

CPC**COOPERATIVE PATENT CLASSIFICATION****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.

Guidance heading: Measuring devices; Lasts; Tools

A43D 1/00**Foot or last measuring devices; Measuring devices for shoe parts**

- A43D 1/02 . 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](#))
- A43D 1/022 . . { involving making footprints or permanent moulds of the foot }
- A43D 1/025 . . { comprising optical means, e.g. mirrors, photo-electric cells, for measuring or inspecting feet }
- A43D 1/027 . . { Shoe fit indicating devices }
- A43D 1/04 . Last-measuring devices
- A43D 1/06 . Measuring devices for the inside measure of shoes, for the height of heels, or for the arrangement of heels
- A43D 1/08 . Measuring devices for shoe parts

A43D 3/00**Lasts**

- A43D 3/02 . Lasts for making or repairing shoes (making of wooden lasts [B27M 3/20](#))
- A43D 3/021 . . { for orthopaedic footwear }
- A43D 3/022 . . { comprising means, e.g. hooks, for holding, fixing or centering shoe parts on the last }
- A43D 3/023 . . { Hinge constructions for articulated lasts }
- A43D 3/024 . . { Lasts with a fore part and heel section relatively slideable to one another along an inclined line of cut }
- A43D 3/025 . . { Longitudinally expansible lasts }
- A43D 3/026 . . { Lasts for making rubber footwear or for vulcanizing rubber soles to footwear }
- A43D 3/027 . . { Lasts with exchangeable parts, e.g. for changing the form or for remodelling }
- A43D 3/028 . . { Tack retaining means for lasts }
- A43D 3/029 . . { Constructional features of the heel section }
- A43D 3/04 . Pneumatic lasts; Elastic lasts

- A43D 3/06 . Wedge locks for lasts
- A43D 3/08 . Devices for stretching special parts of shoes
- A43D 3/10 . Devices for removing lasts
- A43D 3/12 . Devices for inserting or reinserting lasts
- A43D 3/14 . Stretching or spreading lasts; Boot-trees; Fillers; Devices for maintaining the shape of the shoe ([drying of footwear A47L 23/20](#))
- A43D 3/1408 .. { Devices for heating or drying shoes }
- A43D 3/1416 .. { Boot-trees }
- A43D 3/1425 .. { Devices for sole stretching }
- A43D 3/1433 .. { Shoe-trees }
- A43D 3/1441 ... { spreading the width of a shoe, i.e. laterally expandable }
- A43D 3/145 { adjustable }
- A43D 3/1458 { by a screw }
- A43D 3/1466 ... { stretching the length of a shoe, i.e. longitudinally expandable }
- A43D 3/1475 { adjustable }
- A43D 3/1483 { by a screw }
- A43D 3/1491 ... { with means for sweaty feet, e.g. with disinfecting or deodorant means ([cleaning of a footwear A47L 23/20](#)) }

- A43D 5/00** **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](#)**
- A43D 5/005 . { for heel removing }
- A43D 5/02 . Stands for making footwear ([stands for cleaning shoes A47L 23/16](#))
- A43D 5/04 . Knives ([knives in general B26B](#))
- A43D 5/06 . Tools for cutting off the ends of nails or pegs in shoes
- A43D 5/08 . Awls ([making B21G](#))
- A43D 5/10 . Shoe-peg rasps ([wood rasps B27G 17/06](#))
- A43D 5/12 . Hand nailing apparatus for shoemaking ([A43D 19/02](#) takes precedence; nailing apparatus in general [B25C](#), [B27F](#))
- A43D 5/14 .. Hand pincers for stapling

- A43D 8/00** **Machines for cutting, ornamenting, marking or otherwise working up shoe part blanks ([pulling-over or lasting A43D 9/00](#) to [A43D 23/00](#); making or fastening soles, heels or welts [A43D 25/00](#) to [A43D 83/00](#))**
- A43D 8/003 . { specially adapted for forming upper blanks or leggings by stretching }

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

Guidance heading: Pulling-over or lasting

A43D 9/00 Devices for binding the uppers upon the lasts (for the toe ends [A43D 15/00](#))

