

## QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR AUTOMOTIVE INDUSTRY

### What are Occupational Standards (OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

#### Contact Us:

ASDC, 1/6,  
Siri Institutional Area,  
Khel Gaon Road  
New Delhi-110049 (India)

E-mail:

[skc@asdc.org.in](mailto:skc@asdc.org.in)



## Contents

1. Introduction and Contacts.....P.1
2. Qualifications Pack.....P.2
3. Glossary of Key Terms .....P.3
4. NOS Units.....P.5
5. Assessment Criteria.....P.26

## Introduction

### Qualifications Pack – Repair Welder

**SECTOR:** AUTOMOTIVE

**SUB-SECTOR:** NON FORMAL

**OCCUPATION:** AUTO COMPONENTS / AGGREGATES REPAIR

**JOB ROLE:** REPAIR WELDER

**REFERENCE ID:** ASC/Q 1902

**ALIGNED TO :** NCO-2004/7212.90

**Welder** is also known as a Maintenance Welder or Welder

**Brief Job Description:** A **Welder** is responsible for maintaining and operating all welding related works. The individual must be able to use hand welding techniques or welding equipment and tools to join various metal components and also carry out repair work on machinery and equipment.

**Personal Attributes:** An individual on this job requires to work as a part of team and must be able to work long hours. The individual should have good understanding of the welding machine, and proper knowledge of the service related activities, schedules and maintenance of the equipment and tools.

Job Details	Qualifications Pack Code	ASC/Q 1902		
	Job Role	Auto Body Repair Welder		
	Credits(NSQF)	TBD	Version number	1.0
	Industry	Automotive	Drafted on	20/07/13
	Sub-sector	Non Formal	Last reviewed on	20/07/13
	Occupation	Auto Components / Aggregates Repair	Next review date	Under revision expected date of revised version 31-Dec-15
	NSQC Clearance on	20/07/15		

Job Role	Welder
Role Description	Maintain and operate all welding related work.
NSQF level	4
Minimum Educational Qualifications	Class VIII
Maximum Educational Qualifications	Graduate degree or diploma in any discipline
Training (Suggested but not mandatory)	<p>On the job training</p> <ul style="list-style-type: none"> <li>Desirable for ASDC Welder certificate or graduate degree / diploma in any discipline</li> <li>Compulsory for all other qualifications</li> </ul>
Minimum Job Entry Age	<p>1 ASDC recommends that candidates should seek full employment not before attaining an age of 18 years.</p> <p>2 However, as per Factories Act 1948 :</p> <ul style="list-style-type: none"> <li>No one can be employed before attaining the age of 15</li> <li>A person between the age of 15 – 18 (both inclusive) could be employed only With employers who follow safety and security systems &amp; processes and that the employee in this bracket will be working under supervision.</li> </ul> <p>3 Please note that under the Factories Act 1948, different States may have slightly varying Provision, which need to be adhered to.</p>
Experience	Not applicable
National Occupational Standards (NOS)	<p><b>Compulsory:</b></p> <p><b>ASC/ N 1902:</b> <a href="#">Perform and finish all assigned jobs related to welding</a></p> <p><b>ASC/ N 0001:</b> <a href="#">Plan and organise work to meet expected outcomes</a></p> <p><b>ASC/ N 0002:</b> <a href="#">Work effectively in a team</a></p> <p><b>ASC/ N 0003:</b> <a href="#">Maintain a healthy, safe and secure working environment</a></p>
Performance Criteria	As described in the relevant NOS units

Definitions	Keywords /Terms	Description
	Core Skills/Generic Skills	Core skills or generic skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the NOS, these include communication related skills that are applicable to most job roles.
	Dealership	A business established or operated under an authorisation to sell or distribute an automotive company's goods and services
	Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate NOS they are looking for.
	Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of NOS.
	Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
	Knowledge and Understanding	Knowledge and understanding are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
	National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context
	Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
	Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
	Performance Criteria	Performance criteria are statements that together specify the standard of performance required when carrying out a task.
	Qualifications Pack(QP)	Qualifications pack comprises the set of NOS, together with the educational, training and other criteria required to perform a job role. A qualifications pack is assigned a unique qualification pack code.
	Qualifications Pack Code	Qualifications pack code is a unique reference code that identifies a qualifications pack.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.	
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.	

Sub-Sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Sub-functions	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Unit Code	Unit code is a unique identifier for a NOS unit, which can be denoted with an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Vehicle	Mode of personal transport including 2-wheelers, 3-wheelers and 4-wheelers (including passenger vehicles and commercial vehicles). This includes gasoline, petrol, CNG, electrical and hybrid vehicles
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
<b>Keywords /Terms</b>	<b>Description</b>
NOS	National Occupational Standard(s)
NSQF	National Standards Qualifications Framework
OEM	Original Equipment Manufacturer
OS	Occupational Standard(s)
QP	Qualifications Pack

