A43D  MACHINES, TOOLS, EQUIPMENT OR METHODS FOR MANUFACTURING OR REPAIRING FOOTWEAR

**NOTE**
In this subclass, a method of manufacturing footwear which is dependent on a distinct machine or tool, is classified in the group covering the machine or tool for the manufacture.

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

### Measuring devices: Lasts: Tools

<table>
<thead>
<tr>
<th>1/00</th>
<th>Foot or last measuring devices; Measuring devices for shoe parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/02</td>
<td>Foot-measuring devices (measuring the shape, pattern or size of the body for diagnostic purposes A61B 5/103, e.g. measuring physical dimensions A61B 5/107)</td>
</tr>
<tr>
<td>1/022</td>
<td>[involving making footprints or permanent moulds of the foot]</td>
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<tr>
<td>1/025</td>
<td>[comprising optical means, e.g. mirrors, photorelectric cells, for measuring or inspecting feet]</td>
</tr>
<tr>
<td>1/027</td>
<td>{Shoe fit indicating devices}</td>
</tr>
<tr>
<td>1/04</td>
<td>Last-measuring devices</td>
</tr>
<tr>
<td>1/06</td>
<td>Measuring devices for the inside measure of shoes, for the height of heels, or for the arrangement of heels</td>
</tr>
<tr>
<td>1/08</td>
<td>Measuring devices for shoe parts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3/00</th>
<th>Lasts</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/02</td>
<td>Lasts for making or repairing shoes (making of wooden lasts B27M 3/20)</td>
</tr>
<tr>
<td>3/021</td>
<td>[for orthopaedic footwear]</td>
</tr>
<tr>
<td>3/022</td>
<td>{comprising means, e.g. hooks, for holding, fixing or centering shoe parts on the last}</td>
</tr>
<tr>
<td>3/023</td>
<td>{Hinge constructions for articulated lasts}</td>
</tr>
<tr>
<td>3/024</td>
<td>{Lasts with a fore part and heel section relatively slideable to one another along an inclined line of cut}</td>
</tr>
<tr>
<td>3/025</td>
<td>{Longitudinally expansible lasts}</td>
</tr>
<tr>
<td>3/026</td>
<td>{Lasts for making rubber footwear or for vulcanizing rubber soles to footwear}</td>
</tr>
<tr>
<td>3/027</td>
<td>{Lasts with exchangeable parts, e.g. for changing the form or for remodelling}</td>
</tr>
<tr>
<td>3/028</td>
<td>{Tack retaining means for lasts}</td>
</tr>
<tr>
<td>3/029</td>
<td>{Constructional features of the heel section}</td>
</tr>
<tr>
<td>3/04</td>
<td>Pneumatic lasts; Elastic lasts</td>
</tr>
<tr>
<td>3/06</td>
<td>Wedge locks for lasts</td>
</tr>
<tr>
<td>3/08</td>
<td>Devices for stretching special parts of shoes</td>
</tr>
<tr>
<td>3/10</td>
<td>Devices for removing lasts</td>
</tr>
<tr>
<td>3/12</td>
<td>Devices for inserting or reinserting lasts</td>
</tr>
</tbody>
</table>

| 3/14 | Stretching or spreading lasts; Boot-trees; Fillers; Devices for maintaining the shape of the shoe (drying of footwear A47L 23/20) |
| 3/1408 | {Devices for heating or drying shoes} |
| 3/1416 | {Boot-trees} |
| 3/1425 | {Devices for sole stretching} |
| 3/1433 | {Shoe-trees} |
| 3/1441 | {spreading the width of a shoe, i.e. laterally expandable} |
| 3/145 | {adjustable} |
| 3/1458 | {by a screw} |
| 3/1466 | {stretching the length of a shoe, i.e. longitudinally expandable} |
| 3/1475 | {adjustable} |
| 3/1483 | {by a screw} |
| 3/1491 | {with means for sweaty feet, e.g. with disinfecting or deodorant means (cleaning of a footwear A47L 23/20)} |

