **engines** with crankcase compression of fuel/air mixtures, or for engines in which lubricant is contained in fuel, combustion air or fuel/air mixture (e.g. two-stroke **engines**).
Heating, cooling or controlling temperature of lubricant.
Lubrication means facititating **engine** starting, e.g. by conditioning or heating the lubricant.
Lubrication means specially adapted for facilitating the running-in or breaking-in of **machines** or **engines**.
Lubricating means having other significant or pertinent characteristics, e.g. introducing additives to lubricant, using fuel as lubricant, dip, splash or drip lubrication, non-pressurised lubrication.
Details, parts or accessories of lubricating, including controlling lubricant level or pressure, arrangement of lubricant conduits, purifying lubricant, filling or draining lubricant.
Indicating or safety features, e.g. to render machine or engine inoperative or idling on lubricant pressure failure.
Crankcase ventilating or breathing, e.g. breather valves or inlet air filters.

Relationship between large subject matter areas

Lubricating in general is covered by F16N. F01M is an application-oriented subclass in relation thereto, in respect of machines and engines as defined in the glossary below.
Lubricating subject-matter proper to F01M is classified there irrespective of its stated application, unless the classifiable features are peculiar to its stated application, in which case the subject-matter is classified only in the relevant subclass of classes F01 to F04.

References relevant to classification in this subclass

This subclass does not cover:

Arrangement of lubricant coolers in engine cooling systems	F01P 11/08

Examples of places where the subject matter of this class is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Lubrication of steam engines	F01B 31/10
Lubrication of rotary-piston or oscillating-piston machines or engines	F01C 21/04
Lubrication of non-positive displacement machines or engines, e.g. steam turbines	F01D 25/18

Lubrication of gas-turbine plants	F02C 7/06
Lubrication of cylinders of combustion engines	F02F 1/20
Lubrication of pumps for elastic fluids	F04B 39/02
Lubrication of rotary-piston or oscillating-piston pumps for elastic fluids	F04C 29/02
Lubrication of non-positive displacement pumps	F04D 29/04

Places in relation to which this subclass is residual:

None

Informative references

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

Measuring fluid-pressure in general	G01L
Fluid level indicators in general	G01F 23/00
Crankshafts, connecting rods per se	F16C

Special rules of classification within this subclass

None.

Glossary of terms

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

Engine	A device for continuously converting fluid energy into mechanical power. Thus, this term includes, for example, steam piston engines or steam turbines per se, or internal-combustion piston engines, but it excludes single-stroke devices. The word “engine” also covers methods of operation, unless otherwise specifically provided for.
Pump	A device for continuously raising, forcing, compressing or exhausting fluid by mechanical or other means. Thus, this term includes fans or blowers. This term also includes methods of operation, unless otherwise specifically provided for.
Machine	A device which could equally be an engine or a pump, but not a device which is restricted to an engine or one which is restricted to a pump.
Positive displacement	The way the energy of a working fluid is transformed into mechanical energy, in which variations of volume created by the working fluid in a working chamber produce equivalent displacements of the mechanical

	member transmitting the energy, the dynamic effect of the fluid being of minor importance, and vice-versa.
Non-positive displacement	The way the energy of a working fluid is transformed into mechanical energy, by transformation of the energy of the working fluid into kinetic energy, and vice-versa.
Working fluid	The driven fluid in a pump or the driving fluid in an engine. The working fluid may be in a gaseous state, i.e. compressible, or liquid. In the former case coexistence of two states is possible.

Synonyms and Keywords

None.

