B65H

HANDLING THIN OR FILAMENTARY MATERIAL, e.g. SHEETS, WEBS, CABLES

Definition statement

This place covers:

Handling aspects of general interest relating to thin material in the form of "separate articles" such as sheets, signatures, envelopes, blanks, cards, and thin piles thereof.

Handling aspects of general interest relating to thin material in the form of "continuous articles" such as webs, tapes, and films.

Filamentary material such as threads, wires, ropes, cables, and hoses, and cover only methods or devices of general application or interest.

The coverage of the subclass can generally be divided into:

Sheets

Feeding to processes:
- Pile supports - B65H 1/00;
- Separating from piles - B65H 3/00;
- Feeding to machines or processes - B65H 5/00;
- Feed control - B65H 7/00;
- Positioning - B65H 9/00;
- Feed tables - B65H 11/00;

Feeding from processes:
- Feeding from machines or processes - B65H 29/00;
- Pile receivers - B65H 31/00;

Particular handling processes or apparatus therefor:
- Lifting ends of piles for overlapping - B65H 13/00;
- Overturning articles - B65H 15/00;
- Forming batches - B65H 33/00;
- Associating, gathering - (B65H 39/00), B65H 39/02, B65H 39/10;
- Folding - B65H 45/00;
- Unfolding - B65H 47/00;
- Combinations of piling and depiling - B65H 83/00;
- Recirculating articles - B65H 85/00;
- Control, checking, safety - B65H 43/00;

Relating both to sheet and/or web handling aspects:
- Associating sheets with webs - (B65H 39/00), B65H 39/14;
- Special constructions of feed or guide rollers - B65H 27/00;
- Delivery apparatuses incorporating devices for performing cutting or line-perforating or other auxiliary operations - B65H 35/00, B65H 37/00;

Webs:

Feeding out, taking up:
- Unwinding, paying-out webs - B65H 16/00;
- Advancing webs - B65H 20/00;
• Winding - B65H 18/00;
• Changing the web roll - B65H 19/00;
• Webs’ splicing - B65H 21/00;
• Registering, tensioning or guiding, controlling tension - B65H 23/00;

Particular handling processes or apparatus therefor:
• Associating to or more webs - (B65H 39/00), B65H 39/16;
• Separating webs - B65H 41/00;
• Folding - B65H 45/00;
• Unfolding - B65H 47/00;
• Warning or safety devices - B65H 26/00;

Relating both to sheet and/or web handling aspects:
• Associating sheets with webs - (B65H 39/00), B65H 39/14;
• Special constructions of feed or guide rollers - B65H 27/00;
• Delivery apparatuses incorporating devices for performing cutting or line-perforating or other auxiliary operations - B65H 35/00, B65H 37/00;

Filamentary material:
• Unwinding, paying out - B65H 49/00;
• Forwarding - B65H 51/00;
• Winding, coiling, depositing - B65H 54/00;
• Wound packages - B65H 55/00;
• Guides - B65H 57/00;
• Tension control - B65H 59/00;
• Measuring predetermined lengths - B65H 61/00;
• Control, checking, warning or safety - B65H 63/00;
• Securing material to cores - B65H 65/00;
• Replacing, removing cores - B65H 67/00;
• Interconnecting, knot-tying - B65H 69/00;
• Treatment during formation of package - B65H 71/00;
• Stripping-off waste material from cores - B65H 73/00;
• Storing - B65H 75/00;
• Covering cores not otherwise provided for - B65H 81/00;

Relationships with other classification places
In general the subclass does not cover subject-matter (methods or devices) which are more intimately associated with operations, or means for performing such operations, on the thin or filamentary material than with the handling of the material per se. Such subject-matter is classified in subclasses relevant for the respective operations or means (see further explanation in "Special Rules of Classification", Note 3a and 3b). Such relevant subclasses are in particular:
• Bandages or dressings A61F 13/00;
• Card games appurtenances A63F 1/06;
• Cleaning travelling work, e.g. webs, by methods involving the use of tools, brushes or like members B08B 1/02;
• Devices accepting or dispensing paper currency, e.g. depositing machines; Automatic teller machines (ATM) G07D 11/00, G07F 19/20;
• Conveying or guiding webs through rotary printing presses or machines B41F 13/02;
• Conveying record carriers from one station to another G06K 13/00;
• Composing machines B41B 21/32;
• Counting of objects carried by a conveyor ; objects in a stack G06M 7/00 and G06M 9/00;
• Feeding, positioning or storing devices, combined with, or arranged in, or specially adapted for use in connection with, apparatus for working or processing sheet metal without essentially removing material B21D 43/00;
• Film-handling mechanisms in photographic machines B41B 15/32;
• Film-strip handling or handling of pictures in apparatus for taking photographs or for projecting or viewing them G03B 1/00 and G03B 27/00;
• Handling fabrics, fibres, yarns or other material in long lengths in drying apparatus F26B 13/00;
• Handling for shaping or joining of plastics, for shaping of substances in a plastic state in general or for after-treatment of shaped products, e.g. feeding the material to be shaped B29C 31/00;
• Handling intimately associated with electrographic processes using a charge pattern G03G 15/60, G03G 15/65;
• Handling of copy- or impression-transfer material in typewriters or selective printing mechanisms B41J 11/00 - B41J 17/00;
• Handling of labels in labelling or tagging apparatus B65C;
• Handling of sheets or webs in apparatus for, or methods of, packaging articles, not of interest apart from their application in packaging machines B65B;
• Handling relating to permanently attaching together sheets, quires, or signatures B42B;
• Handling sheets in book-binding B42C;
• Handling sheets intimately associated with inserting documents into envelopes B43M 3/00, B43M 5/00 and B43M 7/00;
• Handling sheets not of interest apart from its use in systems for transmission or reproduction of pictures or patterns not varying in time, e.g. facsimile transmission H04N 1/00;
• Handling sheets or webs in apparatus or devices for manifolding, duplicating or printing for office or other commercial purposes, or on addressing machines or like series-printing machines B41L;
• Handling means for copy matter in stamping or numbering apparatus or devices B41K 3/44;
• Information storage based on relative movement between record carrier and transducer, involving handling record carriers for recording or reproducing G11B 15/00 - G11B 19/00, G11B 23/00 and G11B 25/00;
• Machines for severing e.g. by cutting, perforating, punching, stamping-out B26D;
• Machines for Perforating, punching, stamping-out other than by cutting B26F;
• Machines for winding capacitors H01G 13/02;
• Making boxes, cartons, envelopes or bags B32B;
• Manufacturing coils for magnets, inductances, transformers, by winding H01F 41/06;
• Means for automatic feeding of electrodes for spot or seam welding or cutting B23K 9/12;
• Measuring arrangements characterised by the use of optical means G01B 11/00;
• Metal rolling involving guiding, conveying or accumulating easily-flexible work, e.g. wire, sheet metal bands, in loops or curves B21B 41/00;
• Postal sorting, similar sorting of documents, e.g. cheques B07C;
• Rolls, drums, discs or the like F16C 13/00;
• Spinning, weaving, braiding, lace-making, knitting, sewing, making ropes or cables D01 - D07;
• Supports or handling devices for wafers for manufacturing semiconductor components H01L 21/67;
• Transferring webs from wet ends to press sections in paper-making D21F 2/00;
• Transport or storage devices, conveyors for objects in general B65G;
• Testing or determining the identity or genuineness of paper currency G07D 7/00;
• Winding-up, coiling, winding-off or temporarily accumulating metal wire, metal band or other flexible metal material, characterised by features relevant to metal processing only, other than by rolling B21C 47/00 and B21C 49/00;
• Winding or stacking hides or leather in machines or devices for manufacturing leather C14B 1/62;
## References

### Application-oriented references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal sorting, similar sorting of documents, e.g. cheques</td>
<td>B07C</td>
</tr>
<tr>
<td>Cleaning travelling work, e.g. webs, by methods involving the use of tools, brushes or like members</td>
<td>B08B 1/02</td>
</tr>
<tr>
<td>Metal rolling involving guiding, conveying or accumulating easily-flexible work, e.g. wire, sheet metal bands, in loops or curves</td>
<td>B21B 41/00</td>
</tr>
<tr>
<td>Winding or unwinding metal band or like flexible metallic material during manufacture</td>
<td>B21C</td>
</tr>
<tr>
<td>Winding-up, coiling, winding-off or temporarily accumulating metal wire, metal band or other flexible metal material, characterised by features relevant to metal processing only, other than by rolling</td>
<td>B21C 47/00, B21C 49/00</td>
</tr>
<tr>
<td>Feeding, positioning or storing devices, combined with, or arranged in, or specially adapted for use in connection with, apparatus for working or processing sheet metal without essentially removing material</td>
<td>B21D 43/00</td>
</tr>
<tr>
<td>Working or processing wire</td>
<td>B21F, B21G</td>
</tr>
<tr>
<td>Means for automatic feeding of electrodes for spot or seam welding or cutting</td>
<td>B23K 9/12</td>
</tr>
<tr>
<td>Handling for shaping or joining of plastics, for shaping of substances in a plastic state in general or for after-treatment of shaped products, e.g. feeding the material to be shaped</td>
<td>B29C 31/00</td>
</tr>
<tr>
<td>Film-handling mechanisms in photographic composing machines</td>
<td>B41B 15/32, B41B 21/32</td>
</tr>
<tr>
<td>Conveying or guiding webs through rotary-printing presses or machines</td>
<td>B41F 13/02</td>
</tr>
<tr>
<td>In selective printing mechanisms</td>
<td>B41J</td>
</tr>
<tr>
<td>Handling of copy- or impression-transfer material in typewriters or selective printing mechanisms</td>
<td>B41J 11/00- B41J 17/00</td>
</tr>
<tr>
<td>Means for handling copy matter in stamping or numbering apparatus or devices</td>
<td>B41K 3/44</td>
</tr>
<tr>
<td>Handling sheets or webs in apparatus or devices for manifolding, duplicating or printing for office or other commercial purposes, or on addressing machines or like series-printing machines</td>
<td>B41L</td>
</tr>
<tr>
<td>Handling relating to permanently attaching together sheets, quires, or signatures</td>
<td>B42B</td>
</tr>
<tr>
<td>Handling sheets in book-binding</td>
<td>B42C</td>
</tr>
<tr>
<td>Unwinding, paying-out, forwarding, or winding ropes or cables in load-moving apparatus</td>
<td>B61B, B65G, B66</td>
</tr>
<tr>
<td>Handling of sheets or webs in apparatus for, or methods of, packaging articles, not of interest apart from their application in packaging machines</td>
<td>B65B</td>
</tr>
<tr>
<td>Handling of labels in labelling or tagging apparatus</td>
<td>B65C</td>
</tr>
<tr>
<td>Winding or stacking hides or leather in machines or devices for manufacturing leather</td>
<td>C14B 1/62</td>
</tr>
<tr>
<td>Spinning, weaving, braiding, lace-making, knitting, sewing, making ropes or cables</td>
<td>D01- D07</td>
</tr>
</tbody>
</table>
Creels, warping, beaming, or leasing machines or methods for textile manufacturing purposes

Transferring webs from wet ends to press sections in paper-making

Handling fabrics, fibres, yarns or other material in long lengths in drying apparatus

Film-strip handling or handling of pictures in apparatus for taking photographs or for projecting or viewing them

Winding, unwinding, or feeding tape to, in, or from, information-processing apparatus

Conveying record carriers from one station to another

Counting of flat articles, e.g. sheets, carried by a conveyor

Information storage based on relative movement between record carrier and transducer, involving handling record carriers for recording or reproducing

Manufacturing coils for magnets, inductances, transformers, by winding

Machines for winding capacitors

Sheet handling not of interest apart from its use in systems for transmission or reproduction of pictures or patterns not varying in time, e.g. facsimile transmission.

**Informative references**

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

<table>
<thead>
<tr>
<th>Manipulators</th>
</tr>
</thead>
<tbody>
<tr>
<td>B25J</td>
</tr>
</tbody>
</table>

**Special rules of classification**

For filamentary material the following table shall be used as Informative Reference to identify overlapping classes to be searched in the field of textile.

The preceding image includes references to B65H 49/02, B65H 49/18, B65H 51/00, B65H 51/20, B65H 54/26, B65H 54/28, B65H 54/34, B65H 54/70, B65H 45/02, B65H 54/76, B65H 57/00.
B65H 59/00, B65H 61/00, B65H 63/00, B65H 67/00, B65H 69/00, B65H 71/00, B65H 49/36, B65H 54/54, B65H 75/24, B65H 81/08, D01D 7/02, D01D 5/096, D01G 25/00, D01G 37/00, D01H 1/18, D01H 13/00, D01H 1/36, D01H 13/06, D01H 1/38, D01H 11/00, D01H 7/18, D01H 13/02, D01H 13/04, D01H 13/10, D01H 13/14, D01H 13/32, D01H 9/00, D01H 4/48, D01H 15/00, D01H 13/30, D01H 7/16, D02G 1/14, D02G 3/36, D02H 1/00, D02H 13/12, D02H 13/22, D02H 13/02, D02J 13/00, D03D 39/06, D03D 47/34, D03D 49/16, D03D 49/04, D03D 51/18, D03J 1/00, D03J 1/16, D03J 1/04, D04B 15/38, D04B 15/48, D04B 35/32, D04B 15/54, D04B 15/44, D04B 35/10, D04B 35/24, D04H 1/70, D05G 15/18, D05G 11/08, D06B 23/02

- The following IPC groups are not used in the internal classification scheme. Subject matter covered by these groups is classified in the following internal groups:
  B65H19/16/IPC covered by B65H 19/1889/EC
  B65H35/07/IPC covered by B65H 35/0006/EC;
  • B65H77/00/IPC covered by B65H 23/00/EC, B65H 59/00/EC;
  • B65H 79/00/IPC not used;
  • B65H 99/00/IPC not used;

Note 1:

The B65H scheme is applied in combination with the B65H scheme for classifying complementary information which is judged to be of particular interest. The B65H scheme is divided into the following themes:
  • B65H 2301/00 - Particular handling processes;
  • B65H 2401/00 - B65H 2408/40 - Constructional aspects such as material choices, machine elements, parts having special functions, specific machines;
  • B65H 2511/00 - B65H 2557/62 - Control aspects such as sensing, measuring, actuating, adjusting;
  • B65H 2601/00 - Problem to be solved;
  • B65H 2701/00 - Handled material/article;
  • B65H 2801/00 - Application field;
  - In particular at least one of the following symbols should be given.
  B65H 2701/17 - Nature of material
  B65H 2701/18 - Form of handled article or web
  B65H 2701/19 - Specific article or web
  B65H 2801/00 - Application field

however, if for example a document already has a B07C symbol there is no need for adding B65H 2701/1916 "envelopes or articles of mail";

if for example a document already has a H04N symbol there is no need for adding B65H 2801/39 "Scanning"

Indexing codes of groups B65H 2511/00 - B65H 2519/00 and B65H 2701/13 can be combined with the following symbols relating to additional characteristics or to further specify the information. The additional symbols have the meanings indicated below:
  • B65H 2220/01 - Indicates that the first Indexing Code relates to an entity as a function of which control, adjustment or change is performed (input);
  • B65H 2220/02 - Indicates that the first Indexing Code relates to an entity which is controlled, adjusted or changed by a control process (output);
  • B65H 2220/03 - Indicates that the first Indexing Code relates to an entity which is measured, estimated, evaluated, calculated or determined but which is not adjusted or changed by the control process per se;
  • B65H 2220/04 - For distinguishing "adjusting" from controlling i.e. manual adjustments;
Indexing Codes of groups B65H 2301/447 can be combined with additional symbols B65H 2220/01 and/or B65H 2220/02 to indicate additional characteristics. The addition has the following meaning:

- **B65H 2220/01**: For indicating a transport device whose receiving section is involved in the transfer;
- **B65H 2220/02**: For indicating a transport device whose delivering section is involved in the transfer;
- **B65H 2220/01, B65H 2220/02**: For indicating a transport device whose both receiving and delivering section are involved in the transfer;

**Examples relating to the additional symbols:**

- Code **B65H 2511/22, B65H 2220/01** relates to control as a function of the distance between items of handled material or between handled material and machine elements, whereas the code **B65H 2511/22, B65H 2220/11** relates to control as a function of the distance exclusively between machine elements, e.g. the nip between cylinders;
- A document disclosing a device and/or method for controlling responsive to a wrong distance between articles successively separated from a pile of article, monitoring said distance by checking the time intervals (B65H 2513/53) between the parsing of the front edges of the articles (B65H 2701/1311), and responding by changing the rotational speed of the separator (B65H 2513/11), should be classified in: B65H 7/02, B65H 2701/1311+ B65H 2220/01, B65H 2513/53+ B65H 2220/03, or B65H 2513/11+ B65H 2220/02.

If the device and/or method for controlling is not the main but only an additional aspect of the invention the **B65H** symbols can be given without the symbol B65H 7/02.

If the rotational speed of the separator is changed manually by the operator the last code should be **B65H 2513/11+ B65H 2220/04**.

Only the following **B65H** entries should always be used for the **B65H** groups related to filamentary material:

- **B65H 2701/30**: Type of handled material;
- **B65H 2701/50**: Storage means;
- **B65H 2402/412**: Handles;
- **B65H 2402/414**: Manual tools;

**Note 2:**

If it is judged that handling aspects are relevant for both articles being fed to a process and for articles being fed from a process, they should be classified in the groups concerning "feeding to processes" as well as in the groups concerning "feeding from processes" unless precedence notes dictate otherwise.

**Note 3a:**

When judging whether subject-matter is to be considered as being more "intimately associated " with operations on the thin or filamentary material than with the handling of the material per se, it should be judged whether the handling aspect, in particular the handling problem to be solved, could be understood per se without referring to the particular operation, or in other words, whether the handling of the material is technically inseparable from the respective operation. If the handling aspect is clearly inseparable from the operation, then this aspect should be classified only in the subclass relevant for...
that operation. If the handling aspect is clearly separable from the operation, then the aspect should only be classified in B65H (see examples type A).

Note 3b:

In many cases, however, such a clear distinction concerning the technical separability cannot be made. In such cases, the subject-matter should be classified both in B65H and the subclass concerning the operation action per se. If it is judged, that the handling aspects to a large extent are technically separable from the operation, but the operation nevertheless has some bearing on the handling, then the subject-matter should be classified in the relevant B65H groups combined with an B65H 2801/00 symbol indicating the operation in the form of an application field (see example type B).

• Example type A:
  • A document disclosing that the feeding speed of a piece of paper in an ink jet printer is controlled as a function of the ongoing printing operation should be classified in B41J and not in B65H.

• Example type B:
  • A document discloses handling means for replenishing the pile of paper sheets from which sheets are continuously separated and fed to an off-set printing machine without having to stop the printing machine. The printing process as such only has a bearing on the replenishing means (handling means) in as much as the size of the handling means is dictated by the size of the off-set printing machine. Such a document should be classified in B65H 1/30 together with the B65H 2801/21 symbol for "industrial size printers, e.g. rotary printing press".

Glossary of terms

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package</td>
<td>A mass of filamentary material, formed by coiling, depositing, or winding, with or without a supporting core or former or an enclosing container or receptacle.</td>
</tr>
<tr>
<td>Handling</td>
<td>Separating, orientating/positioning, feeding, gathering, collecting, storing, folding (other than in the manufacture of products), unwinding, and winding.</td>
</tr>
<tr>
<td>Filamentary material</td>
<td>Includes thread, wires, ropes, cables, and hoses.</td>
</tr>
<tr>
<td>Thin material</td>
<td>Sheets, signatures, envelopes, blanks, and thin piles thereof (hereinafter referred to as &quot;articles&quot;), and webs, tapes, and films, e.g. of paper, fabric, metal foil, or plastics.</td>
</tr>
</tbody>
</table>

B65H 1/00

Supports or magazines for piles from which articles are to be separated (carriers used for associating, collating, or gathering articles B65H 39/00)

Definition statement

This place covers:

Supports or magazines or the like for completely separate but stacked or piled articles, such as for example a pile of A4 size paper sheets. A cassette for tickets which are semi attached to each other, so that a second ticket follows automatically when pulling the first ticked, is for example not covered.

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Term</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supports or magazines intimately associated with piling of articles</td>
<td>B65H 31/00</td>
</tr>
</tbody>
</table>
### Special rules of classification

- Many aspects of **B65H 1/00** are relevant for or corresponds to **B65H 31/00**;
- Carriers used for associating, collating, or gathering articles are classified in **B65H 39/00**;
- Bank note containers, subject-matter which relates to the position of and/or functioning of the bank note container as a component as such in the bank note machine should be classified in **G07D 11/12**;
- Details concerning arrangement or construction are classified by using symbols from **B65H 2405/10** - **B65H 2405/30**;
- Elements which are manually positioned in function of the size of the supported articles, additionally classify in **B65H 2511/10** + **B65H 2220/01** and **B65H 2511/20** + **B65H 2220/04**;
- In particular, if the distance between such elements is adjusted according to the width of the articles, additionally classify in **B65H 2511/12** + **B65H 2220/01** and **B65H 2511/22** + **B65H 2220/04**;
- Determining, measuring the size of articles, additionally classify in **B65H 2511/10** + **B65H 2220/03**, together with a **B65H 7/00** symbol if it is the main aspect of the invention.

### B65H 1/02

adapted to support articles on edge

### Definition statement

*This place covers:*

This subclass/group covers: Supports which carry piles in such a way that the weight of the pile is mainly supported by the edges of the articles. This is for example the case where a support which carries a square pile of articles on their surfaces is tilted from the horizontal to an angle more than 45 degrees. The group does not cover the cases where the weight of the pile must be said to be carried equally by the edges and the surfaces of the articles. e.g. cases where a support which carries a square pile of articles on their surfaces is tilted from the horizontal to an angle of exactly 45 degrees. These cases are covered by **B65H 1/04**.
See examples below:
**B65H 1/022**

{with non-controlled means for advancing the pile to present the pile to the separating device, e.g. weights or spring}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

See the spring 25 pressing the support 21

![Diagram of a device with spring and support](image)

**B65H 1/025**

{with controlled positively-acting mechanical devices for advancing the pile to present the articles to the separating device}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
Special rules of classification

- For specifically described control procedures the corresponding B65H 2511/00 - B65H 2557/62 codes and B65H 7/00 scheme should be applied. For example:
  - The pile is advanced/moved as a function of an absence of articles: B65H 7/04 and B65H 2511/515 + B65H 2220/01 and B65H 2513/40 + B65H 2220/02
  - The position of the separation end of the pile is controlled in function of the thickness of the articles: B65H 7/02 and B65H 2511/13 + B65H 2220/01 and B65H 2511/20 + B65H 2220/02;
  - The type of actuator for moving the articles is indicated with an B65H 2555/00 symbol.
  - If the subject-matter can be classified by combining B65H 3/0607 and B65H 3/0661, this takes precedence. See for example, below:
B65H 1/027

{Support fully or partially removable from the handling machine, e.g. cassette, drawer}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy medium cassettes for apparatuses for electro photographic processes</td>
<td>G03G 2215/00383</td>
</tr>
<tr>
<td>Cassettes for paper currency</td>
<td>G07D 11/12</td>
</tr>
</tbody>
</table>

B65H 1/04

adapted to support articles substantially horizontally, e.g. for separation from top of pile

Definition statement

This place covers:

- Supports which carry piles in such a way that the weight of the pile is mainly supported by the surfaces of the articles. This is for example the case where a support which carries a square pile of articles on their surfaces is tilted from the horizontal to an angle less than 45 degrees.
- Cases where the weight of the pile must be said to be carried equally by the edges and the surfaces of the articles. e.g. cases where a support which carries a square pile of articles on their surfaces is tilted from the horizontal to an angle of exactly 45 degrees.
References

Limiting references

This place does not cover:

Supports which carry piles in such a way that the weight of the pile is mainly supported by the edges of the articles

B65H 1/02 - B65H 1/027

B65H 1/06

for separation from bottom of pile

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 1/08
with means for advancing the articles to present the articles to the separating device \{(B65H 1/02 takes precedence)\}

References

Limiting references
This place does not cover:

| Supports or magazines for piles from which articles are to be separated adapted to support articles on edge |
| B65H 1/02 |

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

| Printers | B41J 2/1752, B41J 13/103 |
| Copy machines | G03G 15/6505, G03G 15/6508 |

B65H 1/10
comprising weights \{(B65H 1/02 takes precedence)\}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

See the weight element (41,41b)
References

Limiting references
This place does not cover:

Supports or magazines for piles from which articles are to be separated with non-controlled means for advancing the pile to present the pile to the separating device

B65H 1/10 (continued)

B65H 1/12

comprising spring {{B65H 1/022 takes precedence}}

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:
References

Limiting references

This place does not cover:

| Supports or magazines for piles from which articles are to be separated with non-controlled means for advancing the pile to present the pile to the separating device | B65H 1/022 |
| Rolls or like rotary separators cooperating with means for automatically separating the pile from roller or rotary separator after a separation step | B65H 3/0607 |

B65H 1/14

comprising positively-acting mechanical devices \((\text{B65H 1/025 takes precedence})\)

Definition statement

This place covers:

Specific mechanical/constructional details of the devices. E.g. the mechanical structure of the device is the main aspect.

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Supports or magazines for piles from which articles are to be separated with controlled positively-acting mechanical devices for advancing the pile to present the articles to the separating device | B65H 1/025 |
| Rollers or like rotary separators cooperating with means for automatically separating the pile from roller or rotary separator after a separation step | B65H 3/0607 |
Informative references

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

<table>
<thead>
<tr>
<th>Printers</th>
<th>B41J 2/1752, B41J 13/103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy machines</td>
<td>G03G 15/6505, G03G 15/6508</td>
</tr>
</tbody>
</table>

Special rules of classification

For specifically described control procedures the corresponding B65H 2511/00 - B65H 2557/62 codes and B65H 7/00 scheme should be applied. For example:

- The pile is advanced/moved as a function of an absence of articles: B65H 7/04 and B65H 2511/515 + B65H 2220/01 and B65H 2513/40 + B65H 2220/02

- The position of the separation end of the pile is controlled in function of the thickness of the articles: B65H 7/02 and B65H 2511/13 + B65H 2220/01 and B65H 2511/20 + B65H 2220/02

- The type of actuator for moving the articles is indicated with a code from B65H 2555/00

B65H 1/16

comprising pneumatic or hydraulic means \((B65H 1/18, B65H 1/20)\) take precedence\)

References

Limiting references

This place does not cover:

| Means for advancing the articles to present the articles to the separating device controlled by height of pile | B65H 1/18 |
| Means for advancing the articles to present the articles to the separating device controlled by weight of pile; Floating arrangements | B65H 1/20 |
**B65H 1/20**

controlled by weight of pile; Floating arrangements

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image1)

**B65H 1/22**

moving in direction of plane of articles, e.g. for bodily advancement of fanned-out piles

**Definition statement**

*This place covers:*

Advancement of fanned-out piles without reversing the articles. For example from overlapped to underlapped.
Illustrative examples of subject matter classified in this group:

References

Limiting references

This place does not cover:

| With means for replenishing the pile during continuous separation of articles therefrom | B65H 1/30 |
B65H 1/225
{Round stack feeders}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 1/26**

with auxiliary supports to facilitate introduction or renewal of the pile

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
**B65H 1/263**

{Auxiliary supports for keeping the pile in the separation process during introduction of a new pile}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**B65H 1/266**

{Support fully or partially removable from the handling machine, e.g. cassette, drawer ([B65H 1/027](#) takes precedence)}

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:

![Diagram](image)
References

Limiting references

This place does not cover:

Support fully or partially removable from the handling machine, e.g. cassette, drawer for articles supported on the edge

Informative references

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

Copy medium cassettes for apparatuses for electro photographic processes

Cassettes for paper currency

Special rules of classification

Details concerning arrangement or construction are classified by using symbols from B65H 2405/10 - B65H 2405/30:

- Elements which are manually positioned in function of the size of the supported articles, additionally classify in: B65H 2511/10+ B65H 2220/01 and B65H 2511/20+ B65H 2220/04;

- In particular, if the distance between such elements is adjusted according to the width of the articles, additionally classify in: B65H 2511/12+ B65H 2220/01 and B65H 2511/22+ B65H 2220/04;
B65H 1/28

compartmented to receive piles side-by-side

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

Special rules of classification

Details concerning arrangement or construction are classified by using symbols from B65H 2405/10 - B65H 2405/30.
**B65H 1/30**

with means for replenishing the pile during continuous separation of articles therefrom {(B65H 1/22 takes precedence)}

**Definition statement**

*This place covers:*

The concept "replenishing the pile" consists in supplying complete piles or stacks to the support or magazine.