- A43D 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**
- A43D 11/003 . { Applying or removing protective coverings }
- A43D 11/006 . { Devices for temporarily fixing or aligning insoles on lasts }
- A43D 11/01 . Machines for applying reinforcement or ornamental straps to the margins of uppers (to soles or insoles [A43D 43/06](#))
- A43D 11/02 . . to the margins thereof
- A43D 11/03 . . Coating with thermoplastic materials to stiffen the toe or heel portion
- A43D 11/04 . Machines for seam-pressing or flattening shoe parts, quarters, or the like (on lasted shoes [A43D 55/00](#))
- A43D 11/06 . Machines for temporary buttoning of shoe parts
- A43D 11/08 . Machines for temporary lacing of shoe parts or for cutting-away the lacing strips after lasting
- A43D 11/085 . . { Lacing machines }
- A43D 11/10 . Devices for holding the lacing portions in position during lasting
- A43D 11/12 . Machines for forming the toe part or heel part of shoes, with or without use of heat
- A43D 11/14 . Devices for treating shoe parts, e.g. stiffeners, with steam or liquid (for soled shoes [A43D 95/12](#))
- A43D 11/145 . . { with means, e.g. transport chains, for continuously transferring the shoe parts through the machines }
- A43D 13/00** **Machines for pulling-over the uppers when loosely laid upon the last and tacking the toe end**
- A43D 13/02 . Devices for locating caps or stiffeners on pulling-over machines
- A43D 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](#))**
- A43D 17/00** **Pulling-over or lasting machines with oscillating shoe supports**
- A43D 19/00** **Hand lasting; Lasting pincers**
- A43D 19/02 . Tacking or nailing devices for use with lasting pincers
- A43D 21/00** **Lasting machines**

- A43D 21/003 . { with lasting strings, stretching straps or the like, for forming the shank portions of shoes }
- A43D 21/006 . { with rotating lasting means }
- A43D 21/02 . with one single lasting gripper
- A43D 21/04 . for lasting the opposite sides of the shoe one after another
- A43D 21/06 . for wooden soles ([A43D 21/16](#), [A43D 21/18](#) take precedence)
- A43D 21/08 . with last supports and toe- or heel-embracing wipers movable both horizontally and vertically ([A43D 21/16](#) takes precedence)
- A43D 21/10 . Bed-lasting machines
- A43D 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)}
- A43D 21/122 .. { with pincers and clamps }
- A43D 21/125 .. { with a plurality of pincers ([A43D 21/122](#) takes precedence)}
- A43D 21/127 .. { with wipers ([A43D 21/16](#), [A43D 21/18](#) take precedence)}
- A43D 21/14 . for toe or heel parts, with nailing devices
- A43D 21/16 . with lasting pincers { and } toe- or heel-embracing wipers
- A43D 21/163 .. { with heel-embracing wipers }
- A43D 21/166 .. { with toe-embracing wipers }
- A43D 21/18 . with lasting pincers and straight-acting wipers, also for forming the shank portions of shoes

- A43D 23/00** **Single parts for pulling-over or lasting machines ([nailing devices A43D 75/00](#))**
- A43D 23/02 . Wipers; Sole-pressers; Last-supports; Pincers
- A43D 23/022 .. { Sole-pressers }
- A43D 23/025 .. { Last-supports }
- A43D 23/027 .. { Pincers }
- A43D 23/04 . Last-carriers; Shoe-guides
- A43D 23/06 . Devices for cutting-off superfluous material on the uppers or linings

- Guidance heading:** **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](#))**

- A43D 25/00** **Devices for gluing shoe parts**
- A43D 25/047 . Devices for lasting with adhesives or for gluing together insoles and uppers

