| Symbol | Typ | Titel |
|---|---|---|
| **G** | **Sektion** | **SECTION G — PHYSICS** |
| **G11** | **Klasse** | **INFORMATION STORAGE** |
| **G11B** | **Unterklasse** | **INFORMATION STORAGE BASED ON RELATIVE MOVEMENT BETWEEN RECORD CARRIER AND TRANSDUCER (recording measured values in a way that does not require playback through a transducer G01D; photosensitive materials or processes for photographic purposes G03C; electrography, electrophotography, magnetography G03G; recording or playback apparatus using mechanically marked tape, e.g. punched paper tape, or using unit records, e.g. punched or magnetically marked cards, G06K; transferring data from one type of record carrier to another G06K 1/18; printing of data from record carriers G06K 3/00; arrangements for producing a permanent visual presentation of the output data G06K 15/00; arrangements or circuits for control of indicating devices using static means to present variable information G09G; details of scanning-probe apparatus, in general G12B 21/00; coding, decoding or code conversion, in general H03M; circuits for coupling output of reproducer to radio receiver H04B 1/20; television signal recording H04N 5/76, H04N 9/79; loudspeakers, microphones, gramophone pick-ups or like acoustic electromechanical transducers or circuits therefor H04R)** |
| **G11B 3/00** | **Hauptgruppe** | **Recording by mechanical cutting, deforming or pressing, e.g. of grooves or pits; Reproducing by mechanical sensing; Record carriers therefor (G11B 11/00 takes precedence; recording by cutting or deforming using laser beam G11B 7/00, using electron beam G11B 9/10)** |
| G11B 3/02 | 1-Punkt Untergruppe | . Arrangements of heads (styli G11B 3/44) |
| G11B 3/04 | 2-Punkt Untergruppe | . . Multiple, convertible, or alternative transducing arrangements |
| G11B 3/06 | 2-Punkt Untergruppe | . . Determining or indicating position of head |
| G11B 3/08 | 2-Punkt Untergruppe | . . Raising, lowering, traversing otherwise than for transducing, arresting, or holding-up heads against record carriers |
| G11B 3/085 | 3-Punkt Untergruppe | . . . using automatic means (G11B 3/095 takes precedence) [4] |
| G11B 3/09 | 3-Punkt Untergruppe | . . . using manual means only (G11B 3/095 takes precedence) [4] |
| G11B 3/095 | 3-Punkt Untergruppe | . . . for repeating a part of the record; for beginning or stopping at a desired point of the record [4] |
| G11B 3/10 | 2-Punkt Untergruppe | . . Arranging, supporting, or driving of heads or of transducers relatively to record carriers |
| G11B 3/12 | 3-Punkt Untergruppe | . . . Supporting in balanced, counterbalanced, or loaded operative position, e.g. loading in direction of traverse |
| G11B 3/14 | 4-Punkt Untergruppe | . . . . by using effects of gravity or inertia, e.g. counterweight (G11B 3/28 takes precedence) [4] |
| G11B 3/16 | 5-Punkt Untergruppe | . . . . . adjustable |
| G11B 3/18 | 5-Punkt Untergruppe | . . . . . Damping by using viscosity effect |
| G11B 3/20 | 4-Punkt Untergruppe | . . . . by elastic means, e.g. spring (G11B 3/28 takes precedence) [4] |
| G11B 3/22 | 5-Punkt Untergruppe | . . . . . adjustable |
| G11B 3/24 | 5-Punkt Untergruppe | . . . . . acting to decrease pressure on record |
| G11B 3/26 | 5-Punkt Untergruppe | . . . . . acting to increase pressure on record |
| G11B 3/28 | 4-Punkt Untergruppe | . . . . providing transverse bias parallel to record |
| G11B 3/30 | 3-Punkt Untergruppe | . . . Supporting in inoperative position |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 3/31 | 4-Punkt Untergruppe | . . . . Construction of arms [4] |
| G11B 3/32 | 4-Punkt Untergruppe | . . . . Construction or arrangement of support pillars |
| G11B 3/34 | 3-Punkt Untergruppe | . . . Driving or guiding during transducing operation |
| G11B 3/36 | 4-Punkt Untergruppe | . . . . Automatic-feed mechanisms producing progressive transducing traverse across record carriers otherwise than by grooves, e.g. by lead-screw |
| G11B 3/38 | 4-Punkt Untergruppe | . . . . Guiding, e.g. constructions or arrangements providing linear or other special tracking characteristics |
| G11B 3/40 | 4-Punkt Untergruppe | . . . . Driving of heads relatively to stationary record carriers for transducing |
| G11B 3/42 | 3-Punkt Untergruppe | . . . with provision for adaptation or interchange of heads |
| G11B 3/44 | 1-Punkt Untergruppe | . Styli, e.g. sapphire, diamond |
| G11B 3/46 | 2-Punkt Untergruppe | . . Constructions or forms, e.g. attachment of point to shank |
| G11B 3/48 | 3-Punkt Untergruppe | . . . Needles |
| G11B 3/50 | 2-Punkt Untergruppe | . . Anvils or other supports opposing stylus forces |
| G11B 3/52 | 2-Punkt Untergruppe | . . Arrangements permitting styli to yield under excessive pressure |
| G11B 3/54 | 2-Punkt Untergruppe | . . Storing; Manipulating, e.g. feeding styli to and from heads (needle boxes, receptacles for needles B65D 85/24) |
| G11B 3/56 | 2-Punkt Untergruppe | . . Sharpening (by grinding B24B 19/16) |
| G11B 3/58 | 1-Punkt Untergruppe | . Cleaning record carriers or styli, e.g. removing shavings or dust (brushes A46B; cleaning in general B08B) |
| G11B 3/60 | 1-Punkt Untergruppe | . Turntables for record carriers (forming rotor of dynamo-electric motor H02K) |
| G11B 3/61 | 2-Punkt Untergruppe | . . Damping of vibrations of record carriers on turntables [4] |
| G11B 3/64 | 1-Punkt Untergruppe | . Re-recording, i.e. transcribing information from one grooved record carrier on to one or more similar or dissimilar record carriers |
| G11B 3/66 | 1-Punkt Untergruppe | . Erasing information, e.g. for reuse of record carrier |
| G11B 3/68 | 1-Punkt Untergruppe | . Record carriers |
| G11B 3/70 | 2-Punkt Untergruppe | . . characterised by the selection of material or structure; Processes or apparatus specially adapted for manufacturing record carriers (processes involving a single technical art, in general, and for which provision exists elsewhere, see the relevant places, e.g. B29D 17/00) [4] |
| G11B 3/72 | 2-Punkt Untergruppe | . . Groove formations, e.g. run-in groove, run-out groove |
| G11B 3/74 | 3-Punkt Untergruppe | . . . Multiple output tracks, e.g. binaural stereophonic |
| G11B 3/76 | 3-Punkt Untergruppe | . . . forming part of cinematograph films |
| G11B 3/78 | 2-Punkt Untergruppe | . . Multiple-track arrangements |
| G11B 3/80 | 2-Punkt Untergruppe | . . incorporating subsidiary guide means for heads, other than modulated grooves; Part-formed unmodulated grooves for conversion into transducing grooves |
| G11B 3/90 | 2-Punkt Untergruppe | . . with means indicating prior or unauthorised use |