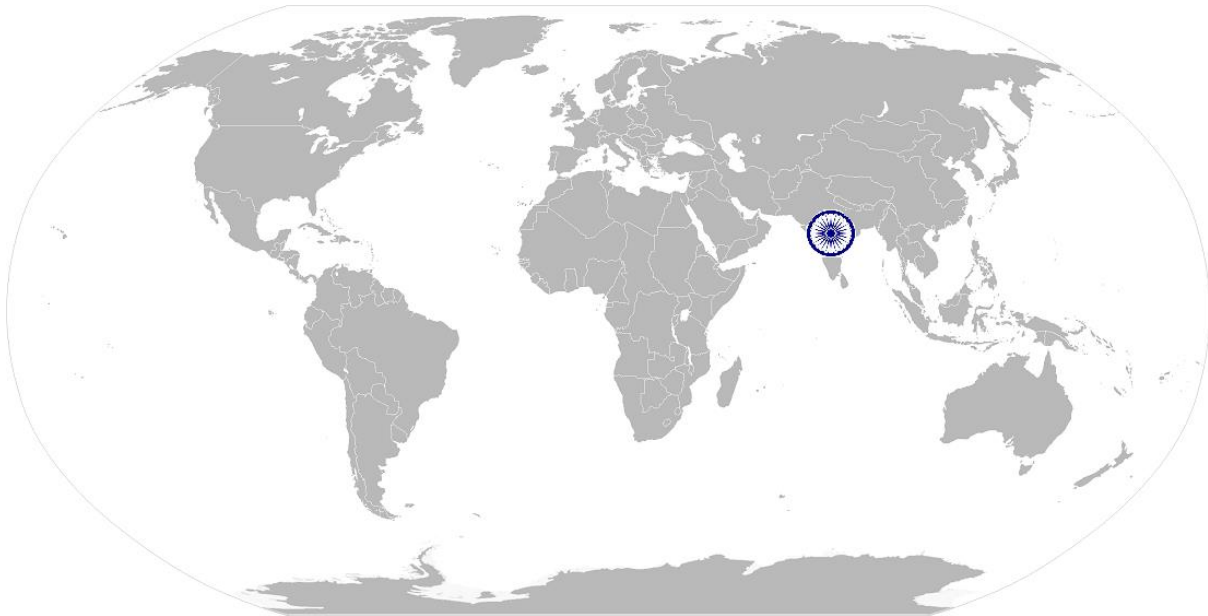
Acronyms

ASC/ N 1902

Perform and finish all assigned jobs related to welding

---

# National Occupational Standards



## Overview

This Occupational Standard describes the knowledge, understanding and skills required of an individual to perform and finish all assigned jobs related to welding.

ASC/ N 1902

Perform and finish all assigned jobs related to welding

National Occupational Standard	<b>Unit Code</b>	ASC/ N 1902
	<b>Unit Title (Task)</b>	Perform and finish all assigned jobs related to welding
	<b>Description</b>	This NOS unit is about an individual who performs and finishes all assigned jobs related to welding
	<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>assist in setting up or adjusting necessary equipment</li> <li>assemble, fabricate and repair systems/ components / sub-assemblies through welding</li> </ul>
	<b>Performance Criteria (PC) w.r.t. the Scope</b>	
	<b>Element</b>	<b>Performance Criteria</b>
	<b>Assist in the overall welding process</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. determine required equipment and welding method to be used to weld a particular components / aggregate</p> <p>PC2. identify the different material specifications required to repair the weld joints</p> <p>PC3. assist in setting up or adjusting necessary equipment, such as shielded and electric arc welders and maintenance of other welding related machines</p> <p>PC4. 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</p> <p>PC5. operate manual and automated welding units and equipment by depositing metal from electrode to work piece and joining edges of work piece</p> <p>PC6. layout, position, and secure parts and assemblies according to specifications, using straightedge, combination square, callipers, and ruler</p> <p>PC7. tack-weld or weld components and assemblies, using electric, gas, arc, or other welding equipment</p> <p>PC8. cut work piece, using powered saws, hand shears, or chipping knife</p> <p>PC9. melt lead bar, wire, or scrap to add lead to joint or to extrude melted scrap into reusable form</p> <p>PC10. observe tests on welded surfaces, like dimension tolerance to evaluate weld quality and conformance to specifications</p> <p>PC11. monitor the fitting, burning, and welding processes to avoid overheating of parts or warping, shrinking, distortion, or expansion of material</p> <p>PC12. inspect grooves, angles, or gap allowances, using micrometer, calliper, and precision measuring instruments</p> <p>PC13. remove rough spots from work piece, using portable grinder, hand file, or scraper</p> <p>PC14. weld components in flat, vertical, or overhead positions</p> <p>PC15. heat, form, and dress metal parts, using hand tools, torch, or arc welding equipment</p> <p>PC16. ignite torch and adjust valves, amperage, or voltage to obtain desired flame or arc</p>



**ASC/ N 1902**

**Perform and finish all assigned jobs related to welding**

	<p>PC17. weld defect free weld joint and weld repair</p> <p>PC18. assist in examining finish products and spare parts and comparing them with samples to check whether the specifications are met</p> <p>PC19. ensure that all safety procedures are followed by using protective equipment like eye shields, nose masks etc.</p>
<b>Knowledge and Understanding (K) w.r.t. the scope</b>	
<b>Element</b>	<b>Knowledge and Understanding</b>
<p><b>A. Organisational Context</b> (Knowledge of the Company/ Organisation and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard operating procedures to be followed for performing welding processes</p> <p>KA2. documentation requirements for each procedure carried out organisational and professional code of ethics and standards of practice</p> <p>KA3. safety, health and environmental policies and regulations for the workplace</p>
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to handle vehicle parts and machinery</p> <p>KB2. how to visually check the part for damage</p> <p>KB3. the methods and practices followed in the maintenance of tools, machinery, and layout of equipment and to carry out repair process</p> <p>KB4. which material or alloy to use while welding particular metal:</p> <ul style="list-style-type: none"> <li>• steel</li> <li>• aluminium and aluminium alloys</li> <li>• copper and copper alloys</li> <li>• nickel and nickel alloys</li> <li>• titanium and titanium alloys</li> <li>• zirconium and zirconium alloys</li> </ul> <p>KB5. the various welding techniques and processes such as</p> <ul style="list-style-type: none"> <li>• gas metal arc welding</li> <li>• tungsten inert gas welding</li> <li>• oxy acetylene welding</li> <li>• arc welding</li> <li>• resistance welding</li> <li>• solid state welding</li> </ul> <p>KB6. how to use the following tools and equipment required to carry out the welding process :</p> <ul style="list-style-type: none"> <li>• blow torches : <ul style="list-style-type: none"> <li>- motorized cutting torches</li> <li>- pattern cutting torches</li> <li>- welding torches</li> </ul> </li> <li>• gas welding or brazing or cutting apparatus : <ul style="list-style-type: none"> <li>- brazing equipment</li> <li>- arc welding equipment</li> <li>- oxyacetylene welding equipment</li> <li>- portable gas operated arc welders</li> </ul> </li> </ul>

