PHYSICS

PHOTOGRAPHY; CINEMATOGRAPHY; ANALOGOUS TECHNIQUES USING WAVES OTHER THAN OPTICAL WAVES; ELECTROGRAPHY; HOLOGRAPHY

ELECTROGRAPHY; ELECTROPHOTOGRAPHY; MAGNETOGRAPHY

Information storage based on relative movement between record carrier and transducer G11B; static stores with means for writing-in or reading-out information G11C; recording of television signals H04N 5/76)

NOTES

1. This subclass covers:
   - the production of permanent directly-visible pictures in conformity with an original picture or document, using an intermediate imagewise distribution of an electric or magnetic quantity, such as a charge pattern, an electric conductivity pattern, or a magnetic pattern;
   - the production of permanent directly-visible pictures using an intermediate imagewise distribution of an electric or magnetic quantity, when the origin and the way of generating said intermediate distribution are not relevant.

2. This subclass does not cover:
   - use of electric signals for the transmission of the picture information from the original to the reproduction, i.e. pictorial communication, which is covered by subclass H04N;
   - production of pictures by heat patterns exclusively, not using an electrostatic or magnetic pattern, which is covered by group B41M 5/00;
   - production of prints by transferring ink from a printing form to a printing surface, without physical contact and using the force of an electrostatic field, which is covered by subclass B41M;
   - selective printing mechanisms characterised by the selective supply of electric current, or the selective application of magnetism or radiation, to a printing material or impression-transfer material, which are covered by groups B41J 2/385, B41J 2/435.

WARNING

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

5/00 Recording members for original recording by exposure, e.g. to light, to heat, to electrons; Manufacture thereof; Selection of materials therefor (recording surfaces for measuring apparatus G01D 15/34; photosensitive materials for photographic purposes G03C)

5/005 . . . [Materials for treating the recording members, e.g. for cleaning, reactivating, polishing]

5/02 . . Charge-receiving layers (G03G 5/153 takes precedence)

5/0202 . . . [Dielectric layers for electrography]

5/0205 . . . [Macromolecular components]

5/0208 . . . . [obtained by reactions only involving carbon-to-carbon unsaturated bonds]

5/0211 . . . . [obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds]

5/0214 . . . . [Organic non-macromolecular components]

5/0217 . . . [Inorganic components]

5/022 . . Layers for surface-deformation imaging, e.g. frost imaging

5/024 . . Photoelectret layers

5/026 . . Layers in which during the irradiation a chemical reaction occurs whereby electrically conductive patterns are formed in the layers, e.g. for chemixerography

5/028 . . Layers in which after being exposed to heat patterns electrically conductive patterns are formed in the layers, e.g. for thermoxerography

5/04 . . Photoconductive layers; Charge-generation layers or charge-transporting layers; Additives therefor; Binders therefor

5/043 . . Photoconductive layers characterised by having two or more layers or characterised by their composite structure

5/0433 . . . [all layers being inorganic]

5/0436 . . . [combining organic and inorganic layers]

5/047 . . . . characterised by the charge-generation layers or charge transport layers (G03G 5/0433 and G03G 5/0436 take precedence)

5/05 . . Organic bonding materials; Methods for coating a substrate with a photoconductive layer; Inert supplements for use in photoconductive layers
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/0503</td>
<td>[Inert supplements]</td>
</tr>
<tr>
<td>5/0507</td>
<td>[Inorganic compounds]</td>
</tr>
<tr>
<td>5/051</td>
<td>[Organic non-macromolecular compounds]</td>
</tr>
<tr>
<td>5/0514</td>
<td>{not comprising cyclic groups}</td>
</tr>
<tr>
<td>5/0517</td>
<td>{comprising one or more cyclic groups consisting of carbon-atoms only}</td>
</tr>
<tr>
<td>5/0521</td>
<td>{comprising one or more heterocyclic groups}</td>
</tr>
<tr>
<td>5/0525</td>
<td>{Coating methods}</td>
</tr>
<tr>
<td>5/0528</td>
<td>{Macromolecular bonding materials}</td>
</tr>
</tbody>
</table>

**NOTE**

In groups G03G 5/0528 - G03G 5/0596, in the absence of an indication to the contrary, a polymer is classified in the last appropriate place.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/0532</td>
<td>{obtained by reactions only involving carbon-to-carbon unsaturated bonds}</td>
</tr>
<tr>
<td>5/0535</td>
<td>{Polyolefins; Polystyrenes; Waxes}</td>
</tr>
<tr>
<td>5/0539</td>
<td>{Halogenated polymers}</td>
</tr>
<tr>
<td>5/0542</td>
<td>{Polyvinylalcohol, polyallylacohol; Derivatives thereof, e.g. polyvinylesters, polyvinylethers, polyvinylamines}</td>
</tr>
<tr>
<td>5/0546</td>
<td>{Polymers comprising at least one carboxyl radical, e.g. polycrylic acid, polycrotonic acid, polymaleic acid; Derivatives thereof, e.g. their esters, salts, anhydrides, nitriles, amides}</td>
</tr>
<tr>
<td>5/055</td>
<td>{Polymers containing hetero rings in the side chain}</td>
</tr>
<tr>
<td>5/0553</td>
<td>{Polymers derived from conjugated double bonds containing monomers, e.g. polybutadiene; Rubbers}</td>
</tr>
<tr>
<td>5/0557</td>
<td>{obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds}</td>
</tr>
<tr>
<td>5/056</td>
<td>{Polysteres}</td>
</tr>
<tr>
<td>5/0564</td>
<td>{Polycarbonates}</td>
</tr>
<tr>
<td>5/0567</td>
<td>{Other polycondensates comprising oxygen atoms in the main chain; Phenol resins}</td>
</tr>
<tr>
<td>5/0571</td>
<td>{Polyamides; Polylimides}</td>
</tr>
<tr>
<td>5/0575</td>
<td>{Other polycondensates comprising nitrogen atoms with or without oxygen atoms in the main chain}</td>
</tr>
<tr>
<td>5/0578</td>
<td>{Polycondensates comprising silicon atoms in the main chain}</td>
</tr>
<tr>
<td>5/0582</td>
<td>{Polycondensates comprising sulfur atoms in the main chain}</td>
</tr>
<tr>
<td>5/0585</td>
<td>{Cellulose and derivatives}</td>
</tr>
<tr>
<td>5/0589</td>
<td>{Macromolecular compounds characterised by specific side-chain substituents or end groups}</td>
</tr>
<tr>
<td>5/0592</td>
<td>{Macromolecular compounds characterised by their structure or by their chemical properties, e.g. block polymers, reticulated polymers, molecular weight, acidity}</td>
</tr>
<tr>
<td>5/0596</td>
<td>{Macromolecular compounds characterised by their physical properties}</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/06</td>
<td>characterised by the photoconductive material being organic</td>
</tr>
</tbody>
</table>