| **G11B 5/00** | **Hauptgruppe** | **Recording by magnetisation or demagnetisation of a record carrier; Reproducing by magnetic means; Record carriers therefor (G11B 11/00 takes precedence) [4]** |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 5/004 | 1-Punkt Untergruppe | . Recording on, or reproducing or erasing from, magnetic drums (G11B 19/00 takes precedence) [2] |
| G11B 5/008 | 1-Punkt Untergruppe | . Recording on, or reproducing or erasing from, magnetic tapes or wires (G11B 15/00 takes precedence) [2] |
| G11B 5/012 | 1-Punkt Untergruppe | . Recording on, or reproducing or erasing from, magnetic discs (G11B 17/00, G11B 19/00 take precedence) [2] |
| G11B 5/016 | 2-Punkt Untergruppe | . . using magnetic foils [2] |
| G11B 5/02 | 1-Punkt Untergruppe | . Recording, reproducing, or erasing methods; Read, write, or erase circuits therefor (timing or synchronising arrangements G11B 27/10) [2] |
| G11B 5/024 | 2-Punkt Untergruppe | . . Erasing [4] |
| G11B 5/027 | 2-Punkt Untergruppe | . . Analogue recording [2] |
| G11B 5/03 | 3-Punkt Untergruppe | . . . Biasing [4] |
| G11B 5/035 | 3-Punkt Untergruppe | . . . Equalising [4] |
| G11B 5/09 | 2-Punkt Untergruppe | . . Digital recording [2] |
| G11B 5/10 | 1-Punkt Untergruppe | . Structure or manufacture of housings or shields for heads [4] |
| G11B 5/105 | 2-Punkt Untergruppe | . . Mounting of head within housing [2] |
| G11B 5/11 | 2-Punkt Untergruppe | . . Shielding of head against electric or magnetic fields [2] |
| G11B 5/115 | 3-Punkt Untergruppe | . . . Shielding device arranged between heads or windings (G11B 5/29 takes precedence) [2] |
| G11B 5/127 | 1-Punkt Untergruppe | . Structure or manufacture of heads, e.g. inductive [4] |
| G11B 5/133 | 2-Punkt Untergruppe | . . with cores composed of particles, e.g. with dust cores, with ferrite cores [4] |
| G11B 5/147 | 2-Punkt Untergruppe | . . with cores being composed of metal sheets, i.e. laminated cores [4] |
| G11B 5/153 | 3-Punkt Untergruppe | . . . with tape-wound cores [4] |
| G11B 5/17 | 2-Punkt Untergruppe | . . Construction or disposition of windings [4] |
| G11B 5/187 | 2-Punkt Untergruppe | . . Structure or manufacture of the surface of the head in physical contact with, or immediately adjacent to, the recording medium; Pole pieces; Gap features (G11B 5/265, G11B 5/31 take precedence) [4] |
| G11B 5/193 | 3-Punkt Untergruppe | . . . the pole pieces being ferrite [4] |
| G11B 5/21 | 3-Punkt Untergruppe | . . . the pole pieces being of ferrous sheet metal [4] |
| G11B 5/23 | 3-Punkt Untergruppe | . . . Gap features [4] |
| G11B 5/235 | 4-Punkt Untergruppe | . . . . Selection of material for gap filler [4] |
| G11B 5/245 | 3-Punkt Untergruppe | . . . comprising means for controlling the reluctance of the magnetic circuit (G11B 5/255 takes precedence) [4] |
| G11B 5/255 | 3-Punkt Untergruppe | . . . comprising means for protection against wear [4] |
| G11B 5/265 | 2-Punkt Untergruppe | . . Structure or manufacture of a head with more than one gap for erasing, recording or reproducing on the same track (G11B 5/33 takes precedence) [4] |
| G11B 5/29 | 2-Punkt Untergruppe | . . Structure or manufacture of unitary devices formed of plural heads for more than one track [4] |
| G11B 5/31 | 2-Punkt Untergruppe | . . using thin film (G11B 5/33 takes precedence) [4] |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 5/325 | 2-Punkt Untergruppe | . . Erasing heads using permanent magnets (general details therefor G11B 5/133-G11B 5/255) [4] |
| G11B 5/33 | 2-Punkt Untergruppe | . . Structure or manufacture of flux-sensitive heads (general details therefor G11B 5/133-G11B 5/255) [4] |
| G11B 5/335 | 3-Punkt Untergruppe | . . . with saturated jig, e.g. for detecting second harmonic, balanced-flux head [4] |
| G11B 5/35 | 3-Punkt Untergruppe | . . . having vibrating elements [4] |
| G11B 5/37 | 3-Punkt Untergruppe | . . . using galvano-magnetic devices, e.g. Hall-effect devices (G11B 5/39 takes precedence) [4] |
| G11B 5/39 | 3-Punkt Untergruppe | . . . using magneto-resistive devices [4] |
| G11B 5/40 | 1-Punkt Untergruppe | . Protective measures on heads, e.g. against excessive temperature (G11B 5/31 takes precedence; protection against wear G11B 5/255) [4] |
| G11B 5/41 | 1-Punkt Untergruppe | . Cleaning of heads [2] |
| G11B 5/455 | 1-Punkt Untergruppe | . Arrangements for functional testing of heads; Measuring arrangements for heads (measuring electric or magnetic properties G01R) [4] |
| G11B 5/465 | 1-Punkt Untergruppe | . Arrangements for demagnetisation of heads (demagnetisation in general H01F 13/00) [4] |
| G11B 5/48 | 1-Punkt Untergruppe | . Disposition or mounting of heads relative to record carriers |
| G11B 5/49 | 2-Punkt Untergruppe | . . Fixed mountings [2] |
| G11B 5/50 | 2-Punkt Untergruppe | . . Interchangeable mountings, e.g. for replacement of head without readjustment |
| G11B 5/52 | 2-Punkt Untergruppe | . . with simultaneous movement of head and record carrier, e.g. rotation of head (G11B 5/588 takes precedence) [4] |
| G11B 5/53 | 3-Punkt Untergruppe | . . . Disposition or mounting of heads on rotating support [4] |
| G11B 5/54 | 2-Punkt Untergruppe | . . with provision for moving the head into, or out of, its operative position or across tracks [2] |
| G11B 5/55 | 3-Punkt Untergruppe | . . . Track change, selection, or acquisition by displacement of the head [2] |
| G11B 5/56 | 2-Punkt Untergruppe | . . with provision for moving the head for the purpose of adjusting the position of the head relative to the record carrier, e.g. manual adjustment for azimuth correction or track centering (G11B 5/54, G11B 5/58 take precedence) [2] |
| G11B 5/58 | 2-Punkt Untergruppe | . . with provision for moving the head for the purpose of maintaining alignment of the head relative to the record carrier during transducing operation, e.g. to compensate for surface irregularities of the latter or for track following [2] |
| G11B 5/584 | 3-Punkt Untergruppe | . . . for track following on tapes [4] |
| G11B 5/588 | 4-Punkt Untergruppe | . . . . by controlling the position of the rotating heads (by controlling the speed of the record carrier G11B 15/467; by controlling the speed of the rotating heads G11B 15/473) [4] |
| G11B 5/592 | 5-Punkt Untergruppe | . . . . . using bimorph elements supporting the heads [4] |
| G11B 5/596 | 3-Punkt Untergruppe | . . . for track following on discs [4] |
| G11B 5/60 | 3-Punkt Untergruppe | . . . Fluid-dynamic spacing of heads from record carriers |
| G11B 5/62 | 1-Punkt Untergruppe | . Record carriers characterised by the selection of the material (selection of magnetic materials in general H01F 1/00; thin magnetic films H01F 10/00) |
