

## **H. Manufacturing process workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities, the work of processing raw materials using machinery, apparatus, hand tools, etc., the work of assembling, adjusting, repairing and inspecting various mechanical apparatus, the work of platemaking, printing, bookbinding and others in the book-making process, and the work similar to manufacturing that require skills.

### **49 Manufacturing facility control and monitoring workers (metal products)**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture and process products such as processing raw materials related to metal products, providing materials for manufacturing and processing of products, shaping, deformation, cutting, grinding, etc. of materials by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **491 Pig-iron forging, steelmaking, non-ferrous metal smelting facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture pig-iron, steel, and non-ferrous metals by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **492 Cast metal manufacturing and forging facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture cast and forged metals and by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **493 Metal machine tools facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture metal products by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **494 Metal press facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that press metals by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **495 Ironwork and boilermaking facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that conduct ironwork and boiler-making by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **496 Sheet metal facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that conduct sheet metal processing by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **497 Metal sculpture and plating facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that conduct metal sculpture and plating by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational

conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **498 Metal welding and fusion cutting facility control and monitoring**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that conduct metal welding and fusion cutting by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

#### **499 Other manufacturing facility control and monitoring workers (metal products)**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that conduct processing not included in Unit Groups [491-498] by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., without touching materials to directly treat, process or otherwise handle them.

## **50 Manufacturing facility control and monitoring workers (except metal products)**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc. for the purpose of controlling and monitoring manufacturing facilities that manufacture and process products by processing raw materials related to chemical products, ceramic materials, earth and stone products, food articles, beverages, tobaccos, spinning and weaving, apparel, textile products, wooden products, paper products, printing and bookbinding, rubber and plastic products, etc. and providing materials for manufacturing and processing of products, shaping, deformation, cutting, grinding, etc. of materials, without touching materials to directly treat, process or otherwise handle them.

## **501 Chemical product manufacturing facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc. for the purpose of controlling and monitoring manufacturing facilities that manufacture and process chemical products such as chemical agents, chemical textiles, fats and oils, medical goods, etc., without touching materials to directly treat, process or otherwise handle them. This also includes individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture salt.

However, individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture animal and vegetable oils are classified under Unit Group [503].

## **502 Ceramic, earth, and stone product manufacturing facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the purpose of treating, shaping, baking, processing, finishing, and handling in other ways raw materials in the course of manufacturing of glass products, bricks, roof tiles, ceramic ware, cements, etc. and controlling and monitoring manufacturing facilities that treat, shape, and finish raw materials of stone products, without touching materials to directly treat, process or

otherwise handle them.

### **503 Food manufacturing facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the purpose of cleaning grains, milling flour and manufacturing flavoring materials such as sugar, fermented bean paste, soy sauce, animal and vegetable oils, etc. and monitoring manufacturing facilities that manufacture noodles, breads, confections, soybean curd, alimentary yam paste, wheat gluten cakes, milk, milk products and meat products, manufacture preserved foods such as canned and bottled foods and treat and process fishery products, without touching materials to directly treat, process or otherwise handle them.

However, individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture salt and hydrolyzed vegetable protein are classified under Unit Group [501]; individuals who are engaged in farm cultivation and fishery work and also in simple processing work as an extension thereof are classified under Minor Group [46 or 48], and individuals engaged in the work of livestock slaughter are classified under Unit Group [539].

### **504 Beverage and cigarette manufacturing facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the purpose of monitoring manufacturing facilities that manufacture cooling beverage, preference beverage and cigarettes, without touching materials to directly treat, process or otherwise handle them.

However, individuals who are engaged in farm cultivation work and also in simple processing work as an extension thereof are classified under Minor Group [46].

### **505 Spinning, weaving, apparel, and fiber product manufacturing facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the

purpose of monitoring manufacturing facilities that manufacture yarn, manufacture, bleach, refine and dye woven fabrics, knitted materials, knitted lace, ropes and nets, felt and others, manufacture apparel, hats, and other similar products by cutting, processing and sewing cloth (including knit fabric), Sanada string, etc. , without touching materials to directly treat, process or otherwise handle them. Individuals engaged in the work of cutting and sewing apparel made of tanned leather or fur are also included.