**NOTE**

In groups G03G 5/06 - G03G 5/0698, in the absence of an indication to the contrary, an invention is classified in the last appropriate place.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/0601</td>
<td>{Acyclic or carbocyclic compounds}</td>
</tr>
<tr>
<td>5/0603</td>
<td>{containing halogens}</td>
</tr>
<tr>
<td>5/0605</td>
<td>{Carbocyclic compounds}</td>
</tr>
<tr>
<td>5/0607</td>
<td>{containing at least one non-six-membered ring}</td>
</tr>
<tr>
<td>5/0609</td>
<td>{containing oxygen}</td>
</tr>
<tr>
<td>5/0611</td>
<td>{Squaric acid}</td>
</tr>
<tr>
<td>5/0612</td>
<td>{containing nitrogen}</td>
</tr>
<tr>
<td>5/0614</td>
<td>{Amines}</td>
</tr>
<tr>
<td>5/0616</td>
<td>{Hydrazines; Hydrazones}</td>
</tr>
<tr>
<td>5/0618</td>
<td>{containing oxygen and nitrogen}</td>
</tr>
<tr>
<td>5/062</td>
<td>{containing non-metal elements other than hydrogen, halogen, oxygen or nitrogen}</td>
</tr>
<tr>
<td>5/0622</td>
<td>{Heterocyclic compounds}</td>
</tr>
<tr>
<td>5/0624</td>
<td>{containing one hetero ring}</td>
</tr>
<tr>
<td>5/0625</td>
<td>{being three- or four-membered}</td>
</tr>
<tr>
<td>5/0627</td>
<td>{being five-membered}</td>
</tr>
<tr>
<td>5/0629</td>
<td>{containing one hetero atom}</td>
</tr>
<tr>
<td>5/0631</td>
<td>{containing two hetero atoms}</td>
</tr>
<tr>
<td>5/0633</td>
<td>{containing three hetero atoms}</td>
</tr>
<tr>
<td>5/0635</td>
<td>{being six-membered}</td>
</tr>
<tr>
<td>5/0637</td>
<td>{containing one hetero atom}</td>
</tr>
<tr>
<td>5/0638</td>
<td>{containing two hetero atoms}</td>
</tr>
<tr>
<td>5/064</td>
<td>{containing three hetero atoms}</td>
</tr>
<tr>
<td>5/0642</td>
<td>{being more than six-membered}</td>
</tr>
<tr>
<td>5/0644</td>
<td>{containing two or more hetero rings}</td>
</tr>
<tr>
<td>5/0646</td>
<td>{in the same ring system}</td>
</tr>
<tr>
<td>5/0648</td>
<td>{containing two relevant rings}</td>
</tr>
<tr>
<td>5/065</td>
<td>{containing three relevant rings}</td>
</tr>
<tr>
<td>5/0651</td>
<td>{containing four relevant rings}</td>
</tr>
<tr>
<td>5/0653</td>
<td>{containing five relevant rings}</td>
</tr>
<tr>
<td>5/0655</td>
<td>{containing six relevant rings}</td>
</tr>
<tr>
<td>5/0657</td>
<td>{containing seven relevant rings}</td>
</tr>
<tr>
<td>5/0659</td>
<td>{containing more than seven relevant rings}</td>
</tr>
<tr>
<td>5/0661</td>
<td>{in different ring systems, each system containing at least one hetero ring}</td>
</tr>
<tr>
<td>5/0662</td>
<td>{containing metal elements}</td>
</tr>
</tbody>
</table>

**NOTE**

Alcoholates, phenates or organic acid salts of alkali or alkaline earth metals are classified as the parent compounds.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/0664</td>
<td>{Dyes}</td>
</tr>
<tr>
<td>5/0666</td>
<td>{containing a methine or polymethine group}</td>
</tr>
<tr>
<td>5/0668</td>
<td>{containing only one methine or polymethine group}</td>
</tr>
<tr>
<td>5/067</td>
<td>{containing hetero rings}</td>
</tr>
<tr>
<td>5/0672</td>
<td>{containing two or more methine or polymethine groups}</td>
</tr>
<tr>
<td>5/0674</td>
<td>{containing hetero rings}</td>
</tr>
<tr>
<td>5/0675</td>
<td>{Azo dyes}</td>
</tr>
<tr>
<td>5/0677</td>
<td>{Monoazo dyes}</td>
</tr>
</tbody>
</table>
In groups G03G 5/14713 - G03G 5/14795, in the absence of an indication to the contrary, a polymer is classified in the last appropriate place

NOTE

In groups G03G 5/14713 - G03G 5/14795, in the absence of an indication to the contrary, a polymer is classified in the last appropriate place.
5/14791 . . . . [Macromolecular compounds characterised by their structure, e.g. block polymers, reticulated polymers, or by their chemical properties, e.g. by molecular weight or acidity]

5/14795 . . . . [Macromolecular compounds characterised by their physical properties]

5/153 . Charge-receiving layers combined with additional photo- or thermo-sensitive, but not photoconductive, layers, e.g. silver-salt layers

5/16 . Layers for recording by changing the magnetic properties, e.g. for Curie-point-writing

7/00 Selection of materials for use in image-receiving members, i.e. for reversal by physical contact; Manufacture thereof (photosensitive materials for photographic purposes G03C)

7/0006 . [Cover layers for image-receiving members; Strippable coversheets]

7/0013 . . [Inorganic components thereof]

7/002 . . [Organic components thereof]

7/0026 . . [being macromolecular]

7/0033 . . . [Natural products or derivatives thereof, e.g. cellulose, proteins]

7/004 . . . [obtained by reactions only involving carbon-to-carbon unsaturated bonds]

7/0046 . . . [obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds]

7/0053 . . [Intermediate layers for image-receiving members]

7/006 . . [Substrates for image-receiving members; Image-receiving members comprising only one layer]

7/0066 . . . [Inorganic components thereof]

7/0073 . . . [Organic components thereof]

7/008 . . . [being macromolecular]

7/0086 . . [Back layers for image-receiving members; Strippable backsheets]

7/0093 . . [Image-receiving members, based on materials other than paper or plastic sheets, e.g. textiles, metals]

8/00 Layers covering the final reproduction, e.g. for protecting, for writing thereon

9/00 Developers

9/06 . the developer being electrolytic

9/08 . with toner particles

NOTE

In groups G03G 9/0802 - G03G 9/135, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

9/0802 . . . [Preparation methods]

9/0804 . . . [whereby the components are brought together in a liquid dispersing medium]

9/0806 . . . . [whereby chemical synthesis of at least one of the toner components takes place]

9/0808 . . . [by dry mixing the toner components in solid or softened state]

9/081 . . . [by mixing the toner components in a liquefied state; melt kneading; reactive mixing]

9/0812 . . . [Pretreatment of components]

9/0815 . . . [Post-treatment]

9/0817 . . . [Separation; Classifying]

9/0819 . . . [characterised by the dimensions of the particles]

9/0821 . . . [characterised by physical parameters (magnetic parameters G03G 9/083)]

9/0823 . . . [Electric parameters]

9/0825 . . . [characterised by their structure; characterised by non-homogeneous distribution of components (microporous toners G03G 9/093)]

9/0827 . . . [characterised by their shape, e.g. degree of sphericity]

9/083 . Magnetic toner particles

9/0831 . . . [Chemical composition of the magnetic components]

9/0832 . . . . [Metals]

9/0833 . . . . . [Oxides]

9/0834 . . . . . [Non-magnetic inorganic compounds chemically incorporated in magnetic components]

9/0835 . . . . [Magnetic parameters of the magnetic components]

9/0836 . . . . [Other physical parameters of the magnetic components]

9/0837 . . . . [Structural characteristics of the magnetic components, e.g. shape, crystallographic structure]

9/0838 . . . . [Size of magnetic components]

9/0839 . . . . [Treatment of the magnetic components; Combination of the magnetic components with non-magnetic materials (G03G 9/0834 takes precedence)]

9/087 . . . Binders for toner particles

9/08702 . . . . [comprising macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds]

9/08704 . . . . [Polyalkenes]

9/08706 . . . . [Polymers of alkanyl-aromatic compounds]

9/08708 . . . . [Copolymers of styrene]

9/08711 . . . . [with esters of acrylic or methacrylic acid]

9/08713 . . . . [Polyvinylhalogenides]