| G11B 5/627 | 2-Punkt Untergruppe | . . of leaders for magnetic tapes, e.g. non-magnetic strips on the tapes or for connection (constructional features G11B 23/26) [4] |
| G11B 5/633 | 2-Punkt Untergruppe | . . of cinematographic films or slides with integral magnetic track [4] |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 5/64 | 2-Punkt Untergruppe | . . comprising only the magnetic material without bonding agent |
| G11B 5/65 | 3-Punkt Untergruppe | . . . characterised by its composition (G11B 5/66 takes precedence) [7] |
| G11B 5/66 | 3-Punkt Untergruppe | . . . the record carriers consisting of several layers |
| G11B 5/667 | 4-Punkt Untergruppe | . . . . including a soft magnetic layer [7] |
| G11B 5/673 | 4-Punkt Untergruppe | . . . . comprising the repeated occurrence of two or more layers [7] |
| G11B 5/68 | 2-Punkt Untergruppe | . . comprising one or more layers of magnetisable particles homogeneously mixed with a bonding agent ( layered products in general B32B) |
| G11B 5/70 | 3-Punkt Untergruppe | . . . on a base layer (base layers per seG11B 5/73) [1, 7] |
| G11B 5/702 | 4-Punkt Untergruppe | . . . . characterised by the bonding agent [4] |
| G11B 5/706 | 4-Punkt Untergruppe | . . . . characterised by the composition of the magnetic material [4] |
| G11B 5/708 | 4-Punkt Untergruppe | . . . . characterised by the addition of non-magnetic particles to the magnetic layer [4] |
| G11B 5/71 | 4-Punkt Untergruppe | . . . . characterised by the lubricant [4] |
| G11B 5/712 | 4-Punkt Untergruppe | . . . . characterised by the surface treatment or coating of magnetic particles [4] |
| G11B 5/714 | 4-Punkt Untergruppe | . . . . characterised by the dimension of the magnetic particles [4] |
| G11B 5/716 | 4-Punkt Untergruppe | . . . . characterised by two or more magnetic layers [4] |
| G11B 5/718 | 5-Punkt Untergruppe | . . . . . at least one on each side of the base layer [4] |
| G11B 5/72 | 2-Punkt Untergruppe | . . Protective coatings, e.g. anti-static |
| G11B 5/725 | 3-Punkt Untergruppe | . . . containing a lubricant [7] |
| G11B 5/73 | 2-Punkt Untergruppe | . . Base layers [7] |
| G11B 5/733 | 3-Punkt Untergruppe | . . . characterised by the addition of non-magnetic particles [7] |
| G11B 5/735 | 3-Punkt Untergruppe | . . . characterised by the back layer [7] |
| G11B 5/738 | 3-Punkt Untergruppe | . . . characterised by the intermediate layer [7] |
| G11B 5/74 | 1-Punkt Untergruppe | . Record carriers characterised by the form, e.g. sheet shaped to wrap around a drum |
| G11B 5/76 | 2-Punkt Untergruppe | . . Drum carriers |
| G11B 5/78 | 2-Punkt Untergruppe | . . Tape carriers |
| G11B 5/80 | 2-Punkt Untergruppe | . . Card carriers |
| G11B 5/82 | 2-Punkt Untergruppe | . . Disc carriers |
| G11B 5/84 | 1-Punkt Untergruppe | . Processes or apparatus specially adapted for manufacturing record carriers (processes involving a single technical art, in general, and for which provision exists elsewhere, see the relevant places, e.g. B29, C23, C25D; apparatus or processes for applying homogeneous magnetic films to substrates in general H01F 41/14) |
| G11B 5/842 | 2-Punkt Untergruppe | . . Coating a support with a liquid magnetic dispersion [4] |
| G11B 5/845 | 3-Punkt Untergruppe | . . . in a magnetic field [4] |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 5/848 | 2-Punkt Untergruppe | . . Coating a support with a magnetic layer by extrusion [4] |
| G11B 5/85 | 2-Punkt Untergruppe | . . Coating a support with a magnetic layer by vapour deposition [4] |
| G11B 5/851 | 2-Punkt Untergruppe | . . Coating a support with a magnetic layer by sputtering [7] |
| G11B 5/852 | 2-Punkt Untergruppe | . . Orientation in a magnetic field (G11B 5/845 takes precedence) [4] |
| G11B 5/855 | 2-Punkt Untergruppe | . . Coating only part of a support with a magnetic layer [4] |
| G11B 5/858 | 2-Punkt Untergruppe | . . Producing a magnetic layer by electro-plating or electroless plating [4] |
| G11B 5/86 | 1-Punkt Untergruppe | . Re-recording, i.e. transcribing information from one magnetisable record carrier on to one or more similar or dissimilar record carriers |
| **G11B 7/00** | **Hauptgruppe** | **Recording or reproducing by optical means, e.g. recording using a thermal beam of optical radiation, reproducing using an optical beam at lower power; Record carriers therefor (G11B 11/00, G11B 13/00 take precedence) [4, 7]** |
| G11B 7/002 | 1-Punkt Untergruppe | . Recording, reproducing or erasing systems characterised by the shape of the carrier [7] |
| G11B 7/0025 | 2-Punkt Untergruppe | . . with cylinders or cylinder-like carriers, e.g. truncated cones [7] |
| G11B 7/003 | 2-Punkt Untergruppe | . . with webs, e.g. belts, spooled tapes or films of quasi-infinite extent [7] |
| G11B 7/0033 | 2-Punkt Untergruppe | . . with cards [7] |
| G11B 7/0037 | 2-Punkt Untergruppe | . . with discs [7] |
| G11B 7/004 | 1-Punkt Untergruppe | . Recording, reproducing or erasing methods; Read, write or erase circuits therefor [7] |
| G11B 7/0045 | 2-Punkt Untergruppe | . . Recording (G11B 7/006, G11B 7/0065 take precedence) [7] |
| G11B 7/005 | 2-Punkt Untergruppe | . . Reproducing (G11B 7/0065 takes precedence) [7] |
| G11B 7/0055 | 2-Punkt Untergruppe | . . Erasing (G11B 7/006, G11B 7/0065 take precedence) [7] |
| G11B 7/006 | 2-Punkt Untergruppe | . . Overwriting (G11B 7/0065 takes precedence) [7] |
| G11B 7/0065 | 2-Punkt Untergruppe | . . Recording, reproducing or erasing by using optical interference patterns, e.g. holograms [7] |
| G11B 7/007 | 1-Punkt Untergruppe | . Arrangement of the information on the record carrier, e.g. form of tracks [4] |
| G11B 7/013 | 2-Punkt Untergruppe | . . for discrete information, i.e. where each information unit is stored in a distinct location [4] |
| G11B 7/08 | 1-Punkt Untergruppe | . Disposition or mounting of heads or light sources relatively to record carriers |
| G11B 7/085 | 2-Punkt Untergruppe | . . with provision for moving the light beam into, or out of, its operative position (modulating by information signals G11B 7/12; controlling the position or direction of light beams, i.e. deflection, G02F 1/29) [4] |
| G11B 7/09 | 2-Punkt Untergruppe | . . with provision for moving the light beam or focus plane for the purpose of maintaining alignment of the light beam relative to the record carrier during transducing operation, e.g. to compensate for surface irregularities of the latter or for track following [4] |
| G11B 7/095 | 3-Punkt Untergruppe | . . . specially adapted for discs, e.g. for compensation of eccentricity or wobble [4] |