**ASC/ N 1902**

**Perform and finish all assigned jobs related to welding**

	<ul style="list-style-type: none"> <li>• man lift or personnel lift :           <ul style="list-style-type: none"> <li>- hydraulic truck lifts</li> <li>- swing stages</li> </ul> </li> <li>• welding masks including various types of :           <ul style="list-style-type: none"> <li>- hand shields/gloves</li> <li>- welding eye shields</li> </ul> </li> <li>• welding tools :           <ul style="list-style-type: none"> <li>- rod ovens</li> <li>- storage ovens and hot boxes</li> <li>- welding guns</li> </ul> </li> <li>• workshop presses :           <ul style="list-style-type: none"> <li>- brakes</li> <li>- portable magnetic drill presses</li> <li>- punch presses</li> </ul> </li> </ul> <p>KB7. how to inspect equipment, structures, or materials to identify the cause of errors or other problems or defects</p> <p>KB8. how to use either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles) such as</p> <ul style="list-style-type: none"> <li>• use precision measuring tools or equipment</li> <li>• operate metal or plastic fabricating equipment/machine</li> <li>• perform detailed welding techniques</li> <li>• use fire suppression equipment</li> <li>• use hand or power tools</li> <li>• use non-destructive test equipment</li> <li>• fabricate beams</li> <li>• use acetylene welding/cutting torch</li> <li>• weld together metal parts, components, or structures</li> <li>• use gas welding equipment</li> <li>• burn (cut), trim, or scarf metal objects</li> <li>• use thermal-cutting equipment</li> <li>• use braze-welding equipment</li> <li>• solder metal parts or components together</li> <li>• braze metal parts or components together</li> <li>• use soldering equipment</li> <li>• use arc welding equipment</li> <li>• operate hoist, winch, or hydraulic boom</li> </ul> <p>KB9. how to perform physical activities such as climbing, lifting, balancing, walking, stooping, and handling of materials</p>
<b>Skills (S) w.r.t. the scope</b>	
<b>Element</b>	<b>Skills</b>
<b>A. Core Skills/</b>	<b>Writing skills</b>



**ASC/ N 1902**

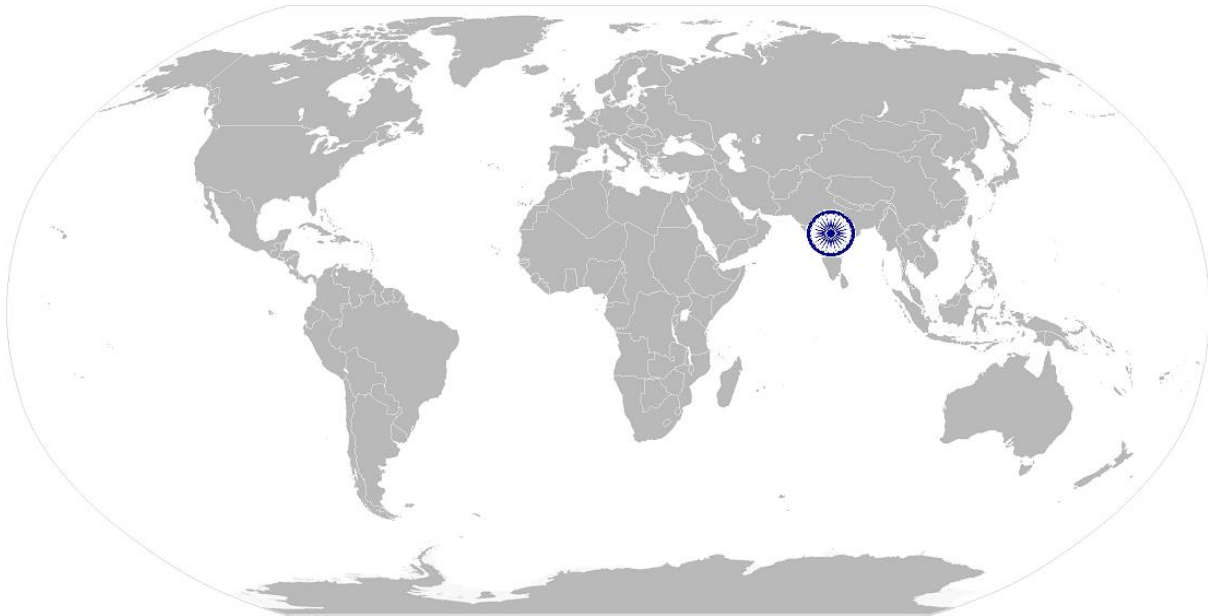
**Perform and finish all assigned jobs related to welding**

<b>Generic Skills</b>	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. Create documentation required for the welding process (including work sheets, etc.)</p> <p>SA2. enter, transcribe, record, store, or maintain information in written or electronic/magnetic form</p> <p>SA3. assist in maintaining appropriate service and repair records of the vehicle to be welded</p> <p>SA4. write in at least one language</p>
	<b>Reading skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. read work orders, blueprints, materials, specifications etc. related to the welding job</p> <p>SA6. read and interpret geometric dimensions and tolerances of the welding job</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA7. interact with superiors and other support staff function</p> <p>SA8. provide signals directions or warnings to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person</p>
<b>B. Professional Skills</b>	<b>Decision making</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. analyse information and evaluate results to choose the best solution and solve problems in case they arise during the welding procedure</p> <p>SB2. decide when to contact superior in case of any discrepancy in the welding machine</p>
	<b>Plan and Organise</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. plan a visual check on the piece for insuring that its damage free</p> <p>SB4. plan and organise deliveries taking account of local conditions</p>
	<b>Customer Centricity</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. ensure that customer's requirements are assessed and satisfactory service is provided</p>
	<b>Problem solving</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB6. detect equipment malfunctions or out of tolerance machining and adjusts machine within limits as required while insuring quality of production</p>
	<b>Analytical thinking</b>

ASC/ N 1902

Perform and finish all assigned jobs related to welding

	The user/individual on the job needs to know and understand how to:
	SB7. identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts
	SB8. analyse and interpret geometric dimensions and tolerances
	<b>Critical thinking</b>
	The user/individual on the job needs to know and understand how to:
	SB9. use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems

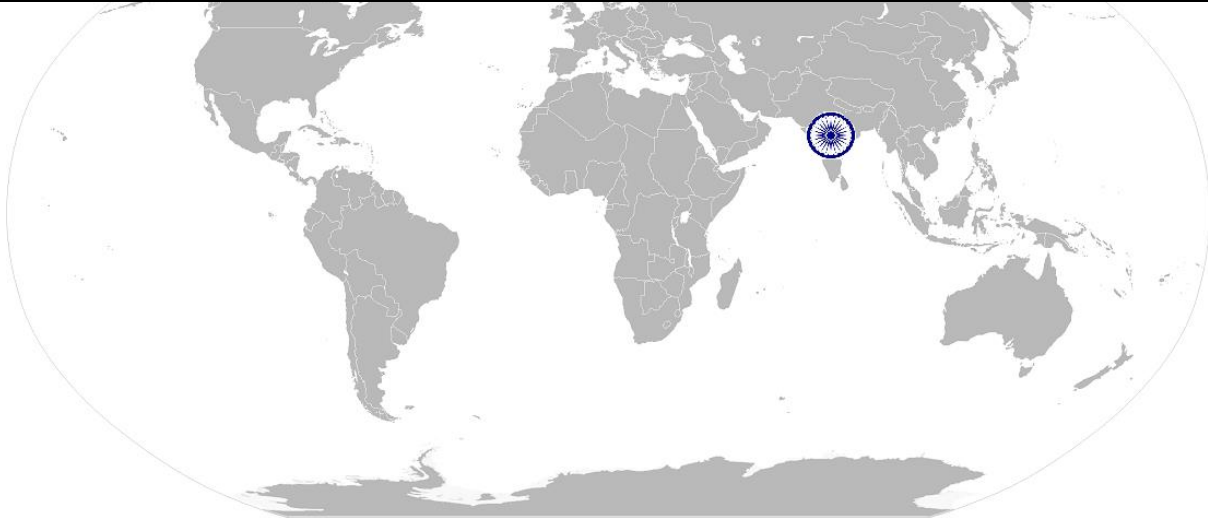


ASC/ N 1902

Perform and finish all assigned jobs related to welding

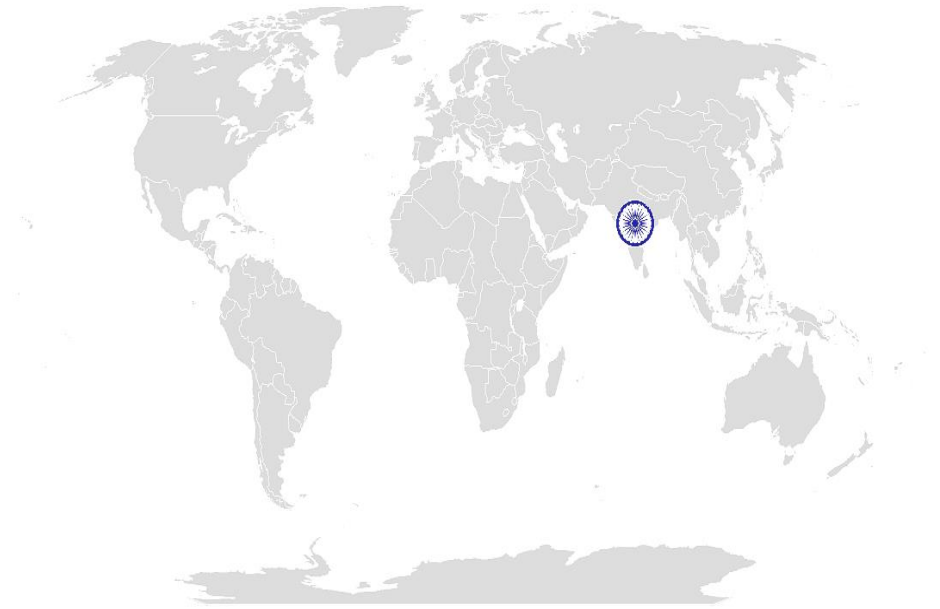
## NOS Version Control

<b>NOS Code</b>	ASC/ N 1902		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Industry</b>	Automotive	<b>Drafted on</b>	20/07/13
<b>Industry Sub-sector</b>	Non Formal	<b>Last reviewed on</b>	20/07/13
<b>Occupation</b>	Auto Components / Aggregates Repair	<b>Next review date</b>	Under revision expected date of revised version 31-Dec-15



---

# National Occupational Standards



## Overview

This unit is about planning and organising an individual's work in order to complete it to the required standards, on time and within budget in terms of cost and material.

ASC/ N 0001

Plan and organise work to meet expected outcomes

National Occupational Standard

<b>Unit Code</b>	ASC/ N 0001
<b>Unit Title (Task)</b>	Plan and organise work to meet expected outcomes
<b>Description</b>	This NOS unit is about planning and organising an individual's work in order to complete it to the required standards on time.
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>work requirements including various activities, deliverables or work output required in the given time, maintain set quality standards</li> <li>appropriate use of resources (both material / equipment's and manpower)</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Work requirements including various activities within the given time and set quality standards</b>	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> <li>PC1. keep immediate work area clean and tidy</li> <li>PC2. treat confidential information as per the organisation's guidelines</li> <li>PC3. work in line with organisation's policies and procedures</li> <li>PC4. work within the limits of job role</li> <li>PC5. obtain guidance from appropriate people, where necessary</li> <li>PC6. ensure work meets the agreed requirements</li> </ul>
<b>Appropriate use of resources</b>	<ul style="list-style-type: none"> <li>PC7. establish and agree on work requirements with appropriate people</li> <li>PC8. manage time, materials and cost effectively</li> <li>PC9. use resources in a responsible manner</li> </ul>
<b>Knowledge and Understanding (K) w.r.t. the scope</b>	
<b>Element</b>	<b>Knowledge and Understanding</b>
<b>A. Organisational Context (Knowledge of the Company/Organisation and its processes)</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. the organisation's policies, procedures and priorities for area of work, role and responsibilities in carrying out that work</li> <li>KA2. the limits of responsibilities and when to involve others</li> <li>KA3. specific work requirements and who these must be agreed with</li> <li>KA4. the importance of having a tidy work area and how to do this</li> <li>KA5. how to prioritize workload according to urgency and importance and the benefits of this</li> <li>KA6. the organisation's policies and procedures for dealing with confidential information and the importance of complying with these</li> <li>KA7. the purpose of keeping others updated with the progress of work</li> <li>KA8. who to obtain guidance from and the typical circumstances when this may be required</li> </ul>