- [25/18](#), [A43D 25/20](#) take precedence)
- A43D 25/053 . . with rotating gripping means
 - A43D 25/06 . Devices for gluing soles on shoe bottoms ([A32D 25/18](#), [A43D 25/20](#) take precedence)
 - A43D 25/063 . . { Multiple pressing devices in a closed circuit, e.g. rotating multiple pressing devices }
 - A43D 25/066 . . { Heel clamps or heel presses for glueing heels to shoe bottoms }
 - A43D 25/07 . . using flexible diaphragm pressing devices
 - A43D 25/08 . . Welt hold-down devices
 - A43D 25/10 . . Press-pads or other supports of shoe-gluing presses
 - A43D 25/12 . Devices for gluing heel-breasts to heels or for gluing coverings on heels ([A43D 25/18](#), [A43D 25/20](#) take precedence)
 - A43D 25/123 . . { Devices for glueing heel-breasts to heels }
 - A43D 25/126 . . { Devices for glueing coverings on heels }
 - A43D 25/14 . Devices for filling the shoe bottom
 - A43D 25/16 . Devices for making glued platform shoes
 - A43D 25/18 . Devices for applying adhesives to shoe parts ([A43DF25/20](#) takes precedence; applying liquids or other fluent materials to surfaces in general [B05](#))
 - A43D 25/181 . . { by rollers }
 - A43D 25/183 . . { by nozzles }
 - A43D 25/185 . . { by imprinter plates }
 - A43D 25/186 . . { by dipping }
 - A43D 25/188 . . { by grids }
 - A43D 25/20 . Arrangements for activating or for accelerating setting of adhesives, e.g. by using heat
 - A43D 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 87/00](#))
 - A43D 27/02 . Soles or heels fixed on shoe bottoms (stamps or dies for soles or heel-lifts [C14B](#))
 - A43D 27/04 . . Heel-end portions of soles fixed on shoe bottoms (on loose soles [A43D 8/46](#))
 - A43D 27/06 . . Heel breast flaps
 - A43D 29/00** **Machines for making soles from strips of material**
 - A43D 31/00** **Machines for making or inserting shank stiffeners**
 - A43D 31/02 . Machines for making shank stiffeners
 - A43D 31/04 . Machines for inserting shank stiffeners

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| A43D 33/00 | Machines for assembling lifts for heels (cutting-out heel lifts A43D 8/02) |
| A43D 33/02 | . Gauges for heel lifts; Magazines for piling up heel lifts |
| A43D 33/04 | . Nailing machines for building the heels from lifts |
| A43D 33/06 | . Machines for sorting heel lifts |
| A43D 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) |
| A43D 37/00 | Machines for roughening soles or other shoe parts preparatory to gluing |
| A43D 37/005 | . { characterised by constructional details of the rotative tools used therewith } |
| A43D 39/00 | Machines for making foot-supporting pads or instep-raisers for flat feet |
| A43D 43/00 | Machines for making stitch lips, or other preparatory treatment of soles or insoles before fixing same (flexing of soles or insoles A43D 8/52) |
| A43D 43/02 | . for making stitch lips by cutting |
| A43D 43/06 | . for applying reinforcing materials to insoles; Attachment of ornamental tapes or ribs, e.g. sewing ribs, on soles, or the like |
| A43D 44/00 | Machines for attaching welts or rands |
| A43D 47/00 | Machines for trimming or butting welts fixed on uppers |
| A43D 49/00 | Machines for pounding |
| A43D 51/00 | Machines for lip-setting |
| A43D 53/00 | Machines for trimming-off surplus material along the inseam |
| A43D 55/00 | Machines for flattening, pressing, or rubbing the inseams of lasted shoes |
| A43D 57/00 | Machines for attaching the welt ends |
| A43D 59/00 | Machines for rasping the lasting-margins of shoes which are sewn through |
| A43D 61/00 | Machines for nail-pulling, nail-cutting, or nail-detecting |

- A43D 63/00** **Machines for carrying-out other finishing operations**
- A43D 67/00** **Machines for fastening soles or heels by means of screws or screwed wire**
- A43D 69/00** **Shoe-nailing machines ([nailing machines in general B27F](#))**
- A43D 69/005 . { [using nails being made from alternative materials, e.g. leather](#) }
- A43D 69/02 . using ready-made nails
- A43D 69/04 . with apparatus for separating the nails from a wire or from a strip of metal or other material
- A43D 69/06 . using ready-made staples
- A43D 69/08 . with apparatus for making staples
- A43D 69/10 . using ready-made wooden pegs
- A43D 69/12 . with apparatus for separating the pegs from a strip of wood
- A43D 69/14 . for nailing or stapling the lasted margin onto shoes with wooden soles
- A43D 71/00** **Elements of nailing machines; Nail-feeding devices**
- A43D 71/02 . Driving mechanisms for moving the horn; Nail-cutting apparatus connected with the horn
- A43D 75/00** **Nailing devices on pulling-over or lasting machines**
- A43D 79/00** **Combined heel-pressing and nailing machines**
- A43D 81/00** **Machines for attaching top-lifts**
- A43D 83/00** **Heel-presses without nailing apparatus; Machines for pressing single lifts or punching holes for nailing**
- A43D 85/00** **Machines or apparatus for turning, e.g. for making turn-shoes**
- A43D 86/00** **Machines for assembling soles or heels onto uppers, not provided for in groups [A43D 25/00](#) to [A43D 83/00](#), e.g. by welding**
- Guidance heading:** **Performing finishing operations upon uppers, soles, or heels on soled shoes; Making shoe appurtenances**