**References**

*Limiting references*

*This place does not cover:*

Means for advancing the articles to present the articles to the separating device moving in direction of plane of articles
Combinations of piling and depiling operations e.g. performed simultaneously, of interest apart from the single operation of piling or depiling as such

B65H 83/00

**Special rules of classification**

Supplying individual articles, either continuous or discontinuous to the pile during continuous separation therefrom: **B65H 83/02**

**B65H 3/00**

Separating articles from piles (associating, collating, or gathering articles **B65H 39/00**; machines for separating superposed webs **B65H 41/00**; unpiling thin material combined with folding **B65H 45/26**; combinations of piling and depiling operations, of interest apart from the single operation of piling or depiling **B65H 83/00**, **B07C 1/02**, **G07D 11/50**)  

**Definition statement**

This place covers:  
The various arrangements for separating (i.e. removing) articles from piles to be fed to processing machines (e.g. printers) and the associated mechanisms for ensuring that the separation is performed reliably, e.g. only one article is removed each time.

**References**

**Limiting references**

This place does not cover:

<table>
<thead>
<tr>
<th>Combination</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>The reverse operation (i.e. stacking articles in piles)</td>
<td>B65H 39/00</td>
</tr>
<tr>
<td>Separating superposed webs</td>
<td>B65H 41/00</td>
</tr>
<tr>
<td>Separating from piles in combination with folding</td>
<td>B65H 45/26</td>
</tr>
<tr>
<td>Combinations of piling and depiling operations, of interest apart from the single operation of piling or depiling</td>
<td>B65H 83/00</td>
</tr>
</tbody>
</table>

**Informative references**

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

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separating superposed articles transported in a stream</td>
<td>B65H 2301/44514</td>
</tr>
<tr>
<td>Forming postal articles into a stream:</td>
<td>B07C 1/02</td>
</tr>
<tr>
<td>Separation intimately linked with a paper currency sorting or counting machine</td>
<td>G07D 11/50</td>
</tr>
</tbody>
</table>

**Special rules of classification**

This main-group should be used only for subject-matter not being covered by any of its sub-groups.
B65H 3/02
using friction forces between articles and separator

Definition statement
This place covers:
Arrangements that use friction forces to separate the article from the pile.

References

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

| Separating articles from bottom of pile of horizontal articles | B65H 2301/42322 |

Special rules of classification
This main-group should be used only for subject-matter not being covered by any of its sub-groups.
Manually powered apparatus, additionally classify also in B65H 2403/941.
Relevant UCLA: 271/42 reciprocating separators

B65H 3/04
Endless-belt separators

Definition statement
This place covers:
Arrangements using an endless belt wherein the separation force is created only by friction.
References

Limiting references

This place does not cover:

| Perforated belts in which suction is used to enhance adherence of the article on the belt are covered by | B65H 3/12 |

Special rules of classification

This main-group should be used only for subject-matter not being covered by any of its sub-groups.

B65H 3/042

{separating from the bottom of the pile}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Illustrative example](image)

B65H 3/045

{for separating substantially vertically stacked articles}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

(top view)
B65H 3/047
{separating from the top of a pile}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Rollers in which suction is used to enhance adherence of the article on the roller are covered by</th>
<th>B65H 3/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separating articles from piles by two or more separators mounted for movement with, or relative to, rotary or oscillating bodies</td>
<td>B65H 3/42</td>
</tr>
</tbody>
</table>

Special rules of classification
This main-group should be used only for subject-matter not being covered by any of its sub-groups.
**B65H 3/0607**

{cooperating with means for automatically separating the pile from roller or rotary separator after a separation step}

**Definition statement**

*This place covers:*

Arrangements which allow the sheet support to move towards the separator roller for sheet separation and which move the sheets away from the separator roller once the separation step is completed.

Illustrative example of subject matter classified in this group:

![FIG. 20A](image)

**Special rules of classification**

If the subject-matter can be classified by the combination **B65H 3/0607** and **B65H 3/0661**, then this takes precedence over **B65H 1/025**, see for example EP1681252A1.

The group takes precedence over **B65H 1/14**.
B65H 3/0615
{reciprocating and rotatable in one direction only}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 3/0623

{acting at least during a part of each separation cycle on the articles in a direction opposite to the final separating direction}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 3/063
{separating from the bottom of pile (B65H 3/0615, B65H 3/0623 take precedence)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Relationships with other classification places
For substantially vertical stacks with the separation roller below the stack additionally classify in B65H 3/0653.

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rollers or like rotary separators, reciprocating and rotatable in one direction only</td>
<td>B65H 3/0615</td>
</tr>
<tr>
<td>Rollers or like rotary separators acting at least during a part of each separation cycle on the articles in a direction opposite to the final separating direction</td>
<td>B65H 3/0623</td>
</tr>
</tbody>
</table>
B65H 3/0638

{Construction of the rollers or like rotary separators (B65H 3/0615 takes precedence; construction of feed or guide rollers B65H 27/00)}

Definition statement

This place covers:

Construction of rollers or the like adapted for separating articles from piles

Illustrative example of subject matter classified in this group:

![Fig. 10]

Relationships with other classification places

For details concerning, e.g.

• materials used and their properties additionally classified in B65H 2401/00;
• construction or arrangement of roller(s) additionally classified in B65H 2404/10;
• surface of the elements in contact with the material forwarded or guided additionally classified in B65H 2404/50.

References

Limiting references

This place does not cover:

| Rollers or like rotary separators, reciprocating and rotatable in one direction only | B65H 3/0615 |
| For construction of rollers not limited to separation (e.g. feed or guide) | B65H 27/00 |
B65H 3/0646
{Wave generation rollers, i.e. combing wheels}

Definition statement

This place covers:
Rollers with a plurality of surface elements which produce a pushing motion when hitting the article to be separated thereby creating a small wave in the article

Illustrative example of subject matter classified in this group:
**B65H 3/0653**

{for separating substantially vertically stacked articles}

**Definition statement**

*This place covers:*

Separation from piles for which the weight of the pile is mainly supported by the edges of the articles. This is for example the case where a support which carries a square pile of articles on their surfaces is tilted from the horizontal to an angle more than 45 degrees.

**Relationships with other classification places**

For substantially vertical stacks with the separation roller below the stack additionally classify in **B65H 3/063**.

**References**

**Limiting references**

*This place does not cover:*

| Rollers or like rotary separators for separating inclined-stacked articles with separator rollers above the stack | B65H 3/0661 |
**B65H 3/0661**
{for separating inclined-stacked articles with separator rollers above the stack}

**Definition statement**

*This place covers:*

Arrangements wherein the stack is inclined, i.e. not completely horizontal (supported by the surface of the articles) or not completely vertical (supported by the edges of the articles).

**Special rules of classification**

If the subject-matter can be classified by the combination **B65H 3/0607** and **B65H 3/0661**, then this take precedence over **B65H 1/025**, see for example EP1681252A1.

If the subject-matter can be classified by **B65H 3/0661**, then this take precedence over **B65H 3/0653**.
B65H 3/0669
{Driving devices therefor}

Definition statement
*This place covers:*
Illustrative example of subject matter classified in this group:

Special rules of classification
The group should always be used in combination with symbols in B65H 2403/00 concerning specific power transmission and driving means.

B65H 3/0676
{with two or more separator rollers in the feeding direction}

Definition statement
*This place covers:*
Illustrative example of subject matter classified in this group:
**B65H 3/0684**

{on moving support, e.g. pivoting, for bringing the roller or like rotary separator into contact with the pile}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**B65H 3/0692**

{Vacuum assisted separator rollers}

**Definition statement**

*This place covers:*

Arrangements in which suction is generated outside the roller, the roller body as such is not involved in generating vacuum

Illustrative example of subject matter classified in this group:

![Diagram](image)
References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suction rollers, the roller body as such is involved in generating vacuum</td>
<td>B65H 3/10</td>
</tr>
</tbody>
</table>

B65H 3/08

using pneumatic force {\(\text{B65H 3/40, B65H 3/42 take precedence}\)}

Definition statement

This place covers:

Arrangements that use pneumatic forces to separate the article from the pile.

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separating articles from piles by two or more separators acting alternately on the same pile</td>
<td>B65H 3/40</td>
</tr>
<tr>
<td>Separating articles from piles by two or more separators mounted for movement with, or relative to, rotary or oscillating bodies</td>
<td>B65H 3/42</td>
</tr>
</tbody>
</table>

Special rules of classification

This group should be used only for subject-matter not being covered by any of its sub-groups.
B65H 3/0808
{Suction grippers}

Definition statement

This place covers:

Arrangements with piles of articles standing on edge. Horizontally pilled articles are covered by the subgroups B65H 3/0816 and B65H 3/085.

Relationships with other classification places

For details of suction grippers additionally classify in subgroups of B65H 2406/34.

References

Informative references

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

| Suction grippers | B65H 3/08 |
B65H 3/0816
{separating from the top of pile}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Fig. 1

Relationships with other classification places
For multi-axis actuating means additionally classify in subgroups of B65H 2555/30.

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

<table>
<thead>
<tr>
<th>Pile of alternate articles</th>
<th>B65H 2701/18264</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices for removing metal sheets from a stack</td>
<td>B21D 43/24</td>
</tr>
<tr>
<td>Destacking of articles by suction or magnetic devices</td>
<td>B65G 59/04</td>
</tr>
<tr>
<td>Apparatus for loading or unloading holders for X-ray films</td>
<td>G03B 42/045</td>
</tr>
</tbody>
</table>
B65H 3/0825
(and acting on the rear part of the articles relatively to the final separating direction)

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 3/0833
(and acting on the front part of the articles relatively to the final separating direction)

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 3/0841

{this action resulting at least during a part of each separating cycle, in a movement of at least the front part of the articles in a direction opposite to the final separating direction}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 3/085
{separating from the bottom of pile}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 3/0858
{this action resulting merely in a curvature of each article being separated (in combination with the use of screw or like separators B65H 3/28)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
References

Limiting references

This place does not cover:

| Separating articles from piles by screw or like separators | B65H 3/28 |

**B65H 3/0866**

{the final separation being performed between rollers}

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

The front edge (10) of the article is separated by a suction element (2) whereafter a gripper (3) pulls out, that is finally separates, the whole article from the stack.
B65H 3/0875
{the final separation being performed by mechanical grippers}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Informative references
Attention is drawn to the following places, which may be of interest for search:
Elongated elements traversing pile and article to be separated (peeling)  B65H 2301/4233
B65H 3/0883
{Construction of suction grippers or their holding devices}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

B65H 3/0891
{Generating or controlling the depression (B65H 3/0883, B65H 3/14 take precedence; in response to abnormal circumstances B65H 7/16)}

Definition statement

This place covers:

Mechanical arrangements, different from just a connection to a general vacuum source, which create the depression e.g. the vacuum which is used by the separator to perform the separation
Illustrative example of subject matter classified in this group:

![Image](image_url)

**Relationships with other classification places**

If the control is in response to abnormal circumstances additionally classify in **B65H 7/16**.

**References**

**Limiting references**

_This place does not cover:_

<table>
<thead>
<tr>
<th>Construction of suction grippers or their holding devices</th>
<th>B65H 3/0883</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air blasts producing partial vacuum</td>
<td>B65H 3/14</td>
</tr>
</tbody>
</table>
B65H 3/10

Suction rollers

Definition statement

This place covers:
Rollers wherein the suction is generated by a vacuum inside the roller.

References

Limiting references

This place does not cover:

For vacuum assisted friction rollers

B65H 3/0692

B65H 3/122

{Suction tables}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:
suction table 8 separates an article 1a by a reciprocating movement

**B65H 3/124**

{Suction bands or belts}

**Definition statement**

*This place covers:*

Arrangements with piles of articles standing on edge. Horizontally pilled articles are covered by the subgroups **B65H 3/126** and **B65H 3/128**.
**B65H 3/126**

(separating from the bottom of pile)

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](FR2185230)

**B65H 3/128**

(separating from the top of pile)

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](EP0273888)
**B65H 3/14**

**Air blasts producing partial vacuum**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](EP0872437)

**B65H 3/16**

**using magnetic force**

**Definition statement**

*This place covers:*

Arrangements that use magnetic forces to separate the article from the pile (i.e. for articles with ferromagnetic properties).

![Diagram](WO2004106008)
B65H 3/18
using electrostatic force

Definition statement
This place covers:
Arrangements that use electrostatic forces (e.g. an electrostatically charged roller) to separate the article from the pile.

B65H 3/20
using adhesives

Definition statement
This place covers:
Arrangements that use adhesives to separate the article from the pile (e.g. by sticking the article on an adhesive separator).

B65H 3/22
by needles or the like engaging the articles

Definition statement
This place covers:
Arrangements using needles, or teeth-like elements or spike-like elements
Illustrative examples of subject matter classified in this group:
**B65H 3/24**

by pushers engaging the edges of the articles

**Definition statement**

*This place covers:*

Arrangements by pushers for separating single articles from piles.

---

**B65H 3/242**

{for separating a part of the pile, i.e. several articles at once}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

**B65H 3/245**

{the pile being pre-marked}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
The sheets 20" is marking the intended division of the pile

**B65H 3/247**

_{the pile being off-set}_

**Definition statement**

_This place covers:_

Illustrative example of subject matter classified in this group:
B65H 3/26
by separators engaging folds, flaps, or projections of articles

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

B65H 3/28
by screw or like separators

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:
B65H 3/30

by escapement devices (screw and like separators B65H 3/28); from staggered piles; from piles of articles having staggered formations, e.g. cuts or perforations

Definition statement

This place covers:

Devices which function as article retainers when inactive, and which produce a movement which separate one or more articles when activated.

Illustrative examples of subject matter classified in this group:

References

Limiting references

This place does not cover:

Separating articles from piles by screw or like separators

| B65H 3/28 |
**B65H 3/32**

by elements, e.g. fingers, plates, rollers, inserted or traversed between articles to be separated and remainder of the pile (such elements acting only as supplementary devices to assist separation or prevent double feed **B65H 3/50**)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

*Limiting references*

*This place does not cover:*

If such elements act only as supplementary devices to assist separation or prevent double feed **B65H 3/50**
B65H 3/322
{for separating a part of the pile, i.e. several articles at once}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

![Image of a mechanism for separating a part of the pile]

B65H 3/325
{the pile being pre-marked}

Definition statement

This place covers:
All forms of markings which make it possible to identify the intended division of the pile, for example coloured papers or strips or special shapes of the edges
Illustrative example of subject matter classified in this group:

**B65H 3/327**

*{the pile being off-set}*

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
Article-retaining devices controlling the release of the articles to the separators

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B65H 3/36

by separators moved in special paths, e.g. enclosing an area

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 3/38**

the paths not enclosing an area

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

The separator 10 reciprocates along the broken line

---

**B65H 3/40**

by two or more separators acting alternately on the same pile (rotary or oscillating bodies carrying two or more separators [B65H 3/42])**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
References

Limiting references
This place does not cover:

| For rotary of oscillating bodies carrying two or more separators | B65H 3/42 |

B65H 3/42

by two or more separators mounted for movement with, or relative to, rotary or oscillating bodies

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:

two or more separators 2a are mounted for movement with rotary body 2b

B65H 3/44

Simultaneously, alternately, or selectively separating articles from two or more piles

Definition statement
This place covers:

Arrangements in which the piles from which to separate and the sequence in which to do so can be freely chosen
Illustrative example of subject matter classified in this group:

**Special rules of classification**

This main group should be used only for subject matter not being covered by any of its subgroups.

**B65H 3/46**

**Supplementary devices or measures to assist separation or prevent double feed (control means comprising detectors responsive to double feed B65H 7/12)**

**Definition statement**

*This place covers:*

Devices, e.g. mechanical arrangements, or measures, e.g. procedures for driving the separator, which merely assist the separation, but which can not carry out a separation act on their own.

**Relationships with other classification places**

For control means comprising detectors responsive to double feed additionally classify in B65H 7/12.

**References**

**Informative references**

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

| Assisting separation or preventing double feed | B65H 2301/4234 |

**Special rules of classification**

This main-group should be used only for subject-matter not being covered by any of its sub-groups.
B65H 3/48
Air blast acting on edges of, or under, articles

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 3/50
Elements, e.g. fingers, plates, rollers, inserted or traversed between articles to be separated and remainder of the pile

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 3/5207

{Non-driven retainers, e.g. movable retainers being moved by the motion of the article}

Definition statement

This place covers:

Arrangements which induce friction to articles by passive elements i.e. elements which are not driven by any power sources, neither externally nor internally with respect to the elements.

Illustrative example of subject matter classified in this group:

Special rules of classification

When the articles are standing on the edge (i.e. vertically stacked) the separation is done neither from the top nor from the bottom but from the side: This should be classified here.
**B65H 3/5215**

{the retainers positioned under articles separated from the top of the pile}

**Definition statement**

_This place covers:_

Illustrative example of subject matter classified in this group:

![Diagram](image1)

**B65H 3/5223**

{Retainers of the pad-type, e.g. friction pads}

**Definition statement**

_This place covers:_

Illustrative example of subject matter classified in this group:

(see friction pad 50)

![Diagram](image2)
B65H 3/523
{the retainers positioned over articles separated from the bottom of the pile}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 3/5238
{Retainers of the pad-type, e.g. friction pads}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
(see friction pad 40)

B65H 3/5246
{Driven retainers, i.e. the motion thereof being provided by a dedicated drive}

Definition statement
This place covers:
Arrangements which induce friction to articles by active elements i.e. elements which are driven by power sources either externally or internally with respect to the elements
Illustrative example of subject matter classified in this group:

Special rules of classification

When the articles are standing on the edge (i.e. vertically stacked) the separation is done neither from the top nor from the bottom but from the side: This should be classified here.

**B65H 3/5253**

{the retainers positioned under articles separated from the top of the pile}

Special rules of classification

This group should be used only for subject-matter not being covered by any of its sub-groups.
B65H 3/5261
{Retainers of the roller type, e.g. rollers}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

---

B65H 3/5269
{Retainers of the belt type, e.g. belts}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

---
B65H 3/5276
{the retainers positioned over articles separated from the bottom of the pile}

Special rules of classification
This group should be used only for subject-matter not being covered by any of its sub-groups.

B65H 3/5284
{Retainers of the roller type, e.g. rollers}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Diagram](image-url)
B65H 3/5292
{Retainers of the belt type, e.g. belts}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

![Diagram](EP1918231)

FIG. 1

B65H 3/54
Pressing or holding devices

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

![Diagram](EP0825141)

FIG. 3

FIG. 4
**B65H 3/56**

Elements, e.g. scrapers, fingers, needles, brushes, acting on separated article or on edge of the pile **{(B65H 3/52 takes precedence)}**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

(see retainers 5b)

**References**

*Limiting references*

*This place does not cover:*

| Friction retainers acting on under or rear side of article being separated | B65H 3/52 |
B65H 3/58

Articles spiked, threaded, cemented, or gummed together, to prevent double feed, e.g. piles with gummed edges

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG. 6
B65H 3/60
Loosening articles in piles

Definition statement

This place covers:
Illustrative examples of subject matter classified in this group:
B65H 3/62
by swinging, agitating, or knocking the pile

Definition statement

This place covers:
Illustrative examples of subject matter classified in this group:
References

Informative references

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

| Assisting separation by vibration | B65H 2301/42342 |

**B65H 3/64**

by vacuum apparatus

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![FIG.1A](image)

**B65H 3/66**

Article guides or smoothers, e.g. movable in operation

**Definition statement**

*This place covers:*

Arrangements which guide the article during separation i.e. when the article is not completely free from the pile jet.

Illustrative example of subject matter classified in this group:
Article guide 13 is movable during separation

**Special rules of classification**

For specifying details about article guides additionally classify in subgroups of B65H 2404/50, B65H 2404/60 and/or B65H 2404/70.

**B65H 3/68**

**immovable in operation**

**Definition statement**

*This place covers:*

Arrangements which guide the article during separation, i.e. when the article is not completely free from the pile jet.

Illustrative example of subject matter classified in this group:

(article guide 14)
B65H 5/00

Feeding articles separated from piles; Feeding articles to machines ({{B65H 9/00 takes precedence; } identical mechanisms or parts for delivering or advancing articles from machines B65H 29/00; recirculating articles B65H 85/00 }, G03B 27/6257))

Definition statement

This place covers:
Arrangements for feeding articles separated from piles to machines, for example single or continuous streams of articles.

Relationships with other classification places

For arrangements concerning delivering or advancing articles from machines as well as to machines additionally classify in B65H 29/00 and subgroups.

Transferring material between transport devices additionally classify in B65H 2301/447 and subgroups combined with an B65H 2220/00 symbol (see B65H header).

References

Limiting references

This place does not cover:

| Registering, e.g. orientating, articles; Devices therefor | B65H 9/00 |
| Arrangements exclusively for delivering or advancing articles from machines | B65H 29/00 |
| Recirculating articles | B65H 85/00 |

Special rules of classification

This main group should be used only for subject-matter not being covered by any of its sub-groups.
**B65H 5/002**

{Adaptations of counting devices (delivery of articles from machines B65H 29/001)}

**Definition statement**

*This place covers:*

Special arrangements related to article counting devices, such as banknote counting machines.

**References**

*Informative references*

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

| Adaptations of counting devices directed to feeding of articles from machine | B65H 29/001 |
B65H 5/004
{using electrostatic force}

Definition statement

This place covers:
Arrangements that use electrostatic forces (e.g. electrostatically charged belts) to feed articles separated from piles.
B65H 5/006

{Feeding stacks of articles to machines}

**Definition statement**

*Dthis place covers*:

Illustrative example of subject matter classified in this group:

![Figure 1](image1)

**Relationships with other classification places**

Handling piles, sets or stacks of articles additionally classify in B65H 2301/422 and subgroups.

B65H 5/008

{using vibrations}

**Definition statement**

*Dthis place covers*:

Arrangements that use vibration forces (e.g. sound waves) to feed articles separated from piles.
**B65H 5/02**

by belts or chains {, e.g. between belts or chains (by combinations of endless conveyors and grippers B65H 5/085; by suction belts B65H 5/224)}

**References**

*Limiting references*

This place does not cover:

Arrangement which can be identified as either a belt or a chain.

| Combinations of endless conveyors and grippers | B65H 5/085 |

*Informative references*

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

<table>
<thead>
<tr>
<th>Printers</th>
<th>B41J 11/007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy machine (Handling original)</td>
<td>G03G 15/60</td>
</tr>
<tr>
<td>Copy machine (Handling copy sheet)</td>
<td>G03G 15/65</td>
</tr>
<tr>
<td>Handling banknotes</td>
<td>G07D 11/10</td>
</tr>
</tbody>
</table>
B65H 5/021
{by belts}

Definition statement
This place covers:
Arrangements using an endless belt wherein the transport force is created only by friction.

Relationships with other classification places
For details of construction and/or arrangement of belts additionally classify in subgroups of B65H 2404/20.
In particular, auxiliary handling means on the surface of the belts additionally classify in subgroups of B65H 2404/23.

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perforated belts in which suction is used to enhance adherence of the article on the belt</td>
<td>B65H 5/224</td>
</tr>
<tr>
<td>Belts for transporting sheets through electrographic units</td>
<td>G03G 15/65</td>
</tr>
</tbody>
</table>
B65H 5/023
{between a pair of belts forming a transport nip}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

**FIG. 1**
B65H 5/025
{between belts and rotary means, e.g. rollers, drums, cylinders or balls, forming a transport nip}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Diagram](DE2327932)

B65H 5/026
{between belts and stationary pressing, supporting or guiding elements forming a transport nip}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Diagram](Fig.2)
References

Informative references

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

| Arrangements of belts facing a transport surface, e.g. contact glass in copy machine | B65H 2404/268 |

B65H 5/028

{by chains}

Definition statement

This place covers:

Conveying means which consist of interlinked elements.

Relationships with other classification places

For details of construction and/or arrangement of chains additionally classify in B65H 2404/30 and subgroups.
**B65H 5/04**

by movable tables or carriages (rotary tables B65H 5/18 {; suction gripper or gripper tables B65H 5/10})

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

**Limiting references**

This place does not cover:

<table>
<thead>
<tr>
<th>Suction grippers or gripper tables</th>
<th>B65H 5/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotary tables</td>
<td>B65H 5/18</td>
</tr>
</tbody>
</table>

**B65H 5/06**

by rollers {or balls, e.g. between rollers (transport by suction rollers B65H 5/226)}

**Definition statement**

This place covers:

Arrangements using rollers wherein the transport force is created only by friction.

**References**

**Limiting references**

This place does not cover:

<table>
<thead>
<tr>
<th>Suction rollers</th>
<th>B65H 5/226</th>
</tr>
</thead>
</table>
Special rules of classification

Special construction of feed or guide rollers and surfaces thereof should be classified in B65H 27/00 together with an additional symbol from B65H 2404/10 and subgroups.

B65H 5/062

{between rollers or balls}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 5/064
{the axes of the rollers being perpendicular to the plane of the articles}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

[Diagram]

B65H 5/066
{the articles resting on rollers or balls}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

[Diagram]
B65H 5/068
{between one or more rollers or balls and stationary pressing, supporting or guiding elements}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Diagram 1](image1)

![Diagram 2](image2)

Relationships with other classification places
For specifying details about stationary pressing, supporting or guiding elements additionally classify in subgroups of B65H 2404/50 and/or B65H 2404/60.
**B65H 5/08**

by grippers, e.g. suction grippers

**Definition statement**

*This place covers:*

Arrangements using grippers to transport the article separated from the pile.

---

**References**

*Informative references*

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

| Grippers, e.g. suction or magnetic | B65G 17/323 |

**Special rules of classification**

This group should be used only for subject-matter not being covered by any of its sub-groups.
B65H 5/085
{by combinations of endless conveyors and grippers (suction belts B65H 5/224)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

<table>
<thead>
<tr>
<th>Grippers carried by chains or bands</th>
<th>B65H 2301/44712</th>
</tr>
</thead>
<tbody>
<tr>
<td>General conveyors with grippers carried by endless conveyors</td>
<td>B65G 47/842</td>
</tr>
</tbody>
</table>
B65H 5/10
Reciprocating or oscillating grippers {, e.g. suction or gripper tables}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 5/12**

Revolving grippers, e.g. mounted on arms, frames or cylinders

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](WO2006127382)

**References**

**Limiting references**

*This place does not cover:*

- Reversing sheets inside printing machines, e.g. perfecting roller/machine [B41F 21/106]
B65H 5/14
Details of grippers; Actuating-mechanisms therefor

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Diagram](DE102006024588)

Fig. 1

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

<table>
<thead>
<tr>
<th>Manipulators with gripper heads</th>
<th>B25J 15/08</th>
</tr>
</thead>
</table>


**B65H 5/16**

by pusher, needles, friction, or like devices adapted to feed single articles along a surface or table

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**FIG. 2**

**References**

**Informative references**

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

| Auxiliary handling means on the surface of the belts | B65H 2404/23 |

**B65H 5/18**

by rotary dials or tables

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B65H 5/22
by air-blast or suction device (suction grippers B65H 5/08)

References

Limiting references

This place does not cover:

| Suction grippers | B65H 5/08 |

B65H 5/222

{by suction devices}

Special rules of classification

This group should be used only for subject-matter not being covered by any of its sub-groups.
**B65H 5/224**

{by suction belts (B65H 11/005 takes precedence)}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

*Limiting references*

*This place does not cover:*

| Feed tables incorporating suction belts | B65H 11/005 |
B65H 5/226

{by suction rollers}

Definition statement

This place covers:
Rollers wherein the suction is generated by a vacuum inside the roller.