However, individuals engaged in controlling and monitoring manufacturing facilities that perform chemical fiber manufacturing or spinning and weaving work are classified under Unit Group [501], and individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture bags are classified under Unit Group [509].

### **506 Wooden and paper product manufacturing facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the purpose of monitoring manufacturing facilities that saw lumber into boards and blocks, manufacture wood chips and veneer boards, processing wood, bamboo, grass, vine and similar materials to manufacture various products, manufacturing paper and cardboards from pulp and other fibers and manufacture paper and cardboard processed products, without touching materials to directly treat, process or otherwise handle them.

However, individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture wooden toys, line chairs, etc., and mount and backline hanging scrolls, sliding screens and others are classified under Unit Group [509].

### **507 Printing and bookbinding facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the purpose of monitoring manufacturing facilities that perform the work of platemaking, printing, type founding, and bookbinding, without touching materials to directly treat, process or otherwise handle them. Individuals engaged in the work of printing and copying photographs are also included.

However, individuals engaged in the work of controlling and monitoring manufacturing facilities that manufacture woodblocks are classified under Unit Group [506].

### **508 Rubber, plastic product manufacturing facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the purpose of monitoring manufacturing facilities that perform work of processing raw rubber, shaping rubber products, vulcanization of rubber and other processes in the manufacture of rubber products (including synthetic rubber), shaping and processing plastic products, and other processes in the manufacture of plastic products, without touching materials to directly treat, process or otherwise handle them.

### **509 Other manufacturing facility control and monitoring workers (except metal products)**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the purpose of monitoring manufacturing facilities that perform work of manufacturing fur and tanned leather that are not covered under Unit Groups [501 to 508], manufacturing various leather products (except apparel), manufacturing briefcases, bags, toys, umbrellas, lanterns, fans, brooms, brushes, lacquerware, name seals, etc. or crafting precious metals, jewelry, tortoiseshell, antler, etc. that are not classified under other groups of lining, mounting, etc., without touching materials to directly treat, process or otherwise handle them.

## **51 Machine assembly facility control and monitoring workers**

This group comprises individuals engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as industrial robots, etc., for the purpose of monitoring manufacturing facilities that assemble various types of machinery such as electric machinery, transportation machinery, etc., without touching materials to directly treat, process or otherwise handle them.

### **511 General-purpose, manufacturing, and business-use mechanical apparatus assembly facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that assemble various types of machinery and equipment such as generating machinery, machine tools, agricultural machinery, construction machinery, spinning machinery, weaving machinery, printing machinery, business equipment, etc. (except electric machinery and equipment, transportation machinery and weighing and measuring instrument and optical machinery and equipment) by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as industrial robots, etc., without touching materials to directly treat, process or otherwise handle them.

### **512 Electro-mechanical apparatus assembly facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that assemble various types of electro-mechanical apparatus such as rotating electric machinery, switchboards, transformers, power transmission devices, current regulating devices, telecommunications mechanical apparatus, light bulbs, electron tubes, batteries, wiring, power cables and others by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as industrial robots, etc., without touching materials to directly treat, process or otherwise handle them.

### **513 Automobile assembly facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring



manufacturing facilities that conduct assembling automobile components, shaping (except sheet metal work) and assembling (except welding specialists) automobile bodies, assembling automobile chassis (except processing of chassis materials), and installing and fitting engines, electric equipment and instruments in automobiles by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as industrial robots, etc., without touching materials to directly treat, process or otherwise handle them.

**514 Transportation machinery assembly facility control and monitoring workers (except automobiles)**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that assemble various types of transport machinery such as bicycles, aircraft, railway cars, ships, and light-weight vehicles by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as industrial robots, etc., without touching materials to directly treat, process or otherwise handle them.

**515 Weighing and measuring appliance, photo-optic mechanical apparatus assembly facility control and monitoring workers**

This group comprises individuals engaged in the work of controlling and monitoring manufacturing facilities that assemble weighing and measuring appliances, clocks, and photo-optic mechanical apparatus by manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as industrial robots, etc., without touching materials to directly treat, process or otherwise handle them.

