
Overview

This standard is for individuals who work with print and print related equipment. It is not for people who are training as maintenance or plant engineers.

It comprises 2 elements:

- 1 Plan and implement a programme of maintenance
- 2 Maintain machinery in a clean and safe operating condition

It is aimed at operators who have a responsibility for:

- keeping the machine clean
- identification of component parts that may be defective
- identification of component parts suffering from excessive wear
- diagnosing and rectifying machine faults
- replace component parts (within their scope of work)
- implement a planned preventative maintenance programme
- maintain records of maintenance and part replacement
- making sure that machines are safe to run

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Maintain printing equipment in working order

Performance criteria

Plan and implement a programme of maintenance

- You must be able to:*
- P1 obtain or prepare a complete schedule of maintenance of the machine
 - P2 identify the recommended intervals for maintenance and lubrication
 - P3 ensure that the maintenance plan is implemented and kept up to date, as far as is possible, within the time allowed by your company for lubrication and maintenance
 - P4 keep records of maintenance work undertaken
 - P5 examine the guillotine for defective components or excessive wear at intervals required by your company
 - P6 keep records of faults that occur or are developing, and that appropriate action is taken to deal with them
 - P7 change component parts correctly and safely
 - P8 maintain a list of parts or consumables that are likely to require periodic replacement and identify those parts that may be required at short notice
 - P9 ensure that any parts or consumables identified as being required to be kept 'in stock' are available in the required quantities

Maintain machinery in a clean and safe operating condition

- You must be able to:*
- P10 ensure a risk assessment and a safe system of work is in place before beginning any cleaning
 - P11 use cleaning methods that are safe, avoiding harm to the environment and following the manufacturer's instructions
 - P12 dispose of used cleaning agents and waste materials safely and in accordance with environmental/waste disposal legislation
 - P13 prevent any build up of debris in and around the machine by regularly removing it and cleaning the machine
 - P14 regularly check that the machine is clean enough to prevent marking or damage to the product
 - P15 ensure machine is safe to operate after cleaning

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Knowledge and understanding

You need to know and understand:

Health and Safety

- K1 your duties and responsibilities for health and safety as defined by any specific legislation covering your job role

Regulations

You need to know and understand:

- K2 manual handling
K3 noise at work
K4 personal protective equipment

Workplace policies and procedures

You need to know and understand:

- K5 written health and safety policy statement
K6 provision and use of workplace equipment regulations
K7 training
K8 prohibited equipment
K9 young persons
K10 written operating procedures for equipment use and processes, including safe systems of work

Hazards and risks in your own job, their assessment and the action to take to deal with them

You need to know and understand:

- K11 relevant regulations on the safe handling of equipment and materials, codes of practice issued by the Health and Safety Executive or the Printing Industry Advisory Committee (PIAC)
K12 guarding of machinery
K13 typical hazards and risks in the printing industry
K14 risk assessment techniques

Manufacturers' and suppliers' health and safety instructions/advice

You need to know and understand:

- K15 operating instructions for machinery

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K16 data sheets for substances harmful to health

Personal Presentation

You need to know and understand:

K17 personal hygiene

K18 clothing and accessories suitable to the particular workplace

K19 fitness for work

K20 smoking policies in the workplace

How to stop a machine in the event of an emergency

You need to know and understand:

K21 using stop buttons

K22 lifting guards

Problem Solving

You need to know and understand:

K23 machinery - electrical, mechanical, electronic, settings, component wear and tear, consumables needing replacement

K24 materials - defects, shortages, incompatibility

K25 systems

K26 organisation

K27 lack of skills or knowledge

Sources of information

You need to know and understand:

K28 manufacturer's documentation/troubleshooting guides

K29 colleagues

K30 tutors/trainers/mentors

K31 reference material – in-house or external

Techniques for assessing machine faults

You need to know and understand:

K32 observation

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- K33 listening
- K34 inspection of product
- K35 reports from colleagues/log reports
- K36 touch or smell (if safe to do so)
- K37 testing

Cleaning, Lubrication and Maintenance

You need to know and understand:

the principal activities involved with machine cleaning, lubrication and maintenance

Roles and responsibilities for cleaning, lubrication and maintenance

You need to know and understand:

- K38 engineers
- K39 manufacturer's agents
- K40 machine operators
- K41 machine assistants

Machine faults and how they can be rectified

You need to know and understand:

- K42 types of faults
- K43 skills needed to repair particular types of faults

The maintenance plans for machines which you operate

You need to know and understand:

- K44 manufacturer's specifications/recommended maintenance plans
- K45 company plans/arrangements for maintenance

Which components wear or become degraded over time

You need to know and understand:

- K46 filters
- K47 bearings
- K48 belts
- K49 chains

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K50 machine or process specific components

What is meant by the phrase 'safe system of work' and how it applies to cleaning, lubrication and maintenance activities

You need to know and understand:

K51 codes of Practice issued by HSE or PIAC

K52 documented procedures to be followed

K53 isolating equipment before commencing cleaning and maintenance

K54 replacement of all guards after cleaning and maintenance

The choice and use of suitable cleaning agents and lubricants

You need to know and understand:

K55 manufacturer's specification/recommendations

K56 environmental considerations

K57 toxicity/health issues

K58 disposal of contaminated cleaning materials

You need to know and understand:

What parts of the machine you are allowed to clean, lubricate and maintain

You need to know and understand:

Preventive versus Predictive Maintenance

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Additional Information

Scope/range

To achieve this standard, you must apply maintenance techniques, systems and fault finding on the equipment you operate.

This standard is applicable to the following specialist areas:

1. Machine Printing
2. Print Finishing and Bookbinding
3. Carton Manufacturing

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Developed by Proskills

Version number 2

Date approved October 2013

Indicative review date April 2018

Validity Current

Status Original

Originating organisation Proskills

Original URN 250

Relevant occupations Originators compositors and print preps; Printers; Screen printers; Printing machine minders and assistants; Bookbinders and print finishers; Graphic designers

Suite Machine Printing, Carton Manufacture

Key words machines; printing; lithographic; equipment; flexographic; operate; maintain; inks; coatings;