

鑄造職種（非鉄金属鑄物鑄造作業）

Job category: Casting (Operation: Casting nonferrous metal and article operation)

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| <p>作業の定義 Criteria of Operations</p> | <p>銅及び銅合金、アルミニウムとアルミニウム合金及びマグネシウムとマグネシウム合金等を溶かして鑄型に注ぎ込み、冷えて固まった後で鑄型から取り出し、目的に応じた製品に仕上げる作業をいう。 Melt copper and copper alloy, aluminium and aluminium alloy, magnesium and magnesium alloy and pour into mold, after cooling and harding, take them out from the mold, and finish up in accordance to the purpose.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>必須業務（移行対象職種・作業で必ず行う業務） Compulsory works (Works to be essential on the operations in the job categories to be shifted)</p> | <p>第1号技能実習 Technical Intern Training (i) (1)非鉄金属鑄物鑄造作業 Casting nonferrous metal and article operation ①鑄型の造型作業 Shaping mold 1.中子の製作作業 Manufacturing metal core</p> | <p>第2号技能実習 Technical Intern Training (ii) (1)非鉄金属鑄物鑄造作業 Casting nonferrous metal and article operation ①及び②の1.は必ず行うこと。 ②の2.から5.の作業のうち二つ以上行うこと。 ③はできるだけ行うこと。 Be sure to do ① and ②-1. Be sure to do two or more from ②-2 to 5. Do ③ as much as possible. ①鑄型造型の段取り作業 Preparatory job in casting mold ②鑄型の造型及び補修作業 Casting mold and repair work 1.中子の製作作業 Manufacturing metal core 2.砂型による造型作業 Casting work of sand mold 3.鑄型の乾燥及び組立て作業 Drying and assembling work of mold 4.鑄型の良否の判定及び補修作業 Judging quality of mold and repair work 5.塗型剤の選定、調合及び塗型作業 Selecting coating, preparation and coating work ③鑄込作業 Casting work</p> | <p>第3号技能実習 Technical Intern Training (iii) (1)非鉄金属鑄物鑄造作業 Casting nonferrous metal and article operation ①、③、④及び②の1.は必ず行うこと。 ②の2.から5.の作業のうち二つ以上行うこと。 Be sure to do ①, ③, ④ and ②-1. Be sure to do two and more from ②-2 to 5. ①鑄型造型の段取り作業 Preparatory job in casting mold ②鑄型の造型及び補修作業 Casting mold and repair work 1.各種中子の製作作業 Manufacturing metal core 2.各種砂型による造型作業 Casting work of sand mold 3.鑄型の乾燥及び組立て作業 Drying and assembling work of mold 4.鑄型の良否の判定及び補修作業 Judging quality of mold and repair work 5.塗型剤の選定、調合及び塗型作業 Selecting coating, preparation and coating work ③鑄込作業 Casting work ④鑄造方案の作成及び決定作業 Making a plan of casting mold and deciding work</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>(2)安全衛生業務 ①雇入れ時等の安全衛生教育 ②作業開始前の安全装置等の点検作業 ③鑄造職種に必要な整理整頓作業 ④鑄造職種の作業用機械及び周囲の安全確認作業 ⑤保護具の着用と服装の安全点検作業 ⑥安全装置の使用等による安全作業 ⑦労働衛生上の有害性を防止するための作業 ⑧異常時の応急措置を修得するための作業</p> <p style="text-align: center;">※</p> <p>(2) Safety and health work ① Safety and health education at the time of new employment ② Inspection work of safety equipment etc. before starting work ③ Organization necessary for casting ④ Safety confirmation works of casting machines and surroundings ⑤ Safety inspection work of wearing protective equipment and clothes ⑥ Safety work by using safety devices, etc. ⑦ Work to prevent hazards in occupational health ⑧ Work to acquire emergency measures in case of abnormalities</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>関連業務、周辺業務（上記必須業務に関する技能等の修得に係る業務等で該当するものを選択すること。） Related works, peripheral works (Choose what is applicable in works related to acquisition of skills etc. concerning above essential tasks.)</p> | <p>(1)関連業務 ①鑄鉄鑄物鑄造作業 ②調砂作業 ③合金溶解炉等の操作作業 ④機械加工作業（鑄造に関する機械加工のみ） ⑤後加工（バリ取り、穴あけ、研磨等）作業 ⑥検査（外観、寸法、材質、強度、非破壊、内外部欠陥等）作業 ⑦鑄造用機械・器工具の管理作業 ⑧木型・金型の保守・管理作業</p> <p>(2)周辺業務 ①原材料等の搬送作業（工場内） ②加工部品及び製品の組立て作業 ③製品（部品）の梱包・出荷作業 ④原価計算、品質管理等の鑄造に関連した管理作業 ⑤揚重運搬機械の運転作業（機械に応じて特別教育、技能講習等が必要。） ⑥玉掛け作業（特別教育又は技能講習が必要。）