## **52 Product manufacturing and processing workers (metal products)**

This group comprises individuals engaged in the work of product manufacturing and treatment processes such as processing raw materials related to metal products, providing raw materials for product manufacturing and processing, shaping, deforming, cutting, grinding and otherwise handling raw materials by using tools, machinery, equipment and others.

However, individuals engaged in the work of controlling and monitoring automated manufacturing facilities that monitor operational status, adjusting operational conditions, and other handling of automated manufacturing facilities are classified under Minor Group [49].

### **521 Pig-iron forging, steelmaking, non-ferrous metal smelting workers**

This group comprises individuals engaged in the work of charging raw materials, monitoring furnace condition, tapping or removing slag, tapping pig-iron, casting pig-iron, casting iron and operating air-heating furnaces in order to manufacture pig-iron and iron alloys using blast furnaces and electric furnaces, the work of charging raw materials, managing the operation of furnaces, switching gas valves, extracting samples, tapping steel and making ingots in order to manufacture steel and special steel from pig-iron, molten pig-iron, iron and steel scrap, etc., using converter furnaces and various electric furnaces, and the work of melting iron for cast metal products using cupolas (molten pig-iron furnaces), small cupolas or various electric furnaces, and the work of charging raw materials, operating furnaces, monitoring the smelting process, melting raw ores, adjusting electrolytes, operating and lifting of electrodes, stripping crude sheet metal from electrodes, processing electrolysis baths, operating re-melting furnaces and making ingots for casting in order to manufacture non-ferrous metals from raw ores or scrap metal, or in order to re-melt and refine crude non-ferrous metals and manufacture refined non-ferrous metals, using smelting furnaces, reaction furnaces, conversion furnaces, retorts, crucibles, various electric furnaces, electrolysis tanks, etc.

### **522 Cast metal manufacturing and forging workers**

This group comprises individuals engaged in the work of using dummy molds to make sand molds and cores for casting molten metals, pouring molten metals into casting dies, metal dies, etc., assembled from these, and the work of tempering and processing metals into various shapes with forging machinery hammers or presses, using jigs, dies, etc., by heat, half-heat or at normal temperature. Forge managers are also included.

### **523 Metal machine tools workers**

This group comprises individuals engaged in the work of cutting and processing metal materials using lathes, milling machines, planing machines, shaping machines, slotting machines, drilling machines, boring machines, gear cutters, gear milling machines, gear shapers, hobbing machines, grinding machines, broaching machines, grooving machines, back-cutting machines, tapping machines, jig borers, metal turning lathes and other metal machine tools. Individuals who join plastic and other materials to metal materials for cutting are also included.

However, individuals who carry out fusion cutting using metal machine tools are classified under Unit Group [528].

### **524 Metal press workers**

This group comprises individuals engaged in the work of cold punching, bending, and pressing sheet metal into fixed shapes using presses, and the work of engraving.

However, individuals engaged solely in the work of punching holes using punching machines, and the work of attaching and adjusting punching, bending and pressing molds to presses are classified under Unit Group [529], and individuals who use a press machine in the process of sheet metal work are classified under Unit Group [526].

### **525 Ironworkers, boilermakers**

This group comprises individuals engaged in the work of creating lofted drawings, making templates, steel plate scribing, drilling holes, bending, assembling, caulking and chipping for the manufacture and assembly of steel towers, bridges, chimneys, steel frames, boilers, pressurized containers, tanks (iron tanks) and others. Individuals engaged in all or part of the work of drilling holes, bending, assembling, caulking and chipping and individuals engaged in bonding or fusion cutting metals in the process of ironworks or boiler works are also included.

However, individuals engaged solely in the work of developing lofted drawings, making templates and steel plate scribing are not included.

### **526 Sheet metal workers**

This group comprises individuals engaged in the work of cutting, bending, pressing and shaping thin sheet metal using metal cutting shears, hammers, simple cutters, bending rollers, etc., assembling processed thin sheet metal, joining with solder, hard solder, gas or electricity

and finishing. Individuals who use a press machine in the process of sheet metal work are also included.

However, individuals engaged only in soldering, gas welding or developing diagrams are not included.