| G11B 7/10 | 2-Punkt Untergruppe | . . Interchangeable mountings, e.g. for replacement of head without readjustment |
| G11B 7/12 | 1-Punkt Untergruppe | . Heads |
| G11B 7/125 | 2-Punkt Untergruppe | . . Optical beam sources therefor (light-emitting diodes H01L 33/00; semiconductor lasers H01S 5/00); Modulators, e.g. means for controlling the size or intensity of the optical spot or of the optical trace ( electro-, magneto-, or acousto-optical modulators G02F 1/00; optical diaphragms G03B 9/02) [4] |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 7/13 | 2-Punkt Untergruppe | . . Optical detectors therefor (optical detectors in general G01J; demodulating light, transferring the modulation of modulated light, frequency changing of light G02F 2/00) [4] |
| G11B 7/135 | 2-Punkt Untergruppe | . . Means for guiding the beam from source to record carrier or from record carrier to detector [4] |
| G11B 7/14 | 2-Punkt Untergruppe | . . adapted to record on, or to reproduce from, more than one track simultaneously (G11B 7/20 takes precedence) |
| G11B 7/16 | 2-Punkt Untergruppe | . . using filters, e.g. colour filter |
| G11B 7/18 | 2-Punkt Untergruppe | . . using optical slits |
| G11B 7/20 | 2-Punkt Untergruppe | . . Dual-recording arrangements, i.e. in which the information is recorded in two different forms simultaneously on the same or related tracks, e.g. recording instantaneous and mean values (sound-recording combined with cinematography G03C) |
| G11B 7/22 | 2-Punkt Untergruppe | . . Apparatus or processes specially adapted for the manufacture of heads, e.g. assembly |
| G11B 7/24 | 1-Punkt Untergruppe | . Record carriers characterised by the selection of the material or by the structure or form (characterised by the arrangement of information on the carrier G11B 7/007; photosensitive materials per seG03C) [4] |
| *G11B 7/241* | *2-Punkt Untergruppe* | *. . characterised by the selection of the material [2006.01]* |
| *G11B 7/242* | *3-Punkt Untergruppe* | *. . . of recording layers [2006.01]* |
| *G11B 7/243* | *4-Punkt Untergruppe* | *. . . . comprising inorganic material only, e.g. ablative layers [2006.01]* |
| *G11B 7/244* | *4-Punkt Untergruppe* | *. . . . comprising organic material only [2006.01]* |
| *G11B 7/245* | *5-Punkt Untergruppe* | *. . . . . containing a polymeric component [2006.01]* |
| *G11B 7/246* | *5-Punkt Untergruppe* | *. . . . . containing dyes [2006.01]* |
| *G11B 7/247* | *6-Punkt Untergruppe* | *. . . . . Methine or polymethine dyes [2006.01]* |
| *G11B 7/248* | *6-Punkt Untergruppe* | *. . . . . Porphines ; Azaporphines, e.g. phthalocyanines [2006.01]* |
| *G11B 7/249* | *5-Punkt Untergruppe* | *. . . . . containing organo-metallic compounds ( G11B 7/246 takes precedence ) [2006.01]* |
| *G11B 7/25* | *5-Punkt Untergruppe* | *. . . . . containing liquid crystals [2006.01]* |
| *G11B 7/251* | *4-Punkt Untergruppe* | *. . . . comprising inorganic material dispersed in an organic matrix [2006.01]* |
| *G11B 7/252* | *3-Punkt Untergruppe* | *. . . of layers other than recording layers [2006.01]* |
| *G11B 7/253* | *4-Punkt Untergruppe* | *. . . . Base layers [2006.01]* |
| *G11B 7/254* | *4-Punkt Untergruppe* | *. . . . Protective topcoat layers [2006.01]* |
| *G11B 7/256* | *4-Punkt Untergruppe* | *. . . . Layers improving adhesion between layers [2006.01]* |
| *G11B 7/257* | *4-Punkt Untergruppe* | *. . . . Layers having properties involved in recording or reproduction, e.g. optical interference layers or sensitising layers [2006.01]* |
| *G11B 7/258* | *4-Punkt Untergruppe* | *. . . . Reflective layers [2006.01]* |
| G11B 7/26 | 2-Punkt Untergruppe | . . Apparatus or processes specially adapted for the manufacture of record carriers (processes involving a single technical art and for which provision exists elsewhere, see the relevant class, e.g. B29, G03) |
| G11B 7/28 | 1-Punkt Untergruppe | . Re-recording, i.e. transcribing information from one optical record carrier on to one or more similar or dissimilar record carriers using optical sensing means |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 7/30 | 1-Punkt Untergruppe | . Rewritable carriers (G11B 7/24 takes precedence) [7] |
| **G11B 9/00** | **Hauptgruppe** | **Recording or reproducing using a method or means not covered by one of the main groups G11B 3/00-G11B 7/00; Record carriers therefor (G11B 11/00 takes precedence) [4]** |
| G11B 9/02 | 1-Punkt Untergruppe | . using ferroelectric record carriers; Record carriers therefor |
| G11B 9/04 | 1-Punkt Untergruppe | . using record carriers having variable electric resistance; Record carriers therefor |
| G11B 9/06 | 1-Punkt Untergruppe | . using record carriers having variable electrical capacitance; Record carriers therefor (G11B 9/02 takes precedence) |
| G11B 9/07 | 2-Punkt Untergruppe | . . Heads for reproducing capacitive information [4] |
| G11B 9/08 | 1-Punkt Untergruppe | . using electrostatic charge injection; Record carriers therefor |
| G11B 9/10 | 1-Punkt Untergruppe | . using electron beam; Record carriers therefor (G11B 9/08 takes precedence) [4] |
| G11B 9/12 | 1-Punkt Untergruppe | . using near-field interactions; Record carriers therefor [7] |
| G11B 9/14 | 2-Punkt Untergruppe | . . using microscopic probe means [7] |
| **G11B 11/00** | **Hauptgruppe** | **Recording on, or reproducing from, the same record carrier wherein for these two operations the methods or means are covered by different main groups of groups G11B 3/00-G11B 7/00 or by different subgroups of group G11B 9/00; Record carriers therefor** |
| G11B 11/03 | 1-Punkt Untergruppe | . using recording by deforming with non-mechanical means, e.g. laser, beam of particles [4] |
| G11B 11/05 | 2-Punkt Untergruppe | . . with reproducing by capacitive means [4] |
| G11B 11/06 | 2-Punkt Untergruppe | . . with reproducing by mechanical sensing [4] |
| G11B 11/08 | 1-Punkt Untergruppe | . using recording by electric charge or by variation of electric resistance or capacitance |
| G11B 11/10 | 1-Punkt Untergruppe | . using recording by magnetisation or demagnetisation [4] |
| G11B 11/105 | 2-Punkt Untergruppe | . . using a beam of light or a magnetic field for recording and a beam of light for reproducing, e.g. light-induced thermo-magnetic recording, Kerr effect reproducing [7] |
| G11B 11/11 | 2-Punkt Untergruppe | . . using a beam other than a beam of light for recording [7] |
| G11B 11/115 | 2-Punkt Untergruppe | . . using a beam other than a beam of light for reproducing [7] |
| G11B 11/12 | 1-Punkt Untergruppe | . using recording by optical means (G11B 11/03 takes precedence) [4] |
| G11B 11/14 | 2-Punkt Untergruppe | . . with reproducing by magnetic means |