B65H 5/228

{by air-blast devices}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

References

Informative references

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

Directly conveying articles by flowing gases
B65H 5/24

{Feeding articles in overlapping streams, i.e. by separation of articles from a pile}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

If the overlapping stream is not formed exclusively by separation of articles from a pile then this group and subgroups take precedence.

B65H 29/66

Informative references

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

Overlapped conveying (FTCLA) 3F053/GB00

B65H 5/26

Duplicate, alternate, selective, or coacting feeds

Definition statement

This place covers:

Arrangements in which more than one path or route of transport is selectable either to the same or to different destinations
Illustrative examples of subject matter classified in this group:

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Combinations of piling and depiling operations from and o the same stack</th>
<th>B65H 83/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recirculating articles</td>
<td>B65H 85/00</td>
</tr>
</tbody>
</table>
B65H 5/28
Feeding articles stored in rolled or folded bands

Definition statement
This place covers:
Specific details or aspects concerning feeding the stored articles from the store.

Relationships with other classification places
For details about the winding and unwinding means additionally classify in subgroups of B65H 2301/419.

References
Limiting references
This place does not cover:

| Particular details or aspects concerning feeding of articles to be stored in rolled or folded bands, as well as details about the storing arrangement as such | B65H 29/006 |

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

| Articles wound together with a single belt | B65H 2301/4191 |
| Articles wound together between two belts facing each other | B65H 2301/41912 |
| Note containers | G07D 11/12 |
| Relevant UCLA | 242/528 |
B65H 5/30
Opening devices for folded sheets or signatures

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

<table>
<thead>
<tr>
<th>For opening signatures</th>
<th>B42B 9/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant UCLA</td>
<td>270/52.23, 270/52.24, 270/52.25</td>
</tr>
</tbody>
</table>

Special rules of classification
This group should be used only for subject-matter not being covered by any of its sub-groups.

B65H 5/301
{comprising blade-like means inserted between the parts to be opened}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Fig.1](WO0164561)
B65H 5/302
{the blade-like means being stationary}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 5/303
{comprising movable endless means for opening the folded sheets (B65H 5/308 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

Folded sheets or signatures travelling in hanging position

B65H 5/305
{comprising rotary means for opening the folded sheets (B65H 5/308 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
Fig. 1

References

Limiting references

This place does not cover:

| Folded sheets or signatures travelling in hanging position | B65H 5/308 |
B65H 5/306
{two opposite rotary means, only one of them having gripping means}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 5/307
{two opposite rotary means, both having gripping means}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
(gripping means 54,56)

**B65H 5/308**

{the folded sheets or signatures travelling in hanging position}

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:
B65H 5/32

Saddle-like members over which partially-unfolded sheets or signatures are fed to signature-gathering, stitching, or like machines

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 5/34**

Varying the phase of feed relative to the receiving machine

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](DE10044088)

**Special rules of classification**

Specific control aspects should additionally be classified in subgroups of [B65H 7/00](#).

**B65H 5/36**

Article guides or smoothers, e.g. movable in operation

**Definition statement**

*This place covers:*

Arrangements which guide the article during transport. The article is completely free from the pile.
Illustrative example of subject matter classified in this group:

![Diagram](image)

**Relationships with other classification places**
For specifying details about article guides additionally classify in subgroups of B65H 2404/50, B65H 2404/60 and/or B65H 2404/70.

**B65H 5/38**

**immovable in operation**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

(cf. guide plate 23)
References

Limiting references

This place does not cover:

- For stationary guides or smoothers for delivering or advancing articles from machines

B65H 29/52

B65H 7/00

Controlling article feeding, separating, pile-advancing, or associated apparatus, to take account of incorrect feeding, absence of articles, or presence of faulty articles

Definition statement

This place covers:

Aspects related to controlling the handling of articles before they arrive to a particular process, such as pile-advancement, picking articles from piles, article feeding and separation, and apparatuses associated with such acts, to take account of incorrect feeding of articles, incorrect absence of articles, or presence of faulty articles

References

Limiting references

This place does not cover:

Aspects related to controlling the handling of articles after the articles have been subjected to a particular process. Such aspects are covered B65H 43/00

Special rules of classification

Because the sensing nowadays in the majority of cases is realized through photoelectric sensors, the majority of documents would have to be classified in B65H 7/14 if the IPC precedence notes were followed. In order to rationalize classification the IPC note "B65H 7/14 takes precedence" is ignored.

The rules followed are the following:

Documents are first classified according to which part of the article or to which situation the feelers or detectors respond. If the sensor works with an photoelectrical element and the structural build up of the sensor is particularly emphasized, then the document is classified in B65H 7/14 as well.

Additionally, codes from B65H 2511/00, B65H 2513/00, B65H 2515/00, B65H 2519/00, B65H 2551/00, B65H 2553/00, combined with at least the indicators B65H 2220/01, B65H 2220/02, B65H 2220/03, B65H 2220/04 should be given to further specify the control aspects.

The codes B65H 2511/00, B65H 2513/00, B65H 2515/00, B65H 2519/00, B65H 2551/00, B65H 2553/00, combined with indicators from the B65H 2220/00 series can be given without a symbol from the B65H 7/00 series if the control aspect is only a secondary aspect.

If the document disclose a device and/or method for controlling in which the reaction e.g. the control output is emphasized, then the document should be further classified in one of the groups B65H 7/16, B65H 7/18, B65H 7/20.

Examples:

1. A document disclosing a device and/or method for controlling responsive to double feed, and emphasizing the structure of the photoelectrical sensor which has elements which contact the articles while sensing, should be classified in: B65H 7/12 and B65H 7/14
• If the elements which contact the articles are particularly specified (for example rotating levers), a further B65H symbol (B65H 2553/612: Contact arms, Levers, Antennas) should be given.

• (II) A document disclosing a device and/or method for controlling responsive to double feed, and emphasizing the structure of the photoelectrical sensor which does not contact the actual articles while sensing, should be classified in: B65H 7/125 and B65H 7/14

• (III) A document disclosing a device and/or method for controlling responsive to a wrong distance between articles successively separated from a pile of article, monitoring said distance by checking the time intervals (B65H 2513/53) between the passing of the front edges of the articles (B65H 2701/1311) (sensed by a light sensor not further specified), and responding by changing the rotational speed of the separator (B65H 2513/11), should be classified in:
  - B65H 7/02 and
  - B65H 2701/1311, B65H 2220/01
  - B65H 2513/53, B65H 2220/03
  - B65H 2513/11, B65H 2220/02

  If the change of the rotational speed of the separator, or means to do so are particularly emphasized, then the class B65H 7/18 should be given additionally.

• (IV) A pile is advanced/moved in function of an absence of articles:
  - B65H 7/04 and
  - B65H 2511/515, B65H 2220/01
  - B65H 2513/40, B65H 2220/02

• (V) The position of the separation end of the pile is controlled in function of the thickness of the articles:
  - B65H 7/02 and
  - B65H 2511/13, B65H 2220/01
  - B65H 2511/20, B65H 2220/02

B65H 7/14

by photoelectric feelers or detectors

References

Informative references

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

<table>
<thead>
<tr>
<th>Instruments using optical measuring means</th>
<th>G01B 9/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring arrangements characterised by the use of optical means</td>
<td>G01B 11/00</td>
</tr>
</tbody>
</table>

B65H 7/20

Controlling associated apparatus

Definition statement

This place covers:

The group covers for example the concept that the handling conditions (for example the feeding speed) before a process influence or determine the conditions or settings of the process itself (for example the starting time).

The group also covers subject-matter which emphasizes the particular interface means applied or functioning between the handling action (for example feeding) and the process. Such interface means could be for example communication means between the feeding controller and process controller, or user interfaces like information input or displaying means linked to the feeding controller.
Special rules of classification

Interface means should be indicated by giving a code from B65H 2551/00 or B65H 2557/00

B65H 9/00

Registering, e.g. orientating, articles; Devices therefor

Definition statement

This place covers:
Aspects related to correcting the orientation and/or position of the articles before they arrive to a particular process.

References

Limiting references

This place does not cover:

| Correcting orientation and/or position of articles when coming from a process | B65H 29/00, B65H 31/00 |
| Combined with | B65H 2301/331, B65H 2301/361 |
| Devices intimately associated with inserting documents into envelopes | B43M 3/00 |

Informative references

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

| Printer, registering devices | B41J 13/26 |
| Printers, Front lays, stops, or gauges | B41J 13/28 |
| Printers, Side lays or gauges | B41J 13/30 |
| Printers, Means for positioning sheets in two directions under one control, e.g. for format control or orthogonal sheet positioning | B41J 13/32 |
| Apparatus for electrographic processes, feeding path after the copy sheet separation and up to the transfer point, e.g. registering; deskewing; correct timing of sheet feeding to the transfer point | G03G 15/6558 |
| Apparatus for electrographic processes, registration devices | G03G 2215/00405 |
| Aligning cards | G06K 13/063 |

B65H 9/002

{changing orientation of sheet by only controlling movement of the forwarding means, i.e. without the use of stop or register wall}

Definition statement

This place covers:
Arrangements which corrects the orientations of the sheets, i.e. deskews the sheets, only by controlling the relative speed of the forwarding means without abutting the edges of the sheets against stops or register walls
Illustrative example of subject matter classified in this group:

Special rules of classification

If the subject-matter also relates to an additional movement which moves the article in a second direction perpendicular to the first movement, this should be indicated by using the appropriate B65H symbol. For example, if the first change of orientation is done by counter rotating two independent roller pairs (B65H 9/002) and the second change of movement is done by moving the rollers parallel to their shafts, then the symbol B65H 2404/1424 should be given additionally, see for example US2009033029A1.
B65H 9/004

{Deskewing sheet by abutting against a stop, i.e. producing a buckling of the sheet}

Definition statement

This place covers:

The concept that the deskewing effect is caused by a significant buckling of the article

References

Limiting references

This place does not cover:

The article is moved into a stationary registered position, but not buckled

Special rules of classification

If a movable stop is important in connection with the buckling of the article then also classify in

B65H 9/06
B65H 9/006
{the stop being formed by forwarding means in stand-by}

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:

B65H 9/008
{the stop being formed by reversing the forwarding means}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
**B65H 9/04**

**Fixed or adjustable stops or gauges (gauge pins B65H 9/02)**

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

---

**Special rules of classification**

Adjustable guides on supports which do not perform a registering or orientation action on an article but merely define a certain space for the stack according to the size should be classified as follows:

Adjustable in both length and width direction of the article by the operator:
- **B65H 2511/10, B65H 2220/01**
- **B65H 2511/20, B65H 2220/04**

Adjustable in width direction of the article by the operator:
- **B65H 2511/12, B65H 2220/01**
- **B65H 2511/22, B65H 2220/04**
B65H 9/06
Movable stops or gauges, e.g. rising and falling front stops (\texttt{(B65H 11/007 takes precedence)\})

\textbf{Definition statement}

\textit{This place covers:}

Illustrative examples of subject matter classified in this group:
References

Limiting references

This place does not cover:

| Feed tables with front stop arrangements | B65H 11/007 |

Special rules of classification

If the stops produce a buckling of the articles specifically used for deskewing then also classify in B65H 9/004
**B65H 9/08**

Holding devices, e.g. finger, needle, suction, for retaining articles in registered position

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

![Illustrative example](DE10357864A1)

**B65H 9/10**

Pusher and like movable registers; Pusher or gripper devices which move articles into registered position

**Definition statement**

This place covers:

Means which moves the article into stationary registered positions. e.g. which move the article into a stationary position against a stop or register wall. The stop can be a physical stop or wall, but can also be a virtual stop, for example formed by an array of sensors.

**References**

**Limiting references**

This place does not cover:

| Registering laterally against a side register while the article is forwarded in principal direction | B65H 9/16 |

**Special rules of classification**

After the notation of the groups B65H 9/10 - B65H 9/108 and separated therefrom by a + sign, the symbol B65H 2220/15 may be added to indicate that the device moves articles, already positioned in a stationary registered position according to a first direction, into a stationary registered position along a second direction perpendicular to the first one, e.g. for lateral registering, in other words,
the registration action consists of two distinct successive movements with a stop in between, the
movements being perpendicular to each other.

**B65H 9/101**

*acting on the edge of the article*

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image-url)
B65H 9/103

{acting by friction or suction on the article for pushing or pulling it into registered position, e.g. against a stop}

Definition statement

This place covers:

Acting by friction is typically done by applying friction pads (see EP1396452, pad (08)), but the group also covers the concept of pinching the article between stopped rollers and moving these parallel to their shaft (see US20040046313).
B65H 9/105

{using suction means}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 9/106

{using rotary driven elements as part acting on the article (B65H 9/105 takes precedence; registering laterally while article is forwarded in principal direction B65H 9/16)}

Definition statement

This place covers:

"Using rotary driven elements" limits the coverage of this group to arrangements wherein the movement is provided by actually driven elements, like rotating rollers or belts (see US2001012465, rollers (141,143,151)).

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>A non rotating roller pair which is pinching the article and then being moved for pulling the article against a stop should be classified in</td>
<td>B65H 9/103</td>
</tr>
<tr>
<td>Rotating suction rollers</td>
<td>B65H 9/105</td>
</tr>
<tr>
<td>Registering laterally against a side register wall while the article is forwarded in principal direction</td>
<td>B65H 9/106</td>
</tr>
</tbody>
</table>
**B65H 9/108**

{acting by air blast}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
**B65H 9/12**
carried by article grippers

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

**B65H 9/14**

Retarding or controlling the forward movement of articles as they approach stops

**Definition statement**

*This place covers:*

Mechanical arrangements for controlling the forward movement of articles as they approach stops
Illustrative example of subject matter classified in this group:

[Diagram of mechanical components labeled with numbers and text "WO2005082757A1"]
**B65H 9/16**

**Inclined tape, roller, or like article-forwarding side registers**

**Definition statement**

*This place covers:*

Registering laterally against a side register while the article is forwarded in principal direction. i.e. no front stops, the forward motion continues.

**References**

**Limiting references**

*This place does not cover:*

Registering laterally against a side register while the article is forwarded in principal direction against a front register wall or stop

| B65H 9/10 |
Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 11/002
{incorporating transport belts}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 11/007
{with front stop arrangements}

Definition statement

This place covers:

See the stop elements (20) in illustrative example 1, elements (10,10') in illustrative example 2, and elements (69) in illustrative example 3 shown below:

Illustrative example 1:

Illustrative example 2:

Illustrative example 3:
Illustrative example 3:

**B65H 13/00**

**Lifting the ends of piles to facilitate the formation of overlapped piles**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
**B65H 15/00**

**Overturning articles**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Star wheel type devices</td>
<td>B65H 29/40</td>
</tr>
<tr>
<td>If the overturning is a mere consequence of refeeding the article back to the work-station in order to process the other side</td>
<td>B65H 85/00</td>
</tr>
<tr>
<td>Overtopping/reversing sheets inside rotary printing machines e.g. perfecting rollers/machines</td>
<td>B41F 21/106</td>
</tr>
</tbody>
</table>

**Special rules of classification**

To be classified together with relevant symbols from B65H 2301/332 - B65H 2301/3332, in particular B65H 2301/3321 - B65H 2301/33216 and B65H 2301/3322 - B65H 2301/33224.

**B65H 16/00**

**Unwinding, paying-out webs {(reel-to-reel type web winding and unwinding mechanisms B65H 18/103, B65H 18/145)}**

**Definition statement**

*This place covers:*

Unwinding mechanisms for a depleting the web continuously.
References

Limiting references

This place does not cover:

| Devices or arrangements of selective printing mechanisms, e.g. ink-jet printers, thermal printers | B41J 1/00 |

Informative references

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

| Uncoilers of wound sheet metal web material | B21C 47/00 |

Special rules of classification

For expandable mandrels, chucks, e.g. for securing or releasing cores, holders or packages add B65H 75/242

B65H 16/005

{Dispensers, i.e. machines for unwinding only parts of web roll}

References

Limiting references

This place does not cover:

| For constructional details of cores, supports or holders for wound material | B65H 75/02 |
| Toilet paper dispensers | A47K 10/32 |
| Containers or packages with special means for dispensing contents | B65D 83/00 |

B65H 16/02

Supporting web roll

Definition statement

This place covers:

Support mechanisms for continuous unwinding systems.

References

Limiting references

This place does not cover:

| Machines unwinding only parts of web roll, i.e. dispensers | B65H 16/005 |

Special rules of classification

For further aspects of supporting web roll, e.g. constructional details, B65H 2301/413 and lower.
**B65H 16/021**

**{Multiple web roll supports}**

**Definition statement**

*This place covers:*

Unwinding unit presenting multiple web roll supports on several web roll holders, e.g. separate magazines, or presenting multiple web roll supports on a single web roll holder, e.g. coaxially aligned web rolls;
Special rules of classification
For additional details of multiple web roll supports add B65H 2301/4139 or lower.

B65H 16/023
{rotatable}

Definition statement
This place covers:
The support or holder being rotatable

B65H 16/028
{on its outer circumference (B65H 16/08 takes precedence)}

Definition statement
This place covers:
Web supports in contact with web periphery.

References
Limiting references
This place does not cover:

| Parallel rollers type       | B65H 16/08 |

B65H 16/04
cantilever type

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Diagram of cantilever type support](image_url)
Special rules of classification
For additional details of cantilever supports see B65H 2301/4132 or lower.

B65H 16/06
both-ends type

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Illustrative example of subject matter classified in this group](image1)

Special rules of classification
For additional details of both-end supports B65H 2301/4134 or lower.

B65H 16/08
parallel rollers type

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Illustrative example of subject matter classified in this group](image2)
**B65H 16/10**

**Arrangements for effecting positive rotation of web roll**

**Definition statement**

This place covers:

Power mechanism used for the rotation of the web-roll.

**B65H 18/00**

**Winding webs**

**Definition statement**

This place covers:

Winding or rewinding of webs in a continuous process.

**References**

**Limiting references**

This place does not cover:

| Winding mechanisms in combination with a change of web roll | B65H 19/00 |

**Special rules of classification**

• For others aspects of web winding processes add B65H 2301/414 or lower;
• For auxiliary processes performed during winding B65H 2301/50;
• For winding in combination with measuring a length, e.g. inspecting devices, add B65H 2511/11;
• For winding in combination with slitted webs, add systematically B65H 2301/4148;

**B65H 18/02**

**Supporting web roll**

**Definition statement**

This place covers:

Support arrangement for continuous winding units.

**References**

**Limiting references**

This place does not cover:

| For winding support arrangements whereby the central support is removed after winding, e.g. a mandrel of a turret winder | B65H 19/2292 |

**Special rules of classification**

For details related to the core itself add B65H 75/02 and lower.
**B65H 18/021**

{Multiple web roll supports}

**Special rules of classification**

For slitter-rewinder in which winding takes place on two or more shafts add B65H 2301/41486.

For additional details of multiple web roll support add B65H 2301/4139 or lower.

**B65H 18/023**

{on its outer circumference}

**Definition statement**

*This place covers:*

Web supports in contact with web periphery.

**B65H 18/025**

{Parallel rollers type}

**Definition statement**

*This place covers:*

Parallel rollers supporting the web in a tangential or nip contact.

**References**

**Limiting references**

*This place does not cover:*

| Parallel rollers with a web winding mechanism | B65H 18/20 |

**B65H 18/026**

{Cantilever type}

**Special rules of classification**

For additional details of cantilever supports see B65H 2301/4132 or lower.
**Definition statement**

This place covers:
Supports of both end type.

**Special rules of classification**

For additional details of both-end supports [B65H 2301/4134](#) or lower.
B65H 18/04
Interior-supporting

Definition statement
This place covers:
Web supports with an axial connexion body holding the web.

B65H 18/06
Lateral-supporting

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References

Limiting references
This place does not cover:
Articulated bearing  F16D 1/0811
B65H 18/08
Web-winding mechanisms

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Coreless winding systems</th>
<th>B65H 19/2276</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing the web roll in winding systems whereby the core or mandrel is removed after winding</td>
<td>B65H 19/2292</td>
</tr>
</tbody>
</table>

Special rules of classification
For details about the type of power transmission or driving means used B65H 2403/00.

B65H 18/10
Mechanisms in which power is applied to web-roll spindle

References
Limiting references
This place does not cover:

| Articulated bearing | F16D 1/0811 |

B65H 18/103
{Reel-to-reel type web winding and unwinding mechanisms}

Definition statement
This place covers:
Arrangement associating an unwinding mechanism and a winding mechanism whereby a source roll is unwinded while the depleted web is rewinded on a target roll, e.g. cassette apparatus

B65H 18/106
{for several juxtaposed strips}

Special rules of classification
For slitting and winding on two or more shafts simultaneously add B65H 2301/41486 or lower

B65H 18/12
to effect step-by-step advancement of web

Definition statement
This place covers:
Winding mechanism for a stepwise web advancement in intervals
B65H 18/14
Mechanisms in which power is applied to web roll, e.g. to effect continuous advancement of web

Definition statement
This place covers:
Winding mechanism applying a driving power by contact with a web roll surface, e.g. driving belt

B65H 18/145
{Reel-to-reel type web winding and unwinding mechanisms}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
**B65H 18/16**

by friction roller

**Definition statement**

_This place covers:_

Illustrative example of subject matter classified in this group:

---

**Special rules of classification**

For step-by-step advancement mechanisms add B65H 2301/4493.

---

**B65H 18/18**

to effect step-by-step advancement of web {(not used)}

**Definition statement**

_This place covers:_

Winding mechanism for a stepwise web advancement in intervals.

---

**B65H 18/20**

the web roll being supported on two parallel rollers at least one of which is driven

**Special rules of classification**

For constructional details of a rider roll B65H 2404/43 and lower.
B65H 18/22
by friction band

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Special rules of classification
For step-by-step advancement mechanisms add B65H 2301/4493.

B65H 18/26
Mechanisms for controlling contact pressure on winding-web package, e.g. for regulating the quantity of air between web layers

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

| By means of indirect measurement or calculation | B65H 2511/142, B65H 2220/03 |

Special rules of classification
For constructional details of a rider roll add B65H 2404/43 or lower.
B65H 18/28
Wound package of webs

Definition statement
This place covers:
Properties of wound package of webs, e.g. bonding the outermost web trailing end to the web roll independently from a web roll change.

References
Limiting references
This place does not cover:

| Starting a new winding cycle by attaching or wrapping the innermost leading end of the roll to the new core or mandrel | B65H 19/28 |
| Finishing a winding cycle by bounding the outermost trailing end to the web roll | B65H 19/29 |

Special rules of classification
For properties of handled webs in wound packages add B65H 2701/184 or lower;
For properties of storage means, e.g. special core properties, add B65H 2701/50 or lower;
For blocking outer layers add B65H 2301/41441 or lower;
For web delivery apparatus incorporating devices for performing specified auxiliary operations add B65H 37/002 or lower

B65H 19/00
Changing the web roll

Definition statement
This place covers:
Winding or unwinding operations dealing with changing the web roll.

References
Limiting references
This place does not cover:

| For web splicing operations not linked to a web roll change | B65H 21/00 |
B65H 19/105

{Opening of web rolls; Removing damaged outer layers; Detecting the leading end of a closed web roll}

Definition statement

*This place covers:*

Preliminary operations dealing with the external surface or leading edge of a wound web roll taking place before the unwinding starts.

Special rules of classification

For further details related to the opening of web rolls add B65H 2301/4604 or lower.

B65H 19/123

{with cantilever supporting arrangements}

Definition statement

*This place covers:*

Illustrative example of subject matter classified in this group:

This arrangement provides two cantilever supports (6,7) for two rolls (8,9)
B65H 19/126
{with both-ends supporting arrangements}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B65H 19/14
Accumulating surplus web for advancing to machine while changing the web roll

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>During a change of web roll and in connection with winding operations</td>
<td>B65H 19/24</td>
</tr>
<tr>
<td>With mechanisms for advancing webs from or to the inside of web rolls</td>
<td>B65H 20/26</td>
</tr>
<tr>
<td>In general, i.e. for accumulating surplus of web without a change of web</td>
<td>B65H 20/30</td>
</tr>
<tr>
<td>roll</td>
<td></td>
</tr>
<tr>
<td>Devices for temporarily storing filamentary material during forwarding of</td>
<td>B65H 51/20</td>
</tr>
<tr>
<td>filamentary material, e.g. for buffer storage</td>
<td></td>
</tr>
<tr>
<td>Easily-flexible work, e.g. wire, sheet metal bands</td>
<td>B21B 41/00</td>
</tr>
<tr>
<td>Manufacture of metal sheets, metal wire, metal rods, metal tubes by drawing</td>
<td>B21C 49/00</td>
</tr>
</tbody>
</table>
B65H 19/18
Attaching, e.g. pasting, the replacement web to the expiring web {(adhesive arrangements on leading end of replacement web, tabs and adhesive tapes for splicing B65H 19/102)}

Definition statement
This place covers:
Splicing of a replacement web with an expiring web.

References
Limiting references
This place does not cover:

| Adhesive arrangements on leading end of replacement web, tabs and adhesive tapes for splicing | B65H 19/102 |

Special rules of classification
For additional features related to splicing processes B65H 2301/46 and to splicing machines or units B65H 2408/22.

B65H 19/1805
{Flying splicing, i.e. the expiring web moving during splicing contact}

Definition statement
This place covers:
The operation of attachment is taking place on a moving expiring web.

B65H 19/1842
{standing splicing, i.e. the expiring web being stationary during splicing contact}

Definition statement
This place covers:
The operation of attachment is taking place on a stationary expiring web.

Special rules of classification
For constructional details of accumulators add B65H 2408/21 or lower.

B65H 19/1857
{Support arrangement of web rolls}

Definition statement
This place covers:
Specific web support arrangement used for splicing webs.
**B65H 19/20**

**Cutting-off the expiring web**

**Definition statement**

*This place covers:*

Details about cutting-off, i.e. separating, the expiring web in combination with a web roll change, including a splicing operation.

**References**

**Informative references**

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

| Cutting-off the tail of an expiring web after a splicing operation | B65H 2301/46152 |

**Special rules of classification**

For cutting expiring webs in combination with splicing operations add B65H 2301/4617 or lower.

**B65H 19/2223**

{Turret-type with more than two roll supports}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B65H 19/2238

{The web roll being driven by a winding mechanism of the nip or tangential drive type (B65H 19/2276 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

The web roll being driven by a winding mechanism of the coreless type B65H 19/2276
B65H 19/2246

{and the roll being supported on two rollers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Fig.1
B65H 19/2253
{and the roll being displaced during the winding operation}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

---

B65H 19/2261
{Pope-roller}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:
B65H 19/2269
{Cradle}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 19/2276**

{The web roll being driven by a winding mechanism of the coreless type}

**Definition statement**

*This place covers:*

Winding without pre-formed cores, i.e. without a core (coreless) or a core being formed with the winding process (in-line core winding), e.g. winding of logs.

**Special rules of classification**

For winding a core in-line with the web (wound core made out of sheet material) add B65H 2301/414325.

For further details on core or mandrel discharge or removal add B65H 2301/4185 or lower.

**B65H 19/2284**

{Simultaneous winding at several stations, e.g. slitter-rewinders}

**Definition statement**

*This place covers:*

- Aspects related to the change of web roll in combination with the simultaneous winding at several stations, e.g. web roll discharge or transport at the end of winding in a slitter-winder.
- The simultaneous winding at several stations, e.g. slitter-rewinders
References

Limiting references

This place does not cover:

Aspects exclusively related to the rewinding process after slitting

B65H 19/2292

{Removing cores or mandrels from web roll after winding}

Definition statement

This place covers:
Attaching and winding the web around a support element before removing it axially after winding; the roll remaining without any central element,
e.g. removing a mandrel after a coreless winding or removing a mandrel and a core after winding with a core.

References

Limiting references

This place does not cover:

For expansible mandrels

B65H 75/242
Informative references

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

| Roll support type, e.g. cradle, turret or bed-winder | B65H 18/00, B65H 19/00 |
| Removing roll/core from shaft/mandrel, e.g. by compressed air | B65H 2301/41446 |

Special rules of classification

For further details on core or mandrel discharge or removal add B65H 2301/4185 and lower.