### **527 Metal sculpture and plating workers**

This group comprises individuals engaged in the work of sculpting, cutting and processing patterns, letters, measuring scales, ruled lines and images in metals using various hand tools, machinery, or chemical etching technology, and the work of electric plating, dry plating, immersion plating, tunicated rustproofing (including coloring), alumite processing, electrolytic polishing and other plating work. Individuals engaged in the work of polishing, defatting and acid cleaning before plating, and water rinsing, hot water washing and finish polishing after plating and individuals engaged in the work of finishing metal materials, semi-finished products and products by removing defects, polishing, cutting and processing using grinders, whetstones, files, chisels, etc. are also included

However, individuals engaged in creating artworks and sculpting precious metals are not included. Individuals engaged solely in mechanical oil removal, rustproofing, polishing, glossing, covering and other processes are classified under Unit Group [529].

### **528 Metal welding and fusion cutting workers**

This group comprises individuals engaged in the work of arc welding, resistance welding and other methods of bonding metals using electric heat and the work of bonding or fusion cutting metals using oxyacetylene gas, plasma, lasers and other energy. Fusion cutting using metal machine tools is also included.

Individuals engaged in bonding or fusion cutting metals in the process of ironworks or boiler works are classified under Unit Group [525].

### **529 Other product manufacturing and processing workers (metal products)**

This group comprises individuals engaged in the work of normalizing, annealing, carburizing, quenching and tempering, nitriding, soft nitriding, etc., and giving metals fixed properties by heating and cooling metals, preparing items for heat treatment (except individuals engaged only in transporting) and post-processing, the work of operating rolling mills, handling processing materials, operating metal heating furnaces and correction rolling in order to

manufacture plates, filaments, and rods from metal ingots, sheets, bars, etc., manufacturing and refining metal pipes by extruding, drawing out, welding and other methods (irrespective of whether hot, cold or molten), welding, joint planing and saw cutting for connection to pipe-making machinery, and the work of melting for pipe-making by extruding molten metals, the work of drawing metal wire through holes in metal or diamond dies, and reeling wire, the work of pulverizing ores, calcination, sintering, briquetting, finishing, and other metal material manufacturing work not included in Unit Groups [521 and 522], the work of manufacturing netting, baskets, clips, laths and other wire products using machinery or hand tools, manufacturing needles and pins, and shaping springs by cold shaping, shaping metal screws by cold and hot shaping, the work of cutting, pressing, forming, drilling, trimming, grooving, prefetching, rolling, tapping, grinding (except buff grinding), and the work of cutting, perforating, shaping and polishing needle and pin material (except buff polishing), and cutting, scissor sharpening and other metal processing work not included in Unit Groups [523-528].

However, individuals engaged in the work of heat treating, plating and packaging needles and pins, cutting, grooving, welding, polishing, heat treating and coloring band metal materials or wires of spring material, and the work of heat treating, welding, plating, painting, and packaging of screws, and the work of manufacturing springs and screws by hot shaping are not included.

### **53 Product manufacturing and processing workers (except metal products)**

This group comprises individuals engaged in the work of manufacturing and processing products by processing raw materials related to chemical products, ceramic materials, earth and stone products, food articles, beverages, tobaccos, spinning and weaving, apparel, textile products, wooden products, paper products, printing and bookbinding, rubber and plastic products, etc. and providing materials for manufacturing and processing of products, shaping, deformation, cutting, grinding, etc. of materials by using tools, machinery, equipment and others.

However, individuals who are engaged in the work of manipulating automated manufacturing facilities including monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as various devices, plants, etc., for the purpose of monitoring manufacturing facilities in the course of manufacturing chemical products, ceramic materials, earth and stone products, food articles, beverages, tobaccos, spinning and weaving, apparel, textile products, wooden products, paper products, printing and bookbinding, rubber and plastic products, etc. are classified under Minor Group [50].

#### **531 Chemical product manufacturing workers**

This group comprises individuals engaged in the work of manufacturing and processing chemical drugs, chemical fibers, oils and fats, medicines and other chemical products by using tools, machinery, equipment and others. Individuals engaged in the work of saltmaking are also included.

However, individuals engaged in the work of manufacturing animal and vegetable oils and fats are classified under Unit Group [533].