9/08715 . . . . [containing chlorine, bromine or iodine]

9/08717 . . . . [Polyvinylchloride]

9/0872 . . . . [containing fluorine]

9/08722 . . . . [Polyvinylalcohols; Polyallylalcohols; Polynvinylethers; Polyvinylaldehydes; Polynvinylketones; Polyvinylketals]

9/08724 . . . . [Polyvinylesters]

9/08726 . . . . [Polymers of unsaturated acids or derivatives thereof]

9/08728 . . . . [Polymers of esters]

9/08731 . . . . [Polymers of nitrides]

9/08733 . . . . [Polymers of unsaturated polycarboxylic acids]

9/08735 . . . . [Polymers of unsaturated cyclic compounds having no unsaturated aliphatic groups in a side-chain, e.g. coumarone-indene resins]

9/08737 . . . . [Polymers derived from conjugated dienes]

9/0874 . . . . [Polymers comprising conjugated dienes in the side chains]

9/08742 . . . . [comprising macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds]

9/08744 . . . . [Polyacetsals]
Encapsulated toner particles

Colouring agents for toner particles

agents by chemical reaction

Compounds capable to generate colouring properties
characterised by physical or chemical properties

Macromolecular material not specially provided for in a single one of groups G03G 9/08775

Natural macromolecular compounds or derivatives thereof

Cellulose or derivatives thereof

Natural rubber

Waxes

Macromolecular material not specially provided for in a single one of groups G03G 9/08702 - G03G 9/08775

Graft polymers

Block polymers

characterised by the presence of specified groups or side chains

Crosslinked polymers

characterised by their chemical properties, e.g. acidity, molecular weight, sensitivity to reactants

characterised by their physical properties, e.g. viscosity, solubility, melting temperature, softening temperature, glass transition temperature

Colouring agents for toner particles

Inorganic compounds

Carbon black

Organic dyes

Azo dyes

Indigoid; Diaryl and Triaryl methane; Oxyketone dyes

Acridine; Azine; Oxazine; Thiazine-; (Xanthene-) dyes

Quinoline; Polymethine dyes

Phthalocyanine dyes

Quinacridones

Formazane dyes; Nitro and Nitroso dyes; Quinone imides; Azomethine dyes

Dyes characterised by specific substituents

characterised by physical or chemical properties

Compounds capable to generate colouring agents by chemical reaction

Encapsulated toner particles

specified by the shell material

Macromolecular compounds

obtained by reactions only involving carbon-to-carbon unsaturated bonds

obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds

Non-macromolecular organic compounds

Inorganic compounds

specified by the core material

Macromolecular compounds

obtained by reactions only involving carbon-to-carbon unsaturated bonds

obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds

Non-macromolecular organic compounds

Inorganic compounds

Preparation thereof

Plasticisers; Charge controlling agents

Inorganic compounds

treated with organic compounds

Silicon-oxides; Silicates

Organic compounds (G03G 9/08782 takes precedence)

cationic

anionic

comprising a heterocyclic ring

comprising fluorine

containing atoms other than carbon, hydrogen or oxygen (G03G 9/09741 - G03G 9/09766 take precedence)

Organo-metallic compounds

Metallic soaps of higher carboxylic acids

characteryed by carrier particles

having magnetic components

Carrier particles having a multi-layered structure; Carrier particles comprising a core

having coatings applied thereto

Coating methods; Structure of coatings

Macromolecular components of coatings

obtained by reactions only involving carbon-to-carbon unsaturated bonds

containing fluorine atoms

obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds

containing silicon atoms

being crosslinked

Non-macromolecular organic components of coatings

Inorganic components of coatings

in liquid developer mixtures

characterised by the colouring agents

characterised by the liquid

characterised by polymer components

obtained by reactions only involving carbon-to-carbon unsaturated bonds

obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds

Graft-or block polymers
Electrographic processes using a charge pattern (G03G 15/00, G03G 16/00, G03G 17/00 take precedence)

NOTE

Group G03G 15/00 also deals with processes in so far as they are characterised by the use or manipulation of apparatus classifiable per se in group G03G 15/00 and therefore takes precedence

13/01 . . . for multicoloured copies { (colour correction on photography G03B 27/725, picture communication systems H04N 1/46) }
13/013 . . . { characterised by the developing step, e.g. the properties of the colour developers }
13/016 . . . { in which the colour powder image is formed directly on the recording material, e.g. DEP methods }
13/02 Sensitising, i.e. laying-down a uniform charge (devices for corona discharge per se H01T 19/00)
13/025 . . . { by contact, friction or induction }
13/04 Exposing, i.e. imagewise exposure by optically projecting the original image on a photoconductive recording material
13/045 . . . Charging or discharging distinct portions of the charge pattern on the recording material, e.g. discharging non-image areas, contrast enhancement (G03G 13/34, G03G 15/36, G03G 21/06 take precedence)
13/05 Imagemewise charging, i.e. laying-down a charge in the configuration of an original image using a modulated stream of charged particles, e.g. of corona ions, modulated by a photoconductive control screen bearing a charge pattern or by optically activated charging means (using charging means controlled by electric image signals B41J)
13/054 . using X-rays, e.g. fluororadiography
13/056 . using internal polarisation
13/06 Developing
13/08 . . . using a solid developer, e.g. powder developer
13/09 . . . using magnetic brush
13/095 . . . Removing excess solid developer
13/10 . . . using a liquid developer, e.g. liquid suspension
13/11 . . . Removing excess liquid developer, e.g. by heat
13/14 Transferring a pattern to a second base
13/16 . . . of a toner pattern, e.g. a powder pattern
13/18 . . . of a charge pattern
13/20 Fixing, e.g. by using heat
13/22 Processes involving a combination of more than one step according to groups G03G 13/02 - G03G 13/20 (G03G 13/01 takes precedence)
13/23 . . . specially adapted for copying both sides of an original or for copying on both sides of a recording or image-receiving material
13/24 . . . whereby at least two steps are performed simultaneously

Apparatus for electrographic processes using a charge pattern (G03G 16/00, G03G 17/00 take precedence {; xerographic printers for data processors per se G06K 15/14})

15/01 . . . for producing multicoloured copies { (colour correction in photography G03C; colour correction in printing plate production) }
15/0105 . . . { Details of unit }
15/011 . . . { for exposing }
15/0115 . . . . . . . . (and forming a half-tone image)
15/0121 . . . . . . . . { for developing }
15/0126 . . . . . . . . { using a solid developer }
15/0131 . . . . . . . . { for transferring a pattern to a second base }
15/0136 . . . . . . . . { transfer member separable from recording member or vice versa, mode switching }
15/0142 . . . . . . . . { Structure of complete machines }
15/0147 . . . . . . . . { using a single reusable electrographic recording member }
15/0152 . . . . . . . . { onto which the monocolour toner images are superposed before common transfer from the recording member }
15/0157 . . . . . . . . { with special treatment between monocolour image formation }
15/0163 . . . . . . . . { primary transfer to the final recording medium }
15/0168 . . . . . . . . { single rotation of recording member to produce multicoloured copy (G03G 15/0163 takes precedence) }
15/0173 . . . . . . . . { plural rotations of recording member to produce multicoloured copy, e.g. rotating set of developing units (G03G 15/0163 takes precedence) }
15/0178 . . . . . . . . { using more than one reusable electrographic recording member, e.g. one for every monocolour image }
15/0184 . . . . . . . . { at least one recording member having plural associated developing units }
15/0189 . . . . . . . . { primary transfer to an intermediate transfer belt (G03G 15/0184 takes precedence) }
15/0194 . . . . . . . . { primary transfer to the final recording medium (G03G 15/0184 takes precedence) }
15/02 . . . . . . . . { for laying down a uniform charge, e.g. for sensitising; Corona discharge devices (G03G 15/14 takes precedence) }
15/0208 . . . . . . . . { by contact, friction or induction, e.g. liquid charging apparatus }
15/0216 . . . . . . . . { by bringing a charging member into contact with the member to be charged, e.g. roller, brush chargers }
15/0225 . . . . . . . . { provided with means for cleaning the charging member }
NOTE

The original image is obtained by direct optical projection or received from other sources, e.g. by computer modified or generated image data, by scanning, e.g. digital copiers.

