



مجلس أبوظبي للجودة والمطابقة
ABU DHABI QUALITY & CONFORMITY COUNCIL

ABU DHABI OCCUPATIONAL TERMS

Automotive Welder Level 4



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Contents

Amendment Page	2
About the Abu Dhabi Quality & Conformity Council.....	3
Foreword.....	3
Acknowledgments.....	4
Occupational Terms	5
Terms & Conditions.....	6
Performance Criteria.....	7
Knowledge & Understanding	9
Other Skills	11
References.....	12



Amendment Page

This Amendment Page is updated and issued with each set of revised and/or new pages of the document to help ensure that each copy of this Abu Dhabi Occupation Term (ADOT) contains a complete record of amendments.

This Occupational Term is a live document which can be amended when necessary. QCC operates an Occupational Standards Working Group that has prepared this document, and can review stakeholder comments in order to review and amend this document; ultimately resulting in an issuance of an updated version, if necessary.

Log of Amendments						
Amendment			Discard		Insert	
No.	Date	*Sections Changed	Page(s)	Issue No.	Page(s)	Issue No.
1	xxx	Document launched				



About the Abu Dhabi Quality & Conformity Council

The Abu Dhabi Quality and Conformity Council (QCC) was established by law No. 3 of 2009, issued by His Highness Sheikh Khalifa Bin Zayed Al Nahyan, President of the UAE. QCC is responsible for the development of Abu Dhabi Emirate's Quality Infrastructure, which enables industry and regulators to ensure that products, systems and personnel can be tested and certified to UAE and International Standards.

Products and services certified by QCC receive the Abu Dhabi Trustmark. The Trustmark is designed to communicate that a product or system conforms to various safety and performance standards that are set by Abu Dhabi regulators.

Foreword

The QCC Car Workshops Personnel Occupational Terms Working Group was initiated in January 2017 in order to establish occupational terms for workers in the car workshops sector in Abu Dhabi to elevate the quality of services provided in the sector and to promote the productivity of personnel.

The occupational terms are professional standards that specialist personnel must meet in order to perform the jobs they are assigned to produce quality outcomes. The Government of Abu Dhabi, under the leadership of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE and Ruler of Abu Dhabi, and His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi, Deputy Supreme Commander of the UAE Armed Forces and Chairman of the Abu Dhabi Executive Council, has invested heavily, and at high levels of professionalism and safety, in the Infrastructure of Abu Dhabi. Therefore, it is crucial and obligatory to encourage the presence of skilled workmanship to maintain the quality infrastructure value in the Emirate of Abu Dhabi in particular and the United Arab Emirates in general.



Acknowledgments

The QCC would like to thank the members of the working group listed below:

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35	Syed Naveed	Bin Hamooda Auto
36	Rodyney Ghosn	Al Tayer Group



Occupational Terms

No.	Field	Details										
1.	Occupation (Standard Unit)	Automotive Welder Level 4										
2.	Description	This standard specifies the outcome required to maintain and operate all welding related works.										
3.	Unit type	<input type="checkbox"/> Knowledge and Skills OR <input checked="" type="checkbox"/> Application										
4.	Elements	<table border="1"> <thead> <tr> <th>No.</th> <th>Element</th> </tr> </thead> <tbody> <tr> <td>E1</td> <td><i>Perform and finish all assigned jobs related to welding</i></td> </tr> <tr> <td>E2</td> <td><i>Plan and organize work to meet expected outcomes</i></td> </tr> <tr> <td>E3</td> <td><i>Work effectively in a team</i></td> </tr> <tr> <td>E4</td> <td><i>Maintain a healthy, safe and secure working environment</i></td> </tr> </tbody> </table>	No.	Element	E1	<i>Perform and finish all assigned jobs related to welding</i>	E2	<i>Plan and organize work to meet expected outcomes</i>	E3	<i>Work effectively in a team</i>	E4	<i>Maintain a healthy, safe and secure working environment</i>
No.	Element											
E1	<i>Perform and finish all assigned jobs related to welding</i>											
E2	<i>Plan and organize work to meet expected outcomes</i>											
E3	<i>Work effectively in a team</i>											
E4	<i>Maintain a healthy, safe and secure working environment</i>											
5.	QF Emirates level	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10										
6.	Function	<input type="checkbox"/> Policy and strategy QF 9-10 <input type="checkbox"/> Managing QF 7-8 <input type="checkbox"/> Specifying QF 6-7 <input type="checkbox"/> Controlling QF 6 <input type="checkbox"/> Maintaining capability QF 4-6 <input checked="" type="checkbox"/> Performing/carry out QF 1-4										
7.	Entry information and prerequisites	High School Diploma/Industrial Training Diploma										
8.	Grading	Application unit: <i>Competent/Not Yet Competent</i>										



