

# Sewing Machinist Apprenticeship Standard, Level 2: End-Point Assessment Plan

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## 1. Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the sewing machinist apprenticeship standard. It is for end-point assessment organisations (EPAOs) that need to know how EPA for this apprenticeship standard must operate. It will also be of interest to sewing machinist apprentices, their employers and training providers.

Full time apprentices will typically spend 12 months on-programme working towards the occupational standard, with a minimum of 20% off-the-job training.

The EPA should only start once the employer is satisfied that the apprentice is consistently working at, or above, the level set out in the sewing machinist occupational standard, the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPAO.

As a gateway requirement, apprentices must compile a portfolio of evidence. In addition, apprentices without English and mathematics at level 1 must achieve this level and apprentices without level 2 English and mathematics must take the tests for level 2 prior to taking their EPA<sup>1</sup>.

EPA must be conducted by an organisation approved to offer services against this apprenticeship standard, as selected by the employer, from the Education & Skills Funding Agency's (ESFAs) Register of End-Point Assessment Organisations (RoEPAO).

The EPA consists of three distinct assessment methods:

- Practical skills test
- Direct observation in the workplace
- Interview underpinned by a portfolio of evidence

The assessment methods must be successfully completed within a three-month period of each other, after the apprentice has met the EPA gateway requirements.

Performance in the EPA will determine the apprenticeship grade of fail, pass or distinction.

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<sup>1</sup> For those with an education, health and care plan or a legacy statement, the apprenticeships English and maths minimum requirement is Entry Level 3. British Sign Language qualification is an alternative to English qualifications for those whom this is their primary language.

<b>On-programme (Typically 12 - 18 months)</b>	<b>End-point assessment gateway</b>	<b>End-point assessment (Maximum three-months)</b>
<p>Training to develop the sewing machinists occupational standard's knowledge, skills and behaviours</p> <p>Working towards English/maths Level 1 and/or 2 (if required)</p> <p>Collation of a portfolio of evidence</p>	<p>English/maths Level 1 and taken tests for level 2, as a minimum</p> <p>Portfolio of evidence</p> <p>Employer satisfied apprentice is consistently working at, or above, the level of the sewing machinist occupational standard</p>	<p>Practical skills test</p> <p>Direct observation in the workplace</p> <p>Interview underpinned by the portfolio of evidence</p> <p>Graded fail, pass or distinction</p>
<b>Sewing machinist occupational standard</b>		

**Diagram 1. Typical sewing machinist apprenticeship standard summary**

## 2. End-point assessment gateway

The EPA should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the sewing machinist occupational standard, the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPAO. Employers may wish to take advice from their apprentice's training provider(s).

Gateway requirements:

- English and mathematics at level 1 and taken the tests for level 2, as a minimum. For those with an education, health and care plan or a legacy statement, the apprenticeships English and maths minimum requirement is Entry Level 3. British Sign Language qualification is an alternative to English qualifications for those whom this is their primary language
- Portfolio of evidence, that underpins the EPA interview

### 2.1 Portfolio of evidence requirements:

The portfolio of evidence will underpin the interview, as detailed in Section 3.3 /Annex 1 and must include:

- Evidence that demonstrates the apprentice's knowledge, skills and behaviours (KSBs)
- Evidence must be mapped against the KSBs being assessed by the interview
- Evidence must relate to 'real' work completed by the apprentice; evidence from simulated activities are not allowed
- Evidence must demonstrate consistent achievement of quality and quantity requirements
- 10-12 pieces of evidence in total

Examples of evidence can include:

- Products produced by the apprentice e.g. cushion cover, garment part, bedding
- Work documentation/ record e.g. docket, specifications
- Employer feedback/reviews
- Witness statements
- Recorded questions/answers/ workbooks
- Performance records
- Target achievement records
- Taped evidence (video or audio)
- Quality achievement records
- Maintenance records
- Photographic evidence
- Faults library

This is not a definitive list; other relevant evidence sources are permissible. See specific recommendations against criteria below:

Criteria	Recommended Evidence (For guidance only)
K1	A diagram of the company structure, a simple overview of the business model. Product information e.g brochures, photographs, marketing material
K2, K3, K4., K15, B3	A simple workflow or production process diagram showing all departments and highlighting own position/ job role
K14, S26, B8, K26 K25,	Copies of the companies policies and procedures, documentation supported by workbooks and questionnaires
K24	Flowchart of the supply chain from raw material to finished product
K5, K15	Samples of work using different materials with explanations of the different handling, construction and sewing techniques used
K6	Examples/ Photographs of products made in different fabrics due to the difference in design or end use
K8	Examples of basic costing's for one product
S24	Machine maintenance procedures or documentation
K13	Examples/ photographs of test runs
K19	A glossary of terms
K20	Examples of lean manufacturing processes, efficiency rates, workstation layouts, improved work techniques
K21	Specification sheet relating to the product shown
K21, B4	Quality standards relating to the product shown, work records signed by the employer showing evidence of consistently meeting quality standards
K22	Target sheets, performance rates, real time system print outs signed by the employer or employer testimonies relating to the product shown
K23	A list of key clients and examples of their specific needs or quality standards
K29	Copies of work records/ documentation/ docket or tabs
S24	Records or a diary of machine problems that required the machine mechanic
B7	Employer reviews or witness statements. Records/ evidence of consistent punctuality and attendance signed by the employer
B1	An overview of the role of colleagues across the company
B2	An account/photographs of experience with working individually and as part of a team
B5	Examples of flexibility and adaptation in response to a changing production or environment demand
K28, K 18	Flowchart of the company communication protocol/reporting structure

The portfolio of evidence must be submitted to the apprentice's independent assessor 14 days before the interview.

### 3. End-point assessment methods, timescales and location

The EPA consists of three distinct assessment methods:

- Practical skills test
- Direct Observation in the workplace
- Interview, underpinned by portfolio of evidence

The KSBs that must be assessed by each assessment method are shown in annex 1.

The assessment methods must be successfully completed within three-months of each other, after the apprentice has met the EPA gateway requirements. EPAOs should ensure the assessment methods are scheduled to take place as soon as possible after the gateway and as close together as possible, to allow for potential re-sits/re-takes.

The assessment methods can be completed in any particular order, allowing EPAOs flexibility in scheduling and cost-effective allocation of resources.

EPAOs must ensure appropriate methods to prevent misrepresentation are in place.

Requirements for each assessment method are detailed below.

#### 3.1 Method 1 – Practical Skills Test

Apprentices must complete a practical skills test, involving three tasks that a competent sewing machinist would be able to complete, observed by an independent assessor.

During or after completion of each task the independent assessor must ask ten set open questions per task to assess related underpinning knowledge i.e. 30 in total. They may ask follow up questions where clarification is required. Questioning must be completed within the total time allowed for the practical skills test. The assessor should consider the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity.

The practical skills test must be a synoptic assessment, i.e. assess the evidence presented via observing the tasks being carried out and questioning against the KSBs in an integrated way.

Practical skills tests must be conducted in a realistic work situation. It is anticipated that EPAOs may use employers' premises/equipment however; it must be under controlled conditions i.e. free from distraction and influence. The practical skills test must include the following three tasks:

<p><b>Task 1</b> Prepare <b>two</b> different types of machine for production of sewn products e.g. lock stitch, linker, overlocker, cover stitch, etc. including:</p> <ul style="list-style-type: none"> <li>• Needle selection and installation</li> <li>• Thread/yarn selection</li> <li>• Threading machines</li> <li>• Fill and insert of spool (where applicable)</li> <li>• Test run</li> <li>• Health &amp; Safety procedures</li> </ul>		
<p><b>Task 2</b> Using the two different types of sewing machine, produce <b>three</b> simple textiles products of the same design e.g. tote bag, a tee shirt, pillow case, cushion cover, tube skirt or an element of a more intricate item i.e. A finished sleeve, cuff, pocket etc. Each product must:</p>		
<p><b>Be made of a different material, each material must require different handling skills and machine settings e.g.</b></p> <ul style="list-style-type: none"> <li>• Jersey knit</li> <li>• Print to be matched</li> <li>• Denim</li> <li>• Wool</li> <li>• Lycra</li> <li>• Satin</li> <li>• Cashmere</li> <li>• Different yarn gauge</li> </ul>	<p><b>Include a minimum of three of the processes below:</b></p> <ul style="list-style-type: none"> <li>• Two different stitch types</li> <li>• Two different seam types</li> <li>• A double hem or blind hem</li> <li>• Topstitching</li> <li>• Linking a cuff</li> <li>• Linking a collar/ neckline</li> <li>• Linking a welt</li> <li>• Flat label attach</li> <li>• A buttonhole</li> <li>• Zip insertion</li> </ul>	<p><b>Be made to set:</b></p> <ul style="list-style-type: none"> <li>• Specifications</li> <li>• Operation process/sequence</li> <li>• Quality requirement</li> <li>• Target times</li> </ul>
<p>The production process must also include:</p> <ul style="list-style-type: none"> <li>• Organising work station to ensure optimum work flow</li> <li>• Selecting and changing needles to suit materials</li> <li>• Altering machine settings to suit materials</li> <li>• Identification and correction of machine/ stitch problems i.e. thread break, poor tension, skipped stitch etc.</li> <li>• Identification and correction of material/ component faults i.e. Badly cut components, shaded material, holes</li> <li>• Health &amp; Safety procedures</li> </ul> <p>Where errors do not occur naturally, a faults library may also be used with an explanation of the rectification procedure</p>		
<p><b>Task 3</b> Clean <b>one</b> machine after use, include:</p> <ul style="list-style-type: none"> <li>• Use of correct tools e.g. brush, tweezers, cloth, screwdriver</li> <li>• Needle check</li> <li>• Removal of appropriate machine parts e.g. the presser foot, throat plate, spool, spool case etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Replacement of machine parts after cleaning</li> <li>• Check oil and report findings</li> <li>• Test sews</li> <li>• Health &amp; Safety</li> <li>• Use compressed air (if used in the company)</li> </ul>	



## Practical skills test guidance

Prior to completing the practical skills test, apprentices must have the opportunity to familiarise themselves with the sewing machines, the materials to be used and the product that they will be making during the tasks.

Apprentices must be provided with a sample of the item to be produced.

Sewn product specifications, quality standard, instructions (including the sequence of assembly) and time allowed related to each task must be determined by EPAOs. The apprentice may seek clarification from the independent assessor if necessary.

The independent assessor must document the practical skills test.

The EPAO must ensure the following when conducting the practical skills test:

- The work station is clear
- The seat is adjusted to the correct height
- A variety of tools including the correct tool for the job must be in machine draw e.g. shears, scissors, unpickers, snips, tweezers, wire
- A variety of needles must be available to choose from, packets must be clearly marked with needle type and size
- Scrap for test sews is available
- The sample, instructions and specifications must be kept close to hand and the apprentice must be allowed to refer to them at any time throughout the test
- Cut work must be prepared in bundles
- Work must be allocated in a bundle
- The bundle must be opened and prepared/organised for processing by the apprentice
- Lockstitch and similar machines must be totally unthreaded
- Overlockers can be partially threaded and the new thread can be knotted and pulled through
- Target time must be set with tolerances, for example +/- 3 minutes
- Target times must not include work station preparation time
- Quality standards must be set with tolerances, for example +/- three errors
- Time taken to re-set machines or deal with machine problems must not be included when working to a target time.

Further recommendations:

- Allow room for improvement to the set production sequence, assembly process, specifications, quality standards or instructions. This will enable the apprentice to suggest feasible improvement to the process.
- Ensure a machine setting is incorrect, this will allow the apprentice to re-set the machine e.g. tension, thread length.
- Include badly cut component within the bundle for apprentice to identify as they work

- Include a component with material flaws i.e. holes or shaded for apprentice to identify as they work

Practical skill tests must be conducted within a total assessment time period of 3 hours +/-10%. There may be breaks during the practical skills test to allow the apprentice to move from one machine to another.

Practical skills test must assess all aspects of health and safety relevant to sewn product production.

Independent assessors may observe up to a maximum of **2** apprentices at any one time, to allow for cost effective use of resources while maintaining quality and rigour **or** Independent assessors may observe apprentices on a one-to-one basis.

Independent assessors must assess and grade the practical skills test, using the grading criteria in Annex 2. (a)

EPAOs must develop 'practical specification/question banks' of sufficient size to prevent predictability and review them regularly (at least once a year) to ensure they, and the specifications they contain, are fit for purpose. The questions should appreciate the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity.

EPAOs must ensure a different practical skills test is taken in the case of a re-sit/re-take.