15/04009 . . . . [by forming an intermediate temporary image projected one or more times]
15/04018 . . . . [Image composition, e.g. adding or superposing informations on the original image (composition of facsimile picture signals H04N 1/387)]
15/04027 . . . . [and forming half-tone image]
15/04036 . . . . [Details of illuminating systems, e.g. lamps, reflectors (lamp housings for copying cameras, reflex exposure lighting G03B 27/542)]
15/04045 . . . . . . [for exposing image information provided otherwise than by directly projecting the original image onto the photoconductive recording material, e.g. digital copiers (G03G 15/044, G03G 15/042 takes precedence)]
15/04054 . . . . . . [by LED arrays]
15/04063 . . . . . . [by EL-bars]
15/04072 . . . . . . [by laser]
15/04081 . . . . [Exposure from behind the photoconductive surface]
15/0409 . . . . . [Details of projection optics (for projection printing apparatus G03B 27/522)]
15/041 . . . . [with variable magnification]
15/0415 . . . . [and means for controlling illumination or exposure]
15/043 . . . . [with means for controlling illumination or exposure (G03G 15/041 takes precedence)]
15/0435 . . . . [by introducing an optical element in the optical path, e.g. a filter]
15/045 . . . . [with means for charging or discharging distinct portions of the charge pattern on the recording material, e.g. for contrast enhancement or discharging non-image areas (G03G 15/36, G03G 21/06 take precedence)]
15/047 . . . . . [for discharging non-image areas]
15/05 . . . . [for imagewise charging, e.g. photoconductive control screen, optically activated charging means (charging means controlled by electric image signals B41J)]
15/051 . . . . . [by modulating an ion flow through a photoconductive screen onto which a charge image has been formed]
15/052 . . . . . [Details and conditioning means of the screen, e.g. cleaning means, ozone removing means]
15/054 . . . . . [using X-rays, e.g. electroradiography]
15/0545 . . . . . [Ionography, i.e. X-rays induced liquid or gas discharge]
15/056 . . . . . [using internal polarisation]
15/06 . . . . . [for developing]
15/065 . . . . . [Arrangements for controlling the potential of the developing electrode]
15/08 . . . . . [using a solid developer, e.g. powder developer]
15/0801 . . . . . [for cascading]
15/0803 . . . . . [in a powder cloud]
15/0805 . . . . . [on a brush (G03G 15/09 takes precedence)]
15/0806 . . . . . [on a donor element, e.g. belt, roller (complete developer unit G03G 15/0896)]
15/0808 . . . . . [characterised by the developer supplying means, e.g. structure of developer supply roller]
15/081 . . . . . [characterised by the developer handling means after the supply and before the regulating, e.g. means for preventing developer blocking]
15/0812 . . . . . [characterised by the developer regulating means, e.g. structure of doctor blade]
15/0813 . . . . . [characterised by means in the developing zone having an interaction with the image carrying member, e.g. distance holders]
15/0815 . . . . . [characterised by the developer handling means after the developing zone and before the supply, e.g. developer recovering roller]
15/0817 . . . . . [characterised by the lateral sealing at both sides of the donor member with respect to the developer carrying direction]
15/0818 . . . . . [characterised by the structure of the donor member, e.g. surface properties]
15/082 . . . . . [for immersion]
15/0822 . . . . . [Arrangements for preparing, mixing, supplying or dispensing developer]
15/0844 . . . . . [Arrangements for purging used developer from the developing unit]
15/0848 . . . . . [Arrangements for testing or measuring developer properties or quality, e.g. charge, size, flowability]
15/0849 . . . . . [Detection or control means for the developer concentration]
15/0851 . . . . . [the concentration being measured by electrical means]
15/0853 . . . . . [the concentration being measured by magnetic means]
15/0855 . . . . . [the concentration being measured by optical means]
by groups G03G 15/08

developer unit or parts thereof not provided for

{ Arrangements or disposition of the complete
developer unit or parts thereof not provided for by groups G03G 15/08 - G03G 15/0894 }