This class does not include winding of rolls whereby a core remains after winding, e.g. turret winder with cores

**B65H 19/24**

Accumulating surplus delivered web while changing the web roll

References

Limiting references

This place does not cover:

| During a change of web roll and in connection with unwinding operations | B65H 19/14 |
| With mechanisms for advancing webs from or to the inside of web rolls | B65H 20/26 |
| In general | B65H 20/30 |
| Devices for temporarily storing filamentary material during forwarding, e.g. for buffer storage | B65H 51/20 |
| Easily-flexible work, e.g. wire, sheet metal bands | B21B 41/00 |
| Manufacture of metal sheets, metal wire, metal rods, metal tubes by drawing | B21C 49/00 |

**B65H 19/26**

Cutting-off the web running to the wound web roll

Definition statement

This place covers:

Separating the web running to the wound web roll to finish the winding of the active roll and transfer the web to the next empty core

**B65H 19/262**

{using a thin or filamentary material which is wound on the new roll}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
Web changing operations using a thin or filamentary material as tearing element, e.g., a double adhesive tape to tear-off the running web and to guide the leading end of the new web on a new core.

**B65H 19/265**

{using a cutting member moving linearly in a plane parallel to the surface of the web and along a direction crossing the web}

**Definition statement**

*This place covers:*

A cutting process whereby a mechanical cutting element is penetrating the web and cutting the web by moving the cutting element linearly in a plane parallel to the surface of the web and along a direction crossing the web.

Illustrative example of subject matter classified in this group:
**B65H 19/267**

(by tearing or bursting)

**Definition statement**

*This place covers:*

I.e. any cutting process on a running web that is not using a mechanical cutting element penetrating the web in order to tear or burst the web, it includes e.g. tearing against a fixed edge, tearing by longitudinal forces, air or water cutting e.g. a jet of compressed air.

**B65H 19/28**

Attaching the leading end of the web to the replacement web-roll core or spindle (cores, formers, supports or holders, e.g. reels, with arrangements for securing ends of material **B65H 75/28**)

**References**

**Limiting references**

*This place does not cover:*

| Cores, formers, supports or holders, e.g. reels, with arrangements for securing ends of material | B65H 75/28 |

**Informative references**

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

| Further splicing details | B65H 2301/46 |
| Preparing leading edge for splicing | B65H 2301/4606 |
| The kind of splicing means used, e.g. glue, | B65H 2301/463 |
B65H 19/29

Securing the trailing end of the wound web to the web roll (cores, formers, supports or holders, e.g. reels, with arrangements for securing ends of material B65H 75/28)

Special rules of classification
For further aspects see additionally B65H 2301/41441 or lower.

B65H 19/30

Lifting, transporting, or removing the web roll; Inserting core

References

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

| For finishing the winding process in combination with blocking the outer layers | B65H 2301/41441 |
| For further actions taking place after winding process | B65H 2301/41445 |

B65H 19/305

{Inserting core}

References

Limiting references
This place does not cover:
For filamentary materials B65H 67/0405 and lower.

B65H 20/00

Advancing webs

Definition statement
This place covers:
Constructional aspects of driving systems for the advancement of webs and units dealing with the advancement of webs, e.g. temporary storage of webs in accumulators.

References

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

<p>| By advancing mechanisms using web-gripping means | B65H 20/16 |
| Manufacture of metal sheets, i.e. profiles or tubes B21C, e.g. feeding or guiding devices in winding-up, coiling or winding-off devices | B21C 47/34 |
| Devices for temporarily accumulating material | B21C 49/00 |</p>
<table>
<thead>
<tr>
<th>B65H 20/00 (continued)</th>
<th>CPC - B65H - 2019.01</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B65H 20/26</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Mechanisms for advancing webs to or from the inside of web rolls</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Definition statement</strong></td>
<td></td>
</tr>
<tr>
<td><em>This place covers:</em></td>
<td></td>
</tr>
<tr>
<td>Illustrative example of subject matter classified in this group:</td>
<td></td>
</tr>
</tbody>
</table>

| Working or processing of sheet metal or metal tube **B21D**: e.g. advancing work by means of one or more of pairs of rollers for feeding sheet or strip material | **B21D 43/09** |
| Shaping or joining of plastics, shaping of substances in a plastic state: e.g. of plates or sheets | **B29C 55/02** |
| Printing machines or presses: for conveying or guiding webs through, e.g. threading, | **B41F 13/02** |
| Packaging articles or materials **B65B**: e.g. feeding webs from rolls by grippers | **B65B 41/14** |
| Calenders or accessories for paper-making machines: devices for threading a web tail | **D21G 9/0063** |
| Apparatus for electrographic processes which relate to the handling of copy material | **G03G 15/65** |

![Diagram of mechanism](image)
References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulating surplus web for advancing to machine while changing the web roll in unwinding mechanisms or in connection with unwinding operations</td>
<td>B65H 19/14</td>
</tr>
<tr>
<td>Accumulating surplus delivered web while changing the web roll in winding mechanisms or in connection with winding operations</td>
<td>B65H 19/24</td>
</tr>
<tr>
<td>Advancing webs, arrangements for accumulating surplus web</td>
<td>B65H 20/30</td>
</tr>
<tr>
<td>Devices for temporarily storing filamentary material during forwarding</td>
<td>B65H 51/20</td>
</tr>
<tr>
<td>Guiding, conveying, or accumulating easily-flexible work</td>
<td>B21B 41/00</td>
</tr>
<tr>
<td>Devices for temporarily accumulating material</td>
<td>B21C 49/00</td>
</tr>
</tbody>
</table>

Special rules of classification

See for coil type accumulator in FICLA B65H 19/14 or B65H 20/30.

B65H 20/30

Arrangements for accumulating surplus web (while changing the web roll B65H 19/14, B65H 19/24)

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>During a change of web roll and in connection with unwinding operation</td>
<td>B65H 19/14</td>
</tr>
<tr>
<td>During a change of web roll and in connection with winding operations</td>
<td>B65H 19/24</td>
</tr>
<tr>
<td>With mechanisms for advancing webs from or to the inside of web rolls</td>
<td>B65H 20/26</td>
</tr>
<tr>
<td>Devices for temporarily storing filamentary material during forwarding, e.g. for buffer storage</td>
<td>B65H 51/20</td>
</tr>
<tr>
<td>For easily-flexible work, e.g. wire, sheet metal bands</td>
<td>B21B 41/00</td>
</tr>
<tr>
<td>For manufacture of metal sheets, metal wire, metal rods, metal tubes by drawing</td>
<td>B21C 49/00</td>
</tr>
</tbody>
</table>

Special rules of classification

(04-97) see for coil type accumulator in FICLA B65H 19/14 or B65H 20/30.
B65H 20/32

by making loops

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG 1

References

Informative references

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

| Bidirectional powered handling device | B65H 2403/942 |

B65H 21/00

Apparatus for splicing webs (during web-roll changing B65H 19/00)

References

Limiting references

This place does not cover:

| When the splicing takes place during web-roll change | B65H 19/00 |

Informative references

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

| Further splicing aspects | B65H 2301/46 |
**B65H 21/02**

for premarked, e.g. preprinted, webs

**Definition statement**

This place covers:

Splicing units whereby a mark or print on the web triggers the splicing operations.

**B65H 26/00**

Warning or safety devices, e.g. automatic fault detectors, stop-motions, for web-advancing mechanisms (safety devices in general [F16P](#); investigating chemical or physical properties of materials in general [G01N](#); indicating devices in general [G08B](#))

**Definition statement**

This place covers:

Warning or safety devices, e.g. sensors, triggering an action or a signal.

**References**

**Limiting references**

This place does not cover:

| For safety devices in general | F16P 1/00 - F16P 7/00 |
| For signalling or calling systems, order telegraphs, alarm systems | G08B 1/00 - G08B 31/00 |

**Informative references**

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

| For indicating, counting, warning, control, or safety device in printing machine or presses | B41F 33/00 |
| By the use of optical means, i.e. using infra-red, visible, or ultra-violet light | G01N 21/00 |
| By specific methods not covered by the preceding groups | G01N 33/00 |

**B65H 26/02**

responsive to presence of irregularities in running webs

**Definition statement**

This place covers:

Detecting systems inspecting irregularities in running webs, e.g. faults.
B65H 26/025
{responsive to web breakage}

Definition statement
This place covers:
Detecting systems responsive to web breakage, e.g. detecting the positions of periodically recurring patterns, tension control systems.

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

| For web breakage in printing machines or presses | B41F 33/18 |

B65H 26/04
for variation in tension

Definition statement
This place covers:
Detecting systems responsive to variations in tension, e.g. tension measuring rolls.

B65H 26/06
responsive to predetermined lengths of webs

Definition statement
This place covers:
Signal or action triggered by a predetermined length of web.

B65H 26/08
responsive to a predetermined diameter

Definition statement
This place covers:
Signal or action triggered by a predetermined diameter.

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

| By means of indirect measurement or calculation | B65H 2511/142, B65H 2220/03 |
**B65H 27/00**

Special constructions of feed or guide rollers and surfaces thereof (tentering rollers **B65H 23/02**; rollers in general **F16C 13/00**)

**Definition statement**

*This place covers:*

Construction aspects of feed or guide rollers and surfaces thereof, e.g. characterized by materials, surface structure, driving means, use of fluid, roller pair construction.

**References**

**Limiting references**

*This place does not cover:*

| Rollers in general | F16C 13/00 |

**Informative references**

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

<table>
<thead>
<tr>
<th>Metal sheets or profiles: e.g. winding-up, coiling, winding-off several parallel metal bands</th>
<th>B21C 47/006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeding or guiding devices</td>
<td>B21C 47/34</td>
</tr>
<tr>
<td>Printing machines or rotary presses conveying or guiding webs</td>
<td>B41F 13/02</td>
</tr>
<tr>
<td>Printing machines or rotary presses cylinders</td>
<td>B41F 13/08</td>
</tr>
<tr>
<td>Typewriters, selective printing mechanisms (e.g. ink-jet printer, thermal printer)</td>
<td>B41J 13/02</td>
</tr>
<tr>
<td>Transport or storage device, e.g. conveyors for loading or tipping, shop conveyors, pneumatic tube conveyors</td>
<td>B65G 39/02</td>
</tr>
<tr>
<td>Treating textile materials by liquids, gases, vapours characterized by the use of fluid:</td>
<td>D06B 23/02</td>
</tr>
<tr>
<td>Textile fabrics: e.g. rollers for stretching, tentering or spreading textile fabrics</td>
<td>D06C 3/06</td>
</tr>
<tr>
<td>Rollers for calendering, pressing, ironing, glossing or glazing textile fabrics</td>
<td>D06C 15/08</td>
</tr>
<tr>
<td>Paper-making machine: e.g. guiding rolls in wet end of machines</td>
<td>D21F 1/40</td>
</tr>
<tr>
<td>Pressure rollers in press section (wet presses)</td>
<td>D21F 3/08</td>
</tr>
<tr>
<td>In calenders and accessories for paper-making machines: controlled deflection rolls with compensation means using fluid pressure</td>
<td>D21G 1/022</td>
</tr>
<tr>
<td>Apparatus for electrographic processes which relate to the handling of copy material</td>
<td>Q03G 15/65</td>
</tr>
</tbody>
</table>

**Special rules of classification**

For further details concerning, e.g.

Materials used and their properties **B65H 2401/00**.
B65H 27/00 (continued)

Roller(s) B65H 2404/10;

Shaft, cylinders, drums, spindles B65H 2404/40;

Surface of the elements in contact with the material forwarded or guided B65H 2404/50;

Means using fluid B65H 2406/00

B65H 29/00

Delivering or advancing articles from machines; Advancing articles to or into piles

Special rules of classification

This main group should be used only for subject matter (i.e. delivering or advancing articles from machines, advancing articles to or into piles) not being covered by any of its subgroups.

Glossary of terms

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belt</td>
<td>band, tape.</td>
</tr>
<tr>
<td>Chain</td>
<td>a row of article handling elements, each interlinked with the adjacent one.</td>
</tr>
</tbody>
</table>

B65H 29/001

{Adaptations of counting devices (to feeding of articles to machines B65H 5/002)}

References

Informative references

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

Adaptations of counting devices directed to feeding of articles to machine: B65H 5/002
B65H 29/003
{by grippers (B65H 29/02 takes precedence)}

Definition statement

This place covers:

Delivering or advancing articles from machines, to piles or into piles by grippers engaging the articles at least somewhere else than at their leading edge, or somewhere that cannot be considered to be their leading edge, e.g. at the articles side, i.e. lateral edge, or e.g. at the hanging articles upper edge, or e.g. at the standing articles lower edge, or e.g. at the articles center or trailing edge.

Illustrative example of subject matter classified in this group:
References

Limiting references

This place does not cover:

by chains or bands having mechanical grippers engaging the side edges of articles

B65H 29/02
B65H 29/005
{by chains or bands having mechanical grippers engaging the side edges of articles, e.g. newspaper conveyors}

Definition statement

This place covers:
Delivering or advancing articles from machines, to piles or into piles by chains or bands carrying mechanical grippers engaging (relative to the conveying direction) the side edges of the articles.

Illustrative example of subject matter classified in this group:
B65H 29/006
{Winding articles into rolls}

Definition statement

This place covers:

Particular details about delivering articles to be stored to or into the store, as well as about the store as such.

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Feeding articles from rolls                      | B65H 5/28                  |
| Piling by collecting, e.g. piling, on the periphery of a cylinder | B65H 29/51                  |
| Wrapping banknotes around drum                   | G07D 9/00, 405C/FI         |
| Reels taking-up banknotes                        | G07D 9/00, 405C/FI         |

Special rules of classification

Particular details or aspects about feeding the stored articles from the store: B65H 5/28

The use of the following Indexing Codes is mandatory:

B65H 2301/4191: articles wound together with a single belt

B65H 2301/41912: articles wound together between two belts facing each other
B65H 29/008

{Winding single articles into single rolls}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Reference</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet holders, retainers, movable guides, or</td>
<td>B41J 13/106/EC</td>
</tr>
<tr>
<td>stationary guides: for the sheet output section</td>
<td></td>
</tr>
<tr>
<td>Piling by warping sheet</td>
<td>3F054/BA13/FT</td>
</tr>
<tr>
<td>Storage of roll-like sheet</td>
<td>3F054/BA15/FT</td>
</tr>
</tbody>
</table>
**B65H 29/02**

*by mechanical grippers engaging the leading edge only of the articles*

**Definition statement**

*This place covers:*

Delivering or advancing articles from machines, to piles or into piles by mechanical grippers engaging (relative to the conveying direction) the leading edge only of the articles.

**References**

**Informative references**

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

| Delivering or advancing articles from machines, to piles or into piles by grippers engaging the articles at least somewhere that relative to the conveying direction cannot be considered to be the leading edge | B65H 29/003 |

**Special rules of classification**

This group should be used only for subject matter (i.e. delivering or advancing articles from machines, to piles or into piles by mechanical grippers engaging relative to the conveying direction the leading edge only of the articles) not being covered by any of its lower subgroups.

**B65H 29/04**

*the grippers being carried by endless chains or bands*

**Special rules of classification**

This group should be used only for subject matter (i.e. delivering or advancing articles from machines, to piles or into piles by mechanical grippers engaging relative to the conveying direction the leading edge only of the articles, wherein the grippers are carried by endless chains or bands) not being covered by any of its lower subgroups.
B65H 29/041
{and introducing into a pile (slowing-down from grippers B65H 29/683)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

WO 91/08844

FIG. 8V

FIG. 6
References

Informative references

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

| Slowing down from (gripper) chain delivery | B65H 29/683 |

B65H 29/042

{Intermediate conveyors, e.g. transferring devices}

Definition statement

This place covers:
Advancing articles between handling or process stations of a machine, by mechanical grippers being carried by endless chains or bands, and engaging (relative to the conveying direction) the leading edge only of the articles.

B65H 29/044

{conveying through a machine}

Definition statement

This place covers:
Advancing articles through (a) handling or process station(s) of a machine, by mechanical grippers being carried by endless chains or bands, and engaging (relative to the conveying direction) the leading edge only of the articles.

Illustrative example of subject matter classified in this group:

B65H 29/045

{Details of grippers}

References

Informative references

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

| Feeding articles separated from piles or feeding articles to machines, by grippers | B65H 5/14 |
B65H 29/06

the grippers being carried by rotating members

Definition statement

This place covers:
Delivering or advancing articles from machines, to piles or into piles by grippers being carried by rotating members, e.g. arms or cylinders.

Illustrative example of subject matter classified in this group:

![Diagram of grippers being carried by rotating members]

WO 2010/008184

[Fig. 3]
References

Limiting references

This place does not cover:

| Transfer drums comprising grippers | B41F 21/10 |

Special rules of classification

Feeding articles separated from piles or feeding articles to machines, by grippers: B65H 5/14

B65H 29/08

the grippers being oscillated in arcuate paths

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](image)

Special rules of classification

Feeding articles separated from piles or feeding articles to machines, by grippers B65H 5/14
B65H 29/10

the grippers being reciprocated in rectilinear paths

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Special rules of classification

Feeding articles separated from piles or feeding articles to machines, by grippers, details thereof:

B65H 5/14

B65H 29/12

by means of the nip between two, or between two sets of, moving tapes or bands (or rollers)

Definition statement

This place covers:

Delivering or advancing articles from machines, to piles or into piles, by means of the nip between two, or between two sets of, moving tapes or bands or rollers.
Illustrative example of subject matter classified in this group:

![Illustration of subject matter](image)

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Subject Matter Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>sandwiching with belt and belt</td>
<td>3F049/DA02/Ft</td>
</tr>
<tr>
<td>sandwiching by belt and roller</td>
<td>3F049/DA04/Ft</td>
</tr>
<tr>
<td>by oscillating conveyors</td>
<td>B65H29/60&amp;E/FI</td>
</tr>
<tr>
<td>by moving a portion of belt</td>
<td>B65H29/60&amp;H/FI</td>
</tr>
</tbody>
</table>

**Special rules of classification**

This group should be used only for subject-matter (i.e. delivering or advancing articles from machines, to piles or into piles, by means of the nip between two, or between two sets of, moving tapes or bands or rollers) not being covered by any of its lower sub-groups.
B65H 29/125
{between two sets of rollers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Sandwiching by roller and roller | 3F049/DA12 |
B65H 29/14

and introducing into a pile

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B65H 29/145

{the pile being formed between the two, or between the two sets of, tapes or bands or rollers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 29/16
by contact of one face only with moving tapes, bands, or chains {with suction belts B65H 29/242}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Delivering or advancing articles from machines, to piles or into piles, by means of suction belts | B65H 29/242 |
B65H 29/18
and introducing into a pile

Definition statement
This place covers:
example: introducing articles into a pile from above the pile, see US4432685A

example: introducing articles into a pile from below the pile
References

Informative references

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

<table>
<thead>
<tr>
<th>Delivering or advancing articles into piles by suction bands or belts</th>
<th>B65H 29/242</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advancing the articles to or into piles by dropping the articles from tapes or bands rolled from under the articles</td>
<td>B65H 29/36</td>
</tr>
</tbody>
</table>

B65H 29/20

by contact with rotating friction members, e.g. rollers, brushes, or cylinders {(with suction rollers B65H 29/243)}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

References

Informative references

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

| Delivering or advancing articles from machines, to or into piles by suction rollers | B65H 29/243 |

B65H 29/22

and introducing into a pile

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:
References

Informative references

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

| Delivering or advancing articles into piles by suction rollers | B65H 29/243 |
| Advancing the articles to or into piles by dropping the articles from rollers rolled from under the articles | B65H 29/36 |

B65H 29/24

by air blast or suction apparatus (B65H 5/22 takes precedence; dropping articles from suction carriers B65H 29/32 {; pneumatic brakes B65H 29/686})

References

Limiting references

This place does not cover:

| Delivering or advancing articles from machines by contact with rotating friction members and introducing into a pile | B65H 5/22 |

Informative references

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

| Delivering or advancing articles from machines, to piles or into piles, by dropping the articles from pneumatic, e.g. suction, carriers | B65H 29/32 |
| Pneumatic brakes | B65H 29/686 |

Special rules of classification

This group should be used only for subject-matter (i.e. delivering or advancing articles from machines, to piles or into piles, by air blast or suction apparatus) not being covered by any of its lower sub-groups.

B65H 29/241

{Suction devices}

Special rules of classification

This group should be used only for subject-matter (i.e.delivering or advancing articles from machines, to piles or into piles, by suction devices) not being covered by any of its lower sub-groups.
B65H 29/242
{Suction bands or belts}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 29/243

{Suction rollers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B65H 29/245

{Air blast devices}

Special rules of classification

This group should be used only for subject-matter (i.e. delivering or advancing articles from machines, to piles or into piles, by air blast devices) not being covered by any of its lower sub-groups.

B65H 29/248

{with coanda effect (separating from a stack B65H 3/14)}

References

Limiting references

This place does not cover:

| Separating articles from piles using partial blasts producing partial vacuum | B65H 3/14 |
B65H 29/26

by dropping {the articles}

Definition statement

This place covers:
Delivering or advancing articles from machines, to piles or into piles, by dropping the articles.

Special rules of classification

This group should be used only for subject-matter (i.e. delivering or advancing articles from machines, to piles or into piles, by dropping the articles) not being covered by any of its lower sub-groups.

B65H 29/28

from mechanical grippers (grippers engaging the leading edge only
B65H 29/02)

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

FIG. 9
References

Informative references

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

<table>
<thead>
<tr>
<th>Delivering or advancing articles from machines, to piles or into piles by grippers engaging an edge of the articles that relative to the conveying direction can not be considered to be the leading edge, e.g. rail guided gripping means, like so called “gripper chains” or &quot;greiferketten&quot;, i.e. endless chains or bands carrying mechanical grippers engaging e.g. the upper edge of at least partially hanging articles, or the lowest edge of standing articles</th>
<th>B65H 29/003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivering or advancing articles from machines, to piles or into piles, by mechanical grippers engaging the leading edge only of the articles</td>
<td>B65H 29/02</td>
</tr>
</tbody>
</table>

B65H 29/30

from magnetic holders

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 29/34
from supports slid from under the articles

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 29/36
from tapes, bands, or rollers rolled from under the articles

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 29/38

by movable piling or advancing arms, frames, plates, or like members with which the articles are maintained in face contact

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Special rules of classification

This group should be used only for subject-matter (i.e. delivering or advancing articles from machines, to piles or into piles, by movable piling or advancing arms, frames, plates or like members with which the articles are maintained in face contact) not being covered by any of its lower sub-groups.
B65H 29/40

Members rotated about an axis perpendicular to direction of article movement, e.g. star-wheels formed by S-shaped members

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG. 2
B65H 29/42

Members rotated about an axis parallel to direction of article movement, e.g. helices

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

see helices E, F, G, H

Zu der Patentschrift 452 477
Kl. 54b  Gr. 1
B65H 29/46

Members reciprocated in rectilinear path

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 29/48
by tables arranged to be tilted to cause sliding of articles

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG. 5a

FIG. 5b
B65H 29/50

Piling apparatus of which the discharge point moves in accordance with the height to the pile

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 29/51
pling by collecting on the periphery of cylinders

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>rotary folders</th>
<th>B65H 45/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>moving, guiding handled material by means in contact with opposite faces of handled material</td>
<td>B65H442/00, B65H344/00</td>
</tr>
<tr>
<td>storing banknotes</td>
<td>G07D 11/12</td>
</tr>
</tbody>
</table>
B65H 29/52
Stationary guides or smoothers

Definition statement
This place covers:

FIG. 3 (guide/smoother)

FIG. 6 (without guide/smoother)

FIG. 5 (with guide/smoother)
**B65H 29/54**

Article strippers, e.g. for stripping from advancing elements

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

**B65H 29/56**

for stripping from elements or machines {(for electrographic machines G03G)}

**Definition statement**

*This place covers:*

Article strippers for removing from elements or machines, e.g. removing sheets from printing cylinders.
Illustrative example of subject matter classified in this group:

**References**

**Informative references**

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

| Removing a copy sheet from a xerographic drum, band or plate | G03G15/00G4 |

**B65H 29/58**

**Article switches or diverters**

**Definition statement**

This place covers:

Constructional details of article switches or diverters, e.g. shape, material, actuation means.
Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Duplicate, alternate, selective or coacting feeds</th>
<th>B65H 5/26:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diverting sheets at a section where at least two sheet conveying paths converge, e.g. by a movable switching guide that blocks access to one conveying path and guides the sheet to another path, e.g. when a sheet conveying direction is reversed after printing on the front of the sheet has been finished and the sheet is guided to a sheet turning path for printing on the back]</td>
<td>B41J 13/009</td>
</tr>
</tbody>
</table>
B65H 29/585
{taking samples from the main stream}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 29/60**

diverting the stream into alternative paths (**B65H 29/62** takes precedence)

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

This sub-group also covers particularities of paths, like paths arrangement or coordination, in terms of switching or diverting a stream of articles.
References

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Limiting references</th>
<th>CPC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>diverting faulty articles from the main streams (control devices detecting faulty</td>
<td>B65H 29/62</td>
</tr>
<tr>
<td>articles)</td>
<td></td>
</tr>
</tbody>
</table>

**Informative references**

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

<table>
<thead>
<tr>
<th>Informative references</th>
<th>CPC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construcional details per se of article switches or diverters</td>
<td>B65H 29/58</td>
</tr>
</tbody>
</table>

**B65H 29/62**

diverting faulty articles from the main streams *(control devices detecting faulty articles B65H 43/04)*

References

**Informative references**

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

<table>
<thead>
<tr>
<th>Informative references</th>
<th>CPC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of control, checking, or safety devices, e.g. automatic devices comprising an</td>
<td>B65H 43/04</td>
</tr>
<tr>
<td>element for sensing a variable, namely detecting, or responding to, presence of</td>
<td></td>
</tr>
<tr>
<td>faulty articles</td>
<td></td>
</tr>
</tbody>
</table>
**B65H 29/64**

**directing the components of composite articles into separate paths**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

**B65H 29/66**

**Advancing articles in overlapping streams**

**Definition statement**

*This place covers:*

Advancing articles in shingled formation.
Illustrative example of subject matter classified in this group:

Special rules of classification

This main-group should be used only for subject-matter (i.e. advancing articles in overlapping streams) not being covered by any of its lower sub-groups.
B65H 29/6609
{forming an overlapping stream (by separation of articles from a pile B65H 5/24)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:
by separation of articles from a pile B65H 5/24
**B65H 29/6618**

{upon transfer from a first conveyor to a second conveyor advancing at slower speed}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

**Special rules of classification**

This group should be used only for subject-matter (i.e. forming an overlapping stream upon transfer from a first conveyor to a second conveyor advancing at slower speed) not being covered by any of its lower sub-groups.

**B65H 29/6627**

{in combination with auxiliary means for overlapping articles}

**Definition statement**

*This place covers:*

Auxiliary means facilitating the formation of a proper overlap between two articles.
Illustrative example of subject matter classified in this group:
**B65H 29/6636**

{in combination with auxiliary means for underlapping articles}

**Definition statement**

Diese Stelle umfasst:

Beispielhafte Anwendung von Gegenständen, die in diese Kategorie fallen:

**B65H 29/6645**

{buffering an overlapping stream of articles (winding articles into rolls B65H 29/006)}

**Definition statement**

Diese Stelle umfasst:

Illustrative example of subject matter classified in this group:


References

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

Widing articles, e.g. in shingled formation, into rolls B65H 29/006
**B65H 29/6654**

{changing the overlapping figure}

**Definition statement**

*This place covers:*

Changing the overlapping figure, e.g. changing the amount of overlap.

Illustrative example of subject matter classified in this group:

![Fig. 5](image)

**B65H 29/6663**

{reversing the overlapping figure (round stack feeder B65H 1/225)}

**Definition statement**

*This place covers:*

Reversing the overlapping figure from overlapping figure to underlapping figure, or viceversa.