<table>
<thead>
<tr>
<th>5/00</th>
<th>Hand appliances or hand tools for making or repairing shoes, other than those covered by groups A43D 15/00, A43D 19/00, A43D 95/00, A43D 100/00, A43D 117/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/005</td>
<td>{for heel removing}</td>
</tr>
<tr>
<td>5/02</td>
<td>Stands for making footwear (stands for cleaning shoes A47L 23/16)</td>
</tr>
<tr>
<td>5/04</td>
<td>Knives (knives in general B26B)</td>
</tr>
<tr>
<td>5/06</td>
<td>Tools for cutting off the ends of nails or pegs in shoes</td>
</tr>
<tr>
<td>5/08</td>
<td>Awls (making B21G)</td>
</tr>
<tr>
<td>5/10</td>
<td>Shoe-peg rasps (wood rasps B27G 17/06)</td>
</tr>
<tr>
<td>5/12</td>
<td>Hand nailing apparatus for shoemaking (A43D 19/02 takes precedence; nailing apparatus in general B25C, B27F)</td>
</tr>
<tr>
<td>5/14</td>
<td>Hand pincers for stapling</td>
</tr>
</tbody>
</table>

| 8/00 | Machines for cutting, ornamenting, marking or otherwise working up shoe part blanks (pulling-over or lasting A43D 9/00 - A43D 23/00; making or fastening soles, heels or welt A43D 25/00 - A43D 83/00) |
Measuring devices; Lasts; Tools

8/003 . [specially adapted for forming upper blanks or leggings by stretching]
8/006 . [for forming shoe stiffeners]
8/02 . Cutting-out (cutting in general B26D; B26F; of leather articles in general C14B 5/00)
8/04 . . Stamping-out (A43D 8/10 takes precedence)
8/06 . . Dies therefor
8/08 . . . Combined stamping-out and bonding, e.g. high frequency electric current being applied between cutting edge and work support
8/10 . . . Cutting-out using pattern grading (for trimming A43D 8/38; pattern grading in making clothes A41H 3/00; pattern copying in general B23Q 33/00, B23Q 35/00)
8/12 . . . Patterns or templates therefor
8/14 . . . Ornamentation (by creasing A43D 8/44; of leather in general C14B 1/56)
8/18 . . by punching or perforating (punching for eyelet-setting A43D 100/02)
8/20 . . . Dies therefor
8/22 . . by embossing or printing (printing per se, stamping per se B41)
8/24 . . . Embossing using heat, e.g. high frequency electric current
8/26 . . . Marking for future work (A43D 8/16 takes precedence; printing per se, stamping per se B41)
8/265 . . . (Marking buttonhole locations)
8/28 . . . Patterns for drawing cut-outs (in making clothes A41H 3/00)
8/30 . . . Charting sheet material for subsequent cutting
8/32 . . . Working on edges or margins (of leather in general C14B 1/02, C14B 11/00)
8/34 . . . by skiving (A43D 8/48 takes precedence)
8/36 . . . by trimming the margins of sole blanks (trimming as an intermediate operation in shoemaking A43D 27/00; as a finishing operation in shoemaking A43D 87/00)
8/38 . . . by cutting-out, e.g. using templates
8/40 . . . by folding, turning in or over, hammering
8/42 . . . by singeing, contracting, dyeing
8/44 . . Creasing presses (folding on margins A43D 8/40)
8/46 . .Splitting (of leather in general C14B 1/02)
8/48 . . . combined with skiving
8/50 . . . Combined splitting and trimming of the heel-seat portions of sole blanks (of soles fixed to shoe bottoms A43D 27/04)
8/52 . . Flexing (of leather in general C14B)
8/54 . . . by milling
8/56 . . . of sole blanks by slitting