| G11B 11/16 | 1-Punkt Untergruppe | . using recording by mechanical cutting, deforming or pressing |
| G11B 11/18 | 2-Punkt Untergruppe | . . with reproducing by optical means |
| G11B 11/20 | 2-Punkt Untergruppe | . . with reproducing by magnetic means |
| G11B 11/22 | 2-Punkt Untergruppe | . . with reproducing by capacitive means [4] |
| G11B 11/24 | 1-Punkt Untergruppe | . using recording by near-field interactions [7] |
| G11B 11/26 | 2-Punkt Untergruppe | . . using microscopic probe means [7] |
| **G11B 13/00** | **Hauptgruppe** | **Recording simultaneously or selectively by methods or means covered by different main groups; Record carriers therefor; Reproducing simultaneously or selectively therefrom [1, 7]** |
| G11B 13/02 | 1-Punkt Untergruppe | . magnetically and by styli (G11B 13/08 takes precedence) [1, 7] |
| G11B 13/04 | 1-Punkt Untergruppe | . magnetically and optically (G11B 13/08 takes precedence) [1, 7] |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 13/06 | 1-Punkt Untergruppe | . optically and by styli (G11B 13/08 takes precedence) [1, 7] |
| G11B 13/08 | 1-Punkt Untergruppe | . using near-field interactions or transducing means and at least one other method or means for recording or reproducing [7] |
| **G11B 15/00** | **Hauptgruppe** | **Driving, starting or stopping record carriers of filamentary or web form; Driving both such record carriers and heads; Guiding such record carriers or containers therefor; Control thereof; Control of operating function (driving or guiding heads G11B 3/00-G11B 7/00, G11B 21/00) [2]** |
| G11B 15/02 | 1-Punkt Untergruppe | . Control of operating function, e.g. switching from recording to reproducing |
| G11B 15/03 | 2-Punkt Untergruppe | . . by using counters [4] |
| G11B 15/04 | 2-Punkt Untergruppe | . . Preventing, inhibiting, or warning against accidental erasing or double recording (G11B 15/05 takes precedence) [4] |
| G11B 15/05 | 2-Punkt Untergruppe | . . by sensing features present on, or derived from, record carrier or container (G11B 15/16 takes precedence) [4] |
| G11B 15/06 | 3-Punkt Untergruppe | . . . by sensing auxiliary features on record carriers or containers, e.g. to stop machine near the end of a tape |
| G11B 15/07 | 4-Punkt Untergruppe | . . . . on containers [4] |
| G11B 15/08 | 4-Punkt Untergruppe | . . . . by photoelectric sensing (G11B 15/07 takes precedence) [4] |
| G11B 15/087 | 3-Punkt Untergruppe | . . . by sensing recorded signals [4] |
| G11B 15/093 | 3-Punkt Untergruppe | . . . by sensing driving condition of record carrier, e.g. travel, tape tension [4] |
| G11B 15/10 | 2-Punkt Untergruppe | . . Manually-operated control; Solenoid-operated control |
| G11B 15/12 | 2-Punkt Untergruppe | . . Masking of heads; Selecting or switching of heads between operative and inoperative functions; Masking of beams, e.g. of light beams |
| G11B 15/14 | 3-Punkt Untergruppe | . . . Masking or switching periodically, e.g. of rotating heads |
| G11B 15/16 | 2-Punkt Untergruppe | . . by sensing presence, absence or position of record carrier or container |
| G11B 15/17 | 3-Punkt Untergruppe | . . . of container [4] |
| G11B 15/18 | 1-Punkt Untergruppe | . Driving; Starting; Stopping; Arrangements for control or regulation thereof |
| G11B 15/20 | 2-Punkt Untergruppe | . . Moving record carrier backwards or forwards by finite amounts, i.e. back-spacing, forward-spacing |
| G11B 15/22 | 2-Punkt Untergruppe | . . Stopping means (slowing-down preparatory to stopping or speed-changing G11B 15/48; speed-controlling by mechanical linkage G11B 15/50; brake constructions in general F16D) |
| G11B 15/24 | 2-Punkt Untergruppe | . . Drive-disengaging means |
| G11B 15/26 | 2-Punkt Untergruppe | . . Driving record carriers by members acting directly or indirectly thereon |
| G11B 15/28 | 3-Punkt Untergruppe | . . . through rollers driving by frictional contact with the record carrier, e.g. capstan; Multiple arrangements of capstans or drums coupled to means for controlling the speed of the drive; Multiple capstan systems alternately engageable with record carrier to provide reversal |
| G11B 15/29 | 4-Punkt Untergruppe | . . . . through pinch-rollers (G11B 15/295 takes precedence) [4] |
| G11B 15/295 | 4-Punkt Untergruppe | . . . . with single capstan or drum simultaneously driving the record carrier at two separate points of an isolated part thereof, e.g. the capstan acting directly on the tape rollers [4] |
| G11B 15/30 | 3-Punkt Untergruppe | . . . through the means for supporting the record carrier, e.g. mandrel, turntable |
| G11B 15/32 | 3-Punkt Untergruppe | . . . through the reels or cores on to which the record carrier is wound |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 15/34 | 3-Punkt Untergruppe | . . . through non-slip drive means, e.g. sprocket |
| G11B 15/38 | 2-Punkt Untergruppe | . . Driving record carriers by pneumatic means |
| G11B 15/40 | 2-Punkt Untergruppe | . . Driving record carriers otherwise than by electric motor |
| G11B 15/42 | 3-Punkt Untergruppe | . . . manually |
| G11B 15/43 | 2-Punkt Untergruppe | . . Control or regulation of mechanical tension of record carrier, e.g. tape tension |
| G11B 15/44 | 2-Punkt Untergruppe | . . Speed-changing arrangements; Reversing arrangements; Drive-transfer means therefor |
| G11B 15/46 | 2-Punkt Untergruppe | . . Controlling, regulating, or indicating speed |
| G11B 15/467 | 3-Punkt Untergruppe | . . . in arrangements for recording or reproducing wherein both record carriers and heads are driven [4] |
| G11B 15/473 | 4-Punkt Untergruppe | . . . . by controlling the speed of the heads [4] |
| G11B 15/48 | 3-Punkt Untergruppe | . . . Starting; Accelerating; Decelerating; Arrangements preventing malfunction during drive change |
| G11B 15/50 | 3-Punkt Untergruppe | . . . by mechanical linkage, e.g. clutch |
| G11B 15/52 | 3-Punkt Untergruppe | . . . by using signals recorded on, or derived from, record carrier |
| G11B 15/54 | 3-Punkt Untergruppe | . . . by stroboscope; by tachometer (speedometers or tachometers G01P) |
| G11B 15/56 | 1-Punkt Untergruppe | . the record carrier having reserve loop, e.g. to minimise inertia during acceleration |
| G11B 15/58 | 2-Punkt Untergruppe | . . with vacuum column |
| G11B 15/60 | 1-Punkt Untergruppe | . Guiding record carriers (guiding devices structurally associated with magazines or cassettes G11B 23/04) [4] |
| G11B 15/61 | 2-Punkt Untergruppe | . . on drum, e.g. on drum containing rotating heads [4] |
| G11B 15/62 | 2-Punkt Untergruppe | . . Maintaining desired spacing between record carrier and head |
| G11B 15/64 | 3-Punkt Untergruppe | . . . by fluid-dynamic spacing |