#### **532 Ceramic, earth, and stone product manufacturing workers**

This group comprises individuals engaged in the work such as processing, shaping, firing, processing and finishing raw materials in the manufacture of glass products, bricks, tiles, porcelain and ceramics, cement and others and the work of processing, shaping and finishing raw materials for stone products by using tools, machinery, equipment and others.

#### **533 Food manufacturing workers**

This group comprises individuals engaged in the work of cereal polishing, flour milling and

manufacturing sugar, *miso*, soy sauce, animal and vegetable oils and fats and other seasoned foods and the work of manufacturing noodles, bread, confectionery, tofu, *konjak* jelly, wheat-gluten bread, milk, milk products and meat products, manufacturing canned, bottled and other preserved foods, and treating and processing fishery products by using tools, machinery, equipment and others.

However, individuals engaged in the work of salting and manufacturing amino acids are classified under Unit Group [531], individuals who are engaged in farm cultivation and fishery work and also in simple processing work as an extension thereof are classified under Minor Group [46 or 48], and individuals engaged in the work of livestock slaughter are classified under Unit Group [539].

#### **534 Beverage and cigarette manufacturing workers**

This group comprises individuals engaged in the work of manufacturing cooling beverage, preference beverage and cigarettes by using tools, machinery, equipment and others.

However, individuals engaged in simple processing work as an extension of farm cultivation work are classified under Minor Group [46].

#### **535 Spinning, weaving, apparel, and fiber product manufacturing workers**

This group comprises individuals engaged in the work of manufacturing yarn and manufacturing, bleaching, refining and dyeing woven fabrics, knitted materials, knitted lace, ropes and nets, felt and others and the work of manufacturing apparel, hats, and other similar products by cutting, processing and sewing cloth (including knit fabric), etc. by using tools, machinery, equipment and others. Individuals engaged in the work of cutting and sewing apparel made of tanned leather or fur are also included.

However, individuals engaged in chemical fiber manufacturing or spinning and weaving work are classified under Unit Group [531], and individuals engaged in the work of manufacturing bags are classified under Unit Group [539].

#### **536 Wooden and paper product manufacturing workers**

This group comprises individuals engaged in the work of creating boardwood, rectangular timber, and other timber materials, the work of manufacturing wood chips and plywood, the work of manufacturing various products by processing wood, bamboo, grass and vine and other similar materials, and the work of manufacturing pulp from timber, wood chips, recycled paper,

etc., manufacturing paper and cardboard from pulp and other fibers, and manufacturing paper and cardboard processed products by using tools, machinery, equipment and others.

However, individuals engaged in the work of manufacturing wooden toys, lining chairs, etc., and mounting picture scrolls, paper screens and others are classified under Unit Group [539].

### **537 Printing and bookbinding workers**

This group comprises individuals engaged in the work of platemaking, printing, type casting and bookbinding by using tools, machinery, equipment and others. Individuals engaged in the work of printing and copying photographs are also included.

However, individuals engaged in the work of manufacturing woodblocks are classified under Unit Group [536].

### **538 Rubber, plastic product manufacturing workers**

This group comprises individuals engaged in the work of processing raw rubber, shaping rubber products, vulcanization of rubber and other processes in the manufacture of rubber products (including synthetic rubber), shaping and processing plastic products, and other processes in the manufacture of plastic products by using tools, machinery, equipment and others.

### **539 Other product manufacturing and processing workers (except metal products)**

This group comprises individuals engaged in the work of manufacturing fur, tanned leather and various leather products (except apparel) not included in Unit Group [531-538], the work of manufacturing briefcases, bags, toys, umbrellas, lanterns, fans, brooms, brushes, lacquerware, name seals, etc., or crafting precious metals, jewelry, tortoiseshell, antler, etc., and the work of lining, paper hanging, and others not classified elsewhere by using tools, machinery, equipment and others.



## **54 Machine assembly workers**

This group comprises individuals engaged in the work of combining and adjusting individual parts by manual work to complete various machineries such as electric machinery and equipment, transportation machinery, etc.

However, individuals who are engaged in the work of controlling and monitoring automated manufacturing facilities in the course of assembling machinery such as monitoring operational status and adjusting operational conditions of automated manufacturing facilities such as industrial robots, etc. are classified under Minor Group [51].