IPC/D 042
ORIGINAL: English/French
DATE: 27.05.2004

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DEFINITION PROJECT FILE
DOSSIER DE PROJET DÉFINITION

PROPOSAL BY : **WG** **PROPOSITION DE :**	**IPC AREA:** **F16N** **DOMAINE DE LA CIB :**
RAPPORTEUR : **GB**	**TECHNICAL FIELD :** **M** **DOMAINE TECHNIQUE :**

ANNEX/ ANNEXE	CONTENT/CONTENU		ORIGIN/ ORIGINE	DATE
1	Rapporteur proposal	Proposition du rapporteur	GB	10.01.2003
2	Comments	Commentaire	CA	08.09.2003
3	Comments	Commentaire	SE	17.09.2003
4	Rapporteur proposal	Proposition du rapporteur	GB	12.11.2003
5	Rapporteur proposal	Proposition du rapporteur	GB	12.11.2003
6	Rapporteur proposal	Proposition du rapporteur	GB	21.11.2003
7	Comments	Commentaire	US	11.02.2004
8	Rapporteur report	Rapport du rapporteur	GB	20.02.2004
9	Rapporteur proposal	Proposition du rapporteur	GB	20.02.2004

UK Patent Office **Date: 20 February 2004**

Rapporteur Report on Project D042, Subclass F16N

Comments on Annex 6 were received from US (Annex 7). Dealing with each of the US points in turn:

Glossary terms for "lubrication" and "lubricant"
R agrees and has followed the US proposal, with minor editorial changes. R has also put the above terms in **bold** in the definition statement, to indicate that they are defined in the Glossary.

Modifications to entries in the definition statement
R disagrees with most of US's suggestions, which appear to merely paraphrase R's proposed entries, without being clearer or adding anything new. R has however added an entry to cover the second part of group 15/00, as suggested by US, and has also specified (in the second entry) that the reservoir is stationary or movable, as also suggested by US.

Antifriction devices or surfaces
US suggest an explanatory note, in the definition statement, to specify that such matter is not covered in F16N but without saying where such matter goes. In R's opinion, the definition statement should specify what is in the subclass, and not what is not in the subclass. An explanatory note in the definition statement is not the right way to proceed.

R also feels that the matter of antifriction surfaces etc. is not all that closely related to the matter covered in F16N, in that F16N covers essentially mechanical subject matter for ensuring that the right lubricant is supplied to the right place, while antifriction surfaces are essentially chemical subject matter, and antifriction devices that happen to have an antifriction surface are classified with the devices themselves. A competent examiner would know the difference. However the F16N subclass title ("Lubricating") is extremely wide in scope, and in its most extreme interpretation would indeed cover antifriction surfaces. Therefore R agrees with US that something needs to be done to differentiate F16N from antifriction surface technology.

In R's opinion, limiting references are the best way of indicating here that antifriction surfaces are classified elsewhere. R has added 2 limiting references, having derived inspiration from the Catchword Index in selecting these references (to B05D 5/08 and to C08J 5/16). There is nowhere relevant in C01- specifying antifriction inorganic materials (even MoS2), or in C09K.

R hopes the definition is now ready for final approval.

Martin Price

IPC Revision WG – Definition Project GB Rapporteur Proposal	Project: D042 Class/subclass: F16N Date : 27/05/04

Title – F16N

Lubricating

Definition statement

This subclass covers:
Constructional modifications of parts of machines or apparatus for the purposes of **lubrication**.
Devices for supplying **lubricant**, e.g. oil or grease, from a stationary or movable reservoir to the machine or member to be lubricated, or for supplying **lubricant** by manual action or by a hand-positioned nozzle with **lubricant** under pressure.
Lubricating-pumps.
Lubrication using substances other than oil or grease.
Lubrication characterised by the use of particular **lubricants** in particular apparatus or conditions.
Lubrication of apparatus working in extreme conditions.
Details of lubricators or **lubrication** systems, e.g reservoirs, conduits, check valves, distributing equipment, collecting or draining **lubricant**, cleaning.
Safety devices for indication or detection of undesired conditions, or use of devices responsive to conditions in **lubricating** arrangements or systems.
Care of **lubricants**, e.g. storage, transfer.
Conditioning **lubricants**, e.g. by heating, cooling, filtering, diluting.

Relationship between large subject matter areas

F16N is the general or function-oriented subclass for lubrication subject-matter, but there are many application-oriented places in the Classification where subject-matter for specially-adapted forms of lubrication can be found – see the references below. Lubrication specially adapted to machines or apparatus provided for in a single other class is covered by the relevant class for that machine or apparatus.