15/0856 . . . . . [Detection or control means for the
developer level]
15/0858 . . . . . [the level being measured by
mechanical means]
15/086 . . . . . . . [the level being measured by electro-
magnetic means]
15/0862 . . . . . . [the level being measured by optical
means]
15/0863 . . . . . [provided with identifying means or means
for storing process- or use parameters, e.g. an
electronic memory]
15/0865 . . . . . [Arrangements for supplying new
developer]
15/0867 . . . . . [cylindrical developer cartridges, e.g.
toner bottles for the developer replenishing
opening]
15/0868 . . . . . [Toner cartridges fulfilling a continuous
function within the electrographic
apparatus during the use of the supplied
developer material, e.g. toner discharge
on demand, storing residual toner, acting
as an active closure for the developer
replenishing opening]
15/087 . . . . . . [Developer cartridges having a
longitudinal rotational axis, around which at least one part is rotated when
mounting or using the cartridge]
15/0872 . . . . . . . [the developer cartridges being
generally horizontally mounted
parallel to its longitudinal rotational
axis]
15/0874 . . . . . [non-rigid containers, e.g. foldable
cartridges, bags]
15/0875 . . . . . [cartridges having a box like shape]
15/0877 . . . . . [Arrangements for metering and dispensing
developer from a developer cartridge into the
development unit]
15/0879 . . . . . . . [for dispensing developer from a
developer cartridge not directly attached to the
development unit]
15/0881 . . . . . [Sealing of developer cartridges]
15/0882 . . . . . [by a peelable sealing film (resealing
used developer units before refilling:
G03G 15/0894)]
15/0884 . . . . . [by a sealing film to be ruptured or cut]
15/0886 . . . . . [by mechanical means, e.g. shutter,
plug]
15/0887 . . . . . [Arrangements for conveying and
conditioning developer in the developing
unit, e.g. agitating, removing impurities or
humidity]
15/0889 . . . . . [for agitation or stirring]
15/0891 . . . . . [for conveying or circulating developer,
e.g. augers]
15/0893 . . . . . [in a closed loop within the sump of the
developing device]
15/0894 . . . . [Reconditioning of the developer unit, i.e.
reusing or recycling parts of the unit, e.g.
resealing of the unit before refilling with toner]
15/0896 . . . . . [Arrangements or disposition of the complete
developer unit or parts thereof not provided for
by groups G03G 15/08 - G03G 15/0894]
for fixing, e.g. by using heat
15/2003 . . . . using heat
15/2007 . . . . using radiant heat, e.g. infra-red lamps, 
microwave heaters
15/201 . . . . of high intensity and short duration, i.e. 
flash fusing
15/2014 . . . . using contact heat
15/2017 . . . . Structural details of the fixing unit in 
general, e.g. cooling means, heat shielding 
means (G03G 15/2053 takes precedence)
15/2021 . . . . Plurality of separate fixing and/or cooling 
areas or units, two step fixing
15/2025 . . . . with special means for lubricating and/
or cleaning the fixing unit, e.g. applying 
offset preventing fluid
15/2028 . . . . with means for handling the copy 
material in the fixing nip, e.g. introduction 
guides, stripping means
15/2032 . . . . Retractable heating or pressure unit
15/2035 . . . . for maintenance purposes, e.g. for 
removing a jammed sheet
15/2039 . . . . with means for controlling the fixing 
temperature
15/2042 . . . . specially for the axial heat partition
15/2046 . . . . specially for the influence of heat loss, 
e.g. due to the contact with the copy 
material or other roller
15/205 . . . . specially for the mode of operation, 
e.g. standby, warming-up, error 
(G03G 15/2046 takes precedence)
15/2053 . . . . Structural details of heat elements, e.g. 
structure of roller or belt, eddy current, 
induction heating
15/2057 . . . . relating to the chemical composition of 
the heat element and layers thereof
15/206 . . . . Structural details or chemical composition 
of the pressure elements and layers thereof
15/2064 . . . . combined with pressure
15/2092 . . . . using pressure only
15/2096 . . . . using a solvent
15/22 . . . . involving the combination of more than one step 
according to groups G03G 13/02 - G03G 13/20 
(G03G 15/01 takes precedence)
15/221 . . . . Machines other than electrographic copiers, 
e.g. electrophotographic cameras, electrostatic 
typewriters
15/222 . . . . Machines for handling xeroradiographic 
images, e.g. xeroradiographic processors
15/223 . . . . Machines for handling microimages, e.g. 
microfilm copiers
15/224 . . . . Machines for forming tactile or three 
dimensional images by electrographic means, 
e.g. braille, 3d printing
15/225 . . . . using contact-printing
15/226 . . . . where the image is formed on a dielectric layer 
covering the photoconductive layer
15/227 . . . . the length of the inner surface of the dielectric 
layer being greater than the length of the outer 
surface of the photoconductive layer
15/228 . . . . the process involving the formation of a master, 
e.g. photocopy-printer machines
15/23 . . . . specially adapted for copying both sides of 
an original or for copying on both sides of a 
recording or image-receiving material
15/231 . . . . Arrangements for copying on both sides of a 
recording or image-receiving material
15/232 . . . . using a single reusable electrographic 
recording member
15/234 . . . . by inverting and refeeding the image 
receiving material with an image on one 
face to the recording member to transfer 
the second image on its second face, e.g. by 
using a duplex tray; Details of duplex trays 
or inverters
15/235 . . . . the image receiving member being 
preconditioned before transferring the 
second image, e.g. decurled, or 
the second image being formed with 
different operating parameters, e.g. a 
different fixing temperature
15/237 . . . . the image receiving member being in 
form of a continuous web (G03G 15/235 
takes precedence)
15/238 . . . . using more than one reusable electrographic 
recording member, e.g. single pass duplex 
copiers
15/24 . . . . whereby at least two steps are performed 
simultaneously
15/26 . . . . in which the charge pattern is obtained by 
projection of the entire image, i.e. whole-frame 
projection (G03G 15/04 takes precedence)
15/263 . . . . using a reusable recording medium in form of 
a band
15/266 . . . . using a reusable recording medium in form of 
a plate or a sheet
15/28 . . . . in which projection is obtained by line scanning 
(G03G 15/04 takes precedence)
15/283 . . . . using a reusable recording medium in form of 
a band
15/286 . . . . using a reusable recording medium in form of 
a plate or a sheet
15/30 . . . . in which projection is formed on a drum 
15/302 . . . . with arrangements for copying different 
kinds of originals, e.g. sheets, books
microprocessor control (sequencing control)

Machine control of apparatus for electrographic copying one or more original images or parts

by measuring the characteristics of an intermediate image carrying member or the characteristics of an image on an intermediate image carrying member, e.g. intermediate transfer belt or drum, conveyor belt

Machine control of apparatus for electrographic copying one or more original images or parts

by measuring the characteristics of an image on the copy material

by using information from an external support, e.g. magnetic card

being interleaved with the original or directly written on he original, e.g. using a control sheet

Remote control machines, e.g. by a host

(for maintenance)

(for scheduling)

(for receiving image data)

(for user-identification or authorisation)

[Matching the image with the size of the copy material, e.g. by calculating the magnification or selecting the adequate copy material size]

[Self-diagnostics; Malfunction or lifetime display]

[Monitoring or warning means for exhaustion or lifetime end of consumables, e.g. indication of insufficient copy sheet quantity for a job]

[for toner consumption, e.g. pixel counting, toner coverage detection or toner density measurement]

[Apparatus which relate to the handling of originals (for photographic purposes in general G03B)]

[for transporting]

[for copy sheets in ream]

[Automatic supply devices interacting with the rest of the apparatus, e.g. selection of a specific cassette (matching the image with the size of the copy material G03G 15/5095)]

[for receiving image data]

[for scheduling]

[for maintenance]

[for copy sheets in ream]

[Apparatus for continuous web copy material of plain paper, e.g. supply rolls; Roll holders thereof]

[Apparatus for continuous web copy material of plain paper, e.g. supply rolls; Roll holders thereof]

[Feeding a copy material originating from a continuous web roll]

[Cutting]

[Computer form folded [CFF] continuous web roll]

[Computer form folded [CFF] continuous web, e.g. having sprocket holes or perforations]

[Transporting (G03G 15/6555 takes precedence)]

[Removing a copy sheet form a xerographic drum, band or plate (removing sheets from for photographic purposes in general G03B)]

[Feeding devices for picking up or separation of copy sheets]

[Manual supply devices]

[Apparatus for continuous web copy material of plain paper, e.g. supply rolls; Roll holders thereof]

[Apparatus for continuous web copy material of plain paper, e.g. supply rolls; Roll holders thereof]

[Apparatus for continuous web copy material of plain paper, e.g. supply rolls; Roll holders thereof]

[for holding apparatus, e.g. selection of a specific cassette (matching the image with the size of the copy material G03G 15/5095)]

[for detecting size, presence or position of original]

[Apparatus which relate to the handling of copy material (handling sheets or webs in general B65H; for photographic purposes in general G03B)]

[Apparatus for continuous web copy material of plain paper, e.g. supply rolls; Roll holders thereof]

[supplying of sheet copy material; Cassettes thereof]
15/6541 . . . [Binding sets of sheets, e.g. by stapling, gluing]
15/6544 . . . [Details about the binding means or procedure]
15/6547 . . . [Shifting sets of sheets in the discharge tray]
15/655 . . . [Placing job divider sheet between set of sheets]
15/6552 . . . [Means for discharging uncollated sheet copy material, e.g. discharging rollers, exit trays]
15/6555 . . . [Handling of sheet copy material taking place in a specific part of the copy material feeding path]
15/6558 . . . [Feeding path after the copy sheet preparation and up to the transfer point, e.g. registering; Deskewing; Correct timing of sheet feeding to the transfer point]
15/6561 . . . [for sheet registration]
15/6564 . . . . [with correct timing of sheet feeding]
15/6567 . . . [for deskewing or aligning]
15/657 . . . [Feeding path after the transfer point and up to the fixing point, e.g. guides and feeding means for handling copy material carrying an unfused toner image]
15/6573 . . . [Feeding path after the fixing point and up to the discharge tray or the finisher, e.g. special treatment of copy material to compensate for effects from the fixing]
15/6576 . . . [Decurling of sheet material]
15/6579 . . . [Refeeding path for composite copying]
15/6582 . . . [Special processing for irreversibly adding or changing the sheet copy material characteristics or its appearance, e.g. stamping, annotation printing, punching]
15/6585 . . . [by using non-standard toners, e.g. transparent toner, gloss adding devices]
15/6588 . . . [characterised by the copy material, e.g. postcards, large copies, multi-layered materials, coloured sheet material]
15/6591 . . . [characterised by the recording material, e.g. plastic material, OHP, ceramics, tiles, textiles (details transferring the toner pattern onto particular materials G03G 15/1625)]
15/6594 . . . [characterised by the format or the thickness, e.g. endless forms]
15/6597 . . . [the imaging being conformed directly on the copy material, e.g. using photosensitive copy material, dielectric copy material for electrostatic printing]
15/70 . . . [Detecting malfunctions relating to paper handling, e.g. jams]
15/703 . . . [Detecting multiple sheets]
15/706 . . . [Detecting missed stripping form xerographic drum, band or plate]
15/75 . . . [Details relating to xerographic drum, band or plate, e.g. replacing, testing (electrographic recording members per se G03G 5/00)]
15/751 . . . [relating to drum (G03G 15/757 takes precedence)]
15/752 . . . [with renewable photoconductive layer]
15/754 . . . [relating to band, e.g. tensioning (G03G 15/757 takes precedence)]
15/755 . . . [for maintaining the lateral alignment of the band]
15/757 . . . [Drive mechanisms for photosensitive medium, e.g. gears]
15/758 . . . [relating to plate or sheet]
15/80 . . . [Details relating to power supplies, circuits boards, electrical connections]