No.	Field	Details	
9.	Industry sector	Automotive	
10.	Developed by	Government Entities	Abu Dhabi Quality & Conformity Council, Zones Corp, Abu Dhabi Department of Economic Development, Abu Dhabi Urban Planning Council, Abu Dhabi Municipality, OSHAD, Center of Waste Management, Abu Dhabi Chamber, Health Authority Abu Dhabi, ACTVET, National Qualification Authority, SAAED for Trafficking Systems and the Ministry of Human Resources & Emiratisation
		Private Sector	Al Tayer Group, Emirates Motor Company, Ali & Sons Group, Al Futtaim Automobile and Prestige Car Services
11.	Endorsement date	11 April 2017	
12.	Frequency of review	Annually	
13.	Version No.	1	
14.	ISCO-88	7231 Motor Vehicle Mechanics & Repairers	

Terms & Conditions

Term	Description
Dealership	A business established or operated under an authorisation to sell or distribute an automotive company's goods and services
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task
OEM	Original Equipment Manufacturer
Vehicle	Mode of personal transport including 2-wheelers, 3-wheelers and 4- wheelers



Performance Criteria

Element	1. Perform and finish all assigned jobs related to welding
PC 1.1	Determine required equipment and welding method to be used to weld particular components, such as arranging the Work bay according to the type of job (Steel / Aluminium work bay should be separated one for Aluminium welding to avoid contamination)
PC 1.2	Identify the different material specifications required to repair the weld joints
PC 1.3	Assist in setting up or adjusting necessary equipment, such as shielded and electric arc welders and maintenance or other welding related machines
PC 1.4	Operate manual and automated welding units and equipment by depositing metal from electrode to work piece and joining edges of work piece
PC 1.5	Operate manual or semi-automatic welding equipment to fuse metal segments, using processes such as gas tungsten arc, gas metal arc, flux-cored arc, plasma arc, shielded metal arc, resistance welding, and submerged arc welding
PC 1.6	Layout, position, and secure parts and assemblies according to specifications, using straightedge, combination square, callipers, and ruler
PC 1.7	Tack-weld or weld components and assemblies, using electric, gas, arc, or other welding equipment
PC 1.8	Cut work piece, using powered saws, hand shears, or chipping knife
PC 1.9	Melt lead bar, wire, or scrap to add lead to joint or to extrude melted scrap into reusable form
PC 1.10	Observe tests on welded surfaces, like dimension tolerance to evaluate weld quality and conformance to specifications
PC 1.11	Monitor the fitting, burning, and welding processes to avoid overheating of parts or warping, shrinking, distortion, or expansion of material
PC 1.12	Inspect grooves, angles, or gap allowances, using micrometer, calliper, and precision measuring instruments
PC 1.13	Remove rough spots from work piece, using portable grinder, hand file, or scraper
PC 1.14	Weld components in flat, vertical, or overhead positions
PC 1.15	Heat, form, and dress metal parts, using hand tools, torch, or arc welding equipment
PC 1.16	Ignite torch and adjust valves, amperage, or voltage to obtain desired flame or arc
PC 1.17	Weld defect free weld joint and weld repair
PC 1.18	Assist in examining finish products and spare parts and comparing them with samples to check whether the specifications are met
PC 1.19	Ensure that all safety procedures are followed by using protective equipment like eye shields, nose masks etc
PC 1.20	Understand the basics about aluminium welding as well as the tools required to perform the job
PC 1.21	Read the technical drawings/charts before applying any welding effort
PC 1.22	Perform the job in phases as required in the difficult welding tasks



Element	2. Plan and organize work to meet expected outcomes
PC 2.1	Keep immediate work area clean and tidy
PC 2.2	Treat confidential information as per the company's guidelines
PC 2.3	Work in line with company's policies and procedures
PC 2.4	Work within the limits of the job role
PC 2.5	Obtain guidance from appropriate people, where necessary
PC 2.6	Ensure work meets the agreed requirements
PC 2.7	Establish and agree on work requirements with appropriate people
PC 2.8	Manage time, materials and cost effectively
PC 2.9	Use resources in a reasonable manner

Element	3. Work effectively in a team
PC 3.1	Maintain clear communication with colleagues (by all means including face-to-face, telephonic as well as written)
PC 3.2	Work with colleagues to integrate work
PC 3.3	Pass on information to colleagues in line with organizational requirements both through verbal as well as non-verbal means
PC 3.4	Work in ways that show respect for colleagues
PC 3.5	Carry out commitments made to colleagues
PC 3.6	Let colleagues know in good time if cannot carry out commitments, explaining the reasons
PC 3.7	Identify problems in working with colleagues and take the initiative to solve these problems
PC 3.8	Follow the company's policies and procedures for working with colleagues

Element	4. Maintain a healthy, safe and secure working environment
PC 4.1	Comply with the Emirate's current health, safety and security policies and procedures
PC 4.2	Report any identified breaches in health, safety, and security policies and procedures to the designated person/authority
PC 4.3	Coordinate with other resources at the workplace to achieve the healthy, safe and secure environment for all incorporating all government norms esp. for emergency situations like fires, earthquakes etc.
PC 4.4	Identify and correct any hazards like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority
PC 4.5	Report any hazards outside the individual's authority to the relevant person, and warn other people who may be affected
PC 4.6	Safe handling of basic and simple vehicle systems, functions and standard equipment and instruments
PC 4.7	Identify and recommend opportunities for improving health, safety, and security to the designated person
PC 4.8	Complete all health and safety records