Pulling-over or lasting

9/00 Devices for binding the uppers upon the lasts (for the toe ends A43D 15/00)
11/00 Machines for preliminary treatment or assembling of upper-parts, counters, or insoles on their lasts preparatory to the pulling-over or lasting operations; Applying or removing protective coverings
11/003 . [Applying or removing protective coverings]
11/006 . [Devices for temporarily fixing or aligning insoles on lasts]
11/01 . Machines for applying reinforcement or ornamental straps to the margins of uppers (to soles or insoles A43D 45/06)
11/02 . . to the margins thereof
11/03 . . Coating with thermoplastic materials to stiffen the toe or heel portion
11/04 . . Machines for seam-pressing or flattening shoe parts, quarters, or the like (on lasted shoes A43D 55/00)
11/06 . . Machines for temporary buttoning of shoe parts
11/08 . . Machines for temporary lacing of shoe parts or for cutting-away the lacing strips after lasting
11/085 . . (Lacing machines)
11/10 . . Devices for holding the lacing portions in position during lasting
11/12 . . Machines for forming the toe part or heel part of shoes, with or without use of heat
11/14 . . Devices for treating shoe parts, e.g. stiffeners, with steam or liquid (for soled shoes A43D 95/12)
11/145 . . (with means, e.g. heat, for continuously transferring the shoe parts through the machines)
13/00 Machines for pulling-over the uppers when loosely laid upon the last and tacking the toe end
13/02 . . Devices for locating caps or stiffeners on pulling-over machines
15/00 Pulling-over or lasting machines for binding the toe end with cord, string, or wire; Machines for lasting with clamps; Lasting machines with sewing devices, also for platform shoes (special sewing machines for leather or shoes D05B)
17/00 Pulling-over or lasting machines with oscillating shoe supports
19/00 Hand lasting; Lasting pincers
19/02 . . Tacking or nailing devices for use with lasting pincers
21/00 Lasting machines
21/003 . . [with lasting strings, stretching straps or the like, for forming the shank portions of shoes]
21/006 . . [with rotating lasting means]
21/02 . . with one single lasting gripper
21/04 . . for lasting the opposite sides of the shoe one after another
21/06 . . for wooden soles (A43D 21/16, A43D 21/18 take precedence)
21/08 . . with last supports and toe- or heel-embracing wipers movable both horizontally and vertically (A43D 21/16 takes precedence)
21/10 . . Bed-lasting machines
21/12 . . with lasting clamps, shoe-shaped clamps, [pincers,] wipers, stretching straps or the like for forming the toe or heel parts of the last (A43D 21/16, A43D 21/18 take precedence)
21/122 . . [with pincers and clamps]
21/125 . . [with a plurality of pincers (A43D 21/122 takes precedence)]
21/127 . . [with wipers (A43D 21/16, A43D 21/18 take precedence)]
21/14 . . for toe or heel parts, with nailing devices
21/16 . . with lasting pincers [and] toe- or heel-embracing wipers
21/163 . . [with heel-embracing wipers]
Making or fastening soles, heels or welts, or preparing same for fastening to the shoe: Carrying out other operations subsequent to lasting: Turning (sewing D05B)

25/00 Devices for gluing shoe parts
25/047 . Devices for lasting with adhesives or for gluing together insoles and uppers (A43D 25/18, A43D 25/20 take precedence)
25/053 . with rotating gripping means
25/06 . Devices for gluing soles on shoe bottoms (A43D 25/18, A43D 25/20 take precedence)
25/063 . [Multiple pressing devices in a closed circuit, e.g. rotating multiple pressing devices]
25/066 . [Heel clamps or heel presses for gluing heels to shoe bottoms]
25/07 . using flexible diaphragm pressing devices
25/08 . Welt hold-down devices
25/10 . Press-pads or other supports of shoe-gluing presses
25/12 . Devices for gluing heel-breasts to heels or for gluing coverings on heels (A43D 25/18, A43D 25/20 take precedence)
25/123 . [Devices for gluing heel-breasts to heels]
25/126 . [Devices for gluing coverings on heels]
25/14 . Devices for filling the shoe bottom
25/16 . Devices for making glued platform shoes
25/18 . Devices for applying adhesives to shoe parts (A43D 25/20 takes precedence; applying liquids or other fluent materials to surfaces in general B05)
25/181 . [by rollers]
25/183 . [by nozzles]
25/185 . [by imprinter plates]
25/186 . [by dipping]
25/188 . [by grids]
25/20 . Arrangements for activating or for accelerating setting of adhesives, e.g. by using heat

27/00 Machines for trimming as an intermediate operation (working on edges or margins, e.g. by trimming, of shoe part blanks A43D 8/32; trimming as a finishing operation in shoemaking A43D 8/700)
27/02 . Soles or heels fixed on shoe bottoms (stamps or dies for soles or heel-lifts C14B)
27/04 . Heel-end portions of soles fixed on shoe bottoms (on loose soles A43D 8/46)
27/06 . Heel breast flaps

29/00 Machines for making soles from strips of material

31/00 Machines for making or inserting shank stiffeners
31/02 . Machines for making shank stiffeners

31/04 . Machines for inserting shank stiffeners
33/00 Machines for assembling lifts for heels (cutting-out heel lifts A43D 8/02)
33/02 . Gauges for heel lifts; Magazines for piling up heel lifts
33/04 . Nailing machines for building the heels from lifts
33/06 . Machines for sorting heel lifts

35/00 presses for shaping pre-existing loose soles, shoe bottoms or soles fixed to shoe bottoms (glueing soles on shoe bottoms A43D 25/06)

37/00 Machines for roughening soles or other shoe parts preparatory to gluing
37/005 . [characterised by constructional details of the rotative tools used therewith]

39/00 Machines for making foot-supporting pads or instep-raisers for flat feet
43/00 Machines for making stitch lips, or other preparatory treatment of soles or insoles before fixing same (flexing of soles or insoles A43D 8/02)
43/02 . for making stitch lips by cutting
43/06 . for applying reinforcing materials to insoles; Attachment of ornamental tapes or ribs, e.g. sewing ribs, on soles, or the like