Illustrative example of subject matter classified in this group:

![Fig. 6](image)
References

Limiting references

This place does not cover:

| Round stack feeders | B65H 1/225 |
B65H 29/6672
{dividing an overlapping stream into two or more streams; (articles switches or diverters B65H 29/58)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

U.S. Patent Dec. 5, 2000 Sheet 1 of 4 6,155,562

![Diagram of dividing an overlapping stream into two or more streams]

**FIG. 1**
References

Informative references

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

| Constructional details of article switches or diverters | B65H 29/58 |
B65H 29/6681
{merging two or more streams into an overlapping stream}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Fig. 1
plan view.
B65H 29/669

{ending an overlapping stream}

Definition statement

*This place covers:*

Illustrative example of subject matter classified in this group:
Fig. 9
**B65H 29/68**

Reducing the speed of articles as they advance

**Definition statement**

*This place covers:*

Arrangements for reducing the speed of articles as they advance.

**References**

**Informative references**

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

| Deceleration | 3F053/GA00/Ft |

**Special rules of classification**

This main-group should be used only for subject-matter (i.e. reducing the speed of articles as they advance) not being covered by any of its lower sub-groups.

**B65H 29/683**

{Slowing-down from chain delivery (B65H 29/686 takes precedence)}

**Definition statement**

*This place covers:*

In particular arrangements for decelerating sheets in a "Bogenausleger" of a rotary printing machine, just before their piling.

Illustrative example of subject matter classified in this group:
References

Limiting references

This place does not cover:

| Reducing the speed of articles as they advance | B65H 29/686 |

B65H 29/686

{Pneumatic brakes}

Definition statement

This place covers:

Pneumatic means for reducing the speed of articles as they advance, e.g. suction rollers or belts making friction contact with the face of sheets, thus decelerating them from chain delivery just before being piled at a "Bogenausleger" of a rotary printing machine.

References

Informative references

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

| (Deceleration) utilising suction force by air | 3F053/GA07/FT |
| Suction belts, chains | 3F053/GA08/FT |
| Suction rollers, pulleys | 3F053/GA09/FT |
| Suction plates | 3F053/GA10/FT |
B65H 29/70
Article bending or stiffening arrangements

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 31/00
Pile receivers (carriers used for associating, collating or gathering articles

Definition statement
This place covers:
Pile receivers.
References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pile receivers intimately associated with supports or magazines for piles</td>
<td>B65H 1/00</td>
</tr>
<tr>
<td>from which articles are to be separated</td>
<td></td>
</tr>
<tr>
<td>Carriers used for associating, collating, or gathering articles</td>
<td>B65H 39/00</td>
</tr>
<tr>
<td>Combinations of piling and depiling operations, of interest apart from the</td>
<td>B65H 83/00</td>
</tr>
<tr>
<td>single operation of piling or depiling</td>
<td></td>
</tr>
</tbody>
</table>

Special rules of classification

This main-group should be used only for pile receivers not being covered by any of its lower sub-groups.

Glossary of terms

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belt</td>
<td>band, tape</td>
</tr>
<tr>
<td>Chain</td>
<td>a row of article handling elements, each interlinked with the adjacent one</td>
</tr>
</tbody>
</table>
B65H 31/02

with stationary end support against which pile accumulates

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Stationary end support (4)

Stationary end support (10, 18)

FIG. 1
(Prior Art)

Stationary end support (10)

FIG. 2
(Prior Art)
**B65H 31/04**

with movable end support arranged to recede as pile accumulates

**Definition statement**

*This place covers:*

Pile receiver with movable end support arranged to recede as pile accumulates, the articles being piled e.g. in shingled formation.

**Special rules of classification**

This group should be used only for subject-matter (i.e. pile receivers with movable end support arranged to recede as pile accumulates) not being covered by any of its lower sub-groups.

**B65H 31/06**

the articles being piled on edge

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
**B65H 31/10**

and applied at the top of the pile

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram of device](image)

**B65H 31/12**

Devices relieving the weight of the pile or permitting or effecting movement of the pile end support during piling

**Special rules of classification**

This group should be used only for subject-matter (i.e. devices relieving the weight of the pile or permitting or effecting movement of the pile end support during piling) not being covered by any of its lower sub-groups.
**B65H 31/14**

Springs (fluid springs **B65H 31/16**)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

Springs, e.g. mechanical springs.

**References**

**Limiting references**

*This place does not cover:*

| Fluid pressure devices, e.g. fluid springs | B65H 31/16 |

**B65H 31/16**

Fluid-pressure devices

**Definition statement**

*This place covers:*

Fluid-pressure devices, like fluid springs.
B65H 31/18

Positively-acting mechanical devices

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 31/22**

removable or interchangeable

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

**FIG. 2**

---

**B65H 31/24**

multiple or compartmented, e.d. for alternate, programmed, or selective filling

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forming counted batches by diverting batches to separate receivers:</td>
<td>B65H 33/14</td>
</tr>
<tr>
<td>Forming counted batches by depositing articles in batches on moving</td>
<td>B65H 33/16</td>
</tr>
<tr>
<td>supports:</td>
<td></td>
</tr>
<tr>
<td>Pile receiver: Forming counted batches Multiple receivers</td>
<td>3F054/BF00/FT, 3F107/CD+</td>
</tr>
</tbody>
</table>
B65H 31/26
Auxiliary devices for retaining articles in the pile

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Maintaining pile, preventing collapse of cargo piles | 3F054/BG00/FT |

B65H 31/28
Bands, chains, or like moving receivers (for articles piled on edge B65H 31/06)

Definition statement
This place covers:
Pile receivers being conveying bands, chains or the like, that move during piling in order to enable the piling of articles thereon.
Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivering or advancing articles from machines; Advancing articles to or into piles by means of the nip between two, or between two sets of, moving tapes or bands the pile being formed between the two, or between the two sets of, tapes or bands or rollers</td>
<td>B65H 29/145</td>
</tr>
<tr>
<td>Delivering or advancing articles from machines; Advancing articles to or into piles by contact of one face only with moving tapes, bands, or chains and introducing into a pile</td>
<td>B65H 29/18</td>
</tr>
<tr>
<td>Pile receivers with movable end support arranged to recede as pile accumulates the articles being piled on edge</td>
<td>B65H 31/06</td>
</tr>
</tbody>
</table>
Informative references

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

| Delivering, advancing completed piles by moving a belt supporting the lowermost article of the pile: | B65H 31/3054 |
| Forming counted batches in stream of articles by depositing articles in batches on moving supports: | B65H 33/16 |

Glossary of terms

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

| Chain | a row of article handling elements, each interlinked with the adjacent one. |

B65H 31/30

Arrangements for removing completed piles (bands, chains, or like moving receivers B65H 31/28)

Definition statement

This place covers:

Arrangements for delivering, advancing completed piles.

Special rules of classification

This main-group should be used only for arrangements for delivering or advancing completed piles not being covered by any of its lower sub-groups.
B65H 31/3018
{from opposite part-support elements, e.g. operated simultaneously}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Fig. 6A

Fig. 6B Example, side view
Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introducing articles into piles, by means of the nip between two, or</td>
<td>B65H 29/145</td>
</tr>
<tr>
<td>between two sets of, moving tapes or bands, the pile being formed between</td>
<td></td>
</tr>
<tr>
<td>the two, or between the two sets of, tapes or bands:</td>
<td></td>
</tr>
</tbody>
</table>

References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overturning piles:</td>
<td>B65H 15/02</td>
</tr>
<tr>
<td>Stacker cranes:</td>
<td>B65G 1/0407</td>
</tr>
</tbody>
</table>
B65H 31/3045
(on the outermost articles of the pile for clamping the pile)

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 31/3054
(by moving the surface supporting the lowermost article of the pile, e.g. by using belts or rollers)

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 31/3063
{by special supports like carriages, containers, trays, compartments, plates or bars, e.g. moved in a closed loop}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 31/3081
{by acting on edge of the pile for moving it along a surface, e.g. by pushing}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

B65H 31/32

**Auxiliary devices for receiving articles during removal of a completed pile**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
Auxiliary device = element with reference sign 304

**B65H 31/34**

Apparatus for squaring-up piled articles

**References**

*Informative references*

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

<table>
<thead>
<tr>
<th>Matching</th>
<th>3F054/BH00/FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration of pile</td>
<td>3F343/HE+/FT</td>
</tr>
</tbody>
</table>

**Special rules of classification**

This main-group should be used only for subject-matter (i.e. apparatus for squaring-up piled articles) not being covered by any of its lower sub-groups

**B65H 31/36**

Auxiliary devices for contacting each article with a front stop as it is piled

**Definition statement**

This place covers:

Auxiliary devices for contacting each article with a front stop as it is piled, typically arrangements bringing each article as it is piled into registration against stopping means.
Illustrative example of subject matter classified in this group:

**B65H 31/38**

**Apparatus for vibrating or knocking the pile during piling**

**References**

**Informative references**

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

| low vibrating articles | 3f054/bh11/Ft |
**B65H 31/40**
Separate receivers, troughs, and like apparatus for knocking-up completed piles

**Definition statement**
*This place covers:*
Illustrative example of subject matter classified in this group:

[Image]

**B65H 33/00**
Forming counted batches in delivery pile or stream of articles

**Definition statement**
*This place covers:*
Forming counted batches of a determined number of articles in delivery pile or stream of articles.

**References**

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

| Combinations of piling and depiling operations, of interest apart from the single operation of piling or depiling | B65H 83/00 |
| Forming of counted batches (FTCLA) | 3F107/FT |

**Special rules of classification**
This main-group should be used only for subject-matter (i.e. forming counted batches in delivery pile or stream of articles) not being covered by any of its lower sub-groups.
Glossary of terms

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch</td>
<td>Typically an articles pile, or certain determined articles of a group</td>
</tr>
</tbody>
</table>

**B65H 33/04**

by inserting marker slips in pile or stream

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram of marker slips in a pile](image)

**FIG. 3**

**References**

*Informative references*

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placing job divider sheet between sets of sheets</td>
<td>G03G 15/655</td>
</tr>
<tr>
<td>Placing job divider sheet</td>
<td>G03G 2215/00894</td>
</tr>
<tr>
<td>Insertion of dividing members</td>
<td>3F107/CA+ (Japanese)</td>
</tr>
</tbody>
</table>

**Glossary of terms**

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marker slip</td>
<td>Identification means to delimit a batch</td>
</tr>
</tbody>
</table>
**B65H 33/06**

by displacing articles to define batches

**Special rules of classification**

This group should be used only for subject-matter (i.e. forming counted batches in delivery pile or stream of articles by displacing articles to define batches) not being covered by any of its lower sub-groups.

**B65H 33/08**

Displacing whole batches, e.g. forming stepped piles

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
B65H 33/10

Displacing the end articles of a batch

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 33/12

by creating gaps in the stream

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Creating gaps in the stream | 3F107/CC+ (Japanese) |
**B65H 33/14**

by diverting batches to separate receivers \{(B65H 33/16 takes precedence; article switches or diverters B65H 29/58)\}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram of article switches or diverters](image)

**References**

**Limiting references**

*This place does not cover:*

| Forming counted batches in delivery pile or stream of articles by depositing articles in batches on moving supports | B65H 33/16 |

**Informative references**

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

| Constructional details of article switches or diverters | B65H 29/58 |
B65H 33/16
by depositing articles in batches on moving supports

Definition statement
This place covers:
Forming counted batches in stream of articles by depositing articles in batches on moving supports.

Special rules of classification
If batches are piles: for nature of supports, or for removing batches from their supports, see B65H 31/30 and lower.
B65H 33/18
with separators between adjacent batches

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

<table>
<thead>
<tr>
<th>Pile receiver; multiple receivers (FTCLA)</th>
<th>3F054/BF00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forming counted batches; multiple receivers (FTCLA)</td>
<td>3F107/CD+</td>
</tr>
</tbody>
</table>

B65H 35/00
Delivering articles from cutting or line-perforating machines; Article or web
delivery apparatus incorporating cutting or line-perforating devices, e.g. of the
kinds specified below (cutting or perforating machines or devices in general
B26D, B26F)

References
Limiting references
This place does not cover:

| Severing by means other than cutting; Tearing per se                          | B26F 3/00; B26F 3/02 |
Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closure of boxes with tape</td>
<td>B65B 51/067</td>
</tr>
<tr>
<td>Foil dispensers</td>
<td>B65D 83/0847,</td>
</tr>
<tr>
<td></td>
<td>B65D 85/672</td>
</tr>
</tbody>
</table>

B65H 35/0006

{Article or web delivery apparatus incorporating cutting or line-perforating devices}

Definition statement

This place covers:

E.g. wall-mounted dispensers of film, foil or tape.

References

Limiting references

This place does not cover:

Wall-mounted dispensers of paper towels | A47K 10/32

Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foil dispensers also in</td>
<td>B65D 83/0805,</td>
</tr>
<tr>
<td></td>
<td>B65D 85/672</td>
</tr>
</tbody>
</table>

B65H 35/0013

{and applying the article or the web by adhesive to a surface (B65H 35/002 takes precedence)}

References

Limiting references

This place does not cover:

Hand-held or table apparatus | B65H 35/002
B65H 35/002
{Hand-held or table apparatus (B65H 35/006 takes precedence)}

References
Limiting references
This place does not cover:

| Article or web delivery apparatus incorporating cutting or line-perforating devices with means for delivering a predetermined length of tape | B65H 35/006 |

B65H 35/0026
{for delivering pressure-sensitive adhesive tape}

References
Limiting references
This place does not cover:

| Application of wallpaper | B44C 7/02, B44C 7/06 |
| Label dispensers | B65C 11/00 |

B65H 35/0033
{and affixing it to a surface (B65H 35/004 takes precedence)}

References
Limiting references
This place does not cover:

| Simultaneously with a second roll | B65H 35/004 |

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

| Closing of boxes | B65B 51/067 |

B65H 35/004
{simultaneously with a second roll, e.g. masking tape}

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

| Masking elements e.g. strips of tape or sheets | B05B 12/24 |
B65H 35/0046
{with means for moistening or coating the articles or webs, or applying adhesive thereto}

References
Limiting references
This place does not cover:

| Applying mud to drywall tape | E04F 21/00 |

B65H 35/0086
{using movable cutting elements}

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

| Cutting with movable elements | B26D 1/045, B26D 1/065, B26D 1/105, B26D 1/345 |

B65H 35/10
from or with devices for breaking partially-cut or perforated webs, e.g. bursters

References
Limiting references
This place does not cover:

| Machines for issuing tickets from a strip | G07B 3/02 |

B65H 37/00
Article or web delivery apparatus incorporating devices for performing specified auxiliary operations (incorporating cutting or line-perforating devices B65H 35/00)

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

| Folding of thin sheet-like materials, special discharging devices, and others (FTCLA) | 3F108 |
B65H 37/002
{Web delivery apparatus, the web serving as support for articles, material or another web}

References

Limiting references
This place does not cover:

| Tools for inserting weather strips | B25B 27/0092 |

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

| Temporary attachment of articles | B42F 5/00 |
| Processes for producing a decorative affect comprising an adhesive layer | B44C 1/105 |

B65H 37/005
{Hand-held apparatus}

Definition statement
This place covers:
E.g. door sash jigs

References

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

| Adhesive-tape dispensers (FICLA) | B65H35/07 |
| Dispensing wound dressing e.g. plasters, bandages | A61F 15/002 |
| Door sash jigs also found in | B60J 10/30, B23P 19/047 |
| Label dispensing | B65C 11/004 |

B65H 37/007
{Applicators for applying coatings, e.g. correction, colour or adhesive coatings}

References

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

| Erasing devices | B43L 19/00 |
**B65H 37/04**

for securing together articles or webs, e.g. by adhesive, stitching or stapling (adhering replacement to expiring web during change of web roll B65H 19/18)

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Attaching sheets, webs or strips</th>
<th>B31F 5/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines for collating and permanent attaching sheets</td>
<td>B42C 1/12</td>
</tr>
</tbody>
</table>

**Special rules of classification**

Stapler arrangements B65H 2408/12.

**B65H 39/00**

 Associating, collating or gathering articles or webs (machines for both collating or gathering and permanently attaching together sheets or signatures B42C 1/00)

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Combinations of piling and depiling operations, e.g. performed simultaneously, of interest apart from the single operation of piling or depiling as such</th>
<th>B65H 83/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotary presses, namely collecting</td>
<td>B41F 13/64</td>
</tr>
<tr>
<td>Collating or gathering sheets combined with processes for permanently attaching together sheets or signatures or for interposing inserts</td>
<td>B42C 1/00</td>
</tr>
</tbody>
</table>

**Special rules of classification**

This main group should be used only for subject matter (i.e. associating, collating or gathering articles or webs) not being covered by any of its lower subgroups.

**B65H 39/02**

 Associating, collating or gathering articles from several sources

**Special rules of classification**

This group should be used only for subject matter (i.e. associating, collating or gathering articles from several sources) not being covered by any of its lower subgroups.
B65H 39/04
from piles

Special rules of classification
This group should be used only for subject matter (i.e. associating, collating or gathering articles from several piles) not being covered by any of its lower subgroups.
B65H 39/042

the piles being disposed in superposed carriers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

EP 1 584 589 A1

---

Fig. 1

[Diagram showing piles and carriers, with labels 1, 12a, 12b, 12c, 12d, G, F, 3a, 3b, 3c, 3d, 11a, 11b, 11c, 11d, 8a, 8b, 8c, 8d]
B65H 39/043
the piles being disposed in juxtaposed carriers

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 39/05
by collecting in superposed carriers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Fig. 1
B65H 39/055
by collecting in juxtaposed carriers

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:

Fig. 1

B65H 39/06
from delivery streams

Special rules of classification
This group should be used only for subject matter (i.e. associating, collating or gathering articles from several delivery streams) not being covered by any of its lower subgroups.
**B65H 39/065**

by collecting in rotary carriers

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

**Relationships with other classification places**

for rotary carriers as starwheel, also allocate **B65H 29/40**/EC
**B65H 39/10**

**Associating articles from a single source, to form, e.g. a writing-pad**

{(laminating **B32B 37/00, B32B 38/00**)}

**Definition statement**

*This place covers:*

Associating articles from a single source to form e.g. a writing-pad.

Illustrative example of subject matter classified in this group:

![Diagram of associating articles from a single source](image)

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Methods or apparatus for laminating</th>
<th><strong>B32B 37/00</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines for both collating or gathering and permanently attaching together the sheets or signatures</td>
<td><strong>B42C 1/12</strong></td>
</tr>
</tbody>
</table>

**Special rules of classification**

This group should be used only for subject matter (i.e. associating, collating or gathering articles from a single source, e.g. to form a writing-pad) not being covered by any of its lower subgroups.
B65H 39/115

in juxtaposed carriers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 39/16
Associating two or more webs

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B65H 41/00
Machines for separating superposed webs

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
References

Informative references

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

| Treatment of layered products, namely delaminating | B32B 43/006 |

**B65H 43/00**

Use of control, checking, or safety devices, e.g. automatic devices comprising an element for sensing a variable

Definition statement

This place covers:

Aspects related to controlling the handling of articles after these have been subjected to a particular process, e.g.:

the concept that the handling conditions (for example the articles delivery speed) after a process influence or determine the conditions or settings of the process itself (for example the stopping time).

The sub-group also covers subject-matter which emphasizes the particular interface means applied or functioning between the process and the handling (for example delivery of articles) action; such interface means could be for example communication means between the delivery controller and process controller, or user interfaces like information input or displaying means linked to the delivery controller.

References

Informative references

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

| Aspects related to controlling the handling of articles before they arrive to a particular process | B65H 7/00 |
| Aspects related to controlling the handling of webs | B65H 23/00, B65H 26/00 |

Special rules of classification

Because the sensing nowadays in the majority of cases is realized through photoelectric sensors, the majority of documents would have to be classified in B65H 43/08 if the IPC precedence notes were followed. In order to rationalize classification, the IPC note “B65H 43/08 takes precedence“ is ignored.

The rules followed are the following:

Documents are first classified according to which part of the article or to which situation the feelers or detectors respond. If the sensor works with an photoelectrical element and the structural build up of the sensor is particularly emphasized, then the document is classified in B65H 43/08 as well.

Additionally, codes from B65H 5/00, as well as the indicators + B65H 2220/00 (see Special Rules for Classification within B65H, Note 1, directed to the B65H scheme) should be given to further specify the control aspects.

Examples:

- A document disclosing a device and/or method for controlling responsive to completion of a pile, and emphasizing the structure of the photoelectrical sensor having elements which contact the pile while sensing, should be classified in: B65H 43/06 and B65H 43/08.
• If the elements contacting the articles are particularly specified (for example rotating levers), a further B65H code (B65H 2553/612: Contact arms, Levers, Antennas) should be given.

• A document disclosing a device and/or method for controlling responsive to completion of pile, and emphasizing the structure of the photoelectrical sensor which does not contact the actual pile while sensing, should be classified in: B65H 43/06 and B65H 43/08.

• A document disclosing a device and/or method for controlling responsive to a wrong distance between articles in a stream of articles, monitoring said distance by checking the time intervals (B65H 2513/53) between the passing of the front edges of the articles (B65H 2511/514; B65H 2701/1311) (sensed by a detector not being further specified), and responding by changing the delivery speed (B65H 2513/10), should be classified in: B65H 43/00 and B65H 2701/1311+ B65H 2220/01, B65H 2513/53+ B65H 2220/03, B65H 2513/10+ B65H 2220/02. If the detector is a photoelectric device, then B65H 43/08 should be given additionally.

• A pile support is advanced/moved in function of an absence of articles on it: B65H 43/02 and B65H 2511/515 + B65H 2220/01 and B65H 2513/40 + B65H 2220/02 + B65H 2220/11

• Adjustment of nip between rollers as a response of thickness detection of articles being faulty due to wrinkles: B65H 43/04 and B65H 2511/13 + B65H 2220/01 and B65H 2511/224 + B65H 2220/02 + B65H 2220/11

### B65H 43/02

detecting, or responding to, absence of articles (B65H 43/08 takes precedence)

#### References

**Limiting references**

This place does not cover:

| Photoelectric devices | B65H 43/08 |

### B65H 43/04

detecting, or responding to, presence of faulty articles (B65H 43/08 takes precedence; diverting faulty articles from main streams B65H 29/62)

#### References

**Limiting references**

This place does not cover:

| Photoelectric devices | B65H 43/08 |

#### Informative references

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

| Article switches or diverters for diverting faulty articles from the main stream | B65H 29/62 |
B65H 43/06

detecting, or responding to, completion of pile (B65H 43/08 takes precedence)

References

Limiting references

This place does not cover:

| Photoelectric devices | B65H 43/08 |

Informative references

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

| Full amount (i.e., pile completed) as target parameter | 3F048/BA04 (Japanese) |

B65H 45/00

Folding thin material (specially adapted for the manufacture or treatment of particular products, see appropriate subclasses, e.g. D06F 89/00)

References

Limiting references

This place does not cover:

| Plastic bags or sacks | B31B 70/26 |
| Airbags | B60R 21/16 |

Informative references

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

| Folding of webs for diapers | A61F 13/15682, A61F 13/15747 |
| Forming fold lines by pressing or scoring | B29C 53/06 |

B65H 45/04

Folding sheets

References

Limiting references

This place does not cover:

| Maps | Q09B 29/04 |
B65H 45/06
Folding webs (**B65H 20/28** takes precedence)

References

*Limiting references*

This place does not cover:

Mechanisms for delivering webs in superposed folds and refeeding them from the lower end of the folded assemblies

**B65H 20/28**

---

B65H 45/08
longitudinally

Definition statement

This place covers:
Includes longitudinal interfolding of webs.

References

*Informative references*

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

Longitudinal folding in a rotary printing press

**B41F 13/58**

---

B65H 45/103
by a carriage which reciprocates above the laying station

References

*Informative references*

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

Laying of fleece-like material

**D01G 25/00**

---

B65H 45/12
Folding articles or webs with application of pressure to define or form crease lines (**B65H 20/28** takes precedence; pleating, kilting or goffering textile fabrics **D06J**)

References

*Limiting references*

This place does not cover:

Mechanisms for delivering webs in superposed folds and refeeding them from the lower end of the folded assemblies

**B65H 20/28**
B65H 45/16
Rotary folders

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

| Folding bandages or dressings                  | A61F 13/15747 |

B65H 45/161
{Flying tuck folders}

Definition statement
This place covers:
Also known as Hypocycloidal folders.

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

| Revolving pivotal folding blade (UCLA)          | 270/50        |
| Planetary blade (UCLA)                          | 493/431       |

B65H 45/18
Oscillating or reciprocating blade folders (carried on rotary members B65H 45/16)

Special rules of classification
With pressing of spine of folded material B65H 2701/13212

B65H 45/20
Zig-zag folders {{B65H 45/228 takes precedence}}

References
Limiting references
This place does not cover:

| Longitudinal folders                          | B65H 45/228   |
B65H 45/22
Longitudinal folders, i.e. for folding moving sheet material parallel to the direction of movement

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

| In a rotary printing press | B41F 13/56, B41F 13/58 |

B65H 45/24
Interfolding sheets, e.g. cigarette or toilet papers

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:

| Dispensing from interfolded stacks | A47K 10/42 |
| Containers for interfolded stacks | B65D 83/0894 |
**B65H 47/00**

Unfolding thin limp material (B65H 20/28 takes precedence; opening devices for sheets or signatures B65H 5/30)

**References**

**Limiting references**

*This place does not cover:*

| Mechanisms for delivering webs in superposed folds and refeeding them from the lower end of the folded assemblies | B65H 20/28 |

**B65H 49/00**

Unwinding or paying-out filamentary material; Supporting, storing or transporting packages from which filamentary material is to be withdrawn or paid-out (winding B65H 54/00; bobbins, tubes or other cores for packages B65H 75/00)

**References**

**Limiting references**

*This place does not cover:*

| Unwinding webs | B65H 16/00 |
| Winding | B65H 54/00 |
| Flyer unwinding | B65H 57/20 |
| Bobbins, tubes or other cores for packages | B65H 75/00 |
| Storing and repeatedly paying-out and restoring lengths of material | B65H 75/34 |

**Informative references**

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

| Wire spool supports for plants | A01G 9/126 |
| Twine cutter with holder (shop accessories) | A47F 13/045 |
| Unwinding or uncoiling metal wire or band | B21C 47/16 |
| Containers, packaging elements or packages specially adapted for coils of wire, rope, or hose | B65D 85/04 |
| Containers, packaging elements or packages specially adapted for other web or tape-like material | B65D 85/67 |
| Supports for supply packages in twisting machines | D01H 1/18 |
| Holders or supports for packages in knitting machines | D04B 15/40 |
| Spool carriers in braiding or lacing machines | D04C 3/14 |
| Bearing supports for supply bobbins or reels in rope or cable making machines | D07B 7/06 |
| Unwinding wire in missiles | F42B 15/00 |
**B65H 49/02**

Methods or apparatus in which packages do not rotate

**Definition statement**

*This place covers:*

General methods or apparatuses for unwinding filamentary material from a non-rotating package not provided for in subgroups.

**B65H 49/04**

Package-supporting devices

**Definition statement**

*This place covers:*

Supports for non-rotating packages not provided for in subgroups.