16/00 Electrographic processes using deformation of thermoplastic layers (layers for surface-deformation imaging G03G 5/022); Apparatus therefor (shaping of plastic objects with thermoplastic memory effect B29C 61/00; digital stores using thermoplastic elements G11C 11/46; television signal recording using deformable thermoplastic recording medium H04N 5/82)]
17/00 Electrographic processes using patterns other than charge patterns, e.g. an electric conductivity pattern; Processes involving a migration, e.g. photoelectrophoresis, photoelectrosolography; Processes involving a selective transfer, e.g. photoreactive-adhesive processes; Apparatus essentially involving a single such process
17/005 . . . [Radiation field photography, e.g. Kirlian photography, colour-discharge photography (recording electrical waveforms in general G01R 13/04, e.g. G01R 13/12 - G01R 13/14)]
17/002 . . . [with electrolytic development]
17/004 . . . [using photoelectrophoresis]
17/006 . . . [Apparatus therefor]
17/008 . . . [using an electrophoto-adhesive process, e.g. manifold imaging]
17/10 . . . [using migration imaging, e.g. photoelectrosolography (G03G 17/04 takes precedence]
19/00 Processes using magnetic patterns; Apparatus therefor (i.e. magnetography)

NOTE
This group comprises also processes and apparatus wherein magnetography and electrography are combined; magnetographic printing apparatus for data processing machines G06K 15/14; recording members therefor G03G 5/40; magnetic recording members for television G11B; recording of sound G11B; recording of electric measurements G01R 13/00; recording apparatus for measurements in general G01D
19/005 . . . [where the image is formed by selective demagnetizing, e.g. thermomagnetic recording]

21/00 Arrangements not provided for by groups G03G 13/00, G03G 19/00, e.g. cleaning, elimination of residual charge
21/0005 . . . [for removing solid developer or debris from the electrographic recording medium]
21/0011 . . . [using a blade; Details of cleaning blades, e.g. blade shape, layer forming]
21/0017 . . . [Details relating to the internal structure or chemical composition of the blades]
21/0023 . . . [with electric bias]
21/0029 . . . [Details relating to the blade support]
21/0035 . . . [using a brush; Details of cleaning brushes, e.g. fibre density (G03G 21/0064 takes precedence; magnetic brushes G03G 21/0047)]
21/0041 . . . [using a band; Details of cleaning bands, e.g. band winding]
G03G

21/0047 . . . (using electrostatic or magnetic means; Details thereof, e.g. magnetic pole arrangement of magnetic devices (G03G 21/0064 takes precedence))

21/0052 . . . (using an air flow; Details thereof, e.g. nozzle structure)

21/0058 . . . (using a roller or a polygonal rotating cleaning member; Details thereof, e.g. surface structure (G03G 21/0064 takes precedence))

21/0064 . . . (using the developing unit, e.g. cleanerless or multi-cycle apparatus)

21/007 . . . (Arrangement or disposition of parts of the cleaning unit)

21/0076 . . . (Plural or sequential cleaning devices)

21/0082 . . . . (Separate cleaning member for toner and debris)

21/0088 . . . (removing liquid developer)

21/0094 . . . . (fatigue treatment of the photoconductor)

21/02 . . . . Counting the number of copies; Billing

21/04 . . . . Preventing copies being made of an original

21/043 . . . . . (by using an original which is not reproducible or only reproducible with a different appearance, e.g. originals with a photochromic layer or a colour background)

21/046 . . . . (by discriminating a special original, e.g. a bank note)

21/06 . . . . Eliminating residual charges from a reusable imaging member

21/08 . . . . using optical radiation

21/10 . . . . Collecting or recycling waste developer

21/105 . . . . (Arrangements for conveying toner waste)

21/12 . . . . Toner waste containers

21/14 . . . . Electronic sequencing control

21/145 . . . . . (wherein control pulses are generated by the mechanical movement of parts of the machine, e.g. the photoconductor)

21/16 . . . . Mechanical means for facilitating the maintenance of the apparatus, e.g. modular arrangements

21/1604 . . . . (Arrangement or disposition of the entire apparatus)

21/1609 . . . . (for space saving, e.g. structural arrangements)

21/1614 . . . . (Measures for handling of apparatus by disabled persons)

21/1619 . . . . (Frame structures)

21/1623 . . . . (Means to access the interior of the apparatus)

21/1628 . . . . . (Clamshell type (G03G 21/1638 takes precedence))

21/1633 . . . . . (using doors or covers (G03G 21/1638 takes precedence))

21/1638 . . . . . (directed to paper handling or jam treatment)

21/1642 . . . . . (for connecting the different parts of the apparatus)

21/1647 . . . . . (Mechanical connection means)

21/1652 . . . . . (Electrical connection means)

21/1657 . . . . . (Wireless connection means, e.g. RFID)

21/1661 . . . . . (means for handling parts of the apparatus in the apparatus (G03G 21/1604, G03G 21/1642 take precedence))

21/1666 . . . . . (for the exposure unit)

21/1671 . . . . . (for the photosensitive element)

21/1676 . . . . . (for the developer unit)

21/168 . . . . . (for the transfer unit)

21/1685 . . . . . (for the fixing unit)

21/169 . . . . . (for the cleaning unit)

21/1695 . . . . . (for paper transport)

21/18 . . . . using a processing cartridge, whereby the process cartridge comprises at least two image processing means in a single unit

21/1803 . . . . . (Arrangements or disposition of the complete process cartridge or parts thereof)

21/1807 . . . . . (colour)

21/181 . . . . . (Manufacturing or assembling, recycling, reuse, transportation, packaging or storage)

21/1814 . . . . . (Details of parts of process cartridge, e.g. for charging, transfer, cleaning, developing (G03G 21/1835 takes precedence))

21/1817 . . . . . (having a submodular arrangement)

21/1821 . . . . . (means for connecting the different parts of the process cartridge, e.g. attachment, positioning of parts with each other, pressure/distance regulation (G03G 21/1825 takes precedence))

21/1825 . . . . . (Pivotal subunit connection)

21/1828 . . . . . (Prevention of damage or soiling, e.g. mechanical abrasion (G03G 21/1839 takes precedence))

21/1832 . . . . . (Shielding members, shutter, e.g. light, heat shielding, prevention of toner scattering)