| G11B 15/66 | 2-Punkt Untergruppe | . . Threading; Loading; Automatic self-loading |
| G11B 15/665 | 3-Punkt Untergruppe | . . . by extracting loop of record carrier from container [4] |
| G11B 15/67 | 3-Punkt Untergruppe | . . . by extracting end of record carrier from container or spool [4] |
| G11B 15/675 | 1-Punkt Untergruppe | . Guiding containers [4] |
| G11B 15/68 | 2-Punkt Untergruppe | . . Automatic cassette-changing arrangements [2] |
| G11B 15/70 | 1-Punkt Untergruppe | . the record carrier being an endless-loop record-carrier [2] |
| **G11B 17/00** | **Hauptgruppe** | **Guiding record carriers not specifically of filamentary or web form, or of supports therefor ( guiding cards or sheets G06K 13/00)** |
| G11B 17/02 | 1-Punkt Untergruppe | . Details |
| G11B 17/022 | 2-Punkt Untergruppe | . . Positioning or locking of single discs [4] |
| G11B 17/025 | 3-Punkt Untergruppe | . . . of discs which are stationary during transducing operation [4] |
| G11B 17/028 | 3-Punkt Untergruppe | . . . of discs rotating during transducing operation [4] |
| G11B 17/03 | 4-Punkt Untergruppe | . . . . in containers or trays [4] |
| G11B 17/032 | 4-Punkt Untergruppe | . . . . Positioning by moving the door or the cover [4] |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 17/035 | 4-Punkt Untergruppe | . . . . Positioning by moving the loading station [4] |
| G11B 17/038 | 2-Punkt Untergruppe | . . Centering or locking of a plurality of discs in a single cartridge [4] |
| G11B 17/04 | 2-Punkt Untergruppe | . . Feeding or guiding single record carrier to or from transducing unit |
| *G11B 17/041* | *3-Punkt Untergruppe* | *. . . specially adapted for discs contained within cartridges [2006.01]* |
| *G11B 17/043* | *4-Punkt Untergruppe* | *. . . . Direct insertion, i.e. without external loading means [2006.01]* |
| *G11B 17/044* | *4-Punkt Untergruppe* | *. . . . Indirect insertion, i.e. with external loading means [2006.01]* |
| *G11B 17/046* | *5-Punkt Untergruppe* | *. . . . . with pivoting loading means [2006.01]* |
| *G11B 17/047* | *5-Punkt Untergruppe* | *. . . . . with sliding loading means [2006.01]* |
| *G11B 17/049* | *4-Punkt Untergruppe* | *. . . . Insertion of discs having to be extracted from the cartridge prior to recording or reproducing [2006.01]* |
| *G11B 17/05* | *3-Punkt Untergruppe* | *. . . specially adapted for discs not contained within cartridges [2006.01]* |
| *G11B 17/051* | *4-Punkt Untergruppe* | *. . . . Direct insertion, i.e. without external loading means [2006.01]* |
| *G11B 17/053* | *4-Punkt Untergruppe* | *. . . . Indirect insertion, i.e. with external loading means [2006.01]* |
| *G11B 17/054* | *5-Punkt Untergruppe* | *. . . . . with pivoting loading means [2006.01]* |
| *G11B 17/056* | *5-Punkt Untergruppe* | *. . . . . with sliding loading means [2006.01]* |
| *G11B 17/057* | *3-Punkt Untergruppe* | *. . . specially adapted for handling both discs contained within cartridges and discs not contained within cartridges [2006.01]* |
| G11B 17/08 | 1-Punkt Untergruppe | . from consecutive-access magazine of disc records |
| G11B 17/10 | 2-Punkt Untergruppe | . . with horizontal transfer to the turntable from a stack arranged with a vertical axis |
| G11B 17/12 | 2-Punkt Untergruppe | . . with axial transfer to the turntable from a stack with a vertical axis |
| G11B 17/14 | 3-Punkt Untergruppe | . . . by mechanism in rotating centre post, e.g. permitting the playing of both sides of a record |
| G11B 17/16 | 3-Punkt Untergruppe | . . . by mechanism in stationary centre post, e.g. with stepped post, using fingers on post |
| G11B 17/18 | 3-Punkt Untergruppe | . . . by mechanism operating on the edge of the disc record |
| G11B 17/20 | 2-Punkt Untergruppe | . . with transfer away from stack on turntable after playing |
| G11B 17/22 | 1-Punkt Untergruppe | . from random-access magazine of disc records |
| G11B 17/24 | 2-Punkt Untergruppe | . . the magazine having a toroidal or part-toroidal shape |
| G11B 17/26 | 2-Punkt Untergruppe | . . the magazine having a cylindrical shape with vertical axis |
| G11B 17/28 | 2-Punkt Untergruppe | . . the magazine having a cylindrical shape with horizontal axis |
| G11B 17/30 | 2-Punkt Untergruppe | . . wherein the playing unit is moved accordingly to the location of the selected record |
| G11B 17/32 | 1-Punkt Untergruppe | . Maintaining desired spacing between record carrier and head, e.g. by fluid-dynamic spacing [2] |
| G11B 17/34 | 1-Punkt Untergruppe | . Guiding record carriers during transducing operation, e.g. for track following (G11B 17/32 takes precedence) [4] |
| **G11B 19/00** | **Hauptgruppe** | **Driving, starting, stopping record carriers not specifically of filamentary or web form, or of supports therefor; Control thereof; Control of operating function (guiding such record carriers G11B 17/00)** |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 19/02 | 1-Punkt Untergruppe | . Control of operating function, e.g. switching from recording to reproducing [4] |
| G11B 19/04 | 2-Punkt Untergruppe | . . Arrangements for preventing, inhibiting, or warning against, double recording on the same blank, or against other recording or reproducing malfunctions |
| G11B 19/06 | 2-Punkt Untergruppe | . . by counting or timing of machine operations |
| G11B 19/08 | 2-Punkt Untergruppe | . . by using devices external to the driving mechanisms, e.g. coin-freed switch (coin actuated mechanisms G07F 5/00) [4] |
| G11B 19/10 | 2-Punkt Untergruppe | . . by sensing presence or absence of record in accessible stored position or on turntable |
| G11B 19/12 | 2-Punkt Untergruppe | . . by sensing distinguishing features of records, e.g. diameter |
| G11B 19/14 | 2-Punkt Untergruppe | . . by sensing movement or position of head, e.g. means moving in correspondence with head movements |
| G11B 19/16 | 2-Punkt Untergruppe | . . Manual control |
| G11B 19/18 | 3-Punkt Untergruppe | . . . Manual action on one element producing control effect indirectly by consequent action of driving mechanism |
| G11B 19/20 | 1-Punkt Untergruppe | . Driving; Starting; Stopping; Control thereof [4] |
| G11B 19/22 | 2-Punkt Untergruppe | . . Brakes other than speed-regulating brakes (brake constructions in general F16D) |
| G11B 19/24 | 2-Punkt Untergruppe | . . Arrangements for providing constant relative speed between record carrier and head |
| G11B 19/247 | 3-Punkt Untergruppe | . . . using electrical means [4] |
| G11B 19/253 | 3-Punkt Untergruppe | . . . using mechanical means [4] |
| G11B 19/26 | 2-Punkt Untergruppe | . . Speed-changing arrangements; Reversing arrangements; Drive-transfer means therefor [4] |
