COSVR662 - SQA Unit Code H4HN 04
Dismantle and assemble plant or machinery components to replace worn, damaged or faulty parts

Overview

This standard is about
1 interpreting information
2 adopting safe and healthy working practices
3 selecting materials, components, consumables and equipment
4 dismantling and assembling plant or machinery components to replace worn, damaged or faulty parts
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Performance criteria

You must be able to:

P1 interpret the given information relating to the work and resources to confirm its relevance
P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
P3 select the required quantity and quality of resources for the methods of work
P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
P5 comply with the given contract information to carry out the work efficiently to the required specification
P6 complete the work within the allocated time, in accordance with the programme of work
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Knowledge and understanding

You need to know and understand:

Performance Criteria 1
Interpretation of information
K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
K2 the types of information, their source and how they are interpreted
K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2
Safe work practices
K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
K5 how emergencies should be responded to and who should respond
K6 the organisational security procedures for tools, equipment and personal belongings
K7 what the accident reporting procedures are and who is responsible for making the report
K8 why, when and how health and safety control equipment should be used

Performance Criteria 3
Selection of resources
K9 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
K10 how the resources should be used and how any problems associated with the resources are reported
K11 the organisational procedures to select resources, why they have been developed and how they are used
K12 the hazards associated with the resources and methods of work and how they are overcome
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Performance Criteria 4
Minimise the risk of damage

K13 how to protect work from damage and the purpose of protection
K14 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5
Meet the contract specification

K15 how methods of work, to meet the specification, are carried out and problems reported
K16 how maintenance of tools and equipment is carried out

Performance Criteria 6
Allocated time

K17 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept
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Additional Information

**Performance Criteria 1**
1. interpretation of drawings, specifications, schedules, method statements, risk assessments, workshop manuals, technical service bulletins, parts manuals and manufacturers' information related to the work to be carried out

**Performance Criteria 2**
2. avoidance of risk by complying with the given information relating to at least five of the following
   2.1 methods of work
   2.2 safe use of health and safety control equipment
   2.3 safe use of access equipment
   2.4 safe use, storage and handling of materials
   2.5 safe use and storage of tools and equipment
   2.6 specific risks to health

**Performance Criteria 3**
3. selection of resources associated with own work
   3.1 materials, components and fixings
   3.2 tools and equipment
   3.3 consumables

**Performance Criteria 4**
4. protection of the work and its surrounding area from damage
5. minimise damage and maintain a clean work space
6. disposal of waste in accordance with current legislation

**Performance Criteria 5**
7. demonstration of work skills to measure, mark, support, unfasten, release, clean, lubricate, protect, align, adjust, fit, fix, secure, fasten and solder
8. use and maintain hand tools, specialist tools, portable power tools and ancillary equipment
9. dismantle and assemble plant or machinery components and sub-assemblies to replace worn, damaged or faulty parts, to given working instructions, for at least four of the following:
   9.1 power unit
   9.2 transmission
   9.3 steering
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9.4  hydraulics
9.5  pump
9.6  brakes
9.7  electrics
9.8  electronics
9.9  ancillaries (blade, boom, cab, drives)

10  complete functional, operational and safety checks
11  complete and maintain records

**Performance Criteria 6**
12  completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client
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**Scope/range related to knowledge and understanding**

**Disposal of waste**
1. environmental responsibilities, organisational procedures, manufacturers’ information, statutory regulations and official guidance

**Emergencies**
2. operative's response to situations in accordance with organisational authorisation and personal skills when involved with
   2.1 fires, spillages, injuries
   2.2 emergencies relating to occupational activities

**Hazards**
3. those identified by risk assessment, method of work, manufacturers’ technical information, statutory regulations and official guidance

**Health and safety control equipment**
4. identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment
   4.1 collective protective measures
   4.2 personal protective equipment (PPE)
   4.3 respiratory protective equipment (RPE)
   4.4 local exhaust ventilation (LEV)

**Information**
5. drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations associated with the dismantling and assembly of plant and machinery components

**Legislation and official guidance**
6. this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

**Maintenance**
7. operative care of hand tools and portable power tools and ancillary equipment
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Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to:
8.1 prepare and isolate plant and machine and notify others
8.2 identify components and tag or label
8.3 release residual energy, electric, pressure (sprung, hydraulic, pneumatic) and fluid (fuels, coolants and lubricants)
8.4 mark component parts prior to dismantling, punch, paint, chalk, scribe, label, and tape to assist assembly
8.5 measure and inspect component parts and sub-assemblies for serviceability
8.6 support components and sub-assemblies
8.7 protect components and sub-assemblies, threads, keyways, seals, faces, wires, links and connections
8.8 dismantle and assemble the following components: power unit, transmission, steering, hydraulics, pump, brakes, electrics, electronics, ancillaries (blade, boom, cab, drives)
8.9 replace worn, damaged or faulty parts
8.10 position, align and connect component parts and sub-assemblies with push and press fit, soldering, locking pins, threaded devices, clips and specialist retaining devices
8.11 apply torque loadings
8.12 assess the operational integrity of repaired component and sub-assembly
8.13 use hand tools, portable power tools, specialist tools and equipment
8.14 work at height
8.15 use access equipment
8.16 complete and maintain records

9 team work and communication
10 needs of other occupations associated with dismantling and assembling plant and machinery components

Problems

11 those arising from information, resources and methods of work
11.1 own authority to rectify
11.2 organisational reporting procedures
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Programme
12 types of progress charts, timetables and estimated times
13 organisational procedures for reporting circumstances which will affect the work programme

Protect work
14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources
15 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
15.1 fixtures and fittings
15.2 consumables
15.3 hand tools, portable powered tools, specialist tools and equipment
16 methods of calculating quantity, length, area and wastage associated with the method/procedure to dismantle and assemble plant and machinery components

Security procedures
17 site, workplace, company and operative
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Developed by: ConstructionSkills

Version number: 2

Date approved: December 2012

Indicative review date: December 2017

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: COSPM07

Relevant occupations: Construction and Building Trades

Suite: Construction Plant or Machinery Maintenance;

Key words: Plant components, Machinery components; Dismantling; Assembling; Power unit; Transmission; Steering; Hydraulics; Pumps; Brakes; Electrics; Electronics; Maintenance