Cont.	
PC 4.9	Understand the safety dress & PPE types and adhere to the proper dress code & PPE requirements in the work area

Knowledge & Understanding

- *To perform and finish all assigned jobs related to welding, the user/individual on the job must know and understand:*
 1. Standard operating procedures to be followed for performing welding processes
 2. Documentation requirements for each procedure carried out
 3. Organizational and professional code of ethics and standards of practice
 4. Safety, health and environmental policies and regulations for the workplace
 5. How to handle vehicle parts and machinery
 6. How to visually check the part for damage
 7. The methods and practices followed in the maintenance of tools, machinery, and layout of equipment and to carry out repair process
 8. Which material or alloy to use while welding particular metal: Steel, aluminum & aluminum alloys, copper & copper alloys, nickel & nickel alloys, titanium & titanium alloys and zirconium & zirconium alloys
 9. The various welding techniques and processes
 10. How to use the following tools and equipment required to carry out the welding process: blow torches, gas welding or grazing or cutting apparatus, manlift or personnel lift, welding masks, welding tools and workshop presses
 11. How to inspect equipment, structures, or materials to identify the cause of errors or other problems or defects
 12. How to use either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles)
 13. How to perform physical activities such as climbing, lifting, balancing, walking, stooping, and handling of materials

- *To plan and organize work to meet expected outcomes, the user/individual on the job must know and understand:*
 1. The company's policies, procedures and priorities for area of work, role and responsibilities in carrying out that work
 2. The limits of responsibilities and when to involve others
 3. Specific work requirements and who these must be agreed with
 4. The importance of having a tidy work area and how to do this
 5. How to prioritize workload according to urgency and importance and the benefits of this



6. The company's policies and procedures for dealing with confidential information and the importance of complying with these
 7. The purpose of keeping others updated with the progress of work
 8. Who to obtain guidance from and the typical circumstances when this may be required
 9. The purpose and value of being flexible and adapting work plans
 10. How to complete tasks accurately by following standard procedures
 11. Technical resources needed for work and how to obtain and use these
- *To work effectively in a team, the user/individual on the job must know and understand:*
1. The company's policies and procedures for working with colleagues, role and responsibilities in relation to this
 2. The importance of effective communication and establishing good working relationships with colleagues
 3. Different methods of communication and the circumstances in which it is appropriate to use these
 4. The importance of creating an environment of trust and mutual respect
 5. The implications of own work on the work and schedule of others
 6. Different types of information that colleagues might need and the importance of providing this information when it is required
 7. The importance of helping colleagues with problems, in order to meet quality and time standards as a team
- *To maintain a health, safe and secure working environment, the user/individual on the job must know and understand:*
1. Legislative requirements and organisation's procedures for health, safety and security and individual's role and responsibilities in relation to this
 2. What is meant by a hazard, including the different types of health and safety hazards that can be found in the workplace
 3. How and when to report hazards
 4. The limits of responsibility for dealing with hazards
 5. The company's emergency procedures for different emergency situations and the importance of following these
 6. The importance of maintaining high standards of health, safety and security
 7. Implications that any non-compliance with health, safety and security may have on individuals and the organisation
 8. Different types of breaches in health, safety and security and how and when to report these
 9. Evacuation procedures for workers and visitors
 10. How to summon medical assistance and the emergency services, where necessary
 11. How to use the health, safety and accident reporting procedures and the importance of these



Other Skills

Writing Skills

- *To be competent, the user/individual on the job needs to:*
 - Record and document the basic details of repairs and maintenance performed on various components/ components
 - Record all diagnostics done by senior technicians as per the prescribed format recommended by the OEM/ auto-component manufacturer
 - Write in at least one language
 - Complete written work with attention to detail

Reading Skills

- *To be competent, the user/individual on the job needs to:*
 1. Read the basic specification of a vehicle or any other component or part
 2. Read work orders, specifications etc. related to the job including instructions mentioned on the job card
 3. Read the service circulars/ sign boards placed in the workshop with respect to the overall process to be followed for service, repair and maintenance of the vehicle
 4. Read any specific safety related guideline

Listening & Speaking Skills

- *To be competent, the user/individual on the job needs to:*
 1. Clearly communicate workplace information and ideas with colleagues (verbal and non- verbal)
 2. Use terms, names, grades, and other nomenclature pertaining to the Automotive trade, tools, specific workshop equipment etc.
 3. Communicate with colleagues and customers to handle verbal enquiries, such as clarifying indicated faults and problems indicated on a job card which would lead to the proper diagnosis of the issue to do an effective root cause analysis
 4. Communicate to the supervisor and service advisor, the results of the test performed and appropriate values to find the root cause of the problem
 5. Interact with the customer through Service Advisor/ Supervisor in case any additional work needs to be done on the vehicle which may not have been indicated in the job card and found during the work being carried out as per the job card
 6. Understand and promote the brand image with respect to reliability and economy

References

<http://www.ukstandards.org.uk>

www.nsdindia.org/nos