ASC/ N 0001

**Plan and organise work to meet expected outcomes**

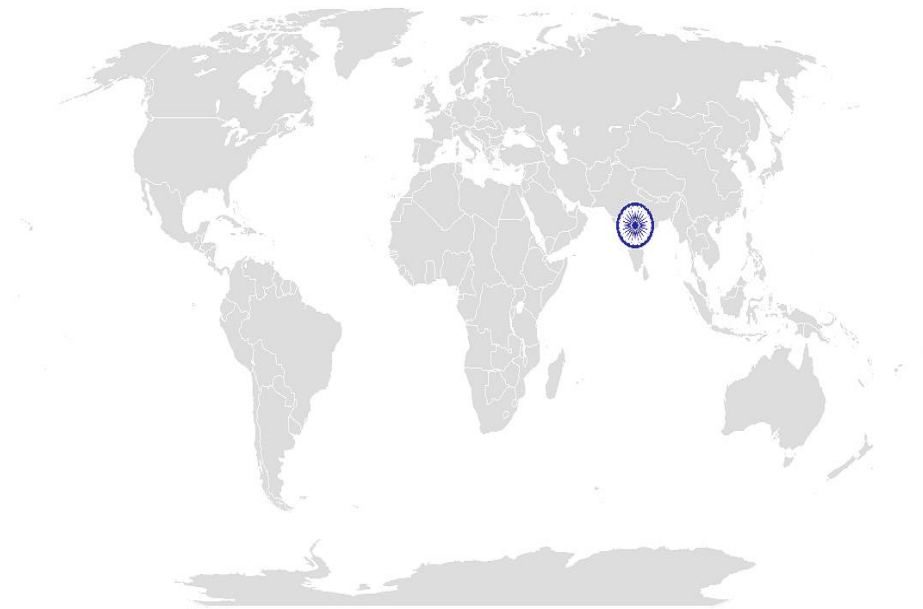
	KA9. the purpose and value of being flexible and adapting work plans to reflect change
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to complete tasks accurately by following standard procedures</p> <p>KB2. technical resources needed for work and how to obtain and use these</p>
<b>Skills (S) w.r.t. the scope</b>	
<b>Element</b>	<b>Skills</b>
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/individual on the job needs to know and understand how to:
	SA1. write in at least one language
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to:
	SA2. read instructions, guidelines/procedures
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to:
	SA3. ask for clarification and advice from appropriate persons SA4. communicate orally with colleagues
	<b>B. Professional Skills</b>
The user/individual on the job needs to know and understand how to:	
SB1. make a decision on a suitable course of action appropriate for accurately completing the task within resources	
<b>Plan and Organise</b>	
The user/individual on the job needs to know and understand how to:	
SB2. agree objectives and work requirements SB3. plan and organise work to achieve targets and deadlines	
<b>Customer Centricity</b>	
The user/individual on the job needs to know and understand how to:	
SB4. deliver consistent and reliable service to customers SB5. check own work and ensure it meets customer requirements	
<b>Problem Solving</b>	
The user/individual on the job needs to know and understand how to:	
SB6. refer anomalies to the concerned persons	
<b>Analytical Thinking</b>	
The user/individual on the job needs to know and understand how to:	



ASC/ N 0001

Plan and organise work to meet expected outcomes

	SB7. analyse problems and identify work -around taking help from concerned persons where required
	<b>Critical Thinking</b>
	The user/individual on the job needs to know and understand how to:  SB8. apply own judgement to identify solutions in different situations



ASC/ N 0001

Plan and organise work to meet expected outcomes

## NOS Version Control

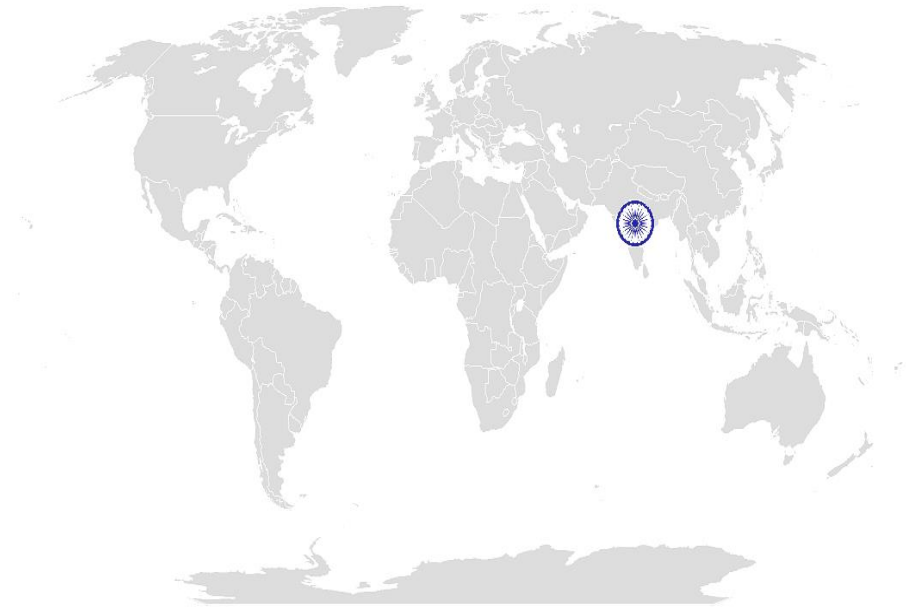
<b>NOS Code</b>	ASC/ N 0001		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Industry</b>	Automotive	<b>Drafted on</b>	10/06/13
<b>Industry Sub-sector</b>	Non Formal	<b>Last reviewed on</b>	10/06/13
<b>Occupation</b>	Auto Components / Aggregates Repair	<b>Next review date</b>	Under revision expected date of revised version 31-Dec-15

ASC/ N 0002

Work effectively in a team

---

# National Occupational Standards



## Overview

This unit is about working effectively with colleagues, either in own work group or in other work groups within organisation.

ASC/ N 0002

Work effectively in a team

National Occupational Standard	<b>Unit Code</b>	ASC/ N 0002
	<b>Unit Title (Task)</b>	Work effectively in a team
	<b>Description</b>	This NOS unit is about working effectively within a team, either in individual's own work group or in other work groups outside the organisation.
	<b>Scope</b>	This unit/task covers the following: Colleagues: <ul style="list-style-type: none"> <li>Interact &amp; communicate effectively with colleagues including member in the own group as well as other groups</li> </ul>
	<b>Performance Criteria (PC) w.r.t. the Scope</b>	
	<b>Element</b>	<b>Performance Criteria</b>
	<b>Interact &amp; communicate effectively with colleagues including member in the own group as well as other groups</b>	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> <li>PC1. maintain clear communication with colleagues (by all means including face-to-face, telephonic as well as written)</li> <li>PC2. work with colleagues to integrate work</li> <li>PC3. pass on information to colleagues in line with organisational requirements both through verbal as well as non-verbal means</li> <li>PC4. work in ways that show respect for colleagues</li> <li>PC5. carry out commitments made to colleagues</li> <li>PC6. let colleagues know in good time if cannot carry out commitments, explaining the reasons</li> <li>PC7. identify problems in working with colleagues and take the initiative to solve these problems</li> <li>PC8. follow the organisation's policies and procedures for working with colleagues</li> </ul>
	<b>Knowledge and Understanding (K) w.r.t. the scope</b>	
	<b>Element</b>	<b>Knowledge and Understanding</b>
	<b>A. Organisational Context (Knowledge of the Company/Organisation and its processes)</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. the organisation's policies and procedures for working with colleagues, role and responsibilities in relation to this</li> <li>KA2. the importance of effective communication and establishing good working relationships with colleagues</li> <li>KA3. different methods of communication and the circumstances in which it is appropriate to use these</li> <li>KA4. the importance of creating an environment of trust and mutual respect</li> <li>KA5. the implications of own work on the work and schedule of others</li> </ul>