44/00 Machines for attaching welts or rands
47/00 Machines for trimming or butting welts fixed on uppers
49/00 Machines for pounding
51/00 Machines for lip-setting
53/00 Machines for trimming-off surplus material along the inseam
55/00 Machines for flattening, pressing, or rubbing the inseams of lasted shoes
57/00 Machines for attaching the welt ends
59/00 Machines for rasping the lasting-margins of shoes which are sewn through
61/00 Machines for nail-pulling, nail-cutting, or nail-detecting
63/00 Machines for carrying-out other finishing operations
67/00 Machines for fastening soles or heels by means of screws or screwed wire
69/00 Shoe-nailing machines (nailing machines in general B27F)
69/005 . [using nails being made from alternative materials, e.g. leather]
69/02 . using ready-made nails
69/04 . with apparatus for separating the nails from a wire or from a strip of metal or other material
69/06 . using ready-made staples
69/08 . with apparatus for making staples
69/10 . using ready-made wooden pegs
69/12 . with apparatus for separating the pegs from a strip of wood
Performing finishing operations upon uppers, soles, or heels on soled shoes: Making shoe appurtenances

86/00 Machines for assembling soles or heels onto uppers, not provided for in groups A43D 25/00 - A43D 83/00, e.g. by welding

87/00 Edge or heel cutters; Machines for trimming the heel breast (trimming machines for wooden heels B27M; copying machines B44B)

89/00 Sole-leveling machines with rolls

91/00 Stitch-separating or seam-indenting machines

93/00 Edge-indenting machines

95/00 Shoe-finishing machines

95/02 Machines for treating or smoothing shoe uppers to remove wrinkles, folds, or the like

95/04 Machines for laying channel-flaps

95/06 Machines for colouring or chemical treatment; Ornamenting the sole bottoms (burnishing A43D 95/20)

95/08 Machines or tools for scouring, abrading, or finishing, with or without dust-separating (suction cleaners for removing dust A47L 5/00; domestic cleaning of footwear A47L 23/00)

95/10 Drying or heating devices for shoes

95/12 Devices for conditioning, tempering, or moistening (preparatory to pulling-over or lasting A43D 11/14)

95/125 [with means, e.g. transport chains, for continuously transferring shoes through the devices]

95/14 Incorporating marking, printing, or embossing apparatus (ornamentation of shoe part blanks A43D 8/16; printing per se, stamping per se B41)

95/16 Burnishing tools for shoemaking (in general B24D)

95/18 Devices for heating the burnishing tools for shoemaking

95/20 Machines for burnishing soles or heels

95/22 Machines for burning the edges of soles, with or without devices for edge-indenting

95/24 Machines for buffing soles

95/26 Devices for applying wax

95/28 Machines for attaching protectors to soles or heels

97/00 Machines for making pulling-on pieces

98/00 Machines for making laces (of leather C14B; braidings in general D04C); Applying fibre or celluloid to ends of laces (making tags from metal sheet B21D; from wire B21F)

100/00 Setting or removing eyelets, buttons, lacing-hooks, or elastic gussets in shoes

100/02 Punching and eyelet-setting machines or tools (for garments A41H 37/02)

100/04 Inserting invisible eyelets

100/06 Inserting two eyelets simultaneously

100/08 Setting buttons on footwear (for garments A41H 37/00)

100/10 Machines or tools for setting lacing-hooks in shoes

100/12 Machines for inserting elastic gussets in shoes

100/14 Devices for removing buttons, lacing-hooks, or the like from shoes

Miscellaneous mechanisms for shoemaking

111/00 Shoe machines with conveyors for jacked shoes (or for shoes or shoe parts)

111/003 [with clamping or gripping mechanism]

111/006 [with special means to place the shoe or shoe part in the following machine]

113/00 Machines for making shoes with out-turned flanges of the uppers or for making mocassins

115/00 Machines for skiving or removing heel-lifts, heels, or soles, or for removing stitches, preparatory to repair

117/00 Racks for receiving or transporting shoes or shoe parts; Other conveying means

119/00 Driving or controlling mechanisms of shoe machines; Frames for shoe machines

220/00 Machines or methods characterised by special features

220/10 Fully automated machines, i.e. machines working without human intervention

220/20 Machines including a carousel with different working posts around a turning table

220/30 Machines including a magazine, e.g. for feeding blanks, pre-forms or sheets

220/40 Multitool machines, e.g. machines with a plurality of tools or working heads

220/50 Machines using pneumatic means

220/60 Computer aided manufacture of footwear, e.g. CAD or CAM

999/00 Subject matter not provided for in other groups of this subclass