| G11B 19/265 | 3-Punkt Untergruppe | . . . Friction wheel drive [4] |
| G11B 19/27 | 3-Punkt Untergruppe | . . . Belt drive [4] |
| G11B 19/275 | 3-Punkt Untergruppe | . . . Gear wheel drive [4] |
| G11B 19/28 | 2-Punkt Untergruppe | . . Speed controlling, regulating, or indicating (G11B 19/24 takes precedence; speedometers or tachometers G01P) |
| **G11B 20/00** | **Hauptgruppe** | **Signal processing not specific to the method of recording or reproducing; Circuits therefor [4]** |
| G11B 20/02 | 1-Punkt Untergruppe | . Analogue recording or reproducing [4] |
| G11B 20/04 | 2-Punkt Untergruppe | . . Direct recording or reproducing [4] |
| G11B 20/06 | 2-Punkt Untergruppe | . . Angle-modulation recording or reproducing (angle-modulation H03C; demodulation of angle-modulated oscillations H03D) [4] |
| G11B 20/08 | 2-Punkt Untergruppe | . . Pulse-modulation recording or reproducing (pulse-code-modulation recording G11B 20/10; pulse modulation or pulse demodulation H03K) [4] |
| G11B 20/10 | 1-Punkt Untergruppe | . Digital recording or reproducing (electrical digital data processing G06F; speech analysis-synthesis techniques for redundancy reduction G10L 19/00; transmission of digital information H04L) [4] |
| G11B 20/12 | 2-Punkt Untergruppe | . . Formatting, e.g. arrangement of data block or words on the record carriers [4] |
| G11B 20/14 | 2-Punkt Untergruppe | . . using self-clocking codes [4] |
| G11B 20/16 | 2-Punkt Untergruppe | . . using non self-clocking codes, i.e. the clock signals being either recorded in a separate clocking track or in a combination of several information tracks [4] |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 20/18 | 2-Punkt Untergruppe | . . Error detection or correction; Testing [4] |
| G11B 20/20 | 1-Punkt Untergruppe | . for correction of skew for multitrack recording [4] |
| G11B 20/22 | 1-Punkt Untergruppe | . for reducing distortions [4] |
| G11B 20/24 | 1-Punkt Untergruppe | . for reducing noise [4] |
| **G11B 21/00** | **Hauptgruppe** | **Head arrangements not specific to the method of recording or reproducing** |
| G11B 21/02 | 1-Punkt Untergruppe | . Driving or moving of heads |
| G11B 21/03 | 2-Punkt Untergruppe | . . for correcting time base error [4] |
| G11B 21/04 | 2-Punkt Untergruppe | . . Automatic feed mechanism producing a transducing traverse of the head in a direction which cuts across the direction of travel of the recording medium, e.g. helical scan |
| G11B 21/06 | 3-Punkt Untergruppe | . . . the record carrier having means to ensure traverse movement of the head |
| G11B 21/08 | 2-Punkt Untergruppe | . . Track changing or selecting (G11B 21/12 takes precedence) |
| G11B 21/10 | 2-Punkt Untergruppe | . . Track finding or aligning by moving the head |
| G11B 21/12 | 2-Punkt Untergruppe | . . Raising and lowering; Back-spacing or forward-spacing along track; Returning to starting position |
| G11B 21/14 | 3-Punkt Untergruppe | . . . manually |
| G11B 21/16 | 1-Punkt Untergruppe | . Supporting the heads; Supporting the sockets for plug-in heads |
| G11B 21/18 | 2-Punkt Untergruppe | . . while the head is moving |
| G11B 21/20 | 2-Punkt Untergruppe | . . while the head is in operative position but stationary or permitting minor movements to follow irregularities in surface of record carrier |
| G11B 21/21 | 3-Punkt Untergruppe | . . . with provision for maintaining desired spacing of head from record carrier, e.g. fluid-dynamic spacing, slider [4] |
| G11B 21/22 | 2-Punkt Untergruppe | . . while the head is out of operative position |
| G11B 21/24 | 2-Punkt Untergruppe | . . Head support adjustments |
| G11B 21/26 | 2-Punkt Untergruppe | . . Means for interchange or replacement of head or head element |
| **G11B 23/00** | **Hauptgruppe** | **Record carriers not specific to the method of recording or reproducing; Accessories, e.g. containers, specially adapted for co-operation with the recording or reproducing apparatus [4]** |
| G11B 23/02 | 1-Punkt Untergruppe | . Containers; Storing means (cabinets, cases, stands, modified to store record carriers G11B 33/04; storing webs, tapes or filamentary material in general B65H 75/00) [4] |
| G11B 23/023 | 2-Punkt Untergruppe | . . Containers for magazines or cassettes [4] |
| G11B 23/027 | 2-Punkt Untergruppe | . . Containers for single reels or spools [4] |
| G11B 23/03 | 2-Punkt Untergruppe | . . Containers for flat record carriers [4] |
| G11B 23/033 | 3-Punkt Untergruppe | . . . for flexible discs [4] |
| G11B 23/037 | 2-Punkt Untergruppe | . . Single reels or spools [4] |
| G11B 23/04 | 2-Punkt Untergruppe | . . Magazines; Cassettes (G11B 23/12 takes precedence) |
| G11B 23/06 | 3-Punkt Untergruppe | . . . for housing endless webs or filaments |
| G11B 23/07 | 4-Punkt Untergruppe | . . . . using a single reel or core [4] |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 23/08 | 3-Punkt Untergruppe | . . . for housing webs or filaments having two distinct ends |
| G11B 23/087 | 4-Punkt Untergruppe | . . . . using two different reels or cores [4] |
| G11B 23/093 | 5-Punkt Untergruppe | . . . . . the reels or cores being coaxial [4] |
| G11B 23/107 | 4-Punkt Untergruppe | . . . . using one reel or core, one end of the record carrier coming out of the magazine or cassette [4] |
| G11B 23/113 | 2-Punkt Untergruppe | . . Apparatus or processes specially adapted for the manufacture of magazines or cassettes [4] |
| G11B 23/12 | 2-Punkt Untergruppe | . . Bins for random storage of webs or filaments |
| G11B 23/14 | 1-Punkt Untergruppe | . providing ability to repeat location, e.g. using sprocket holes |
| G11B 23/16 | 1-Punkt Untergruppe | . Record carriers with single track for recording at spaced intervals along the track thereof, e.g. for speech or language training |
| G11B 23/18 | 1-Punkt Untergruppe | . Record carriers with multiple tracks, e.g. with complementary and partial tracks such as paired "stereo" tracks |
| G11B 23/20 | 1-Punkt Untergruppe | . with provision for splicing to provide permanent or temporary connections |
| G11B 23/22 | 2-Punkt Untergruppe | . . of endless belts; of tapes forming Möbius loops |
| G11B 23/24 | 2-Punkt Untergruppe | . . of tapes having multiple tracks parallel to edge of record carrier by offset splicing to form endless loop with one or more helical tracks |
| G11B 23/26 | 2-Punkt Untergruppe | . . of leaders for loading or threading, e.g. to form a temporary connection |
| G11B 23/28 | 1-Punkt Untergruppe | . indicating prior or unauthorised use |
| G11B 23/30 | 1-Punkt Untergruppe | . with provision for auxiliary signals (sensing such signals G11B 15/06) |