**ASC/ N 0002**

**Work effectively in a team**

<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different types of information that colleagues might need and the importance of providing this information when it is required</p> <p>KB2. the importance of helping colleagues with problems, in order to meet quality and time standards as a team</p>
<b>Skills (S)w.r.t. the scope</b>	
<b>Element</b>	<b>Skills</b>
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/individual on the job needs to know and understand how to:
	SA1. complete written work with attention to detail
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to:
	SA2. read instructions, guidelines/procedures
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to:
	SA3. listen effectively and orally communicate information
	SA4. ask for clarification and advice from the concerned person
<b>B. Professional Skills</b>	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to:
	SB1. make decisions on a suitable course of action or response keeping in view resource utilization while meeting commitments
	<b>Plan and Organise</b>
	The user/individual on the job needs to know and understand how to:
	SB2. plan and organise work to achieve targets and deadlines
	<b>Customer Centricity</b>
	The user/individual on the job needs to know and understand how to:
	SB3. check that the work meets customer requirements
	SB4. deliver consistent and reliable service to customers
<b>Problem Solving</b>	
The user/individual on the job needs to know and understand how to:	
SB5. apply problem solving approaches in different situations	
<b>Critical Thinking</b>	
The user/individual on the job needs to know and understand how to:	
SB6. apply balanced judgements to different situations	

ASC/ N 0002

Work effectively in a team

## NOS Version Control

<b>NOS Code</b>	ASC/ N 0002		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Industry</b>	Automotive	<b>Drafted on</b>	10/06/13
<b>Industry Sub-sector</b>	Non Formal	<b>Last reviewed on</b>	10/06/13
<b>Occupation</b>	Auto Components / Aggregates Repair	<b>Next review date</b>	Under revision expected date of revised version 31-Dec-15

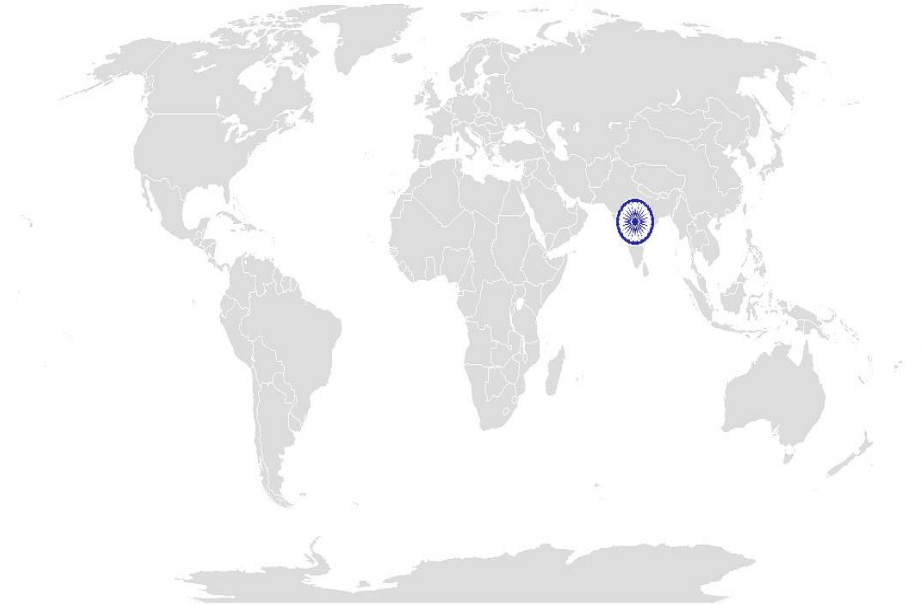


ASC/ N 0003

Maintain a healthy, safe and secure working environment

---

# National Occupational Standards



## Overview

This unit is about monitoring work place practices and making sure they meet requirements for health, safety, security and environmental concerns.

ASC/ N 0003

**Maintain a healthy, safe and secure working environment**

National Occupational Standard

<b>Unit Code</b>	<b>ASC/ N 0003</b>
<b>Unit Title (Task)</b>	<b>Maintain a healthy, safe and secure working environment</b>
<b>Description</b>	This NOS unit is about monitoring the working environment and making sure it meets requirements for health, safety and security.
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>Resources (both material &amp; manpower) needed to maintain a safe working environment as per the prevalent norms &amp; government policies including emergency procedures for illness, accidents, fires or any other reason which may involve evacuation of the premises</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Resources needed to maintain a safe, secure working environment</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. comply with organisation’s current health, safety and security policies and procedures</p> <p>PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person</p> <p>PC3. 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.</p> <p>PC4. identify and correct any hazards like illness, accidents, fires or any other natural calamity safely and within the limits of individual’s authority</p> <p>PC5. report any hazards outside the individual’s authority to the relevant person in line with organisational procedures and warn other people who may be affected</p> <p>PC6. follow organisation’s emergency procedures for accidents, fires or any other natural calamity</p> <p>PC7. identify and recommend opportunities for improving health, safety, and security to the designated person</p> <p>PC8. complete all health and safety records are updates and procedures well defined</p>
<b>Knowledge and Understanding (K) w.r.t. the scope</b>	
<b>Element</b>	<b>Knowledge and Understanding</b>
<b>A. Organisational Context (Knowledge of the Company/Organisation and its processes)</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. legislative requirements and organisation’s procedures for health, safety and security and individual’s role and responsibilities in relation to this</p> <p>KA2. what is meant by a hazard, including the different types of health and safety hazards that can be found in the workplace</p>