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| A43D 87/00 | Edge or heel cutters; Machines for trimming the heel breast (trimming machines for wooden heels B27M; copying machines B44B) |
| A43D 89/00 | Sole-levelling machines with rolls |
| A43D 91/00 | Stitch-separating or seam-indenting machines |
| A43D 93/00 | Edge-indenting machines |
| A43D 95/00 | Shoe-finishing machines |
| A43D 95/02 | . Machines for treating or smoothing shoe uppers to remove wrinkles, folds, or the like |
| A43D 95/04 | . Machines for laying channel-flaps |
| A43D 95/06 | . Machines for colouring or chemical treatment; Ornamenting the sole bottoms (burnishing A43D 95/20) |
| A43D 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) |
| A43D 95/10 | . Drying or heating devices for shoes |
| A43D 95/12 | . Devices for conditioning, tempering, or moistening (preparatory to pulling-over or lasting A43D 11/14) |
| A43D 95/125 | . . { with means, e.g. transport chains, for continuously transferring shoes through the devices } |
| A43D 95/14 | . incorporating marking, printing, or embossing apparatus (ornamentation of shoe part blanks A43D 8/16 ; printing per se , stamping per se B41) |
| A43D 95/16 | . Burnishing tools for shoemaking (in general B24D) |
| A43D 95/18 | . . Devices for heating the burnishing tools for shoemaking |
| A43D 95/20 | . Machines for burnishing soles or heels |
| A43D 95/22 | . Machines for burnishing the edges of soles, with or without devices for edge-indenting |
| A43D 95/24 | . Machines for buffing soles |
| A43D 95/26 | . Devices for applying wax |
| A43D 95/28 | . Machines for attaching protectors to soles or heels |
| A43D 97/00 | Machines for making pulling-on pieces |
| A43D 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](#))

A43D 100/00 **Setting or removing eyelets, buttons, lacing-hooks, or elastic gussets in shoes**

- A43D 100/02 . Punching and eyelet-setting machines or tools ([for garments in general A41H 37/02](#))
- A43D 100/04 . . inserting invisible eyelets
- A43D 100/06 . . inserting two eyelets simultaneously
- A43D 100/08 . Setting buttons on footwear ([for garments A41H 37/00](#))
- A43D 100/10 . Machines or tools for setting lacing-hooks in shoes
- A43D 100/12 . Machines for inserting elastic gussets in shoes
- A43D 100/14 . Devices for removing buttons, lacing-hooks, or the like from shoes

Guidance heading: **Miscellaneous mechanisms for shoemaking**

A43D 111/00 **Shoe machines with conveyers for jacked shoes** { [or for shoes or shoe parts](#) }

- A43D 111/003 . with clamping or gripping mechanism
- A43D 111/006 . with special means to place the shoe or shoe part in the following machine

A43D 113/00 **Machines for making shoes with out-turned flanges of the uppers or for making moccasins**

A43D 115/00 **Machines for skiving or removing heel-lifts, heels, or soles, or for removing stitches, preparatory to repair**

A43D 117/00 **Racks for receiving or transporting shoes or shoe parts; Other conveying means**

A43D 119/00 **Driving or controlling mechanisms of shoe machines; Frames for shoe machines**

A43D 999/00 **Subject matter not provided for in other groups of this subclass**

A43D 2200/00 **Machines or methods characterised by special features**

- A43D 2200/10 . Fully automated machines, i.e. machines working without human intervention
- A43D 2200/20 . Machines including a carousel with different working posts around a turning table
- A43D 2200/30 . Machines including a magazine, e.g. for feeding blanks, pre-forms or sheets

- [A43D 2200/40](#) . Multitool machines, e.g. machines with a plurality of tools or working heads
- [A43D 2200/50](#) . Machines using pneumatic means
- [A43D 2200/60](#) . Computer aided manufacture of footwear, e.g. CAD or CAM