| G11B 23/32 | 2-Punkt Untergruppe | . . Electrical or mechanical contacting means; Tape stop foils |
| G11B 23/34 | 2-Punkt Untergruppe | . . Signal means additional to the main recording track, e.g. photoelectric sensing of sprocket holes for timing |
| G11B 23/36 | 2-Punkt Untergruppe | . . Signals on record carriers or on containers and recorded by the same method as the main recording |
| G11B 23/38 | 1-Punkt Untergruppe | . Visual features other than those contained in record tracks or represented by sprocket holes |
| G11B 23/40 | 2-Punkt Untergruppe | . . Identifying or analogous means applied to, or incorporated in, the record carrier and not intended for visual display simultaneously with the playing-back of the record carrier, e.g. label, leader, photograph |
| G11B 23/42 | 2-Punkt Untergruppe | . . Marks for indexing, speed-controlling, synchronising, or timing |
| G11B 23/44 | 2-Punkt Untergruppe | . . Information for display simultaneously with playback of the record, e.g. photographic matter (associated working of cameras or projectors with sound-recording or -reproducing means G03B 31/00) [4] |
| G11B 23/50 | 1-Punkt Untergruppe | . Reconditioning of record carriers; Cleaning of record carriers (G11B 3/58 takes precedence) [2] |
| **G11B 25/00** | **Hauptgruppe** | **Apparatus characterised by the shape of record carrier employed but not specific to the method of recording or reproducing (individual parts of apparatus G11B 3/00-G11B 23/00, G11B 33/00) [4]** |
| G11B 25/02 | 1-Punkt Untergruppe | . using cylindrical record carriers |
| G11B 25/04 | 1-Punkt Untergruppe | . using flat record carriers, e.g. disc, card |
| G11B 25/06 | 1-Punkt Untergruppe | . using web-form record carriers, e.g. tape |
| G11B 25/08 | 1-Punkt Untergruppe | . using filamentary record carriers, e.g. wire |
| G11B 25/10 | 1-Punkt Untergruppe | . Apparatus capable of using record carriers defined in more than one of the groups G11B 25/02-G11B 25/08 |
| **G11B 27/00** | **Hauptgruppe** | **Editing; Indexing; Addressing; Timing or synchronising; Monitoring; Measuring tape travel [2, 4]** |

| Symbol | Typ | Titel |
|---|---|---|
| G11B 27/02 | 1-Punkt Untergruppe | . Editing, e.g. varying the order of information signals recorded on, or reproduced from, record carriers ( arrangements for sorting or merging computer data on continuous record carriers G06F 7/22; mixing of video signals H04N 5/265) [5] |
| G11B 27/022 | 2-Punkt Untergruppe | . . Electronic editing of analogue information signals, e.g. audio or video signals [5] |
| G11B 27/024 | 3-Punkt Untergruppe | . . . on tapes (G11B 27/028, G11B 27/029 take precedence) [5] |
| G11B 27/026 | 3-Punkt Untergruppe | . . . on discs (G11B 27/028, G11B 27/029 take precedence) [5] |
| G11B 27/028 | 3-Punkt Untergruppe | . . . with computer assistance [5] |
| G11B 27/029 | 3-Punkt Untergruppe | . . . Insert-editing [5] |
| G11B 27/031 | 2-Punkt Untergruppe | . . Electronic editing of digitised analogue information signals, e.g. audio or video signals [5] |
| G11B 27/032 | 3-Punkt Untergruppe | . . . on tapes (G11B 27/036, G11B 27/038 take precedence) [5] |
| G11B 27/034 | 3-Punkt Untergruppe | . . . on discs (G11B 27/036, G11B 27/038 take precedence) [5] |
| G11B 27/036 | 3-Punkt Untergruppe | . . . Insert-editing [5] |
| G11B 27/038 | 3-Punkt Untergruppe | . . . Cross-faders therefor [5] |
| G11B 27/04 | 2-Punkt Untergruppe | . . using differential drive of record carrier and head |
| G11B 27/06 | 2-Punkt Untergruppe | . . Cutting and rejoining; Notching, or perforating record carriers otherwise than by recording styli (record carriers with provision for splicing G11B 23/20) |
| G11B 27/10 | 1-Punkt Untergruppe | . Indexing; Addressing; Timing or synchronising; Measuring tape travel [2] |
| G11B 27/11 | 2-Punkt Untergruppe | . . by using information not detectable on the record carrier [4] |
| G11B 27/13 | 3-Punkt Untergruppe | . . . the information being derived from movement of the record carrier, e.g. using tachometer [4] |
| G11B 27/15 | 4-Punkt Untergruppe | . . . . using mechanical sensing means [4] |
| G11B 27/17 | 4-Punkt Untergruppe | . . . . using electrical sensing means [4] |
| G11B 27/19 | 2-Punkt Untergruppe | . . by using information detectable on the record carrier [4] |
| G11B 27/22 | 3-Punkt Untergruppe | . . . Means responsive to presence or absence of recorded information signals |
| G11B 27/24 | 3-Punkt Untergruppe | . . . by sensing features on the record carrier other than the transducing track (for controlling purposes G11B 15/00, G11B 17/00) |
| G11B 27/26 | 4-Punkt Untergruppe | . . . . by photoelectric detection, e.g. of sprocket holes |
| G11B 27/28 | 3-Punkt Untergruppe | . . . by using information signals recorded by the same method as the main recording |
| G11B 27/30 | 4-Punkt Untergruppe | . . . . on the same track as the main recording |
| G11B 27/32 | 4-Punkt Untergruppe | . . . . on separate auxiliary tracks of the same or an auxiliary record carrier |
| G11B 27/34 | 2-Punkt Untergruppe | . . Indicating arrangements |
| G11B 27/36 | 1-Punkt Untergruppe | . Monitoring, i.e. supervising the progress of recording or reproducing |
| **G11B 31/00** | **Hauptgruppe** | **Arrangements for the associated working of recording or reproducing apparatus with related apparatus (with cameras or projectors G03B 31/00; substation equipment for recording telephonic conversations or messages for absent subscribers H04M 1/65) [1, 7]** |
| G11B 31/02 | 1-Punkt Untergruppe | . with automatic musical instruments |
| **G11B 33/00** | **Hauptgruppe** | **Constructional parts, details or accessories not provided for in the other groups of this subclass (** |

| Symbol | Typ | Titel |
|---|---|---|
| | | **containers, packaging elements or packages specially adapted for record carriers B65D 85/00) [4]** |
| G11B 33/02 | 1-Punkt Untergruppe | . Cabinets; Cases; Stands; Disposition of apparatus therein or thereon (furniture aspects A47B, e.g. A47B 81/06) [4] |
| G11B 33/04 | 2-Punkt Untergruppe | . . modified to store record carriers [4] |
| G11B 33/06 | 2-Punkt Untergruppe | . . combined with other apparatus having a different main function [4] |
| G11B 33/08 | 2-Punkt Untergruppe | . . Insulation or absorption of undesired vibrations or sounds [4] |
| G11B 33/10 | 1-Punkt Untergruppe | . Indicating arrangements; Warning arrangements [4] |
| G11B 33/12 | 1-Punkt Untergruppe | . Disposition of constructional parts in the apparatus, e.g. of power supply, of modules [4] |
| G11B 33/14 | 1-Punkt Untergruppe | . Reducing influence of physical parameters, e.g. temperature change, moisture, dust [4] |