**ASC/ N 0003**

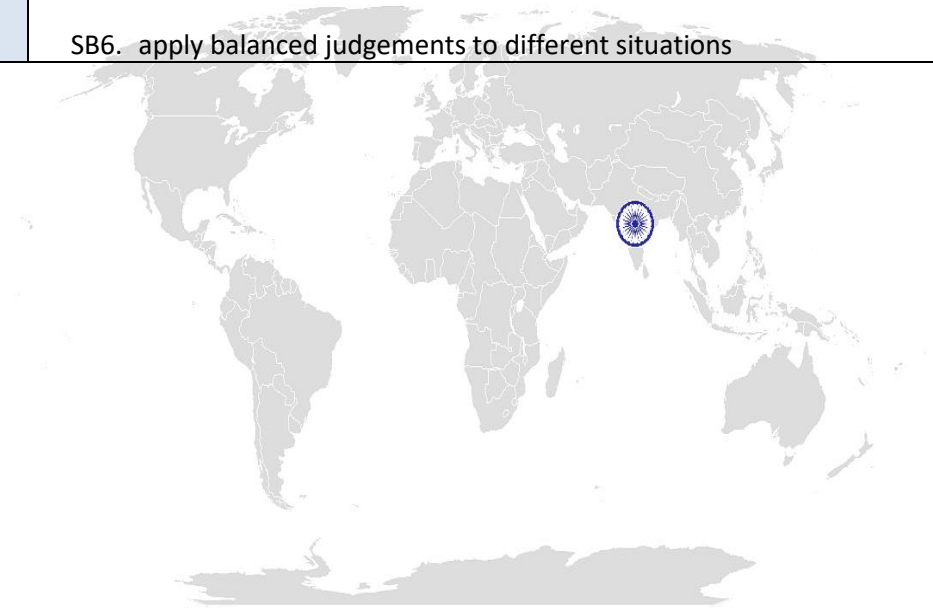
**Maintain a healthy, safe and secure working environment**

	KA3. how and when to report hazards KA4. the limits of responsibility for dealing with hazards KA5. the organisation’s emergency procedures for different emergency situations and the importance of following these KA6. the importance of maintaining high standards of health, safety and security KA7. implications that any non-compliance with health, safety and security may have on individuals and the organisation
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand:  KB1. different types of breaches in health, safety and security and how and when to report these KB2. evacuation procedures for workers and visitors KB3. how to summon medical assistance and the emergency services, where necessary KB4. how to use the health, safety and accident reporting Procedures and the importance of these
<b>Skills (S) w.r.t. the scope</b>	
<b>Element</b>	<b>Skills</b>
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/individual on the job needs to know and understand how to:
	SA1. complete accurate, well written work with attention to detail
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to:
	SA2. read instructions, guidelines/procedures/rules
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to:
	SA3. listen to and orally communicate information with all concerned
	<b>Decision Making</b>
	The user/individual on the job needs to know and understand how to:
	SB1. make decisions on a suitable course of action or response
<b>B. Professional Skills</b>	<b>Plan and Organise</b>
	The user/individual on the job needs to know and understand how to:
	SB2. plan and organise work to achieve targets and deadlines
	<b>Customer Centricity</b>
	The user/individual on the job needs to know and understand how to:
	SB3. build and maintain positive and effective relationships with colleagues and customers
<b>B. Professional Skills</b>	<b>Problem Solving</b>

ASC/ N 0003

Maintain a healthy, safe and secure working environment

	The user/individual on the job needs to know and understand how to:
	SB4. apply problem solving approaches in different situations
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to:
	SB5. analyse data and activities
	<b>Critical Thinking</b>
The user/individual on the job needs to know and understand how to:	
	SB6. apply balanced judgements to different situations



ASC/ N 0003

Maintain a healthy, safe and secure working environment

## NOS Version Control

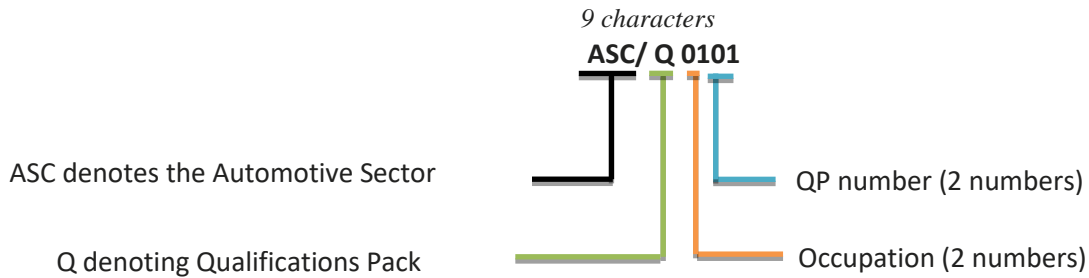
<b>NOS Code</b>	ASC/ N 0003		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Industry</b>	Automotive	<b>Drafted on</b>	10/06/13
<b>Industry Sub-sector</b>	Non Formal	<b>Last reviewed on</b>	10/06/13
<b>Occupation</b>	Auto Components / Aggregates Repair	<b>Next review date</b>	Under revision expected date of revised version 31-Dec-15

## Qualification Pack for Repair Welder

### Annexure

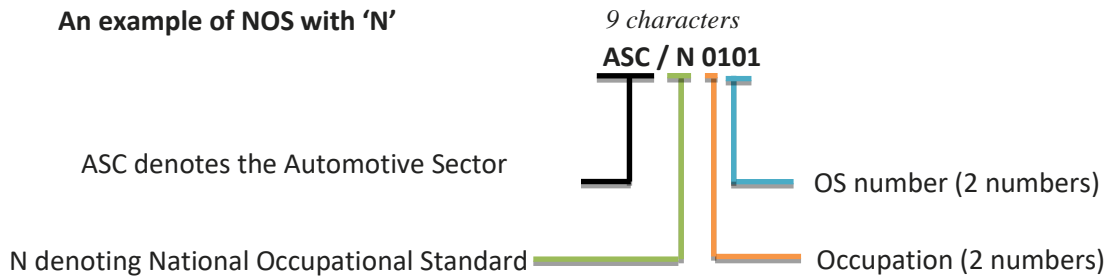
### Nomenclature for QP and NOS

#### Qualifications Pack



#### Occupational Standard

##### An example of NOS with 'N'



[Back to top...](#)



### Qualification Pack for Repair Welder

The following acronyms/ codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Manufacturing	31 - 45 & 61 - 68
Research & Development	81 - 84
Sales & Service	01 - 21
Road Transportation	96 - 97