### **541 General-purpose, manufacturing, and business-use mechanical apparatus assembly workers**

This group comprises individuals engaged in the work of assembling and adjusting motors, machine tools, agricultural machinery, construction machinery, spinning machinery, weaving machinery, printing machinery, office-use mechanical apparatus and various other mechanical apparatus (except electro-mechanical apparatus, transportation machinery and weighing and measuring appliances, photo-optic mechanical apparatus).

### **542 Electro-mechanical apparatus assembly workers**

This group comprises individuals engaged in the work of manufacture, assembly, and adjustment of rotating electric machinery, switchboards, transformers, power transmission devices, current regulating devices, telecommunications mechanical apparatus, light bulbs, electron tubes, batteries, wiring, power cables, and other electro-mechanical apparatus.

### **543 Automobile assembly workers**

This group comprises individuals engaged in the work of assembling automobile components using hand tools, shaping (except sheet metal work) and assembling (except welding specialists) automobile bodies, assembling automobile chassis (except processing of chassis materials) work, and installing and fitting engines, electric equipment and instruments in automobiles.

### **544 Transportation machinery assembly workers (except automobiles)**

This group comprises individuals engaged in the work of processing and assembling aircraft, railway vehicle, ships, light vehicles, and other transport machinery or their parts.

**545 Weighing and measuring appliance, photo-optic mechanical apparatus assembly workers**

This group comprises individuals engaged in the work of assembly and adjustment of weighing and measuring appliances, clocks and photo-optic mechanical apparatus, and polishing, adjustment, coating, assembly and calibration of lenses, prisms and others.

## **55 Machine maintenance and repair workers**

This group comprises individuals engaged in the work of maintenance and repair of machinery. Individuals who are engaged in the work of maintenance of manufacturing facilities at manufacturing site such as plants, etc. are also included.

### **551 General-purpose, manufacturing, and business-use mechanical apparatus maintenance and repair workers**

This group comprises individuals engaged in the work of partial repair, overall repair, and maintenance of motors, machine tools, agricultural machinery, construction machinery, spinning machinery, weaving machinery, printing machinery, office-use mechanical apparatus and various other mechanical apparatus (except electro-mechanical apparatus, transportation machinery, weighing and measuring appliances, and photo-optic mechanical apparatus).

However, individuals engaged solely in the cutting work of metal parts are classified under Unit Group [523].

### **552 Electro-mechanical apparatus maintenance and repair workers**

This group comprises individuals engaged in the work of repair of rotating electric machinery, switchboards, transformers, power transmission devices, current regulating devices, telecommunications mechanical apparatus, light bulbs, electron tubes, batteries, wiring, power cables, and other electro-mechanical apparatus.

### **553 Automobile maintenance and repair workers**

This group comprises individuals engaged in the work of maintenance and repair of automobile engines, bodies, chassis, body components and others.

However, individuals engaged in the work of repairing inner linings, repainting, and replacing glass are not included.

### **554 Transportation machinery maintenance and repair workers (except automobiles)**

This group comprises individuals engaged in the work of repair of aircraft, railway vehicle, ships, light vehicles, and other transport machinery or their parts.

**555 Weighing and measuring appliance, photo-optic mechanical apparatus maintenance  
and repair workers**

This group comprises individuals engaged in the work of repair of weighing and measuring appliances, clocks, and photo-optic mechanical apparatus.

## **56 Product inspection workers (metal products)**

This group comprises individuals engaged in the work of inspecting intermediate products and final products in manufacturing activities such as manufacturing metal materials or in the course of processing metal materials and welding and fusion of metals.

### **561 Metal material inspection workers**

This group comprises individuals engaged in the work related to inspection of products created by manufacturing and processing metal materials.

### **562 Metal processing, welding, fusion cutting workers**

This group comprises individuals engaged in the work of inspecting products manufactured by processing metal materials or welding or fusion of metals with electricity, gas, etc. by means of machinery or manual instruments

## **57 Product inspection workers (except metal products)**

This group comprises individuals engaged in the work of inspecting intermediate products and final products in manufacturing activities for chemical products, ceramic materials, earth and stone products, food articles, beverages, tobaccos, spinning and weaving, apparel, textile products, wooden products, paper products, printing and bookbinding, rubber and plastic products, etc.