21/1835 . . . . . (the process cartridge not comprising a photosensitive member)

21/1839 . . . . . (Means for handling the process cartridge in the apparatus body)

21/1842 . . . . . (for guiding and mounting the process cartridge, positioning, alignment, locks (G03G 21/1864 and G03G 21/1871 take precedence))

21/1846 . . . . . (using a handle for carrying or pulling out of the main machine, legs of casings)

21/185 . . . . . (the process cartridge being mounted parallel to the axis of the photosensitive member)

21/1853 . . . . . (the process cartridge being mounted perpendicular to the axis of the photosensitive member)

21/1857 . . . . . (for transmitting mechanical drive power to the process cartridge, drive mechanisms, gears, couplings, braking mechanisms)

21/186 . . . . . (Axial couplings)

21/1864 . . . . . (associated with a positioning function)

21/1867 . . . . . (for electrically connecting the process cartridge to the apparatus, electrical connectors, power supply)

21/1871 . . . . . (associated with a positioning function)

21/1875 . . . . . (provided with identifying means or means for storing process- or use parameters, e.g. lifetime of the cartridge)

21/1878 . . . . . (Electronically readable memory)

21/1882 . . . . . (details of the communication with memory, e.g. wireless communication, protocols)

21/1885 . . . . . (position of the memory; memory housings; electrodes)

21/1889 . . . . . (for auto-setting of process parameters, lifetime, usage)

21/1892 . . . . . (for presence detection, authentication)
Apparatus for electrophotographic processes

- Handling of entire apparatus
- Special arrangement of entire apparatus
- Multi-job machines
- Machine control, e.g. regulating different parts of the machine
- Image density detection
- Optical detection
- Electrical detection
- without production of a specific test patch
- on recording member
- on recording medium
- by measuring the photoductor or its environmental characteristics
- the characteristic being its speed
- for continuous control of recording starting time
- by information from an external support
- the support being a counter
- the support being a magnetic card
- the support being a payment means, e.g. a coin
- on intermediate image carrying member, e.g. transfer belt
- by controlling drive mechanism
- by mark detection, e.g. optical
- by electronic scan control
- by friction
- concerning the original's state of motion
- original at rest
- by electronic scan control
- original either moving or at rest
- where one single scanning surface is used
- where separate scanning surfaces are used
- Paper
- Continuous web, i.e. roll
- Fan fold, e.g. CFF, normally perforated
- Non-standard format
- Large sized, e.g. technical plans
- Small sized, e.g. postcards
- Non-standard property
- Thick
- Thin
- coloured
- Plastic
- Overhead Transparency, i.e. OHP
- Transparent film roll
- Slide
- Microfiche
- Book
- With punch holes or other non-image related artifacts, e.g. staples
- Fragile, e.g. old documents
- Valuable, e.g. cheques, passport
- Confidential, e.g. secret documents
- Control sheet
- Object for which a graphic image is not of interest, e.g. medical sample
- Other special types
- Electronic image supplied to the apparatus
- Original binding
- Document property detectors
- Document size detectors
- detecting feeding of documents
- Document set detector
- Jam handling in document feeder
- Copying machine problems
- Document related problems, e.g. double-fed sheets
- Specific document handling machines
- Plural feed trays for document sets, e.g. multi-job
- relating to the copy medium handling
- The feeding path segment where particular handling of the copy medium occurs, segments being adjacent and non-overlapping. Each segment is identified by the most downstream point in the segment, so that for instance the segment labelled "Fixing device" is referring to the path between the "Transfer device" and the "Fixing device"
- General use over the entire feeding path
- Package, e.g. a reel
- Copy medium holder
- Cassette
- rotatable
- Manual input tray
- Pick-up device
- Separation device
- Registration device
Detector details, e.g. optical detector
Debris handling means
to the state of copy medium feeding
Jam, error detection, e.g. double feeding
Detachable element of feed path
imaging purposes, e.g. cleaning
transported through the apparatus for non-
Recording medium, e.g. photosensitive
Plastic
Paper
Continuous web, i.e. roll
Fan fold, e.g. CFF, normally perforated
Recording medium stripping from image
Aligning or deskewing
Purge of recording medium at jam
Changing or adjusting precision, e.g. control or feeding
Recording medium, e.g. photosensitive
Non-standard property
Thick
Thin
coloured
Overhead Transparency, i.e. OHP
Transparent film
Slide
Microfiche
Envelopes
Recording medium, e.g. photosensitive
Other special types, e.g. tabbed
Fabrics, e.g. textiles
transferred through the apparatus for non-
handling purposes, e.g. cleaning
Stable handling of copy medium
Detachable element of feed path
Openable part of feed path
Jam, error detection, e.g. double feeding
Purge of recording medium at jam
Control of copy medium feeding
Aligning or deskewing
Mechanical details
Calibration, test runs, test prints
Recording medium stripping from image
forming member
Composite print mode
Plural adjacent images on one side
duplex mode
e.g. originating from heating
Effect of changed recording medium size,
Varying registration in order to produce
special effect, e.g. binding margin
Timing, synchronisation
Control of other part of the apparatus according
to the state of copy medium feeding
Debris handling means
Detector details, e.g. optical detector
Optical detector
infra-red
Magnetic detector or switch, e.g. reed switch
Mechanical detector or switch
Electric detector, e.g. of voltage or current
Acoustic detector
Pneumatic detector
Speedometer
Electrodes close to the copy feeding path
Charging device
Brush (G03G 2215/00654 takes precedence)
Decurling device
Heating or drying device
Damping device
Mechanical copy medium guiding means, e.g.
mechanical switch
Conveying means details, e.g. roller
Chemical properties
Handling details
Shredder
Turner acting in plane of recording medium,
e.g. A4 to A4R change
Inverter not for refeeding purposes
Curl adjusting, bending
Cleaning of sheet or feeding structures
Lock related to feeding device
Detection of physical properties
of sheet position
of sheet presence in input tray
of sheet amount in input tray
of sheet size
of sheet thickness or rigidity
of sheet weight
of sheet velocity
of sheet type, e.g. OHP
of sheet toner density
of sheet image, e.g. presence, type
of sheet resistivity
of sheet potential
of temperature influencing copy sheet
handling
of humidity or moisture influencing copy
sheet handling
of opening of structural part
of connection or pressing of structural part
Adding properties or qualities to the copy
medium
Stamping device
Printing device, i.e. annotation
Coating device
Gloss adding or lowering device
Gloss level being selectable
Cutter
Punch device
Binder, e.g. glueing device
Stapler
Stitcher
Toner binding
Binding tape
Clip
Details of binding device
Temporary binding
External binding device
Manual activation of binding
Plural selectable binding modes
Remanufacturing, i.e. reusing or recycling parts of
details relating to power supplies

Arrangements for laying down a uniform charge

Using contents of CCD array to produce the image

Device not using light, e.g. ion-writer

Plurality of devices for producing the image
(excluding dedicated erasing means)

Using contents of CCD array to produce the image

Editing of the image, e.g. adding or deleting
(correction, i.e. changing or enhancing the image
G03G 2215/0429)

Changing or enhancing the image

Producing a clean non-image area, i.e. avoiding
detecting weight of copies

Using contents of CCD array to produce the image

or discharge

Insertion tool used

Device not using light, e.g. ion-writer

Plurality of devices for producing the image
(excluding dedicated erasing means)

Using contents of CCD array to produce the image

Editing of the image, e.g. adding or deleting
(correction, i.e. changing or enhancing the image
G03G 2215/0429)