</p> <p>(3)安全衛生業務（関連業務、周辺業務を行う場合は必ず実施する業務） 上記※に同じ</p> <p>(1) Related works ① Casting iron and article operation ② Sand adjustment work ③ Operating work of alloy melting furnace ④ Machine manufacturing work (only for casting) ⑤ After processing work (deburring, drilling, grinding etc.) ⑥ Checking work (appearance, size, material, strength, no destruction, internal and external defect etc.) ⑦ Management work of machines and tools for casting ⑧ Maintenance and management work of wooden form and metal mold</p> <p>(2) Peripheral works ① Transportation work equipment (in factory) ② Assembling work piece and products ③ Packing and shipping work of products and work piece ④ Management work related to casting, examples: cost accounting, quality control, etc. ⑤ Driving work of lifting and transporting machines ⑥ Slings work (Special education or skill training is necessary.)</p> <p>(3) Safety and health work Same as ※ above</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>使用する素材、材料等（該当するものを選択すること。） Materials etc. to use (Select the appropriate one.)</p> | <p>一つ以上必ず使用すること。 Be sure to use one or more.</p> <table border="0"> <tr> <td>1.銅</td> <td>Copper</td> <td>10.アルミニウム</td> <td>Aluminum</td> </tr> <tr> <td>2.黄銅</td> <td>Brass</td> <td>11.アルミニウム合金</td> <td>Aluminium alloy</td> </tr> <tr> <td>3.高力黄銅</td> <td>High tensile brass</td> <td>12.マグネシウム</td> <td>Magnesium</td> </tr> <tr> <td>4.青銅</td> <td>Bronze</td> <td>13.マグネシウム合金</td> <td>Magnesium alloy</td> </tr> <tr> <td>5.りん青銅</td> <td>Phosphor bronze</td> <td>14.その他の合金</td> <td>Other alloy</td> </tr> <tr> <td>6.鉛青銅</td> <td>Lead bronze</td> <td></td> <td></td> </tr> <tr> <td>7.アルミニウム青銅</td> <td>Aluminum bronze</td> <td></td> <td></td> </tr> <tr> <td>8.シルジン青銅</td> <td>Silzin bronze</td> <td></td> <td></td> </tr> <tr> <td>9.鉛フリー青銅</td> <td>Lead-free bronze</td> <td></td> <td></td> </tr> </table> | | | 1.銅 | Copper | 10.アルミニウム | Aluminum | 2.黄銅 | Brass | 11.アルミニウム合金 | Aluminium alloy | 3.高力黄銅 | High tensile brass | 12.マグネシウム | Magnesium | 4.青銅 | Bronze | 13.マグネシウム合金 | Magnesium alloy | 5.りん青銅 | Phosphor bronze | 14.その他の合金 | Other alloy | 6.鉛青銅 | Lead bronze | | | 7.アルミニウム青銅 | Aluminum bronze | | | 8.シルジン青銅 | Silzin bronze | | | 9.鉛フリー青銅 | Lead-free bronze | | |
| 1.銅 | Copper | 10.アルミニウム | Aluminum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.黄銅 | Brass | 11.アルミニウム合金 | Aluminium alloy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.高力黄銅 | High tensile brass | 12.マグネシウム | Magnesium | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.青銅 | Bronze | 13.マグネシウム合金 | Magnesium alloy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.りん青銅 | Phosphor bronze | 14.その他の合金 | Other alloy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.鉛青銅 | Lead bronze | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.アルミニウム青銅 | Aluminum bronze | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8.シルジン青銅 | Silzin bronze | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.鉛フリー青銅 | Lead-free bronze | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| <p>使用する機械、器具等（該当するものを選択すること。） Machine, equipment, etc. to use (Select the appropriate one.)</p> | <p>1.及び2.を必ず使用し、3.から17.のうち必要なものを使用すること。 Be sure to use 1 and 2, use as necessary from 3 to 17.</p> <p>1.各種鋳造用手工具（けがき、ぼんち、たがね、ハンマ、へら類、こて（鏝）類、スタンプ及び突き棒類、はけ及び筆類、ふるい類等） Various casting hand tools (marking-off, punch, chisel, hammer, spatula, trowel, stamp and tamping rod, brush, sieve)</p> <p>2.