



## **JOB PROFILE**

**(including literacy demands on the job)**

# **ELECTRICIAN HELPER**

**EXAMPLE NAVARRA - SPAIN**

Literacy and vocation

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# PART I

## ELECTRICIAN HELPER

### Overview of tasks and fields of activity



#### General Competence

Perform auxiliary operations, under instructions from the supervisor or manager, in the assembly and maintenance of electric power networks overhead and underground, applying the techniques and procedures required in each case, achieving the quality criteria, in conditions of security and compliance with the regulations in force.

**Field of activity: Perform routing operations and tensioning of supports in electrical overhead networks.**

**Assist in the collection of the material, tools and equipment needed for the fitting of supportors in overhead electric networks, in the safety conditions laid down and follow indications**

- The material, tools and equipment are loaded in the means of transport, using the appropriate resources (ropes, levers, feathers, among others), "fastening" during charging in the points indicated by the manufacturer when the dimensions and weight were required.
- The material and equipment is fixed on the means of transport so that it does not move during the movement, the work area or intermediate store, using slings adequate to the type of material to be transported.
- The sharp edges of the supportors or any material to carry properly protected in such a way as to avoid the deterioration of the fixing elements during transport. •
- The material, tools and equipment are downloaded in the work area or intermediate stores using the appropriate means (levers, feathers, among others) verifying that corresponds with the indicated for the task.
- Safety standards are applied in the loading and unloading of the material.

**Perform auxiliary operations in the mount and assemble the supportors in the safety conditions laid down and following instructions.**

- The parts that make up the metal supports are screwed ( preferably at ground level), in accordance with orders received and getting the proper mounting of their constituent parts.
- The crossings of the mortar supportors are secured by using the media subject indicated, according to the instructions.
- The ironwork and isolators are secured to the achieving its mechanical fasteners.
- The winds are positioned and secured to the head of the support with the appropriate lace, achieving his mechanical fasteners.
- The spades of earth will dig into the indicated places leaving them prepared for their connection with the ground wire of the support.
- The tools used are used according to the requirements of each intervention.
- Safety standards are applied in assembly operations and assemble of supportors.

**Perform auxiliary operations in lifting and holding the supportors in the safety conditions, laid down and following instructions.**

- The supportors or any of their bodies are placed on tacos or wedges to facilitate the work of securing for lifting.
- Making the hole for the support (adequacy of dimensions, cleaning of the same, among others) to achieve its correct seated and level.
- The strobos are placed in the proper place according to the part that is hauling, streets is achieved using in a way that is not moving.
- The guidance of the lifting of the supportors is performed taking into account the instructions of the person who is at the head of the maneuver.
- The pulleys are positioned and secured in the places indicated by achieving its appropriate subject.
- The tube of the ground wire, or the steps of overhead to underground is securely mounted and placing it in a way that makes it possible to step the connecting cable with the spades of earth, or the corresponding records.
- The supportors in low voltage fix and then smooth by following the prompts.
- The mortar in the foundations have been "attacked" with bars, achieving that they are not air bags.
- Safety standards are applied in lifting operations and clamping of the supportors

Field of activity: Perform routing operations and tensioning of conductors in electrical overhead and underground networks.

**Gather the materials, tools and equipment needed for the laying and tensioning of conductors in electrical networks overhead and underground, in the safety conditions laid down and following instructions.**

- The coils of wire, tools, and auxiliary equipment (pilot cable, chocks, brake machine, winch, trestles, among others) are loaded into the means of transport according to the instructions received, using the appropriate resources (ropes, levers, feathers, among others), securing it so that it does not move during transport, to the intermediate storage or work area.
- The coils of wire, tools, and auxiliary means ( tracteles, pulleys, among others) are downloaded in intermediate storage or work area, according to the instructions received, using the appropriate means ( levers, feathers, among others) verifying that corresponds with the indicated task to perform.
- Safety standards are applied in the loading and unloading of wire coils and the auxiliary equipment.

**Route and tense cables in low voltage distribution systems, in the quality and safety requirements laid down, following the directions.**

- The retaining hardware (strings, clips, hairpins, among others) the supporters fixed in the points indicated by allowing the proper installation of the line.
- The pichets with its claws, fittings, pipes, among others in lying on facade is secure at the points indicated by allowing the proper installation of the line.
- The stapled or secure the neutral guarantor to the retaining hardware is performed in such a way that the beam of drivers as a step of uniform wiring.
- The pulleys for the laying of the cable and the isolates were positioned and secured in the suitable sites ensuring its mechanical fasteners.
- The cable guarantor tends leaving it ready for its tension.
- Drivers tend without damage and leaving them ready for tensioning, when necessary.
- The junctions and connections of the conductors in air networks are made using the terminals and ferrules, the appropriate leads and the specific tools and equipment.
- Safety standards are applied in the routing and tensioning of conductors.