**B65H 49/06**

for a single operative package

**Definition statement**

*This place covers:*

Supports for holding a single operative non-rotating package
References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Securing the non-rotating package to the support for unwinding</td>
<td>B65H 49/36</td>
</tr>
<tr>
<td>Expandable spindles in general</td>
<td>B65H 75/242</td>
</tr>
</tbody>
</table>

Special rules of classification

Also contains transport caddies which are generally not only used for transporting cops (B65H 67/06) but also for supporting the cops in the unwinding position:
B65H 49/08
enclosing the package

Definition statement

This place covers:
Containers (with or without supportive core) for unwinding filamentary material, e.g. welding wire:

References

Limiting references

This place does not cover:

| Guides for assisting paying-out       | B65H 57/00 |
| Rings on top of package               | B65H 57/18 |
| Devices acting on material leaving the package for adjusting or controlling tension | B65H 59/06 |
| Storing in cans or receptacles        | B65H 75/16 |

Informative references

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

| Dereeling means for electrodes in arc welding | B23K 9/1333 |
| Containers, packaging elements or packages specially adapted for coils of wire, rope, or hose | B65D 85/04 |
| Containers for unwinding yarn packages for knitting or crochet | D04B 3/06 |
**B65H 49/10**

for one operative package and one or more reserve packages

**Definition statement**

*This place covers:*

With changing operative position when switching to the reserve package
**B65H 49/12**

the reserve packages being mounted to permit manual or automatic transfer to operating position

**Definition statement**

*This place covers:*

With a mechanism to transfer the reserve packages to the operating position

**B65H 49/14**

for several operative packages

**Special rules of classification**

This class is not used. Use **B65H 49/16**.
**B65H 49/16**

**Stands or frameworks**

**Definition statement**

*This place covers:*

Stands or frameworks for several operative non-rotating packages, e.g. creels
References

Limiting references

This place does not cover:

| Stands or frameworks for rotating packages | B65H 49/32 |

Informative references

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

| Creels | D02H 1/00 |
| Frames or assemblies of two or more reels in knitting machines | D04B 15/42 |

B65H 49/18

Methods or apparatus in which packages rotate (flyers or other guides assisting paying-out B65H 57/00; supports or holders, for storing and repeatedly paying-out and rewinding lengths of material provided for particular purposes B65H 75/34)

Definition statement

This place covers:

General methods or apparatuses for unwinding filamentary material from a rotating package not provided for in subgroups, e.g. methods or devices for aligned or orderly unwinding e.g. with pivoting or axially movable reel

References

Limiting references

This place does not cover:

| Flyers or other guides for assisting paying-out | B65H 57/00 |
| Supports or holders, for repeatedly paying-out and rewinding length of material provided for particular purpose | B65H 75/34 |

B65H 49/20

Package-supporting devices

Definition statement

This place covers:

Supports for rotating packages not provided for in subgroups
B65H 49/205

{Hand-held or portable dispensers}

Definition statement

This place covers:

Small, hand-held or belt supported dispensers, e.g. for dispensing binding wire or string.

References

Informative references

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

<table>
<thead>
<tr>
<th>Fly tying devices</th>
<th>A01K 97/26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Containers or dispensers for dental floss</td>
<td>A61C 15/043</td>
</tr>
</tbody>
</table>
B65H 49/22
Overhead suspension devices

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 49/24
Rollers

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
**B65H 49/26**

**Axial shafts or spigots**

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:
B65H 49/28

Turntables {, i.e. package resting on a table (having also means for clamping the package B65H 49/30)}

Definition statement

This place covers:

Packages resting on a rotating table.

References

Limiting references

This place does not cover:

| Swiffs or skein holders | B65H 49/30 |
B65H 49/30
Swifts or skein holders

Definition statement
This place covers:
Rotating (e.g. around a horizontal or vertical axis) holders for unwinding packages provided as coreless coils.
B65H 49/305
{with axially adjustable or removable elements for retaining the package}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 49/32  
Stands or frameworks

Definition statement

This place covers:
Details with regard to the stand or framework supporting the package(s).

References

Limiting references

This place does not cover:

| Stands or frameworks for non-rotating packages | B65H 49/16 |

Informative references

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

| Racks | A47B 43/00- A47B 57/00 |
| Show stands or shelves for flexible long articles in rolls | A47F 7/005 |
| Show stands or shelves for carpets, wallpaper or fabrics in rolls | A47F 7/175 |
B65H 49/321

{characterised by features enabling their folding or dismantling}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 49/322

{Enclosing boxes with supporting means for the package or reel during unwinding}

Definition statement

This place covers:

E.g. cassettes to be used in machinery, or cardboard boxes with a rotating reel

References

Informative references

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

| Containers, packaging elements or packages specially adapted for coils of wire, rope, or hose | B65D 85/04 |

B65H 49/324

{Constructional details}

Special rules of classification

Not used, use either subgroups or B65H 49/32.
B65H 49/325

{Arrangements or adaptations for supporting the shafts, e.g. saddle type shaft bearings}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Slot arrangements e.g. saddle bearings for web rolls | B65H 2301/41306 |
| Dispensers for paper towels or toilet paper          | A47K 10/32      |
B65H 49/327

{Arrangements or adaptations for attachment to a wall, a post or the like}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 49/328
{Arrangements or adaptations for stacking}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 49/34
Arrangements for effecting positive rotation of packages

Definition statement

This place covers:
Illustrative examples of subject matter classified in this group:
References

Informative references

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

| Loop control while feeding stock to a tool | B21D 43/022 |

B65H 49/36

Securing packages to supporting devices (arrangements for applying packages to, or removing from, supports B65H 65/00, B65H 67/00)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Arrangements for applying packages to, or removing from, supports | B65H 65/00, B65H 67/00 |

Informative references

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

| Securing cores or formers for winding filamentary material | B65H 54/543 |
| Expansible spindles, mandrels or chucks, e.g. for securing or releasing cores, holders or packages for filamentary or web-like material | B65H 75/242 |
B65H 49/38

Skips, cages, racks, or containers, adapted solely for the transport or storage of bobbins, cops, or the like

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

Vehicles for transporting reel units  B60P 3/035

B65H 51/00

Forwarding filamentary material (stretch-spinning methods  D01D 5/12; drawing or drafting rovings or the like  D01H 5/00)

References

Informative references

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

Feeding devices for metal wire or band  B21C 47/34
Feeding wire in wire-working machines  B21F 23/00
Devices for feeding saw wire  B23D 57/0061
Solder feeding devices  B23K 3/06
Means for feeding electrodes  B23K 9/133
Apparatus or processes specially adapted for manufacturing, assembling, maintaining, or repairing of line connectors or current connectors or for joining electric conductors of trolley lines  B60M 1/28, H01R 43/00
Stretch-spinning methods  D01D 5/12
Drawing or drafting rovings or the like  D01H 5/00
### B65H 51/005

**Separating a bundle of forwarding filamentary materials into a plurality of groups**

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thread sheets, e.g. sheets of parallel yarns or wires</td>
<td>B65H 2701/38</td>
</tr>
<tr>
<td>Opening bundles to space the threads or filaments</td>
<td>D01D 11/02</td>
</tr>
<tr>
<td>Separating or spreading</td>
<td>D02J 1/18</td>
</tr>
</tbody>
</table>
B65H 51/01

by means of static electricity

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 51/015
Gathering a plurality of forwarding filamentary materials into a bundle

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Thread sheets, e.g. sheets of parallel yarns or wires | B65H 2701/38 |
B65H 51/02

Rotary devices, e.g. with helical forwarding surfaces (devices for temporarily storing filamentary material during forwarding B65H 51/20; driven rotary devices for controlling tension B65H 59/18)

Definition statement

This place covers:
E.g. guiding surface on the inside of the forwarding element.

References

Informative references

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

| Devices for temporarily storing filamentary material during forwarding | B65H 51/20 |
| Driven rotary devices for controlling tension | B65H 59/18 |

B65H 51/04

Rollers, pulleys, capstans, or intermeshing rotary elements

References

Limiting references

This place does not cover:

| Guides as pulleys, rollers or rotary bars (not driven) | B65H 57/14 |
B65H 51/06
arranged to operate singly

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 51/08
arranged to operate in groups or in co-operation with other elements

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
**B65H 51/10**

with opposed coacting surfaces, e.g. providing nips

**Definition statement**

_This place covers:_

Illustrative example of subject matter classified in this group:

---

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting or controlling tension in filamentary material by braked elements rotated by material</td>
<td>B65H 59/16</td>
</tr>
<tr>
<td>Adjusting or controlling tension in filamentary material by co-operating surfaces mounted for relative movement and arranged to apply pressure to material</td>
<td>B65H 59/22</td>
</tr>
</tbody>
</table>
B65H 51/105
{one of which is an endless belt}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 51/12

in spaced relation to provide a series of independent forwarding surfaces around which material is passed or wound

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stretching or tensioning, shrinking or relaxing, e.g. by use of overfeed and underfeed apparatus</td>
<td>D02J 1/225</td>
</tr>
<tr>
<td>Heating or cooling the yarn, thread, cord, rope or the like by contact with at least one rotating roll</td>
<td>D02J 13/005</td>
</tr>
</tbody>
</table>
B65H 51/14

Aprons, endless belts, lattices, or like driven elements

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 51/16

Devices for entraining material by flow of liquids or gases, e.g. air-blast devices (blowing slag wool in molten state C03B 37/06)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Blowing slag wool in molten state | C03B 37/06 |
B65H 51/18
Gripping devices with linear motion

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 51/20

Devices for temporarily storing filamentary material during forwarding, e.g. for buffer storage

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

References

Informative references

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

| Devices for temporarily accumulating metal wire or band | B21C 49/00 |

Fig. 1

![Diagram of devices for temporarily storing filamentary material](image-url)
B65H 51/205
{by means of a fluid}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting or controlling tension in filamentary material, by devices acting on running material and not associated with supply or take-up devices, the material being subjected to the action of a fluid</td>
<td>B65H 59/105</td>
</tr>
<tr>
<td>Regulating tension by devices acting on running yarn and not associated with supply or take-up devices</td>
<td>D01H 13/104</td>
</tr>
<tr>
<td>Device for measuring and temporary storing the weft</td>
<td>D03D 47/36</td>
</tr>
<tr>
<td>Thread-feeding devices</td>
<td>D04B 15/48</td>
</tr>
</tbody>
</table>
B65H 51/22

Reels or cages, e.g. cylindrical, with storing and forwarding surfaces provided by rollers or bars {(measuring and temporarily storing the weft in looms D03D 47/36; thread feeding devices for weft knitting machines D04B 15/48)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Relationships with other classification places

Temporary storage associated with textile machines other than weaving or knitting machines can be found by crossing the group with the subclass of the other textile field e.g. with D05B, D05C or D01H.

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring and cutting the weft. Devices for measuring and temporary storing the weft</td>
<td>D03D 47/36</td>
</tr>
<tr>
<td>Thread-feeding devices in knitting</td>
<td>D04B 15/48</td>
</tr>
</tbody>
</table>

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulating tension by devices acting on running and not associated with supply or take-up devices in twisting or spinning</td>
<td>D01H 13/104</td>
</tr>
</tbody>
</table>
B65H 51/24
with interdigitating bars

Definition statement
This place covers:
Not used for classification.

References
Limiting references
This place does not cover:

<table>
<thead>
<tr>
<th>Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>In weaving</td>
<td>D03D 47/36</td>
</tr>
<tr>
<td>In Knitting</td>
<td>D04B 15/48</td>
</tr>
</tbody>
</table>

B65H 51/26
Rollers or bars mounted askew to facilitate movement of filamentary material along them, e.g. pairs of canted rollers

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

![Diagram](image-url)
**B65H 51/30**

Devices controlling the forwarding speed to synchronise with supply, treatment, or take-up apparatus *(B65H 59/10, B65H 59/38 take precedence)*

**Definition statement**

This place covers:

E.g. stopping unwinding when take-up stops, or control of welding wire speed (see figure).

**FIG. 1**

---

**Relationships with other classification places**

Thread feeding or tensioning arrangement.

**References**

**Limiting references**

This place does not cover:

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting or controlling tension in filamentary material by devices acting</td>
<td>B65H 59/10</td>
</tr>
<tr>
<td>on running material</td>
<td></td>
</tr>
<tr>
<td>Adjusting or controlling tension in filamentary material by regulating</td>
<td>B65H 59/38</td>
</tr>
<tr>
<td>speed of driving mechanism of unwinding, paying-out, forwarding, winding or</td>
<td></td>
</tr>
<tr>
<td>depositing devices</td>
<td></td>
</tr>
<tr>
<td>Positive yarn feeders in knitting</td>
<td>D04B 15/48</td>
</tr>
<tr>
<td>Thread feeding or tensioning arrangements in embroidering</td>
<td>D05C 15/18</td>
</tr>
</tbody>
</table>

**Informative references**

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusting or controlling tension in filamentary material by regulating</td>
<td>B65H 59/02</td>
</tr>
<tr>
<td>delivery of material from supply package</td>
<td></td>
</tr>
</tbody>
</table>
B65H 51/32
Supporting or driving arrangements for forwarding devices

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

---

FIG. 2

B65H 54/00
Winding, coiling, or depositing filamentary material (cores, formers, holders, cans or receptacles B65H 75/02)

Definition statement
This place covers:
In particular devices and processes also classified in other parts of B65H and including winding of yarns not provided in subgroups.

Relationships with other classification places
Continuous winding on two or more winding heads in succession

B65H 67/044

References
Limiting references
This place does not cover:

| Winding webs | B65H 18/00 |
**Informative references**

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

<table>
<thead>
<tr>
<th>Subject</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cores, formers, holders, cans or receptacles</td>
<td>B65H 75/02</td>
</tr>
<tr>
<td>Winding or coiling up metal wire or band</td>
<td>B21C 47/02</td>
</tr>
<tr>
<td>Slubbing-winding apparatus</td>
<td>D01G 15/62</td>
</tr>
<tr>
<td>Lap- or sliver-winding devices</td>
<td>D01G 27/00</td>
</tr>
<tr>
<td>Winding finished rope or cable in cable or rope making</td>
<td>D07B 7/10</td>
</tr>
</tbody>
</table>

**B65H 54/023**

{Hank to spool winders}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image-url)
B65H 54/026
{Doubling winders, i.e. for winding two or more parallel yarns on a bobbin, e.g. in preparation for twisting or weaving}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 54/04
for making packages with closely-wound convolutions

Special rules of classification
Only used if not classified in: Arrangements for aligned winding: B65H 54/2848

B65H 54/06
for making cross-wound packages

References
Limiting references
This place does not cover:

| Traversing devices | B65H 54/28 |
B65H 54/08

Precision winding arrangements

References

Limiting references

This place does not cover:

| Preventing ribbon winding in a precision winding apparatus |

B65H 54/10

for making packages of specified shapes or on specified types of bobbins, tubes, cores, or formers

Definition statement

This place covers:

Winding packages not provided for in subgroups.

B65H 54/103

{forming frusto-conical packages or forming packages on frusto-conical bobbins, tubes, cores or formers}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 54/106

{Manual or other small, compact or portable winding devices for forming packages for different purposes}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
**References**

**Limiting references**

*This place does not cover:*

| Cores, formers, supports or holders for wound material hand-held during use | B65H 75/406 |

**B65H 54/12**

on flanged bobbins or spools (*B65H 54/20 takes precedence*)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
References

Limiting references

This place does not cover:

| Winding forming multiple packages | B65H 54/20 |

B65H 54/14

on tubes, cores, or formers having generally parallel sides, e.g. cops or packages to be loaded into loom shuttles

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/16

forming bottle bobbin packages

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG. 1
B65H 54/20

forming multiple packages

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

Traversing devices with a plurality of guides for winding on a plurality of bobbins

B65H 54/2881
Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](image-url)
B65H 54/22

Automatic winding machines, i.e. machines with servicing units for automatically performing end-finding, interconnecting of successive lengths of material, controlling and fault-detecting of the running material and replacing or removing of full or empty cores

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Arrangements for removing completed take-up packages and/or replacing by cores, formers, or empty receptacles at winding or depositing stations; Transferring material between adjacent full and empty take-up elements</th>
<th>B65H 67/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other common constructional features, details of accessories (spinning)</td>
<td>D01H 13/00</td>
</tr>
</tbody>
</table>
B65H 54/24

having a plurality of winding units moving along an endless path past one or more fixed servicing units

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/26

having one or more servicing units moving along a plurality of fixed winding units

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
References

Informative references

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

| In spinning machines | D01H 15/013, D01H 13/145, D01H 9/005, D01H 13/005, D01H 9/10 |

B65H 54/28

Traversing devices; Package-shaping arrangements (arrangements for preventing ribbon winding B65H 54/38; grooved, slotted, or split drums for driving of packages B65H 54/46)

References

Limiting references

This place does not cover:

| Guiding of cables in winches and capstans | B66D 1/38 |

Informative references

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

| Arrangements for preventing ribbon winding | B65H 54/38 |
| Grooved, slotted or split drums for driving of packages | B65H 54/46 |
| Package-shaping arrangement in spinning | D01H 1/36 |
| Traversing arrangements | D01H 13/06 |

Special rules of classification

Guides per se or arrangements for mounting the guide on the traversing mechanism: B65H 57/006.
B65H 54/2803
{with a traversely moving package}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 54/2806
{Traversing devices driven by cam}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 54/2809
{rotating grooved cam (driving split drums B65H 54/50)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Driving split drums       | B65H 54/50 |
B65H 54/2812
{with a traversing guide running in the groove}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](image-url)
B65H 54/2815
{heart-shaped cam}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/2818

{Traversing devices driven by rod}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/2821

{Traversing devices driven by belts or chains (B65H 54/2836 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Traversing devices with a rotating guide for traversing the yarn | B65H 54/2836 |
B65H 54/2824
{with at least two traversing guides travelling in opposite directions}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/2827
{Traversing devices with a pivotally mounted guide arm}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/283
{Traversing devices driven by pneumatic or hydraulic means}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/2833

{Traversing devices driven by electromagnetic means}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motors with reciprocating magnets</td>
<td>H02K 33/00</td>
</tr>
<tr>
<td>Propulsion systems in which a rigid body is moved along a path due to a</td>
<td>H02K 41/00</td>
</tr>
<tr>
<td>magnetic field</td>
<td></td>
</tr>
</tbody>
</table>

B65H 54/2836

{with a rotating guide for traversing the yarn}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram](FIG.1A)

Special rules of classification

Multiple guides attached to one or more endless belts or chains wherein the yarn is transferred between the guides: B65H 54/2821.
B65H 54/2839

{counter rotating guides, e.g. wings}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B65H 54/2842
{grooved, slotted, or split drums}

Definition statement

*This place covers:*

Illustrative examples of subject matter classified in this group:
References

Limiting references

This place does not cover:

| Package drive drums | B65H 54/46 |
Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Subject</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiberglass strands</td>
<td>B65H 2701/312</td>
</tr>
<tr>
<td>Manufacture or treatment of flakes, fibres, or filaments from softened glass, minerals, or slags</td>
<td>C03B 37/00</td>
</tr>
</tbody>
</table>

B65H 54/2848

{Arrangements for aligned winding (reels with grooves or grooved elements for aligned winding B65H 75/265)}

Definition statement

This place covers:

For example:

- Manually operated devices
• Devices where the traversing movement follows a pattern

References

Informative references

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

| Reels with grooves or grooved elements for aligned winding | B65H 75/265 |
**B65H 54/2851**

(by pressing the material being wound against the drum, flange or already wound material, e.g. by fingers or rollers; guides moved by the already wound material (B65H 54/2869 takes precedence))

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

*Limiting references*

*This place does not cover:*

| Control of the rotating speed of the reel or the traversing speed for aligned winding | B65H 54/2869 |
B65H 54/2854
{Detection or control of aligned winding or reversal}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/2857

{Reversal control}

Definition statement

This place covers:

E.g. reversal determined by the position or thickness of the material or its distance to the flange e.g. calculated by a microprocessor.
B65H 54/2866
{by detection of position, or distance made of the traverser}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

B65H 54/2869
{Control of the rotating speed of the reel or the traversing speed for aligned winding}

Definition statement

This place covers:
E.g. calculating the traversing speed from the diameter of the material and other parameters relating to the reel.
**B65H 54/2872**

*by detection of the incidence angle*

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image1)

**B65H 54/2875**

*by detecting or following the already wound material, e.g. contour following*

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image2)
B65H 54/2878
{by detection of incorrect conditions on the wound surface, e.g. material climbing on the next layer, a gap between windings}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Incorrect conditions are often detected from the speed variation of the material.

B65H 54/2881
{Traversing devices with a plurality of guides for winding on a plurality of bobbins (forming multiple packages B65H 54/20)}

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
References

Informative references

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

| Winding filamentary material forming multiple packages | B65H 54/20 |

B65H 54/2884

{Microprocessor-controlled traversing devices in so far the control is not special to one of the traversing devices of groups B65H 54/2803 - B65H 54/325 or group B65H 54/38}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/2893

{Superposed traversing, i.e. traversing or other movement superposed on a traversing movement}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/2896
{Flyers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B65H 54/30

with thread guides reciprocating or oscillating with fixed stroke
{{B65H 54/2803 - B65H 54/2896 take precedence}}

Special rules of classification

This class is not used any more.
**B65H 54/32**

with thread guides reciprocating or oscillating with variable stroke

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
B65H 54/325

{in accordance with growth of the package}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

B65H 54/34

for laying subsidiary winding, e.g. transfer tails

References

Informative references

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

| Winding reserve length in spinning machines | D01H 1/38 |
B65H 54/343
{when starting winding on an empty bobbin}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Securing materials to cores or formers | B65H 65/00 |
B65H 54/346
{on or outwardly of the fully wound yarn package}

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:

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

| Securing end of yarn in the wound or completed package | B65H 65/005 |
B65H 54/36
Yarn-guide advancing or raising mechanisms, e.g. cop-building arrangements

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 54/365

{for cops of pirn winding machine (B65H 54/14 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Winding filamentary material on tubes, cores or formers having generally parallel sides | B65H 54/14 |

B65H 54/38

Arrangements for preventing ribbon winding {; Arrangements for preventing irregular edge forming, e.g. edge raising or yarn falling from the edge}

Definition statement

This place covers:

In random winding (constant traversing frequency, constant winding angle, decreasing winding rotational speed, decreasing winding ratio) the winding ratio continuously decreases, thereby causing "mirror windings" at certain winding ratios. Devices and methods for preventing such mirror windings other than by "precision winding" or "stepped precision winding" are classified here. See US5447277
and XP000409312 for an explanation of precision winding, stepped precision winding and random winding.

B65H 54/381

{Preventing ribbon winding in a precision winding apparatus, i.e. with a constant ratio between the rotational speed of the bobbin spindle and the rotational speed of the traversing device driving shaft}

Definition statement

This place covers:

In precision winding the winding ratio (ratio of rotational speed to traversing frequency) is constant. Therefore, since the winding rotational speed decreases with increasing diameter of the package,
the traversing frequency also decreases. The winding angle therefore also decreases with increasing
diameter. Since the winding ratio is constant, "mirror windings" at certain winding ratios are avoided.

**B65H 54/383**

{in a stepped precision winding apparatus, i.e. with a constant wind ratio in
each step}

**Definition statement**

*This place covers:*

In stepped precision winding the winding ratio K (ratio of rotational speed to traversing frequency) is
decreasing stepwise (constant) around a decreasing winding ratio as would be obtained in random
winding to avoid "mirror windings" at certain winding ratios. The winding angle can still be kept constant as in random winding.
B65H 54/385
{Preventing edge raising, e.g. creeping arrangements}

Definition statement

*This place covers:*

E.g. oscillating traversing width:

![Diagram of oscillating traversing width](image)

E.g. apparatus providing such oscillations:

![Diagram of apparatus](image)
B65H 54/386
{with energy storing means for recovering the kinetic energy at the end of the traversing stroke}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/388
{Preventing the yarn from falling off the edge of the package}

Definition statement

This place covers:
Guides and traversing control.
B65H 54/42

in which the package, core, or former is rotated by frictional contact of its periphery with a driving surface

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/44

in which the package, core, or former is engaged with, or secured to, a driven member rotatable about the axis of the package

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/46
Package drive drums

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
**B65H 54/48**

**Grooved drums**

**Definition statement**

_This place covers:_

Illustrative example of subject matter classified in this group:
B65H 54/485
{with an auxiliary guide}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/50
Slotted or split drums

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/52
Drive contact pressure control, e.g. pressing arrangements

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 54/543

{Securing cores or holders to supporting or driving members, e.g. collapsible mandrels}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Securing cores or formers for unwinding filamentary material | B65H 49/36 |
| Expansible spindles, mandrels or chucks, e.g. for securing or releasing cores, holders or packages for filamentary or web-like material | B65H 75/242 |
| Arrangements for coupling bobbins or the like to spindles (Spinning) | D01H 7/16 |
B65H 54/547
Cantilever supporting arrangements

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:
B65H 54/553
Both-ends supporting arrangements

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 54/58**

Swifts or reels adapted solely for the formation of hanks or skeins (**B65H 49/30** takes precedence)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Illustrative example](image)

**References**

**Limiting references**

*This place does not cover:*

| Swifts or skein holders for unwinding filamentary material | B65H 49/30 |
B65H 54/585

{Reels for rolling tape-like material, e.g. flat hose or strap, into flat spiral form; Means for retaining the roll after removal of the reel}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Winding straps for securing loads | B60P 7/0846 |
B65H 54/62

Binding of skeins

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bundling particular articles presenting special problems using string, wire, or narrow tape or band; Baling fibrous material, e.g. peat, not otherwise provided for</td>
<td><strong>B65B 27/00</strong></td>
</tr>
<tr>
<td>Bundling coils of wire or like annular objects</td>
<td><strong>B65B 27/06</strong></td>
</tr>
</tbody>
</table>
B65H 54/64

Winding of balls; {(forming hollow objects by winding on to fusible or soluble cores, e.g. forming pressure vessels B29C 53/56)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Forming hollow objects by winding on to fusible or soluble cores | B29C 53/56 |
B65H 54/66
Winding yarns into balls

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/68
Winding on to cards or other flat cores, e.g. of star form

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
B65H 54/702
{Arrangements for confining or removing dust (for spinning D01H 11/00; cleaning in general B08B)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

<table>
<thead>
<tr>
<th>Cleaning in general</th>
<th>B08B</th>
</tr>
</thead>
<tbody>
<tr>
<td>For spinning</td>
<td>D01H 11/00</td>
</tr>
<tr>
<td>For weaving</td>
<td>D03J 1/002</td>
</tr>
<tr>
<td>For knitting</td>
<td>D04B 35/32</td>
</tr>
</tbody>
</table>
B65H 54/707
{Suction generating system}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 54/71
Arrangements for severing filamentary materials

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
B65H 54/72
Framework; Casings; Coverings

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/74

Driving arrangements (arrangements for preventing ribbon winding B65H 54/38; arrangements for rotating packages B65H 54/40)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Arrangements for preventing ribbon winding</th>
<th>B65H 54/38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrangements for rotating packages</td>
<td>B65H 54/40</td>
</tr>
</tbody>
</table>
B65H 54/76
Depositing materials in cans or receptacles

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folding webs in combination with laying, forming a zig-zag pile</td>
<td>B65H 45/101</td>
</tr>
<tr>
<td>Lap-forming devices in preliminary treatment of fibres</td>
<td>D01G 25/00</td>
</tr>
<tr>
<td>Fibres being oriented in non woven fabrics</td>
<td>D04H 1/74</td>
</tr>
</tbody>
</table>
B65H 54/78

Apparatus in which the depositing device or the receptacle is reciprocated

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 54/80
Apparatus in which the depositing device or the receptacle is rotated

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 54/82
and in which coils are formed before deposition

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/84
Arrangements for compacting materials in receptacles

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 54/86
Arrangements for taking-up waste material before or after winding or depositing

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

FIG. 10

---

393
B65H 54/88
by means of pneumatic arrangements, e.g. suction guns

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Automatic end-finding and material interconnection arrangements | B65H 67/08 |
| Threading up and starting the false-twisting machine for producing crimped or curled fibres | D02G 1/0273 |

B65H 55/00
Wound packages of filamentary material

Definition statement
This place covers:
Wound packages of filamentary material not provided for in subgroups.
B65H 55/005
{with two or more filaments wound in parallel on the bobbin}

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
B65H 55/02
Self-supporting packages

Definition statement

This place covers:
Packages without a core.
B65H 55/04
classified by method of winding

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
B65H 55/043

{the yarn paying off through the centre of the package}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 55/046

{packages having a radial opening through which the material will pay off}

Definition statement

This place covers:
Illustrative examples of subject matter classified in this group:
B65H 57/00

Guides for filamentary materials; Supports therefor

Definition statement

This place covers:
Contains for ex. documents relating to guiding methods e.g. how the yarn is guided between unwinding and winding station.
References

Informative references

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

| Guides for slivers, rovings or yarns in spinning machines | D01H 13/04 |
| Handling the weft between bulk storage and weft-inserting means in weaving looms | D03D 47/34 |
| Thread guides in weft knitting machines | D04B 15/54 |
| Guides in thread-tensioning arrangements in embroidering machines | D05C 11/08 |
B65H 57/003
{Arrangements for threading or unthreading the guide}

Definition statement
This place covers:
Arrangements and methods for threading or unthreading the guide.