### **571 Chemical product inspection workers**

This group comprises individuals engaged in the work of inspecting chemical products such as chemical agents, chemical fiber, fats and oils, medical goods, and others. Individuals engaged in the work of inspecting salt manufacturing are also included.

### **572 Ceramic, earth, and stone product inspection workers**

This group comprises individuals engaged in the work of inspecting glass products, brick, roof tiles, porcelain and ceramic, cement and stone products.

### **573 Food inspection workers**

This group comprises individuals engaged in the work of inspecting cleaned grains, milled flour, flavoring materials such as sugar, *miso*, soy sauce, animal and vegetable oils, etc., noodles, bread, confectionery, *tofu*, konjak jelly, wheat-gluten bread, milk, milk products, meat products, preserved foods such as canned and bottled foods, and products manufactured by treating or processing fishery products.

### **574 Beverage and cigarette inspection workers**

This group comprises individuals engaged in the work of inspecting manufactured cooling beverage, beverage of taste and cigarettes,

### **575 Spinning, weaving, apparel, and fiber product inspection workers**

This group comprises individuals engaged in the work of inspecting yarn and woven textiles, knitted materials, knitted lace, ropes and nets, felt and other products, bleached,

refined and dyed products, apparel, hats and other similar products manufactured by cutting, processing and sewing cloth (including knit fabric), Sanada string, etc., and clothing made of tanned leather and furs.

#### **576 Wooden and paper product inspection workers**

This group comprises individuals engaged in the work of inspecting timber such as boards and blocks, wood chips and veneer boards, various products made by processing wood, bamboo, grass, vine and similar materials, pulp made from wood, wood chips, used paper, etc., paper and cardboards manufactured from pulp and other fibers, and paper and cardboard processed products.

#### **577 Printing and bookbinding inspection workers**

This group comprises individuals engaged in the work of inspecting platemaking and printing, founded types and bookbinding.

#### **578 Rubber, plastic product inspection workers**

This group comprises individuals engaged in the work of inspecting manufacture of rubber products (including synthetic rubber) such as processing raw rubber materials, shaping rubber products, vulcanization of rubber and other processes, and plastic products such as shaping, processing and other handling of plastic products.

#### **579 Other product inspection workers (except metal products)**

This group comprises individuals engaged in the work of inspecting fur, tanned leather and various leather products (except apparel), briefcases, bags, toys, umbrellas, lanterns, fans, brooms, brushes, lacquer-ware, name seals, etc. or crafted precious metals, jewelry, tortoiseshell, antler, etc. that are not covered under Unit Groups [571 to 578].

## **58 Machine inspection workers**

This group comprises individuals engaged in the work of inspecting intermediate products and final products in various machinery manufacturing activities.

### **581 General-purpose, manufacturing, and business-use mechanical apparatus inspection workers**

This group comprises individuals engaged in the work of inspecting motors, machine tools, agricultural machinery, construction machinery, spinning machinery, weaving machinery, printing machinery, office-use mechanical apparatus and various other mechanical apparatus (except electro-mechanical apparatus, transportation machinery and weighing and measuring appliances, photo-optic mechanical apparatus).

### **582 Electro-mechanical apparatus inspection workers**

This group comprises individuals engaged in the work of testing and inspecting electro-mechanical apparatus.

### **583 Automobile inspection workers**

This group comprises individuals engaged in the work of inspecting automobiles.

### **584 Transportation machinery inspection workers (except automobiles)**

This group comprises individuals engaged in the work of inspecting transportation machinery except automobiles.

### **585 Weighing and measuring appliance, photo-optic mechanical apparatus inspection workers**

This group comprises individuals engaged in the work of inspecting weighing and measuring appliances and photo-optic mechanical apparatus.



## **59 Manufacturing-related and quasi-manufacturing workers**

This group comprises individuals engaged in the work related to manufacturing such as painting, photo development and others, or skilled work similar to manufacturing.

### **591 Manufacturing-related workers**

This group comprises individuals engaged in painting, drawing pictures or writing letters on paper, board, canvas, copper plates, etc., developing, printing, enlarging photographs, drafting, tracing, lofted drawing, and other manufacturing-related technical works.

### **592 Quasi-manufacturing workers**

This group comprises individuals engaged in quasi-manufacturing technical works.