各種測定用器工具（スコヤ、定盤、定規、鋳物尺、ノギス等） Various measurement tools (square, surface plate, ruler, shrinkage rule, Vernier calipers, etc.)</p> <p>3.造型機 Shaping machines</p> <p>4.造型機用付属装置及び付属装置用手工具 Attachment devices for shaping machine and hand tools for attachment devices</p> <p>5.中子成型機 Metal core forming machines</p> <p>6.中子成型機用付属装置及び付属装置用手工具 Attachment devices for metal core forming machines and hand tools for attachment devices</p> <p>7.鋳造用溶解炉 Melting furnace for casting</p> <p>8.各種検査機器 Various testing equipment</p> <p>9.各種鋳造用器工具 Various tools for casting</p> <p>10.各種電動工具 Various electric tools</p> <p>11.各種エアツール Various air tools</p> <p>12.保護具 Protective equipment</p> <p>13.塗型装置 Coating devices</p> <p>14.砂混練機（バッチタイプ、連続式） Sand mixer (batch-type, continuous type)</p> <p>15.砂落とし装置（ショットブラスト、ターンブラスト等） Sand removing devices (shot blast, turn blast, etc.)</p> <p>16.鋳型ばらし装置 Mold dismantling devices</p> <p>17.堰折り（せきおり）装置 Sekiori devices (gate folding devices)</p> |
| <p>製品等の例 （該当するものを選択すること。） Examples of products etc. (Select the appropriate one.)</p> | <p>①銅合金鋳物製品例 Examples of copper alloy casting products</p> <p>1.バルブコック（都市ガス、石油コンビナート等大型の工業用バルブ等） Valve cock (large valve for industrial use, ex: city gas, petrochemical complex, etc.)</p> <p>2.産業機械器具部品（ボイラ、土木・鉄鋼その他工業用機械等の部品） Industrial machine equipment parts (boiler, civil engineering, steel, parts for industrial machine etc.)</p> <p>3.輸送機械用部品（自動車部品を含む。） Transportation machine parts (including car parts)</p> <p>4.港湾船舶用部品（港湾関係機械の部品、船舶のスクリュ等） Harbor ship parts (parts for harbor machine, ship screw, etc.)</p> <p>5.電気機器部品（送配電線架線金具、受配電システム部品等） Electrical machine parts (line hardware for transmission /distribution line, receiving/distribution system parts, etc.)</p> <p>6.景観鋳物（モニュメント工芸品等） Cast for landscape (monument craft products, etc.)</p> <p>②アルミニウム合金鋳物製品例 Examples of aluminium alloy casting products</p> <p>1.自動車部品（シリンダブロック、オイルポンプハウジング、ブレーキロータ等） Car parts (cylinder block, oil pump housing, brake rotor, etc.)</p> <p>2.産業機械器具部品（工作機械、建設機械等の部品、空気圧容器等） Industrial machine equipment parts (machine tools, parts for construction machine, air pressure container, etc.)</p> <p>3.電気機器部品（発電所内構造部材、各種照明器具部品等） Electrical machine parts (structural member in power station and substation, various lighting equipment parts, etc.)</p> <p>4.通信機器部品（半導体部品、液晶製造装置関連部品等） Communication device parts (semiconductor parts, parts for liquid crystal manufacturing device, etc.)</p> <p>5.景観鋳物（照明機器用、防護柵等） Cast for landscape (for lighting equipment, protective fence, etc.)</p> |
| <p>移行対象職種・作業とはならない作業・業務例 Example of works which is not eligible for the job categories / operations to be shifted</p> | <p>1.銑鉄製造（製銑）作業 Pig iron manufacturing work</p> <p>2.鋳造以外の鉄素形材製造作業 Iron shaped raw material manufacturing except casting</p> <p>3.鋳造以外の非鉄金属素形材製造作業 Nonferrous metal shaped raw material except casting</p> <p>4.鋳物用鉄溶融作業 Iron melting work for casting</p> <p>5.鋳物用非鉄金属溶融作業 Nonferrous metal melting work for casting</p> <p>6.金属素形材（プレス）製品製造作業 Metal shaped raw material product manufacturing work</p> <p>7.金属被覆・彫刻業・熱処理作業 Metal coating, carving, heat treatment work</p> <p>8.鍛造作業 Forging work</p> <p>9.ダイカスト作業 Die casting work</p> <p>10.鍛造用ビレット製造作業 Billet manufacturing work for forging</p> <p>11.中子製造作業のみの場合 Only in case of metal core manufacturing</p> <p>12.中子製造作業がない場合 In case of no metal core manufacturing</p> <p>13.上記の関連業務及び周辺業務のみの場合 In the case of the above-mentioned related work and peripheral work only</p> |