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

| Apparatus for threading warp stop-motion droppers, healds, or reeds | D03J 1/14 |
B65H 57/006

{Traversing guides}

Definition statement

This place covers:
Details of the guide of a traversing device.

References

Informative references

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

<table>
<thead>
<tr>
<th>Traversing devices</th>
<th>B65H 54/28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traversing arrangements for guides in spinning machines</td>
<td>D01H 13/06</td>
</tr>
</tbody>
</table>
B65H 57/02
Stationary rods or plates

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 57/04
Guiding surfaces within slots or grooves

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
B65H 57/06
Annular guiding surfaces; Eyes, e.g. pigtails

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
**B65H 57/08**

formed of wire or the like

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
B65H 57/10

with flared apertures

Definition statement

*This place covers:*

Illustrative examples of subject matter classified in this group:
B65H 57/12

Tubes

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coiling metal wire by means of a rotating guide tube</td>
<td>B21C 47/143</td>
</tr>
<tr>
<td>Guide tubes for slivers, rovings or yarns in spinning machines</td>
<td>D01H 13/045</td>
</tr>
<tr>
<td>Laying electric cables through tubing or conduit</td>
<td>H02G 1/08</td>
</tr>
<tr>
<td>Installation of electric cables in underground tubes or conduits</td>
<td>H02G 9/06</td>
</tr>
</tbody>
</table>
B65H 57/14
Pulleys, rollers, or rotary bars

Definition statement
This place covers:
Freely rotating pulleys, rollers or rotary bars.

References

Limiting references
This place does not cover:

Driven rollers, pulleys, capstans or intermeshing rotary elements for forwarding filamentary material

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

Guiding of ropes, cables or chains in winding mechanism
Supporting moving filaments during manufacture using rollers with mutually inclined axes
Producing crimped or curled fibers, filaments, yarns or threads by false-twisting
**B65H 57/16**

formed to maintain a plurality of filaments in spaced relation

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

---

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thread sheet, e.g. sheet of parallel yarns or wires</td>
<td>B65H 2701/38</td>
</tr>
<tr>
<td>Physical treatment of artificial filaments, the filaments being maintained</td>
<td>D01D 10/0463</td>
</tr>
<tr>
<td>parallel</td>
<td></td>
</tr>
<tr>
<td>Reeds or combs for determining the spacing of threads in warping or</td>
<td>D02H 13/16</td>
</tr>
<tr>
<td>beaming arrangements</td>
<td></td>
</tr>
<tr>
<td>Guiding means preventing threads from sticking together in textile</td>
<td>D06B 23/06</td>
</tr>
<tr>
<td>treating arrangements</td>
<td></td>
</tr>
</tbody>
</table>
**B65H 57/18**

mounted to facilitate unwinding of material from packages

**Definition statement**

This place covers:

Illustrative examples of subject matter classified in this group:

![Diagram](image1)

**References**

**Limiting references**

This place does not cover:

| Guides for aligned unwinding from rotating bobbins | B65H 57/28 |

**Informative references**

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

| Tension devices acting on the material leaving the package | B65H 59/06 |
| Dereeling means for welding wire, e.g. retaining plate | B23K 9/1333 |
| Means to facilitate the unwinding of the yarn in twisting | D01H 7/866 |
**B65H 57/20**

Flyers (for inserting twist **D01H**)

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Illustrative example](image)

**References**

**Limiting references**

*This place does not cover:*

| Axially movable following in alignment the point at which the material leaves the package | B65H 57/28 |

**Informative references**

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

| Flyers for inserting twist | D01H |
**B65H 57/22**

adapted to prevent excessive ballooning of material

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Class Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-ballooning devices in spinning or twisting machines</td>
<td>D01H 1/42</td>
</tr>
<tr>
<td>Arrangements on spinning spindles for suppressing yarn balloons</td>
<td>D01H 7/18</td>
</tr>
<tr>
<td>Anti-ballooning devices on spindles for spinning or twisting arrangements</td>
<td>D01H 7/18</td>
</tr>
<tr>
<td>Yarn braking means acting on the drum of a weft feeder for a weaving loom</td>
<td>D03D 47/364</td>
</tr>
</tbody>
</table>

B65H 57/26

Supports for guides

Definition statement

This place covers:

‘Characterised by its support’ e.g. swing-over or turn-over supports.

Devices supporting multiple guides.

B65H 57/28

Reciprocating or oscillating guides (traversing devices for winding, coiling, or depositing filamentary material B65H 54/28)

Definition statement

This place covers:

Reciprocating or oscillating other than for B65H 54/28 e.g. guides following the traversing motion of the material leaving the reel.
Contains pivoting or oscillating guides supported by a traversing mechanism but not influencing the traversing (superposed traversing movements B65H 54/2893).

References

Limiting references

This place does not cover:

| Traversing devices for winding, coiling or depositing filamentary material | B65H 54/28 |

B65H 59/00

Adjusting or controlling tension in filamentary material, e.g. for preventing snarling; Applications of tension indicators

Definition statement

This place covers:

Methods and devices related to adjusting or controlling tension not provided for in subgroups.

References

Informative references

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

| Regulation of tension or speed for winding metal wire or band | B21C 47/003 |
| Devices for tensioning saw wires | B23D 57/0069 |
| Wire-electrode tension control | B23H 7/104 |
| Tension devices in spinning and twisting | D01H 13/10 |
| Tensioning devices in warping, beaming or leasing machines | D02H 13/22 |
| Control of tension in a warp supplied by a creel | D03D 49/16 |
| Tensioning devices in knitting | D04B 15/44, D04B 27/12, D04B 27/14 |
| Thread tensioning arrangements in embroidering or tufting | D05C 11/08 |
| Tensioning in making pile fabrics | D05C 15/18 |
| Brakes or tension regulating means in cables, conductors or insulators | H01B 13/0866 |
| Tensioning or braking devices in winding magnets, inductances or transformers | H01F 41/094 |
B65H 59/005

{Means compensating the yarn tension in relation with its moving due to traversing arrangements}

Definition statement

This place covers:

Means which compensate variation in tension due to varying length of the yarn in the traversing triangle, e.g. curved rods, length accumulators or control means for controlling the winding, forwarding or unwinding speed.
References

Informative references

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

| By controlling speed of the driving mechanism of unwinding, payout or forwarding devices | B65H 59/38 |

B65H 59/02

by regulating delivery of material from supply package (by contact of package with support B65H 49/02; by controlling speed of driving mechanism of unwinding or paying-out devices B65H 59/38)

References

Informative references

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

| By contact of package with support | B65H 49/02 |
| Controlling the forwarding speed to synchronise with supply, treatment or take-up apparatus | B65H 51/30 |
| By controlling speed of the driving mechanism of unwinding, payout or forwarding devices | B65H 59/38 |
B65H 59/04
by devices acting on package or support

Definition statement

This place covers:

E.g. devices which induce drag on the package or support by friction, rheological or magnetic effects.
References

*Informative references*

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

| Spool carriers in braiding or lacing machines | D04C 3/14 |
| Brakes for supply bobbins or reels in rope or cable making machines | D07B 7/06 |
B65H 59/043

{with a braking force varying proportionally to the diameter or the weight of the package being unwound}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

FIG. 2
B65H 59/046
{varying proportionally to the weight only}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
**B65H 59/06**

by devices acting on material leaving the package

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:

![Diagram](image-url)
References

Informative references

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

<table>
<thead>
<tr>
<th>Guided mounted to facilitate unwinding of material from packages</th>
<th>B65H 57/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means to facilitate the unwinding of the yarn in twisting</td>
<td>D01H 7/866</td>
</tr>
<tr>
<td>Yarn braking device acting on a weft feeding drum</td>
<td>D03D 47/364</td>
</tr>
<tr>
<td>Yarn braking means acting on the drum in knitting</td>
<td>D04B 15/484</td>
</tr>
</tbody>
</table>

B65H 59/08

by contact of running length of material with supply package

Definition statement

This place covers:

Running length of material is contacting the package, e.g. by wrapping around the package.

B65H 59/10

by devices acting on running material and not associated with supply or take-up devices (by controlling speed of driving mechanism of material-forwarding devices B65H 59/38)

References

Informative references

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

| Tension devices in spinning and twisting acting on the running yarn | D01H 13/106 |
B65H 59/105
{the material being subjected to the action of a fluid}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Devices for temporarily storing filamentary material during forwarding by means of a fluid | B65H 51/205 |
**B65H 59/12**

Stationary elements arranged to deflect material from straight path

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image1)

**B65H 59/14**

and provided with surfaces imposing additional retarding forces on material

**Definition statement**

*This place covers:*

Additional measures to increase friction on the contact area of deflection.

![Diagram](image2)
Braked elements rotated by material

Definition statement

This place covers:
Rollers with drag (e.g. magnetic, friction or rheological) driven by the yarn.

Fig. 2
B65H 59/18
Driven rotary elements (material-forwarding devices B65H 51/00)

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:

Material forwarding devices

B65H 51/00

B65H 59/20
Co-operating surfaces mounted for relative movement

Definition statement
This place covers:
Co-operating surfaces mounted for relative movement not provided for in subgroups.
B65H 59/22
and arranged to apply pressure to material

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Tensioning devices for double twist spindle | D01H 13/106 |
B65H 59/225
{Tension discs}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 59/24**

Surfaces movable automatically to compensate for variation in tension

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**Glossary of terms**

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

| Automatically | Involving active elements such as actuators |

**B65H 59/26**

and arranged to deflect material from straight path

**Definition statement**

*This place covers:*

Arranged to deflect material from straight path with surfaces not urged towards or away from each other.
**B65H 59/28**

the surfaces being urged towards each other

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B65H 59/30
Surfaces movable automatically to compensate for variation in tension

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Automatically | Involving active elements such as actuators |
B65H 59/32
the surfaces being urged away from each other

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Fig. 2A
B65H 59/34
Surfaces movable automatically to compensate for variation in tension

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Automatically | Involving active elements such as actuators |
B65H 59/36

Floating elements compensating for irregularities in supply or take-up of material (buffer storage devices B65H 51/20)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Buffer storage device | B65H 51/20 |

B65H 59/38

by regulating speed of driving mechanism of unwinding, paying-out, forwarding, winding, or depositing devices, e.g. automatically in response to variations in tension

References

Informative references

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

| Controlling the forwarding speed to synchronise with supply, treatment or take-up apparatus | B65H 51/30 |
B65H 59/381
{using pneumatic or hydraulic means}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 59/382
{using mechanical means}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 59/384
{using electronic means}

Definition statement
This place covers:
Electronic control other than winding, unwinding and forwarding, e.g. traversing speed.

References
Limiting references
This place does not cover:

| Loop control in advancing work to the die or other tool | B21D 43/022 |
**B65H 59/385**

{Regulating winding speed}

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:

![Diagram of a winding system](image-url)
B65H 59/387
{Regulating unwinding speed}

Definition statement

*This place covers:*

Illustrative example of subject matter classified in this group:
B65H 59/388
{Regulating forwarding speed}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Limiting references

This place does not cover:

| Thread-feeding devices in knitting | D04B 15/48 |
B65H 59/40

Applications of tension indicators

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Measuring tension in ropes, cables, wires, threads or the like | G01L 5/04 |
B65H 61/00

Applications of devices for metering predetermined lengths of running material (of general application G01B)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Counting, measuring, recording or registering devices in spinning machines | D01H 13/32 |
| Measuring length in general | G01B |
B65H 61/005
{for measuring speed of running yarns}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Measuring linear or angular speed | G01P 3/00 |

B65H 63/00
Warning or safety devices, e.g. automatic fault detectors, stop-motions (safety devices in general F16P; indicating devices in general G08B){; Quality control of the package}

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

<p>| Warning and safety devices in spinning | D01H 13/14 |
| Warning and safety devices in warping/beaming | D02H 13/02 |
| Warning and safety devices in weaving | D03D 51/18 |
| Warning and safety devices in knitting | D04B 35/10 |
| Safety devices in general | F16P |</p>
<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
<th>Patent Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring optically length, thickness, diameter</td>
<td>G01B 11/00</td>
<td></td>
</tr>
<tr>
<td>Investigating presence of flaws or contamination</td>
<td>G01N 21/88</td>
<td></td>
</tr>
<tr>
<td>Prediction of the effect of yarn quality on the final textile</td>
<td>G01N 33/36</td>
<td></td>
</tr>
<tr>
<td>Indicating devices in general</td>
<td>G08B</td>
<td></td>
</tr>
</tbody>
</table>

**B65H 63/003**

{responsive to winding of yarns around rotating cylinders}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram of measuring device](image.png)
**B65H 63/006**

{quality control of the package}

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 63/028**

characterised by the detecting or sensing element

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

e.g. mechanical.

**B65H 63/032**

electrical or pneumatic

**Definition statement**

*This place covers:*

Detecting or sensing elements not provided for in subgroups.
B65H 63/0321
{using electronic actuators}

**Definition statement**

*This place covers:*

Also contains the devices using indifferently more than one of the sensing means types provided in subgroups.

---

**References**

**Informative references**

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

| Investigating or analysing materials by specific methods not covered by the preceding groups - filiform textiles | G01N 33/365 |
B65H 63/0322

{using capacitor sensing means, i.e. the defect signal is a variation of impedance}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 63/0324

{using photo-electric sensing means, i.e. the defect signal is a variation of light energy}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Description</th>
<th>CPC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning or safety devices responsive to reduction in material tension, failure of supply or breakage of material characterized by photo-electric sensing means</td>
<td>D01H 13/165</td>
</tr>
<tr>
<td>Investigating or analysing materials by the use of optical means for non-woven textile material</td>
<td>G01N 21/8915</td>
</tr>
</tbody>
</table>
B65H 63/0325
{using fluid sensing means, e.g. acoustic}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 63/0327
{using piezo-electric sensing means}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 63/0328
{using pneumatic sensing means}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 63/0362

{by a plate separating the package from the driving drum}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 63/0364
{by lifting or raising the package away from the driving roller}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 63/0366
{Braking means for the raised or lifted package}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 63/0368**

{by clutching or de-clutching the package from its driving means (package secured to a rotary driven member)}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**B65H 63/06**

responsive to presence of irregularities in running material, e.g. for severing the material at irregularities {Control of the correct working of the yarn cleaner}

**Definition statement**

*This place covers:*

Control processes and apparatuses not provided for in subgroups.
**B65H 63/061**

*{Mechanical slub catcher and detector}*

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram of slub catcher and detector](image)

**B65H 63/062**

*{Electronic slub detector}*

**References**

*Informative references*

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning or safety devices responsive to presence of irregularities in running material</td>
<td>D01H 13/22</td>
</tr>
<tr>
<td>Investigating or analysing material by specific methods not covered by the preceding groups for filiform textiles</td>
<td>G01N 33/385</td>
</tr>
</tbody>
</table>
B65H 63/064

{using capacitor sensing means, i.e. the defect signal is a variation of impedance}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 63/065

{using photo-electric sensing means, i.e. the defect signal is a variation of light energy}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Measuring arrangements characterized by the use of optical means for measuring of diameters of objects while moving using photoelectric detection means | G01B 11/105 |
B65H 63/067
{using fluid sensing means, e.g. acoustic}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 63/068
{using piezo-electric sensing means}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 63/08

responsive to delivery of a measured length of material, completion of winding of a package, or filling of a receptacle

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 63/082
{responsive to a predetermined size or diameter of the package}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 63/086
{responsive to completion of unwinding of a package}

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:
**B65H 63/088**

{Clamping device (connected with slub-catcher B65H 63/061)}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image-url)

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Connected with slub-catcher</th>
<th>B65H 63/061</th>
</tr>
</thead>
</table>
**B65H 65/00**

Securing material to cores or formers (arrangements for securing ends of material to cores, formers, supports or holders, e.g. reels, B65H 75/28)

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
**References**

**Limiting references**

*This place does not cover:*

| Laying a subsidiary winding, e.g. transfer tails | B65H 54/34 |

**Informative references**

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

| Loading a starter winding on an empty core | B65H 67/0422 |
| Continuous winding apparatus for winding on two or more winding heads in succession | B65H 67/048 |
| Arrangements for securing ends of material to cores, formers, supports or holders, e.g. reels | B65H 75/28 |
| Arrangements for winding reserve lengths of yarn on take-up packages or spindles. e.g. transfer tails in spinning or twisting machines | D01H 1/38 |
B65H 65/005

{Securing end of yarn in the wound or completed package}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
References

Informative references

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

| Arrangements for removing completed packages | B65H 67/0411 |

B65H 67/00

Replacing or removing cores, receptacles, or completed packages at paying-out, winding, or depositing stations

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Changing web rolls</th>
<th>B65H 19/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferring coils to or from winding apparatus in winding or unwinding metal wire or band</td>
<td>B21C 47/24</td>
</tr>
<tr>
<td>In carding</td>
<td>D01G 15/46, D01G 27/04</td>
</tr>
<tr>
<td>In spinning and twisting</td>
<td>D01H 9/00</td>
</tr>
</tbody>
</table>

Special rules of classification

Replacing the cross-wound package in spinning and twisting are classified in B65H 67/00 and subgroups.
**B65H 67/02**

Arrangements for removing spent cores or receptacles and replacing by supply packages at paying-out stations (for cans D01H 9/008; arrangement of the service carriage B65H 54/26; supports for packages B65H 49/04, B65H 49/20)

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:

**Relationships with other classification places**

Supply to and transport from the unwinding position B65H 67/06.

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Supports for packages</th>
<th>B65H 49/04, B65H 49/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>For cans</td>
<td>D01H 9/008</td>
</tr>
</tbody>
</table>

**Informative references**

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

<table>
<thead>
<tr>
<th>Arrangement of the service carriage</th>
<th>B65H 54/26</th>
</tr>
</thead>
</table>
B65H 67/04

Arrangements for removing completed take-up packages and {or} replacing by cores, formers, or empty receptacles at winding or depositing stations; Transferring material between adjacent full and empty take-up elements {{(arrangement of the service carriage B65H 54/26)}}

Definition statement

This place covers:
Transferring material between adjacent full and empty take-up elements.
Relationships with other classification places

Securing material to core or formers: B65H 65/00.

Arrangements for securing ends of material to cores or formers: B65H 75/28.

Continuous winding apparatus for winding on two or more winding heads in succession: B65H 67/044.

References

Informative references

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

| Arrangements of the service carriage | B65H 54/26 |

Special rules of classification

Details with regard to the arrangements for removing the take-up package and/or replacing by cores are classified in B65H 67/0405 and subgroups.
Definition statement

This place covers:
Arrangements for removing completed take-up package as well as for loading an empty core.

References

Limiting references

This place does not cover:
Continuous winding apparatus for winding on two or more winding heads in succession

Special rules of classification

Arrangements for only removing completed take-up package are classified in B65H 67/0411.

Arrangements for only loading an empty core are classified in B65H 67/0417.
B65H 67/0411
{for removing completed take-up packages}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG. 3
B65H 67/0417
{for loading an empty core}

Definition statement

This place covers:

Loading an empty core at the winding position.
B65H 67/0422

{for loading a starter winding, i.e. a spool core with a small length of yarn wound on it; preparing the starter winding}

Definition statement

This place covers:

E.g. when replacing cross-wound packages in spinning machines, the empty core is provided with a starter winding from an auxiliary bobbin provided on the service carriage in order to piece with the spun yarn.

References

Informative references

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

<table>
<thead>
<tr>
<th>Laying subsidiary windings</th>
<th>B65H 54/34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Securing material to cores or formers</td>
<td>B65H 65/00</td>
</tr>
</tbody>
</table>
**B65H 67/0428**

{for cans, boxes and other receptacles}

**Definition statement**

This place covers:

e.g. Removing completed (sliver) cans and/or replacing by empty (sliver) cans.
B65H 67/0434

{Transferring material devices between full and empty cans}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

B65H 67/044

Continuous winding apparatus for winding on two or more winding heads in succession

**Definition statement**

*This place covers:*

Configurations of two or more winding heads to be wound on in succession, not provided for in subgroups.
B65H 67/048
having winding heads arranged on rotary capstan head

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 67/052

having two or more winding heads arranged in parallel to each other

Definition statement

This place covers:

With parallel rotary axis.

References

Limiting references

This place does not cover:

| Winding heads arranged parallel to each other and arranged on a rotary capstan head | B65H 67/048 |
**B65H 67/056**

having two or more winding heads arranged in series with each other

Definition statement

*This place covers:*

With in-line rotary axis.

---

**B65H 67/06**

Supplying cores, receptacles, or packages to, or transporting from, winding or depositing stations {{between spinning and winding machines [D01H 9/18](#), e.g. transporting cans [D01H 9/185](#)}}

Definition statement

*This place covers:*

Aspects of supplying and transporting cores or packages not provided for in subgroups.

References

*Informative references*

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

| Supplying cores between spinning and winding machines | [D01H 9/18](#) |
**B65H 67/061**

{Orientating devices}

**Definition statement**

*This place covers:*

E.g. correctly positioning cops to be placed on the peg.
B65H 67/062
{Sorting devices for full/empty packages}

Definition statement

This place covers:
Detection of the winding amount on a cops or bobbin and further routing dependent thereon.

![FIG. 5](image)

B65H 67/063
{Marking or identifying devices for packages}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

![FIG. 1](image)
B65H 67/064

{Supplying or transporting cross-wound packages, also combined with transporting the empty core}

Definition statement

This place covers:

Transport of the cross-wound packages after they have been taken from the winding spindle (B65H 69/04).
B65H 67/065

{Manipulators with gripping or holding means for transferring the packages from one station to another, e.g. from a conveyor to a creel trolley}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

B65H 67/066

{Depositing full or empty bobbins into a container or stacking them}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 67/067

{Removing full or empty bobbins from a container or a stack}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

Fig. 1
B65H 67/068
{Supplying or transporting empty cores}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

[Image of a diagram]
B65H 67/069

{Removing or fixing bobbins or cores from or on the vertical peg of trays, pallets or the pegs of a belt}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>At the unwinding position</th>
</tr>
</thead>
</table>

B65H 67/02

B65H 67/08

Automatic end-finding and material-interconnecting arrangements (knot-tying devices B65H 69/00)

References

Informative references

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

<table>
<thead>
<tr>
<th>Arrangements for taking up waste material by means of pneumatic arrangements, e.g. suction guns</th>
</tr>
</thead>
<tbody>
<tr>
<td>B65H 54/88</td>
</tr>
<tr>
<td>Knot-tying devices</td>
</tr>
<tr>
<td>B65H 69/00</td>
</tr>
<tr>
<td>In piecing arrangements for spinning</td>
</tr>
<tr>
<td>D01H 15/00</td>
</tr>
</tbody>
</table>
Special rules of classification

Automatic end-finding at the take-up package after interruption of the ringspinning process are classified in B65H 67/08.

Automatic end-finding in combination with material interconnection in machines other than for winding cross-wound packages, e.g. weaving, carding are classified in B65H 67/08.

B65H 67/081

{acting after interruption of the winding process, e.g. yarn breakage, yarn cut or package replacement}

Definition statement

This place covers:

Winding process for winding cross wound packages, e.g. in rewinders and open-rotor spinning machines.

Special rules of classification

B65H 67/081 and subgroups relates only to the winding process of winding cross wound packages, not ring spinning process.
B65H 67/083
{handling the yarn-end of the new supply package}

Definition statement

This place covers:

Finding the yarn-end at the supply package and connecting it to the yarn-end of the cross-wound package.
B65H 67/085
{end-finding at the take-up package, e.g. by suction and reverse package rotation}

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
Special rules of classification

When the document contains further technical details with regard to handling the yarn taken from the take-up package, also the class **B65H 67/081** is given.

**B65H 67/086**

{Preparing supply packages}

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
Relationships with other classification places

The mechanisms for finding the yarn at the supply package in B65H 67/086 and subgroups are similar to the mechanisms for finding the yarn at the supply package in B65H 67/083.

Special rules of classification

Mechanisms for finding the yarn at the supply package at the (re)winding station with means for further handling of the yarn-end and connecting to the cross-wound package are classified in B65H 67/083.
B65H 67/088

{Prepositioning the yarn end into the interior of the supply package}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

![FIGURE 2A](image1) ![FIGURE 2B](image2) ![FIGURE 2C](image3) ![FIGURE 2D](image4)

B65H 69/00

Methods of, or devices for, interconnecting successive lengths of material;
Knot-tying devices {;Control of the correct working of the interconnecting device}

References

Informative references

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

| Automatic end-finding and material-interconnecting arrangements | B65H 67/08 |
| Joining | B29C 65/00 |
| Apparatus for joining warp ends | D03J 1/16 |
| For joining, e.g. tying, a complete series of fresh warp threads to the used warp threads | D03J 1/18 |
| Means for fastening cables or ropes to one another or to other objects | F16G 11/00 |
| Splicing of light guides, e.g. by fusion or bonding | G02B 6/255 |
B65H 69/02

by means of adhesives

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:
References

Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joining using adhesives</td>
<td>B29C 65/48</td>
</tr>
</tbody>
</table>

**B65H 69/04**

by knotting

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram of knotting process](image)

References

Informative references

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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparatus for joining warp ends</td>
<td>D03J 1/16</td>
</tr>
<tr>
<td>For joining, e.g. tying, a complete series of fresh warp threads to the used warp threads</td>
<td>D03J 1/18</td>
</tr>
<tr>
<td>Weavers' tools, e.g. knot-tying tools</td>
<td>D03J 3/00</td>
</tr>
</tbody>
</table>
B65H 69/043
{the threads are moved in ducts having the form of the wanted knot}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 69/06**

by splicing [(grommets made by splicing D07B 1/18, auxiliary apparatus for splicing ropes or cables D07B 7/169)]

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

---

**References**

**Limiting references**

*This place does not cover:*

<table>
<thead>
<tr>
<th>Grommets made by splicing</th>
<th>D07B 1/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary apparatus for splicing ropes or cables</td>
<td>D07B 7/169</td>
</tr>
<tr>
<td>Splicing of light guides, e.g. by fusion or bonding</td>
<td>G02B 6/2555</td>
</tr>
</tbody>
</table>

**Informative references**

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

<table>
<thead>
<tr>
<th>Piecing arrangements in open end spinning machines</th>
<th>D01H 4/48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piecing arrangements in spinning machines</td>
<td>D01H 15/00</td>
</tr>
</tbody>
</table>
B65H 69/061
{using pneumatic means}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:
B65H 69/063
{Preparation of the yarn ends}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 69/065
{using mechanical means}

Definition statement

This place covers:
Illustrative examples of subject matter classified in this group:
Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 69/068
{using a binding thread, e.g. sewing}

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
B65H 69/08
by welding

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
References

Informative references

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

Joining by heating, using heated tools  B29C 65/18

B65H 69/085

{using ultrasonic means}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Diagram with labels 1 to 10]

References

Informative references

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

Joining using ultrasonic vibrations  B29C 65/08
B65H 71/00

Moistening, sizing, oiling, waxing, colouring or drying filamentary material as additional measures during package formation (applying liquids or other fluent materials to surfaces in general B05)

**Definition statement**

_This place covers:_

Moistening, sizing, oiling, waxing, colouring or drying filamentary material as additional measures during package formation.
References

Limiting references

This place does not cover:

| Moistening or lubricating threads in knitting machines | D04B 35/24 |

Informative references

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

| Applying liquids to surfaces in general | B05 |
| Surface treatment of fibres or filaments from glass, minerals or slags | C03C 25/00 |
| Humidity control, or oiling, of filaments, threads or the like, leaving spinnerettes | D01D 5/096 |
| Moistening, sizing, oiling, waxing, colouring, drying yarns during spinning or twisting | D01H 13/30 |
| Treating warp, e.g. moistening on a weaving loom | D01J1/02 |
| Treating weft on a weaving loom | D01J1/04 |
| Applying liquids, gases or vapours on to textile materials to effect treatment, e.g. washing, dyeing, bleaching, sizing, impregnating | D06B 1/00 |
| Passing individually handled yarns, threads or filaments through liquids, gases or vapours to effect treatment | D06B 3/04 |
| Devices for softening, lubricating or impregnating ropes, cables or strands in rope- or cable-making machines | D07B 7/12 |
B65H 71/002
{Abrading, scraping (in general D02J 3/00)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Roughening of fibres</th>
<th>D01G 3/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producing crimped or curled fibres, filaments, yarns or threads, at least some of the filaments being simultaneously broken or cut</td>
<td>D02G 1/0246</td>
</tr>
<tr>
<td>Modifying the surface of filaments, yarns, threads, cords, ropes or the like by abrading, scraping</td>
<td>D02J 3/02</td>
</tr>
</tbody>
</table>
B65H 71/005

{Oiling, waxing by applying solid wax cake during spooling}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Applying solids, e.g. wax during spinning or twisting | D01H 13/308 |
B65H 71/007

{Oiling, waxing by applying liquid during spooling}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Moistening, sizing, oiling during spinning or twisting by applying fluids, e.g. steam or oiling liquids | D01H 13/306 |

B65H 73/00

Stripping waste material from cores or formers, e.g. to permit their re-use

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
"...waste material being webs, tapes, or filamentary material..."
References

Informative references

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplying cores to or transporting from winding or depositing stations</td>
<td>B65H 67/06</td>
</tr>
<tr>
<td>Removing waste reserve lengths from spinning spindles</td>
<td>D01H 1/385</td>
</tr>
</tbody>
</table>

B65H 75/00

Storing webs, tapes, or filamentary material, e.g. on reels (fishing reels A01K 89/00; storing means for record carriers, specially adapted for cooperation with the recording or reproducing apparatus G11B 23/02)

References

Informative references

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing reels</td>
<td>A01K 89/00</td>
</tr>
<tr>
<td>In metal wire coiling</td>
<td>B21C 47/28</td>
</tr>
<tr>
<td>Specially adapted for cooperation with the recording apparatus</td>
<td>G11B 23/02</td>
</tr>
</tbody>
</table>

B65H 75/005

{Working on damaged packages, e.g. reshaping collapsed cores (working on cores, reels or the like to permit their reuse B65H 75/505)"

Definition statement

This place covers:

Reshaping collapsed cores with the material wound thereon.
References

Limiting references

This place does not cover:

| Working on cores, reels or the like (without material wound thereon) to permit their reuse | B65H 75/505 |

B65H 75/02

Cores, formers, supports, or holders for coiled, wound, or folded material, e.g. reels, spindles, bobbins, cop tubes, cans (packaging aspects B65D 85/67)

Definition statement

This place covers:
Reels, spindles, bobbins, cop tubes or cans not provided for in subgroups.

