

PROPF310

Operate automated stitch and trim equipment for newspaper and periodicals production



Overview

This unit is for print finishers who work on newspapers and periodicals and operate automated stitch and trim equipment. They will be expected to control the equipment whilst running production jobs.

This unit consists of **three** elements:

Element 310.1 Maintain the throughput of automated stitch and trim equipment

Element 310.2 Monitor the quality of output from automated stitch and trim operations

Element 310.3 Keep stitch and trim equipment in a clean, safe and usable condition

This is what the unit covers

- 1 Identifying the job requirements;
- 2 Checking that machinery is in a fit condition and that safety devices are in place;
- 3 Co-ordinating the operation of machinery;
- 4 Checking and adjusting settings, where necessary to maintain production;
- 5 Checking that the output meets quality requirements;
- 6 Identifying faults and taking action to deal with them

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Performance criteria

Maintain the throughput of automated stitch and trim equipment

You must be able to:

- P1 check that you have all the details you need for the job
- P2 produce the required quantity of work
- P3 stack and store completed work securely and safely
- P4 follow the correct procedures for the removal of waste
- P5 run automated stitch and trim equipment
 - 5.1 at the correct speed
 - 5.2 safely and efficiently
- P6 correct faults which it is your job to remedy
- P7 promptly report faults which it is not your job to correct
- P8 co-operate with colleagues who are responsible for correcting faults
- P9 follow the correct procedures for the removal of waste
- P10 accurately record production and quality assurance details

Monitor the quality of output from automated stitch and trim equipment

You must be able to:

- P11 select and carefully check the quality of samples of output
- P12 check regularly that the quality of output meets your company's standards
- P13 accurately identify and promptly report problems and minimise production loss, when you find faults in the quality of the output
- P14 accurately report, to the appropriate person, details of the type and severity of any machine faults which occur
- P15 keep accurate records of job details, including downtime, when this occurs

Keep stitch and trim equipment in a clean, safe and usable condition

You must be able to:

- P16 have a 'safe system of work' before commencing any cleaning
- P17 obtain or prepare a schedule of cleaning, lubrication and maintenance for the machine
- P18 identify the recommended intervals for maintenance and lubrication

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- P19 ensure that the schedule is implemented and kept up to date, within the time allowed by your company for cleaning, lubrication and maintenance.
- P20 prevent any build up of debris in or around the machine by regularly removing it and cleaning the machine
- P21 regularly check that the machine is clean enough to prevent marking or damage to the product during normal operation
- P22 use cleaning methods which are safe, avoid harm to the environment and which follow the manufacturer's instructions
- P23 dispose of used cleaning agents and waste materials safely and in accordance with environment/waste disposal legislation
- P24 after cleaning, check that the machine is safe to operate
- P25 examine machinery for defective components or excessive wear at intervals required by your company
- P26 are able to remove and replace faulty or worn components that are your responsibility

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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

Knowledge of regulations such as those covering:

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

Working Practices

You need to know and understand:

- K11 the way you actually do your job, more particularly the activities and techniques and the way that materials and equipment are used.

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

You need to know and understand:

- K12 including relevant regulations on the safe handling of equipment and materials, and the safe use of computer equipment;
K13 codes of practice issued by the health and safety executive or the printing industry advisory committee (piac);
K14 guarding of machinery;
K15 typical hazards and risks in the printing industry;
K16 risk assessment techniques
K17 manufacturers' and suppliers' health and safety instructions / advice
K18 operating instructions for machinery;
K19 data sheets for substances harmful to health;

Personal Presentation

You need to know and understand:

- K20 personal hygiene

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- K21 clothing and accessories suitable to the particular workplace
- K22 fitness for work, e.g. not under the influence of drugs, alcohol or medication
- K23 smoking policies in the workplace

You need to know and understand:

How to stop a machine in the event of an emergency

The causes and treatment of common faults

You need to know and understand:

- K24 this knowledge will be specific to the materials, processes and equipment used by individual businesses - technical units, where necessary, will detail the scope of knowledge of faults for the unit
 - K24.1 raw material faults
 - K24.2 processing faults
 - K24.3 machine faults

Quality Assurance and Control

You need to know and understand:

- K25 techniques for controlling quality
- K26 inspection,
- K27 testing,
- K28 sampling,
- K29 use of input and output controls

Problem Solving

Types of problems that may need to be solved

You need to know and understand:

- K30 machinery - electrical, mechanical, electronic, settings, component wear and tear, consumables needing replacement
- K31 materials - defects, shortages, incompatibility
- K32 systems,
- K33 organisation
- K34 lack of skills or knowledge

Sources of information

You need to know and understand:

- K35 manufacturer's documentation / troubleshooting guides
- K36 colleagues
- K37 tutors / trainers / mentors
- K38 reference material - in house or external, e.g. internet

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Techniques for solving complex problems

- You need to know and understand:*
- K39 change one thing only at a time and assess effect of the change
 - K40 problem solving cycle
 - K41 root cause analysis
 - K42 brainstorming
 - K43 visual representations, e.g. fishbone / mindmap diagrams

Techniques for assessing machine faults

- You need to know and understand:*
- K44 observation
 - K45 listening
 - K46 inspection of product
 - K47 reports from colleagues / log reports
 - K48 touch or smell (if safe to do so)
 - K49 testing - e.g. electrical, mechanical, electronic

Materials

- You need to know and understand:*
- K50 the types and characteristics of paper, board and other commonly used substrates
 - K50.1 includes the range of commonly used uncoated, coated, embossed papers and boards;
 - K50.2 grammage, thickness, opacity, brightness/whiteness, strength, dimensional stability, gloss

Maintaining the quality of materials during storage and handling

- You need to know and understand:*
- K51 humidity and temperature;
 - K52 protection from physical damage
 - K53 labelling / identification

Cleaning, Lubrication and Maintenance

- You need to know and understand:*
- K54 the principal activities involved with machine cleaning, lubrication and maintenance
 - K54.1 roles and responsibilities for cleaning, lubrication and maintenance
 - K54.2 engineers
 - K54.3 manufacturer's agents
 - K54.4 machine operators
 - K54.5 machine assistants

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Machine faults and how they can be rectified

You need to know and understand:

- K55 types of faults, e.g. electrical, mechanical, electronic
- K56 skills needed to repair particular types of faults

The maintenance plans for machines which you operate

You need to know and understand:

- K57 manufacturer's specifications / recommended maintenance plans
- K58 company plans / arrangements for maintenance

Which components wear or become degraded over time

You need to know and understand:

- K59 filters
- K60 bearings
- K61 belts
- K62 chains
- K63 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:

- K64 codes of practice issued by HSE or PIAC
- K65 documented procedures to be followed
- K66 isolating equipment before commencing cleaning and maintenance
- K67 replacement of all guards after cleaning and maintenance

The choice and use of suitable cleaning agents and lubricants

You need to know and understand:

- K68 manufacturer's specification / recommendations
- K69 environmental considerations
- K70 toxicity / health issues
- K71 disposal of contaminated cleaning materials

You need to know and understand:

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

Preventive v. Predictive Maintenance

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Additional Information

Scope/range

The operator should be able to deal with all running problems within his/her responsibility. The operator is also responsible for ensuring that the machine is in a safe and clean condition for normal production operations.

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

Suite Print Finishing

Key words case making; folding; booklet making; foil blocking; laminating; slitting and re-reeling; auto-palletising; mail processing; cutting and creasing