Field of activity: Perform routing operations and tensioning of conductors in electrical overhead and underground networks.

**Perform auxiliary operations cable management networks in high-voltage electricity, in quality and safety requirements following the directions.**

- The contingencies relating to the assembling of the line in the tier of observation assigned (hitches, passing vehicles, provision of information to the machinist, among others) are reported using the corresponding communication and at the time of its discovery.
- The elements that the top-level technical prompted are arranged and served by the "rope of service", in a way that does not interrupt your work.
- The junctions and connections in airlines are performed using the specific tools and equipment (arrays, compression machines, among others).
- The aid work to the machinist, (preparation of coils, withdrawal of coils, among others) are running so that it will not interrupt the cable.
- Safety standards are applied in the operations of cable.

**Perform auxiliary operations in the mounting of the conductors of electrical networks underground on sand bed and under tube, under the supervision of a top-level technical, following the indications given**

- The trench is preparing to mount the pipe or cable conditioning the bed of the same and performing operations of adequacy to the dimensions, plumbed in walls and set-aside that you suggest.
- The seat of the cables on the basis of the trench or the introduction of the wires on the pipes and the preparation of the installation for routing is performed taking into account the type of installation.
- The protections and the mechanical signalling in facilities on sand bed and under pipe trenching are mounted according to the instructions.
- Safety standards applied in the interventions in underground lines of distribution of electrical energy.

**Perform auxiliary operations in the mounting of the conductors of electricity networks in underground galleries, under the supervision of a top-level technical, following the directions.**

- The trays and mounting brackets are placed in galleries and secure by following the established procedures.
- The cables are accrued in the trays taking into account the type of clamping and quantity.
- Conductors will tend in the trays without damage.
- Conductors are marked and are grouped at the distances indicated.
- The trays and conductors are labeled according to procedures established.
- Safety standards are applied in the interventions in underground lines in galleries.

# PART II

## The European profile ELECTRICIAN HELPER

is based on the

NATIONAL SYSTEM FOR QUALIFICATIONS AND VOCATIONAL EDUCATION AND TRAINING (SNCFP) and  
NATIONAL CATALOGUE OF PROFESSIONAL QUALIFICATIONS (CNCP)

The **National System for Qualifications and Vocational Educational and Training (SNCFP)** consists of instruments and actions which are necessary to promote and develop the integration of vocational education and training through the National Catalogue of Professional Qualifications. Besides, it aims at promoting and developing the assessment and accreditation of professional competences in order to encourage the professional and social development of the people and to meet the needs of the productive system. Procedures of collaboration and consultation with the different productive sectors and the social partners have been established in order to identify and update the needs for qualifications, as well as their definition and the definition of the associated learning.

The **National Catalogue of Professional Qualifications (CNCP)** is an instrument of the National System for Qualifications and Vocational Education and Training (SNCFP), which lists the professional qualifications according to the appropriate competences for the professional exercise. The Spanish National Catalogue of Professional Qualifications (CNCP) consists of professional qualifications arranged in level of qualification and professional family. The 26 professional families which make up the National Catalogue of Professional Qualifications (CNCP) have been created according to affinity criteria among the different professional competencies.

# PART III

## ELECTRICIAN HELPER

### Overview Literacy on the job





## Literacy on the job: READING

VERY FREQUENTLY	FREQUENTLY	FROM TIME TO TIME
<p>Recognize and interpret the images, symbols, abbreviations and codes of electrical safety and work at heights or underground.</p> <p>Properly complement the working parts.</p> <p>Understand the technical specifications in different materials related to their work.</p> <ul style="list-style-type: none"> <li>▪ written job instructions on job sheets</li> <li>▪ engineering plans</li> <li>▪ short notes and instructions written to supplement plans and job sheets</li> <li>▪ dials and gauges on equipment</li> </ul>	<p>Read and understand very short documents about technical and safety information</p> <p>Texts that contain more detailed instructions or information that can be complex to read e.g.</p> <ul style="list-style-type: none"> <li>▪ Duty description sheets</li> <li>▪ Specific safety rules</li> <li>▪ Equipment operating manuals</li> </ul> <p>Training materials when they attend courses on new methods, first aid, health and safety, regulations and standards.</p> <p>Apprenticeship training materials when going through training.</p> <p>texts that contain more detailed instructions or information</p> <ul style="list-style-type: none"> <li>▪ Material Safety Data Sheets, component charts, health and safety information sheets,</li> <li>▪ evacuation instructions, quality system procedures or instructions, training materials e.g. apprenticeship training</li> <li>▪ Materials. Some of these materials can be quite complex to read.</li> </ul>	<p>Understand:</p> <ul style="list-style-type: none"> <li>▪ excerpts from legislation and regulations</li> <li>▪ company health and safety manual</li> <li>▪ employment related information e.g. leave forms, employment agreement pay slips</li> <li>▪ manufacturers manuals               <ul style="list-style-type: none"> <li>- wiring machine manual</li> <li>- company health and safety manual</li> <li>- employment related information e.g. leave forms, employment agreement</li> </ul> </li> </ul>