### An example practical skills test is outlined below:

#### Task 1

##### Prepare a lock stitch machine for production of a cotton pillowcase –

- Select the correct thread and the correct needle for the fabric to be sewn
- Fill a spool with the correct thread and place an empty spool on the pin to fill whilst sewing
- Insert the correct needle for the fabric to be sewn
- Thread the machine through the correct guides, tension discs and needle
- Insert the spool and pull up bottom thread ready to sew
- Test sew and ensure the correct stitch, adjust machine if required until correct stitch is achieved
- Ensure all health and safety aspect are covered e.g. needle guard, belt guard, off when threading/ making adjustments

##### Prepare an overlocker for production of a cotton pillowcase -

- Select the correct thread and the correct needle/needles for the fabric to be sewn
- Insert the correct needle/needles for the fabric to be sewn
- Thread the top thread through guides, tension discs and needle/ needles
- Thread the bottom loppers using the appropriate tools
- Test sew and ensure the correct stitch, adjust machine if required until correct stitch is achieved
- Ensure all health and safety aspect are covered e.g. needle guard, belt guard, off when threading/ making adjustments

Answer 10 relevant questions on machine preparation

#### Task 2

- A) Following the specifications, production sequence, and quality requirements below produce 1 cotton pillowcase within the set target time of 30 minutes.
- B) Reset machine/machines and following the specifications, production sequence and quality requirements below produce 1 jersey pillow case
- C) Reset machine/ machines and following the specifications, production sequence and quality requirements below produce 1 printed cotton pillow case

<b>Specifications:</b>	<b>Quality Requirements:</b>	<b>Production Process:</b>	<b>Timescale:</b>
Double top hem 3cm turn,0.5cm turn finished hem 2.5cm hem 5 stitches per cm Double bottom hem 1cm, 0.5 cm turn finished hem 0.5 cm Four thread OL Side and bottom seam 0.5mm tolerance Top fold over 5cm Top stitch 1cm from edge	Straight seams O/L 5mm+/- tolerance Straight top stitching Sharp corners 5 stitches per cm No skipped stitches No unbalanced tension Match print No wavering  Error tolerance:	Roll and stitch top hem Roll and stitch bottom hem Right sides together align bottom hem and side seams O/L right seam O/L bottom seam O/L left seam Fold over top flap and stitch Bag out case and snip/sharpen corners Top stitch around sides and bottom seam	Item 1 - 10 minutes Item 2 - 12 minutes Item 3 – 14 minutes Tolerance + 1 minute
<p>On completion of the product quality check the three items and identify and fix errors (if possible). View the prepared fault library -identify 10 sewing faults, the reason for these faults and how to fix them.</p> <p style="text-align: center;">Answer 10 relevant questions on production techniques</p>			
<p><b>Task 3</b></p> <p>Following Health and Safety procedures, select the correct tools and clean one of the machines used in Task 2:</p> <ul style="list-style-type: none"> <li>• Assess needle damage and replace if required</li> <li>• Removing appropriate machine parts to ensure clear access for cleaning</li> <li>• Clean the machine and machine parts</li> <li>• Replace machine parts correctly after cleaning</li> <li>• Check and report the machines oil levels</li> <li>• Carry out a test sew after cleaning</li> </ul> <p style="text-align: center;">Answer 10 relevant questions on Health and Safety and cleaning / maintenance procedures</p>			

### 3.2 Method 2 – Direct Observation in the Workplace

Apprentices must be directly observed by the independent assessor carrying out the production of sewn products, in their usual place of work, using equipment that they are familiar with and under normal working conditions.

The observation must last 30 minutes +/- 10%.

The observation must directly assess manual sewing operations that meet the employer's quality requirements and efficiently rates and must be backed by evidence of working consistently at the companies required performance/efficiency rate i.e. performance records, employer witness statement

The independent assessor must agree with the employer on when and what will be directly assessed, taking into account workplace operations and schedules.

Independent assessors may observe up to a maximum of **2** apprentices at any one time, to allow for cost effective use of resources while maintaining quality and rigour **or** Independent assessors may observe apprentices on a one-to-one basis.

Independent assessors must assess and grade the direct observation using the grading criteria in Annex 2 (b).

The independent assessor must document the direct observation.