Special rules of classification

The following Indexing Codes are to be used in combination with the subgroups:

- Material to be wound: B65H 2701/30
- Material of core or reel: B65H 2701/51
- Elements within core or reel: B65H 2701/52
- Adaptations of cores or reel for special purpose: B65H 2701/53
B65H 75/025
{specially adapted for winding or storing webs with the confronting layers spaced from each other, e.g. frames for storing nap fabrics}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 75/04

Kinds or types (B65H 75/18 takes precedence)

**Definition statement**

This place covers:

Kinds or types not provided for in subgroups.

References

**Limiting references**

This place does not cover:

| Constructional details | B65H 75/18 |
B65H 75/06
Flat cores, e.g. cards

Definition statement
This place covers:
Illustrative examples of subject matter classified in this group:
B65H 75/08
of circular or polygonal cross-section (cans or receptacles B65H 75/16)

Definition statement
This place covers:
E.g. details of winding shafts or chucks in contact with or near the core or material (web or filamentary).

Relationships with other classification places
Supporting the web roll for unwinding or winding: B65H 16/00, B65H 18/00.

References
Limiting references
This place does not cover:

| Expansible winding shafts or chucks | B65H 75/242 |
**B65H 75/10**

*without flanges, e.g. cop tubes*

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:

---

**References**

**Limiting references**

*This place does not cover:*

| Dying tubes | D06B 23/042 |
B65H 75/105

{Pirns destined for use in shuttles, i.e. with a yarn receiving portion and a thicker base portion, this thicker portion being adapted to be engaged by a spindle in a spinning frame and also being adapted for fitting in a shuttle}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/12

with a single end flange {(e.g. with a conical end flange)}; formed with one end of greater diameter than the barrel

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 75/14**

**with two end flanges**

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

**References**

**Informative references**

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

| Ink ribbon spools                     | B41J 33/003 |
Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/143
{at least one end flange being shaped to cover the windings}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 75/145
{Reinforcement or protection arrangements for the peripheral edge of the flanges}

Definition statement
This place covers:

Illustrative example of subject matter classified in this group:
**B65H 75/146**

{with at least one intermediate flange between the two end flanges}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
**B65H 75/148**

{with at least one frustoconical end flange}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

**Limiting references**

*This place does not cover:*

| Winding on frusto-conical cores | B65H 54/103 |
**B65H 75/16**

Cans or receptacles, e.g. sliver cans

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram of cans or receptacles](image)

**Relationships with other classification places**

Supporting devices enclosing the non-rotating package for unwinding: [B65H 49/08](#)

**B65H 75/18**

**Constructional details**

**Special rules of classification**

[B65H 75/18](#) should not be used. Only subgroups are to be used. Several constructional details may be classified.
B65H 75/182
{Identification means}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Barcodes</th>
<th>G06K 1/121, G06K 1/123</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labels with barcode</td>
<td>G09F 3/0297</td>
</tr>
</tbody>
</table>
**B65H 75/185**

{End caps, plugs or adapters}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

**References**

**Informative references**

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

<table>
<thead>
<tr>
<th>Handles</th>
<th>B65H 2402/412</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printer Roll</td>
<td>B41J 15/042</td>
</tr>
<tr>
<td>Wrapping apparatus</td>
<td>B65B 67/085</td>
</tr>
<tr>
<td>Plugs, sleeves or caps for packaging</td>
<td>B65D 59/00</td>
</tr>
</tbody>
</table>
B65H 75/187

{Reinforcing end caps}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/20
Skeleton construction, e.g. formed of wire {(perforated supports for textile materials to be treated D06B 23/042)}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

References
Limiting references
This place does not cover:

| Perforated supports for textile materials to be treated | D06B 23/042 |
B65H 75/22

collapsible; with removable parts

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 75/24
adjustable in configuration, e.g. expansible

Definition statement
This place covers:
E.g. radially adjustable or expansible reels or cores.
B65H 75/241
{axially adjustable reels or bobbins}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Subject</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core bodies axially expandable</td>
<td>3F058/JA12</td>
</tr>
<tr>
<td>Core bodies axially expandable and of the sliding type</td>
<td>3F058/JA13</td>
</tr>
</tbody>
</table>
B65H 75/242

{Expansible spindles, mandrels or chucks, e.g. for securing or releasing cores, holders or packages (expansible mandrels for machine tools B23B 31/00)}

Definition statement

This place covers:

Arrangements of expansible spindles, mandrels or chucks not provided for in subgroups,

References

Informative references

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

| In Japanese Classification, spindles, mandrels and chucks for securing or releasing cores for winding and unwinding webs | 3F052/BA, 3F055/CA  
B65H 16/00, B65H 18/00 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansible drum for winding metal wire</td>
<td>B21C 47/30</td>
</tr>
<tr>
<td>Expansible mandrels for machine tools</td>
<td>B23B 31/00</td>
</tr>
<tr>
<td>Support means for the bobbin inner surfaces</td>
<td>3F056/GC</td>
</tr>
<tr>
<td>Support means for the bobbin end sections</td>
<td>3F056/GD</td>
</tr>
<tr>
<td>Deformable cores</td>
<td>3F058/JA</td>
</tr>
</tbody>
</table>
Special rules of classification

"Expansion" mechanisms of spindles, mandrels and chucks for securing or releasing cores for winding and unwinding webs are to be classified in B65H 75/242 and not in B65H 16/00 or B65H 18/00.

Securing packages of filamentary material is also classified in B65H 49/36 (unwinding) or B65H 54/543 (winding).

B65H 75/243

{comprising a fluid pressure actuated elastic member, e.g. a diaphragm or a pneumatic tube}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

![Illustrative example](image-url)
B65H 75/245
{by deformation of an elastic or flexible material}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 75/246

{by relative rotation of the clamping elements and the supporting spindle or core}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/247
{using rollers or rods moving relative to a wedge or cam surface}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG. 2
B65H 75/248
{with clamping elements linked to the spindle}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/26
Arrangements for preventing slipping of winding

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 75/265
{Reels with grooves or grooved elements inhibiting aligned or orderly winding}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/28

Arrangements for positively securing ends of material

Definition statement

This place covers:
Securing the start or end of the material (filamentary, web).
B65H 75/285

{Holding devices to prevent the wound material from unwinding}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 75/30
Arrangements to facilitate driving or braking

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 75/305
{Arrangements to facilitate driving by a portable drill}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
Arrangements to facilitate severing of material

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

specially adapted or mounted for storing and repeatedly paying-out and re-storing lengths of material provided for particular purposes, e.g. anchored hoses, power cables (retractors for storing flexible hoses as accessories of dental work stands A61G 15/18; vehicle safety belt retractors B60R 22/34; hose-storing devices in apparatus or devices for transferring liquids from bulk storage containers or reservoirs into vehicles or portable containers B67D 7/40; clothes-line supports D06F 53/00; spring drums for liftable blinds with horizontal lamellae E06B 9/322; spring drums or tape drums for roll-type closures or roller blinds E06B 9/56; hauling- or hoisting-chains with arrangements for holding electric cables, hoses or the like F16G 13/16; devices for guiding pipes, cables or protective tubing, between relatively movable points, e.g. movable channels, F16L 3/01; flexible rulers or tapes with scales G01B 3/10; electrical features of stored material, see the relevant subclasses, e.g. H02G)

Definition statement

This place covers:

Devices for repeatedly winding and unwinding in which the application in a specific field is of main interest without further interesting details about the device per se.
## References

### Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Fishing reels</th>
<th>A01K 89/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retractors for storing flexible hoses as accessories of dental work stands</td>
<td>A61G 15/18</td>
</tr>
<tr>
<td>Vehicle safety belt retractors</td>
<td>B60R 22/34</td>
</tr>
<tr>
<td>Winches</td>
<td>B66D 1/00</td>
</tr>
<tr>
<td>Hose storing devices in apparatus or devices for transferring liquids from bulk storage containers or reservoirs into vehicles or portable containers</td>
<td>B67D 7/40</td>
</tr>
<tr>
<td>Clothes-line supports</td>
<td>D06F 53/00</td>
</tr>
<tr>
<td>Spring drums for liftable blinds with horizontal lamellae</td>
<td>E06B 9/322</td>
</tr>
<tr>
<td>Spring drums or tape drums for roll-type closures or roller blinds</td>
<td>E06B 9/56</td>
</tr>
<tr>
<td>Hauling or hoisting-chains with arrangements for holding electrical cables, hoses or the like</td>
<td>F16G 13/16</td>
</tr>
<tr>
<td>Jumbo reels on pipe laying vessels</td>
<td>F16L 1/203</td>
</tr>
<tr>
<td>Devices for guiding pipes, cables or protective tubing, between relatively movable points, e.g. movable channels</td>
<td>F16L 3/01</td>
</tr>
<tr>
<td>Flexible rulers or tapes with scales</td>
<td>G01B 3/10</td>
</tr>
<tr>
<td>Electrical features of stored material, see the relevant subclasses, e.g.</td>
<td>H02G</td>
</tr>
</tbody>
</table>

### Informative references

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

<table>
<thead>
<tr>
<th>Devices for guiding or supporting cables in mowers</th>
<th>A01D 34/822</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winch driven watering arrangements, e.g. for watering gardens, sport grounds</td>
<td>A01G 25/095</td>
</tr>
<tr>
<td>Retractable leashes, e.g. for dogs</td>
<td>A01K 27/001</td>
</tr>
<tr>
<td>Shoe lace tighteners</td>
<td>A43C 7/00</td>
</tr>
<tr>
<td>Holders for carriers for hand articles</td>
<td>A45F 5/00</td>
</tr>
<tr>
<td>Fire Hose Reels</td>
<td>A62C 33/04</td>
</tr>
<tr>
<td>Cord line chalkers</td>
<td>B44D 3/38</td>
</tr>
<tr>
<td>Tow ropes</td>
<td>B60D 1/18</td>
</tr>
<tr>
<td>Air supply for tyre inflation</td>
<td>B60S 5/04</td>
</tr>
<tr>
<td>Waterski winches</td>
<td>B63B 35/816</td>
</tr>
<tr>
<td>Cast or safe lines</td>
<td>B63C 9/26</td>
</tr>
<tr>
<td>Communication means for working underwater</td>
<td>B63C 11/26</td>
</tr>
<tr>
<td>Cable slack preventing in cranes</td>
<td>B66C 13/10</td>
</tr>
<tr>
<td>Reeling or storing devices in dispensing liquids</td>
<td>B67D5/365</td>
</tr>
<tr>
<td>Flexible barrier members</td>
<td>E01F 13/028</td>
</tr>
<tr>
<td>Wheeled apparatus for emptying sewers</td>
<td>E03F 7/10</td>
</tr>
<tr>
<td>Cleaning sewers</td>
<td>E03F 9/005</td>
</tr>
</tbody>
</table>
Padlocks

Handling reeled pipe or rod units, e.g. flexible drilling pipes

In lighting devices

Storing optical elements

Holdiers for films

Information storage

Connectors

Installing electrical cables

Arrangements of cables between relatively movable parts

Winding cord in general

Protection of telephone cord; Guiding telephone cord; Winding-up telephone cord

<table>
<thead>
<tr>
<th>Special rules of classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices for repeatedly winding and unwinding without essentially involving a core or former internal to a stored package are classified in <strong>B65H 75/36</strong> and subgroups.</td>
</tr>
<tr>
<td>Devices for repeatedly winding and unwinding involving a core or former internal to a stored package are classified in <strong>B65H 75/38</strong> and subgroups.</td>
</tr>
<tr>
<td>Devices for repeatedly winding and unwinding in which the application in a specific field is of main interest without further interesting details about the device per se are only classified in <strong>B65H 75/34</strong>.</td>
</tr>
<tr>
<td>Stackable reels are additionally classified in <strong>B65H 2701/534</strong>.</td>
</tr>
</tbody>
</table>
B65H 75/36

without essentially involving the use of a core or former internal to a stored package of material, e.g. with stored material housed within casing or container, or intermittently engaging a plurality of supports as in sinuous or serpentine fashion

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
References

Informative references

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

<table>
<thead>
<tr>
<th>Flat cores</th>
<th>B65H 75/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical fiber surplus length storage</td>
<td>G02B 6/444</td>
</tr>
</tbody>
</table>
B65H 75/362

{with stored material housed within a casing or container (B65H 75/368 takes precedence)}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
References

Limiting references

This place does not cover:

| With pulleys around which the material is wrapped | B65H 75/368 |

B65H 75/364

{the stored material being coiled}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 75/366

{with stored package of material loosely hanging on a support, e.g. a hose hanger}

**Definition statement**

*This place covers:*

Illustrative examples of subject matter classified in this group:

**Special rules of classification**

With additional support for the lower part of the coil classify in B65H 75/36
B65H 75/368
{with pulleys}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 75/38**

involving the use of a core or former internal to, and supporting, a stored package of material

**Definition statement**

*This place covers:*

E.g. non-movable cable or hose reels.
B65H 75/40

mobile or transportable

Definition statement

This place covers:

Reels that are manually mobile or transportable, e.g. hose reel carts. Contains in general reels on a wheeled manually manoeuvrable carriages.
Relationships with other classification places

Reels attached to or forming part of cars, trucks, trailers, boats and reels forming part of mobile tools, such as electrical appliances: B65H 75/42.

B65H 75/403

{Carriage with wheels}

Definition statement

*This place covers:*

Illustrative example of subject matter classified in this group:
**B65H 75/406**

{hand-held during use (**B65H 75/48, B65H 75/4473** take precedence)}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image)

**References**

*Limiting references*

*This place does not cover:*

| Automatic restoring devices (by spring)                      | B65H 75/48 |

*Informative references*

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

| Retractable leashes, e.g. for dogs                        | A01K 27/001 |
| Hand-held fishing apparatus                              | A01K 89/08  |
| Means for manipulating kiteline                         | A63H 27/002 |
B65H 75/42
attached to, or forming part of, mobile tools, machines or vehicles

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

| Winding devices in a suction cleaner | A47L 9/26 |
B65H 75/425
{attached to, or forming part of a vehicle, e.g. truck, trailer, vessel}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 75/44

Constructional details

References

Informative references

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

| Winding/unwinding machines with particular frame | 242/398 (USPC) |

Special rules of classification

If a constructional detail which is not covered by subgroups B65H 75/4402 – B65H 75/486 is of relevance, symbol B65H 75/44 can be used provided that the document is also classified in one of the subgroups B65H 75/38 - B65H 75/425. Multiple constructional details may be classified.

B65H 75/4402

{Guiding arrangements to control paying-out and re-storing of the material (guides per se B65H 57/00)}

Definition statement

This place covers:

Many of the documents relate to fixed guides, the movable traversing guides being classified in one the subgroups.

Relationships with other classification places

Guides per se: B65H 57/00.
B65H 75/4405

{Traversing devices; means for orderly arranging the material on the drum}

Definition statement

This place covers:

Contains documents in which the guide is moved by the already wound material.

Relationships with other classification places

Traversing per se: B65H 54/28.
B65H 75/4407

{positively driven, e.g. by a transmission between the drum and the traversing device}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
also devices driven by the material being wound

**B65H 75/441**

{with a handle on the guide for manual operation}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B65H 75/4413
{with a traversely moving drum}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Also documents with a pivoting drum
B65H 75/4415

{Guiding ribs on the drum}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Relationships with other classification places

Reels with grooves inhibiting aligned or orderly winding: B65H 75/265.
B65H 75/4418

{Arrangements for stopping winding or unwinding; Arrangements for releasing the stop means}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

References

Informative references

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

| Safety belt with fall arrest reel device | A62B 35/0093 |
B65H 75/4421
{acting directly on the material}

Definition statement

This place covers:

E.g. lock acting on cable and releasable by pulling the cable

Fig 1

Fig 2
B65H 75/4423

{Manual stop or release button}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

Fig. 1
B65H 75/4426

{Stopping at the end of winding or unwinding}

Definition statement

This place covers:

E.g. mechanical stop attached to the end of the hose.

References

Limiting references

This place does not cover:

| Stopping at the end of unwinding by control of the electrical motor | B65H 75/4486 |
B65H 75/4431

{Manual stop or release button}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/4434
{actuated by pulling on or imparting an inclination to the material}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 75/4436
{Arrangements for yieldably braking the reel or the material for moderating speed of winding or unwinding}

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake devices for fishing reels</td>
<td>A01K 89/02</td>
</tr>
<tr>
<td>Devices for lowering persons with brake mechanism</td>
<td>A62B 1/08</td>
</tr>
<tr>
<td>Winding/unwinding machines with brake (US Classification)</td>
<td>242/396</td>
</tr>
</tbody>
</table>
B65H 75/4439
{acting directly on the material}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

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

Devices for lowering persons with brake sliding on the rope  A62B 1/14

B65H 75/4442
{acting on the reel}

Definition statement
This place covers:
e.g. electromagnetic or rheological brake operating on the reel.

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

Devices for lowering persons with brake mechanism  A62B 1/08
B65H 75/4444
{with manually adjustable brake pads}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/4447
{centrifugally}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

Fig. 2

Fig. 3
B65H 75/4449

{Arrangements or adaptations to avoid movable contacts or rotary couplings, e.g. by the use of an expansion chamber for a length of the cord or hose}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:

FIG. 1

FIG. 2
B65H 75/4452

{Simultaneous winding and unwinding of the material, e.g. winding or unwinding on a stationary drum while respectively unwinding or winding on a rotating drum using a planetary guiding roller}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 75/4455**

(using a planetary assembly coaxially rotating around a central drum)

**Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:
B65H 75/4457
{Arrangements of the frame or housing}

Special rules of classification
Not used. Only use subclasses.

B65H 75/446
{for releasably or permanently attaching the frame to a wall, on a floor or on a post or the like}

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 75/4463
{Swivelling attachment}

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram](image-url)
B65H 75/4465
{Foldable or collapsible}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 75/4468
{Tubular frame}

Definition statement

This place covers:
Illustrative example of subject matter classified in this group:

Fig. 1
B65H 75/4471
{Housing enclosing the reel}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 75/4478**

*{relating to handling of fluids}*

**Definition statement**

*This place covers:*

Connectors for connecting the (rotating) input of the hose on the reel to the (fixed) fluid supply.

---

**B65H 75/4481**

*{Arrangements or adaptations for driving the reel or the material (by a spring B65H 75/48)}*

**References**

*Informative references*

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

| Winding/unwinding machines with particular drive | US Classification: 242/389 |
**Definition statement**

This place covers:
Details about driving the reel with an electric motor. Contains also control or detection of the winding or unwinding.
B65H 75/4489

{Fluid motors}

Definition statement

This place covers:
Details about driving the reel with a hydraulic motor. Contains also control or detection of the winding or unwinding.
B65H 75/4492
{Manual drives}

Definition statement

*This place covers:*

E.g. transmission between the hand-crank and the reel.

FIG. 2
B65H 75/4494
{Arrangements or adaptations of the crank}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:
**B65H 75/4497**

*{driving by the wheels of the carriage or vehicle}*

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:

![Diagram of a carriage or vehicle](image)

**B65H 75/48**

**Automatic restoring devices** *(B65H 75/4418 takes precedence)*

**References**

**Limiting references**

*This place does not cover:*

| Arrangements for stopping winding or unwinding; Arrangements for releasing the stop means | B65H 75/4418 |
| Spring-motor for winding (FICLA) | F03G 1/08 |

**Informative references**

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

| Automatic restoring and locks for winding/unwinding (FICLA) | B65H 75/48 |
| Retraction clips | A45F 5/004 |
| Apparatus for physical training | A63B 21/015 |
| Flexible barrier member as used in e.g. airports | E01F 13/028 |
| Unwinding and winding machine with spring motor, locks for winding/unwinding (US Classification) | 242/371 |
Special rules of classification
With a mechanism for stopping winding or unwinding or braking is only classified in B65H 75/4418 and B65H 75/4402 and subgroups.

B65H 75/483
{Balance reel}

Definition statement
This place covers:
Reels with spring motor to balance a hanging weight (tool) at a certain height

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

| Tool balancers       | B25H 1/0028 |
B65H 75/486

{Arrangements or adaptations of the spring motor}

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:
B65H 75/50

Methods of making reels, bobbins, cop tubes, or the like by working an unspecified material, or several materials

Definition statement

This place covers:

Illustrative examples of subject matter classified in this group:

References

Informative references

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

<table>
<thead>
<tr>
<th>Winding paper cores</th>
<th>B31C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working on paper cores</td>
<td>B31F</td>
</tr>
</tbody>
</table>
B65H 75/505

{Working on cores, reels or the like to permit their reuse, e.g. correcting distortion, replacing parts of the core or reel}

**Definition statement**

*This place covers:*

Working on the edges of used cores, e.g. to connect several thereof to form new cores.

---

B65H 79/00

Driving-gear for devices for forwarding, winding, unwinding, or depositing material, not otherwise provided for

**Special rules of classification**

Not Used.

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B65H 81/00

Methods, apparatus, or devices for covering or wrapping cores by winding webs, tapes, or filamentary material, not otherwise provided for (forming hollow objects by winding filamentary material on to fusible or soluble cores \(B29C\ 53/56\); wrapping for the purpose of packaging \(B65B\ 11/00\); making wound articles of paper \(B31C\))

**Definition statement**

*This place covers:*

Only methods and devices for covering or wrapping cores by winding webs, tapes or filamentary material not otherwise provided for.
References

Limiting references

This place does not cover:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making tubes or metal hoses</td>
<td>B21C 37/12</td>
</tr>
<tr>
<td>Coiling wire helically on a mandrel</td>
<td>B21F 3/04</td>
</tr>
<tr>
<td>Jacketing or reinforcing with wire</td>
<td>B21F 17/00</td>
</tr>
<tr>
<td>Producing tubular article by wrapping (cement)</td>
<td>B28B 21/48</td>
</tr>
<tr>
<td>Forming hollow objects by winding filamentary material on to fusible or soluble cores</td>
<td>B29C 53/56</td>
</tr>
<tr>
<td>Applying winding materials</td>
<td>B29C 53/8016</td>
</tr>
<tr>
<td>Sheathing by winding helically plastic material</td>
<td>B29C 63/105</td>
</tr>
<tr>
<td>Shaping by layup on a rotating core</td>
<td>B29C 70/32</td>
</tr>
<tr>
<td>Making wound articles of paper</td>
<td>B31C</td>
</tr>
<tr>
<td>Wrapping for the purpose of packaging</td>
<td>B65B 11/00</td>
</tr>
<tr>
<td>Braiding, lacing</td>
<td>D04C 3/00</td>
</tr>
<tr>
<td>Cable stranding</td>
<td>D07B 3/00</td>
</tr>
<tr>
<td>Wrapping ropes, cables</td>
<td>D07B 7/14</td>
</tr>
<tr>
<td>Hoses with helically wound layers</td>
<td>F16L 11/081</td>
</tr>
<tr>
<td>Hoses wound from strips</td>
<td>F16L 11/24</td>
</tr>
<tr>
<td>Coating wrapped around a pipe</td>
<td>F16L 58/1063</td>
</tr>
<tr>
<td>Manufacturing of air ducts</td>
<td>F24F 13/0245</td>
</tr>
<tr>
<td>Twisting optical cables</td>
<td>G02B 6/449</td>
</tr>
<tr>
<td>Stranding up conductors</td>
<td>H01B 13/02</td>
</tr>
<tr>
<td>Sheathing by winding</td>
<td>H01B 13/26</td>
</tr>
<tr>
<td>Winding electrical coils</td>
<td>H01F 41/06</td>
</tr>
</tbody>
</table>

Special rules of classification

In practice documents are only exceptionally classified in B65H 81/00 and subgroups, since they are mostly provided for otherwise.
**B65H 81/02**

Covering or wrapping annular or like cores forming a closed or substantially closed figure

**Definition statement**

*This place covers:*

E.g. thread buttons.

---

**B65H 81/04**

by feeding material obliquely to the axis of the core

**Definition statement**

*This place covers:*

Illustrative example of subject matter classified in this group:
B65H 81/06
Covering or wrapping elongated cores

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:

B65H 81/08
by feeding material obliquely to the axis of the core

Definition statement
This place covers:
Illustrative example of subject matter classified in this group:
B65H 83/00

Combinations of piling and depiling operations, e.g. performed simultaneously, of interest apart from the single operation of piling or depiling as such

Definition statement

This place covers:

aspects which determine that methods and /or devices are able to perform both piling and depiling operations.

References

Limiting references

This place does not cover:

Supplying complete piles or stacks to the support or magazine during continuous separation therefrom

Informative references

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

Architecture, e.g. modular construction of devices accepting paper currency

Special rules of classification

This main-group should be used only for subject-matter not being covered by any of its sub-groups.

Documents which mainly concern depiling e.g. separation aspects, such as constructional details of the separator, and only deals with the possibility of piling as a secondary aspect, should be additionally classified in B65H 3/00 or relevant subgroups.

Documents which mainly concern piling e.g. stacking of articles and only deal with the possibility of depiling as a secondary aspect, should be additionally classified in B65H 29/00 or relevant subgroups.

B65H 83/02

performed on the same pile or stack

Special rules of classification

Supplying individual articles, either continuous or discontinuous to the support or stack during continuous separation therefrom should be classified in this group or relevant subgroups.

B65H 85/00

Recirculating articles, i.e. feeding each article to, and delivering it from, the same machine work-station more than once

References

Informative references

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

Ink-jet or thermal printers for printing on both sides of the material
Arrangements for moving an original once or repeatedly through an exposure station in an photographic printing apparatus  \[ \text{G03B 27/6257} \]

Special arrangements in electrographic devices for copying both sides of an original or for copying on both sides of a receiving media  \[ \text{G03G 15/23} \]

Refeeding in connection with double-sided scanning  \[ \text{H04N 1/00572} \]

**B65H 99/00**

Subject matter not provided for in other groups of this subclass

**Special rules of classification**

This group is not used.