## Literacy on the job: WRITING

VERY FREQUENTLY	FREQUENTLY	FROM TIME TO TIME
<p>write very brief notes on job sheets</p> <ul style="list-style-type: none"> <li>▪ check off</li> <li>▪ sign name</li> <li>▪ record parts completed</li> </ul> <p>Complete simple documentation</p> <p>keep a diary of work completed</p> <p>write to explain what have been done, leave instructions</p> <p>Fill out timesheets and leave forms.</p>	<p>Write a brief factual statement</p> <p>write brief reports e.g. accident report</p> <p>write notes to help them remember training or explanations</p> <p>in training: write answers to formal assessment questions</p>	<p>Resume:</p> <ul style="list-style-type: none"> <li>▪ excerpts from legislation and regulations</li> <li>▪ company health and safety manual</li> <li>▪ employment related information e.g. leave forms, employment agreement pay slips</li> </ul>

## Literacy on the job: SPEAKING AND LISTENING

VERY FREQUENTLY	FREQUENTLY	FROM TIME TO TIME
<p>talk to other colleagues to co-ordinate the work</p> <p>communicate on work issues to co-workers</p> <p>listen and respond to verbal instructions and explanations from the supervisor</p> <p>ask clarifying questions to check the information given</p> <p>report the progress made on the work</p> <p>Communicate and co-ordinate with other trades people working on the same site.</p>	<p>listen to verbal explanations from people giving training or updates</p> <p>participate in team meetings</p> <p>Use hand signals and gestures to communicate in a noisy environment.</p> <p>listen to verbal explanations from people giving training or updates</p> <p>participate in team meetings</p> <p>report to manager about anything affecting the job process</p> <p>request assistance from others/ give information to co-workers</p>	<p>discuss problems with a plan or design with supervisor or other electricians</p> <p>communicate with site manager and contractors when installing an item at a site</p> <p>Answer verbal questions during training assessments.</p> <p>discuss problems with a working plan with supervisor or other co-workers</p> <p>discuss issues with supervisor if there are problems with the job</p> <p>answer verbal questions during training assessments</p> <p>listen to presentations (trainers / product suppliers)</p>

## Literacy on the job: NUMERACY

VERY FREQUENTLY	FREQUENTLY	FROM TIME TO TIME
<p>Calculate heights and weights.</p> <p>Calculate sections of cable necessary and tensions in the electrical lines.</p> <p>take accurate measurements</p> <p>record how much time was spent on specific jobs</p> <p>count supplies and products</p> <p>Calculate the amount of material for each job or task.</p> <p>estimate how much material they will need to complete a job</p> <p>work with 2D and 3D pictures of objects</p>	<p>estimate the time needed to carry out a job</p> <p>Calculate costs of products.</p> <p>Measure and calculate lengths</p>	<p>measure spacing and cut outs</p>

## Literacy on the job: CRITICAL THINKING

VERY FREQUENTLY	FREQUENTLY	FROM TIME TO TIME
<p>Choose the best and most efficient order to complete a job</p> <p>Select the correct method and tools to use to complete a task</p> <p>Determine if they can do a job by themselves or need help from others</p> <p>Calculate how to cut cables to create minimal waste.</p>	<p>have to deal with contingencies e.g. wire not to standard, problems with tools or equipment,</p> <p>deal with changes to work plans</p> <p>discuss and agree on changes to the plan</p> <p>identify if changes need to be referred to co-workers and supervisors</p> <p>identify problems and develop solutions</p>	<p>have to deal with contingencies</p> <ul style="list-style-type: none"> <li>▪ special wiring</li> <li>▪ problems with tools or equipment</li> </ul> <p>deal with unexpected issues and emergency situations</p> <p>Deal with contingencies e.g. problems with tools or equipment, injury or accident.</p>

**Literacy on the job: INFORMATION COMMUNICATION TECHNOLOGY**

<b>VERY FREQUENTLY</b>	<b>FREQUENTLY</b>	<b>FROM TIME TO TIME</b>
track and log job sheets	record time spent on particular jobs clock in and out for work	Read computer generated engineering drawings.

## IMPRINT

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The project results are notably based on European cooperation.

Further information:

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