This assessment method must include direct observation of:

- Health and safety procedures
- The assembly sequence
- The stitching process
- Sewing techniques
- Workstation organisation
- Receiving and forwarding work
- Completing work documentation
- Working to quality standards
- Working to specifications
- Working to deadlines/ targets
- Inspection and evaluation of products produced

Independent assessors must ask five open questions to assess underpinning knowledge during the observation time-period to seek clarification of understanding; follow up questions are allowed for clarification purposes. The assessor should consider the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity.

Independent assessor will devise the questions based on what has been observed. EPAOs must develop sample questions and provide guidance to independent assessors on questioning as part of the observation.

### 3.3 Method 3 – Interview underpinned by portfolio of evidence

Independent assessors must conduct an interview with an apprentice on a one-to-one basis. The interview must last 45 minutes +/-10%.

EPAOs must develop a bank of interview questions of a sufficient size to mitigate predictability and review them regularly to ensure they, and the questions they contain, are fit for purpose.

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits/re-takes.

Independent assessors must ask a minimum of 20 open competency based questions; follow up questions are allowed to seek clarification. The assessor should consider the level of English that the apprentice is working at and pitch questions using appropriate language to ensure inclusivity.

The questions must cover the following themes:

- The company products and business model
- The overall manufacturing processes and production methods
- Their own job role, its value, where it fits into the manufacturing process and how it fits into the structure of the company
- Materials used in production including suitability for a product, characteristics, handling methods and common faults
- General costs of materials and resources
- The importance of test sews
- The different types of specialist sewing machines used
- Faults and their consequences
- Health and safety rules, regulations and working practices
- The reporting process
- The principles of lean manufacturing and continuous improvement
- Product specifications and quality standards
- Efficiently rates, targets and deadlines
- Supply chain and customer base
- Work documentation /records
- The companies' communication protocol
- Working relationships and the role of self and others
- Employment / environmental/ compliance policies and workplace procedures
- The importance of reliability and punctuality

Example questions:

- *What helps you understand if the your work is good quality? (show sample)*
- *What happens if you do not meet targets and deadlines?*

- *Who reports to who in your company?*
- *What paperwork/forms do you complete when you have finished your work?*
- *What do the other workers have to do when you ring in sick?*

Apprentices must refer to evidence contained within their portfolio where possible, when answering the questions (See EPA Gateway, Section 2), to demonstrate real working application of the KSBs being assessed.

Independent assessors must assess and grade the interview, using the grading criteria in Annex 2 (C)

The interview must be recorded or documented by the independent assessor.

EPAOs must ensure that the interview is conducted in a suitable controlled environment i.e. quiet room free from distraction and influence. It is anticipated that EPAOs will use the apprentice's employer's premises wherever possible to minimise costs. They may be conducted face-to-face or via an online platform for example video-conferencing. EPAOs must ensure appropriate methods to prevent misrepresentation are in place. For example, screen share and 360-degree camera function with assessors when the assessments are undertaken remotely.

#### **4. End-point assessment and apprenticeship grading**

Performance in the EPA will determine the apprenticeship grade of fail, pass or distinction.

Independent assessors must individually grade each assessment method – fail, pass or distinction, according to the requirements set out in this plan. Restrictions on grading apply where apprentices re-sit/re-take an assessment method – see re-sit/re-take section below.

EPAOs must combine the grades of the three assessment methods to determine the EPA grade.

To achieve an EPA pass, apprentices must achieve a pass or distinction in all three-assessment methods.

To achieve EPA distinction, apprentices must achieve a distinction in all three assessment methods or a distinction in the Practical skills test and Interview and a pass in the workplace observation.

See table 1 below, for assessment grade combinations.

Independent assessors' decisions must be subject to moderation by the EPAO – see internal quality assurance section below. Decisions must not be confirmed until after moderation.

Practical skills test	Direct Observation	Interview	EPA grade
Fail	Fail	Fail	Fail
Pass	Fail	Fail	Fail
Fail	Pass	Fail	Fail
Fail	Fail	Pass	Fail
Pass	Fail	Pass	Fail
Fail	Pass	Pass	Fail
Pass	Pass	Fail	Fail
Pass	Pass	Pass	Pass
Pass	Distinction	Pass	Pass
Distinction	Pass	Pass	Pass
Pass	Pass	Distinction	Pass
Distinction	Distinction	Pass	Pass
Pass	Distinction	Distinction	Pass
Distinction	Pass	Distinction	Distinction
Distinction	Distinction	Distinction	Distinction

**Table 1. Sewing machinist grading combinations**

## 5. Re-sit and re-take information

Apprentices who fail one or more assessment method will be offered the opportunity to take a re-sit/re-take. Re-sits/re-takes must not be offered to apprentices wishing to move from pass to distinction. A re-sit does not require further learning, whereas a re-take does.