References relevant to classification in this subclass

This subclass does not cover:

Lubricating compositions; Selection of particular substances as lubricants	C10M
Processes for applying liquids or other fluent materials to a surface, to obtain an anti-friction surface	B05D 5/08
Manufacture of articles or materials containing macromolecular substances and having reduced friction	C08J 5/16

Examples of places where the subject matter of this subclass is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Lubrication of harvesters or mowers	A01D 69/12

Lubrication of mandrels for metal tube rolling mills	B21B 25/04
Lubrication of rolls for metal rolling mills	B21B 27/06
Lubrication of tools for machines for working metal without removing material	B21D 37/18
Lubricating during forging or pressing	B21J 3/00
Lubrication of moulds for continuous casting of metals	B22D 11/07
Lubrication of milling-cutters	B23C 5/28
Lubrication of metal saws	B23D 59/02 B23D 59/04
Lubrication of machine-tools	B23Q 11/10 B23Q 11/12
Lubrication of portable power-driven percussive tools	B25D 17/26
Lubrication of hair-clippers or dry-shavers	B26B 19/40
Lubrication of band saw blades for wood or the like	B27B 13/12
Arrangements or adaptations of lubricating systems or devices in vehicles	B60R 17/00
Lubrication of cable systems for railways	B61B 12/08
Lubrication systems for railway locomotives	B61C 17/08
Axle-box lubrication for railway rolling-stock	B61F 17/00
Lubrication of rail or wheel flanges of railways	B61K 3/00
Vehicle endless-track units with lubrication means	B62D 55/092
Lubrication of cycles	B62J 31/00
Lubrication of conveyers	B65G 45/02
Lubrication of ropes, cables or guides of elevators	B66B 7/12
Lubrication of spindles of machines for spinning or twisting threads or fibres	D01H 7/20
Lubrication of knitting-machines	D04B 35/28
Lubrication of sewing-machines	D05B 71/00
Lubrication of embroidering-machines	D05C 13/04
Lubrication of switches for railways	E01B 7/26
Lubricating devices for locks	E05B 17/08
Lubricating arrangements for hinges	E05D 11/02
Lubricating details of roller drill bits for earth drilling	E21B 10/22
Lubrication of rotary-piston or oscillating-piston machines or engines	F01C 21/04

Lubrication of non-positive displacement machines or engines, e.g. steam turbines	F01D 25/18
Lubrication of machines or engines in general, including internal-combustion engines	F01M
Lubrication of gas-turbine plants	F02C 7/06
Lubrication of cylinders of combustion engines	F02F 1/20
Lubrication of pumps for elastic fluids	F04B 39/02
Lubrication of rotary-piston or oscillating-piston pumps for elastic fluids	F04C 29/02
Lubrication of non-positive displacement pumps	F04D 29/04
Lubrication of flexible shafts	F16C 1/24
Lubrication of sliding-contact bearings	F16C 33/10
Lubrication of ball or roller bearings	F16C 33/66
Lubrication of springs	F16F 1/24
Lubrication of transmissions	F16H 57/04
Lubrication of refrigerating machines	F25B
Lubrication of smallarms or ordnance	F41A 29/04
Lubrication of clocks	G04B 31/08
Lubrication of rotary anodes of X-ray tubes	H01J 35/10
Lubrication of rotary current collectors, distributors or interrupters	H01R 39/56

Places in relation to which this subclass is residual:

None

Informative references

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

Storage containers; draining equipment for liquid containers	B65
Pumps for liquids in general	F04
Oil separators for separating oil from exhaust steam	F22G

Special rules of classification within this subclass

None.

Glossary of terms

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

Lubrication	Apparatus, arrangements or methods for introducing or applying a thin layer of a discrete **lubricant** between two or more relatively-moving adjacent solid surfaces of a device or apparatus, for the specific purpose of reducing friction, heat or wear between the adjacent surfaces.
Lubricant	Any fluid (e.g. water, oil), fluent material (e.g. particulate graphite), semi-fluid material (e.g. oil with thickener), or semisolid material (e.g. grease), or any mixture of such types of substance, which is used for the specific purpose of **lubrication**.

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Synonyms and Keywords

None.