Sequence	Description	Example
Three letters	Automotive	ASC
Slash	/	/
Next letter	Whether QP or NOS	N
Next two numbers	Occupation code	10
Next two numbers	OS number	12

**Qualification Pack for Repair Welder**

**Criteria for assessment of Trainees**

JOB ROLE	Repair Welder L4
Qualification Pack	ASC/Q 1902
No. Of NOS	1 Role specific ,3 generic

Sr. No.	Guidelines for Assessment
1	Assessment to be conducted by ASDC as per competency output defined in the NOS/QP and the assessment criteria provided in the NOS/QP
2	Assessment to be carried out by a third party Assessment Body duly affiliated to the SSC.
3	ASDC assessments will be comprehensive and cover all aspects of acquired knowledge, practical skills and also basic ability to communicate. Accordingly, evaluation process would include: <ol style="list-style-type: none"> <li>Theory/Knowledge test</li> <li>Practical demonstration test</li> <li>Face to Face Viva-Voice</li> </ol>
4	Theory/Knowledge assessment will be carried out on line through a link provided for each assessment that generates a random paper from a bank of questions available at the back end. <ul style="list-style-type: none"> <li>Exception to an online test in favour of Paper Test would be subject to non- availability of requisite broad band and/or hardware.</li> <li>On line test would be conducted in the presence of an ASDC assessor till web-enabled proctoring is deployed.</li> </ul>
5	ASDC assessor would be conducting Practical and Viva as per the criteria provided in the NOS/QP.
6	Cut off criteria for certification (Marks obtained in: 70%)

Assessment Outcomes	Assessment Criteria for Outcomes	Total Marks	Out Of	Theor y	Skills Practical
<b>ASC/N1902 Perform all jobs assigned related to welding</b>	PC1. Determine required equipment and welding method to be used to weld a particular component/aggregate	100	4	1	3
	PC2. Identify the different material specifications required to repair the weld joints		4	1	3
	PC3. Assist in setting up or adjusting necessary equipment, such as shielded and electric arc welders and maintenance or other welding related machines		5	1	4
	PC4. Operate manual or semi-		5	1	4

**Qualification Pack for Repair Welder**

	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			
	PC5. Operate manual and automated welding units and equipment by depositing metal from electrode to work piece and joining edges of work piece	6	2	4
	PC6. Layout, position, and secure parts and assemblies according to specifications, using straightedge, combination square, callipers, and ruler	6	2	4
	PC7. Tack-weld or weld components and assemblies, using electric, gas, arc, or other welding equipment	6	2	4
	PC8. Cut work piece, using powered saws, hand shears, or chipping knife	6	2	4
	PC9. Melt lead bar, wire, or scrap to add lead to joint or to extrude melted scrap into reusable form	6	2	4
	PC10. Observe tests on welded surfaces, like dimension tolerance to evaluate weld quality and conformance to specifications	6	2	4
	PC11. Monitor the fitting, burning, and welding processes to avoid overheating of parts or warping, shrinking, distortion, or expansion of material	6	2	4
	PC12. Inspect grooves, angles, or gap allowances, using micro-meter, calliper, and precision measuring instrument	6	2	4
	PC13. Remove rough spots from work piece, using portable grinder, hand file, or scraper	6	2	4
	PC14. Weld components in flat, vertical, or overhead position.	5	2	3

**Qualification Pack for Repair Welder**

	PC15. Heat, form, and dress metal parts, using hand tools, torch, or arc welding equipment.		6	2	4
	PC16. Ignite torch and adjust valves, amperage, or voltage to obtain desired flame or arc		5	1	4
	PC17. Weld defect free weld joint and weld repair		4	1	3
	PC18. Assist in examining finish products and spare parts and comparing them with samples to check whether the specifications are met		4	1	3
	PC19. Ensure that all safety procedures are followed by using protective equipment like eye shields, nose masks etc.		4	1	3
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
<b>ASC/N 0001 Plan &amp; organize work to meet expected outcome</b>	PC1. Keep immediate work area clean and tidy	100	9	2	7
	PC2. Treat confidential information as per the organisation's guidelines		9	2	7
	PC3. Work in line with organisation's policies and procedures		12	4	8
	PC4. Work within the limits of job role		12	4	8
	PC5. Obtain guidance from appropriate people, where necessary		12	4	8
	PC6. Ensure work meets the agreed requirements		13	4	9
	PC7. Establish and agree on work requirements with appropriate people		13	4	9
	PC8. Manage time, materials and cost effectively		10	3	7
	PC9. Use resources in a responsible manner		10	3	7
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
<b>ASC/N 0002</b>	PC1. Maintain clear communication	100	10	3	7

**Qualification Pack for Repair Welder**

Work effectively in a team	with colleagues (by all means including face-to-face, telephonic as well as written)				
	PC2. Work with colleagues to integrate work		13	4	9
	PC3. Pass on information to colleagues in line with organisational requirements both through verbal as well as non-verbal means		13	4	9
	PC4. Work in ways that show respect for colleagues		14	4	10
	PC5. Carry out commitments made to colleagues		14	4	10
	PC6. Let colleagues know in good time if cannot carry out commitments, explaining the reasons		13	4	9
	PC7. Identify problems in working with colleagues and take the initiative to solve these problems		13	4	9
	PC8. Follow the organisation's policies and procedures for working with colleagues		10	3	7
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
ASC/N 0003 Maintain safe, healthy environment friendly workplace	PC1. Comply with organisation's current health, safety and security policies and procedures		10	3	7
	PC2. Report any identified breaches in health, safety, and security policies and procedures to the designated person		13	4	9
	PC3. 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.	100	13	4	9

**Qualification Pack for Repair Welder**

	PC4. Identify and correct any hazards like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority		14	4	10
	PC5. Report any hazards outside the individual's authority to the relevant person in line with organisational procedures and warn other people who may be affected		14	4	10
	PC6. Follow organisation's emergency procedures for accidents, fires or any other natural calamity		13	4	9
	PC7. Identify and recommend opportunities for improving health, safety, and security to the designated person		13	4	9
	PC8. Complete all health and safety records are updates and procedures well defined		10	3	7
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
	<b>Grand Total</b>		<b>400</b>	<b>120</b>	<b>280</b>
	<b>Percentage Weightage:</b>			<b>30%</b>	<b>70%</b>
	<b>Minimum Pass % to qualify (aggregate):</b>				<b>70%</b>