

Maintain printing equipment in working order

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
- replacing component parts (within their scope of work)
- implementing a planned preventative maintenance programme
- maintaining records of maintenance and part replacement
- making sure that machines are safe to run

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Performance criteria

You must be able to:

Plan and implement a programme of maintenance

1. obtain complete schedule of maintenance for machinery following standard operating procedures
2. identify the recommended intervals for maintenance and lubrication following standard operating procedures
3. check maintenance plans are implemented and kept up to date, as far as is possible, within the time allowed by your company for lubrication and maintenance
4. keep records of maintenance work undertaken following standard operating procedures
5. examine equipment for defective components or excessive wear at intervals required by your company
6. keep records of faults that occur or are developing, and that action is taken to deal with them
7. change component parts following standard operating procedures
8. maintain lists of parts or consumables likely to require periodic replacement and identify those parts required at short notice
9. check any parts or consumables identified as being required to be kept 'in stock' are available in required quantities**Maintain machinery in a clean and safe operating condition

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1. check risk assessment and safe systems of work are in place before beginning any cleaning
 2. use cleaning methods, avoiding harm to the environment and following the manufacturer's instructions
 3. dispose of used cleaning agents and waste materials following current environmental/waste disposal legislation
 4. prevent any build-up of debris in and around machinery by regularly removing and cleaning following standard operating procedures
 5. check machines are clean enough to prevent marking or damage to products

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Knowledge and understanding

You need to know and understand:

Health and Safety

1. your duties and responsibilities for health and safety as defined by any specific legislation covering your job role**

Regulations

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2. *manual handling*
3. *noise at work*
4. *personal protective equipment* *

Workplace policies and procedures

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5. *health and safety policy*
6. *provision and use of workplace equipment regulations*
7. *training*
8. *prohibited equipment*
9. *young persons*
10. *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

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11. *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 Body*
12. *guarding of machinery*
13. *typical hazards and risks in the printing industry*
14. *risk assessment techniques* *

Manufacturers' and suppliers' health and safety instructions/advice

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- 15. operating instructions for machinery*
- 16. data sheets for substances harmful to health **

Personal Presentation

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- 17. personal hygiene*
- 18. clothing and accessories suitable to the particular workplace*
- 19. fitness for work*
- 20. smoking policies in the workplace **

How to stop a machine in the event of an emergency

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- 21. using stop buttons*
- 22. lifting guards **

Problem Solving

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- 23. machinery - electrical, mechanical, electronic, settings, component wear and tear, consumables needing replacement*
- 24. materials - defects, shortages, incompatibility*
- 25. systems*
- 26. organisation*
- 27. lack of skills or knowledge**

Sources of information

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- 28. manufacturer's documentation/troubleshooting guides*
- 29. colleagues*
- 30. tutors/trainers/mentors*
- 31. reference material – in-house or external **

Techniques for assessing machine faults

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- 32. *observation*
- 33. *listening*
- 34. *inspection of product*
- 35. *reports from colleagues/log reports*
- 36. *touch or smell (if safe to do so)*
- 37. *testing **

Cleaning, Lubrication and Maintenance

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- 38. *principal activities involved with machine cleaning, lubrication and maintenance **

Roles and responsibilities for cleaning, lubrication and maintenance

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- 39. *engineers*
- 40. *manufacturer's agents*
- 41. *machine operators*
- 42. *machine assistants **

Machine faults and how they can be rectified

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- 43. *types of faults*
- 44. *skills needed to repair particular types of faults**

The maintenance plans for machines which you operate

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- 45. *manufacturer's specifications/recommended maintenance plans*
- 46. *company plans/arrangements for maintenance**

Which components wear or become degraded over time

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- 47. *filters*
- 48. *bearings*
- 49. *belts*
- 50. *chains*

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*51. machine or process specific components**What is meant by the phrase 'safe system of work' and how it applies to

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52. cleaning, lubrication and maintenance activities

53. codes of Practice issued by Health and Safety Executive or the Printing Industry Advisory Body *

Documented procedures to be followed

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54. isolating equipment before commencing cleaning and maintenance

*55. replacement of all guards after cleaning and maintenance**The choice and use of suitable cleaning agents and lubricants

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56. manufacturer's specification/recommendations

57. environmental considerations

58. toxicity/health issues

59. disposal of contaminated cleaning materials

60. parts of machines you are allowed to clean, lubricate and maintain

61. Preventive versus Predictive Maintenance

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