Changing or enhancing the image

Producing a clean non-image area, i.e. avoiding
detecting weight of copies

Using contents of CCD array to produce the image

Editing of the image, e.g. adding or deleting
(correction, i.e. changing or enhancing the image
G03G 2215/0429)

Changing or enhancing the image

Producing a clean non-image area, i.e. avoiding
Developing structures, details

NOTE

Indexing codes of group **G03G 2215/062** and subgroups can be followed by additional symbols preceded by a ‘;” sign and relating to additional characteristics.
2215/0805 . . . Cleaning blade adjacent to the donor member
2215/0808 . . . Donor member rotation direction
2215/0811 . . . Upper part of donor member transports used developer back to the sump
2215/0813 . . . Lower part of donor member transports used developer back to the sump
2215/0816 . . . Agitator type
2215/0819 . . . two or more agitators
2215/0822 . . . with wall or blade between agitators
2215/0825 . . . belt
2215/0827 . . . Augers
2215/083 . . . with two opposed pitches on one shaft
2215/0833 . . . with varying pitch on one shaft
2215/0836 . . . Way of functioning of agitator means
2215/0838 . . . Circulation of developer in a closed loop within the sump of the developing device
2215/0841 . . . Presentation of developer to donor member
2215/0844 . . . by upward movement of agitator member
2215/0847 . . . by downward movement of agitator member
2215/085 . . . Stirring member in developer container
2215/0852 . . . reciprocating
2215/0855 . . . Materials and manufacturing of the developing device
2215/0858 . . . Donor member
2215/0861 . . . Particular composition or materials
2215/0863 . . . Manufacturing
2215/0866 . . . Metering member
2215/0869 . . . Supplying member
2215/0872 . . . Housing of developing device
2215/0875 . . . Arrangements for shipping or transporting of the developing device to or from the user
2215/0877 . . . Sealing of the developing device opening, facing the image-carrying member
2215/088 . . . Peelable sealing film
2215/0883 . . . Rupturable sealing film, e.g. tearable film
2215/0886 . . . Container for holding the whole developing device when outside the machine, e.g. box, sack
2215/088 . . . Arrangements for detecting toner level or concentration in the developing device
2215/0891 . . . Optical detection
2215/0894 . . . through a light transmissive window in the developer container wall
2215/0897 . . . . . . Cleaning of the light transmissive window
2215/16 . . . Transferring device, details
2215/1604 . . . Main transfer electrode
2215/1609 . . . Corotron
2215/1614 . . . Transfer roll
2215/1619 . . . Transfer drum
2215/1623 . . . Transfer belt
2215/1628 . . . Blade
2215/1633 . . . Plate
2215/1638 . . . Wires
2215/1642 . . . Brush
2215/1647 . . . Cleaning of transfer member
2215/1652 . . . of transfer roll
2215/1657 . . . of transfer drum
2215/1661 . . . of transfer belt
2215/1666 . . . Preconditioning of copy medium before the transfer point
2215/1671 . . . Preheating the copy medium before the transfer point
2215/1676 . . . Simultaneous toner image transfer and fixing
2215/168 . . . at the first transfer point
2215/1685 . . . using heat
2215/169 . . . without heat
2215/1695 . . . at the second or higher order transfer point
2215/20 . . . Details of the fixing device or process

NOTE
Indexing codes of group G03G 2215/20 can be followed by additional symbols preceded by a "+" sign and relating to additional characteristics. The indexing codes have the meaning as indicated below.

+H Using heat to fix
+P Using pressure to fix
+P1 where the pressure is changed
+P1A being adapted to the current toner-carrying medium treated (e.g. duplex copy, colour copy, OHP sheet, envelope)
+P1B compensating for temperature or other technical condition variations (e.g. sheet skewing) occurring
+P1C when being in a non-fixing or waiting mode
+P1M for maintenance purpose or abnormal situations (e.g. power cut-off)

2215/2003 . . . Structural features of the fixing device
2215/2006 . . . Plurality of separate fixing areas
2215/2009 . . . Pressure belt
2215/2012 . . . having an end
2215/2016 . . . Heating belt
2215/2019 . . . the belt not heating the toner or medium directly, e.g. heating a heating roller
2215/2022 . . . the fixing nip having both a stationary and a rotating belt support member opposing a pressure member
2215/2025 . . . the fixing nip having a rotating belt support member opposing a pressure member
2215/2029 . . . the belt further entrained around one or more stationary belt support members, the latter not being a cooling device
2215/2032 . . . the belt further entrained around additional rotating belt support members
2215/2035 . . . the fixing nip having a stationary belt support member opposing a pressure member
2215/2038 . . . the belt further entrained around one or more rotating belt support members
2215/2041 . . . the fixing nip being formed by tensioning the belt over a surface portion of a pressure member
2215/2045 . . . Variable fixing speed
2215/2048 . . . Surface layer material
2215/2051 . . . Silicone rubber
2215/2054 . . . Inorganic filler, e.g. silica powder
2215/2058 . . . Shape of roller along rotational axis
G03G

Details of electrographic processes using patterns other than charge patterns

Process where the image-carrying member is always completely covered by a toner layer

Process where the image-carrying member is charged before producing the toner layer on the image-carrying member

Process where no specific pick-up of toner occurs before transfer of the toner image

Process using an image-carrying member having an electrode array on its surface

Process using a fixed electrode array behind a moving recording medium

Process comprising image exposure at the developing area

Processes not provided for by group G03G 2215/000, e.g. cleaning or residual charge elimination

Cleaning of residual toner

Plural sequential cleaning devices

Width of cleaning device related to other parts of the apparatus, e.g. transfer belt width

Applying vibrations to the electrographic recording medium for assisting the cleaning, e.g. ultrasonic vibration

Cleaning of foreign matter, e.g. paper powder, from imaging member

Type of foreign matter

Oil and other liquid matter

Paper powder and other dry foreign matter

Type of cleaning device

Common container for holding cleaned foreign matter and residual toner

Separate cleaning members for foreign matter and residual toner

Cleaning device for foreign matter separate from residual toner cleaning device

Cleaning mechanism

Electrostatic

Magnetic

Liquid

Mechanical

Suction

Mechanical means for facilitating the maintenance of the apparatus, e.g. modular arrangements and complete machine concepts

for multicoloured copies

for the photosensitive element

protective arrangements for preventing damage

plural shutters for openings of process cartridge

being a belt

for the cleaning unit

re-use of cleaned toner

transporting cleaned toner into separate vessels, e.g. photoreceptors, external containers

Details concerning the cleaning process

for the developer unit

Details concerning the developing process

for the exposure unit

for the fixing unit

for the transfer unit

for conducting air through the machine, e.g. cooling

using seals, e.g. to prevent scattering of toner (light shields for the photoreceptor G03G 2221/1609)

for connecting the different parts

Locks and means for positioning or alignment

transmitting mechanical drive power

Electrical connectors

having lifetime indicators

integer lifetimes of each other

Details about used materials

Paper handling

Jam treatment

Frame structures

Portable machines

using extractable subframes, e.g. on rails or hinges

using opening shell type machines, e.g. pivoting assemblies

Structural door designs

for charging

for auxiliary devices, e.g. add-on modules

Cartridge systems

Transport of supply parts, e.g. process cartridges

for cleaning or developing but not being a process cartridge

Cartridges having electronically readable memory

Process cartridge

Autosetting of process parameters

using a handle for carrying or pulling out of the main machine

having a submodular arrangement

Rotational subunit connection

Cartridge holders, e.g. intermediate frames for placing cartridge parts therein
for production purposes, e.g. manufacture or mass production

Projections on process cartridge for guiding mounting thereof in main machine

Presence detection