The apprentice's employer will need to agree that a re-sit/re-take is an appropriate course of action. Apprentices should have a supportive action plan to prepare for the re-sit/re-take.

An individual assessment method re-sit/re-take must be completed within three months of notification of the original assessment method fail; otherwise the entire EPA must be retaken.

The maximum grade awarded to a re-sit/re-take will be pass, unless the EPAO identifies exceptional circumstances accounting for the original fail.

EPAOs must ensure that apprentices complete a different practical skills test and/or interview questions when taking a re-sit/re-take.



## 6. End-point assessment organisations

Employers must choose an independent EPAO approved to deliver the EPA for this apprenticeship from the Education & Skills Funding Agency's (ESFAs) Register of End-Point Assessment Organisations (RoEPAO).

EPAOs must appoint:

- Independent assessors to conduct the practical skills test and interview/professional discussion
- Quality assurance staff to undertake moderation of EPA

Independent assessors must:

- Be independent of the apprentice, their employer and training provider(s) i.e. there must be no conflict of interest
- Have induction training from their EPAO in terms of good assessment practice, operating the assessment tools and grading; a minimum of one day
- Be a competent machinist, with a minimum of five-years' machinist experience and work or have worked in a production environment; they do not necessarily still need to be employed in the sewing machinist sector
- Have current sewing machinist knowledge i.e. worked in industry within last two years and complete a minimum of 3-days continuing professional development (CPD) relevant to the sector per year
- Attend a minimum of 1-day EPAO standardisation per year

Quality assurance staff must hold or be working towards quality assurance qualifications. They must be independent of the apprentice, their employer and training provider i.e. there must be no conflict of interest.

### 6.1 Internal quality assurance

Internal quality assurance refers to the requirements that EPAOs must have in place to ensure valid, consistent, reliable and accurate assessment decisions. EPAOs for this EPA must undertake the following:

- Appoint independent assessors that meet the requirements as detailed in this plan – see above
- Provide induction training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- Have quality assurance systems and procedures that support fair, reliable and consistent assessment across organisation and over time
- Operate regular standardisation events that enable independent assessors to attend a minimum of one event per year

- Operate moderation of assessment activity and decisions, through examination of documentation and observation of activity, with a minimum of 25% of each independent assessors' assessments moderated

## 6.2 Assessment tools and materials

EPAOs must produce assessment tools and supporting materials for the EPA that follow best assessment practice, as follows:

- Practical skills test product and specification bank
- Sample observation questions
- Interview question bank
- Documentation for recording assessment evidence, observations and decisions
- Guidance for independent assessors on conducting the EPA
- Guidance for apprentices, their employers and training providers on EPA

## 6.3 External quality assurance

External quality assurance arrangements will ensure that EPAOs delivering EPA for this apprenticeship operate consistently and in line with this plan.

The UK Fashion and Textiles Association will undertake external quality assurance for this apprenticeship standard.

## 7. Implementation

The EPAO must have in place clear arrangements for making Reasonable Adjustments for this standard. This should include how an apprentice qualifies for Reasonable Adjustment and what Reasonable Adjustments will be made. For example, the EPAO should accommodate apprentices for whom English is their second language. The adjustments must maintain the validity, reliability and integrity of the assessment methods.

### 7.1 Affordability

The following factors should ensure the EPA is affordable:

- EPAOs can use employers' premises for the EPA
- Remote assessment is permissible for the interview/professional discussion, reducing travel costs
- Assessors can assess up to two apprentices at a time.

### 7.2 Volumes

It is anticipated that there will be 450 starts on the first year on this apprenticeship and 400 per year once established.

**Annex 1 – Knowledge, skills and behaviours to be assessed by each assessment method**

<b>Assessment method</b>	<b>Key</b>
<b>Practical Skills Test</b>	<b>PST</b>
<b>Direct Observation</b>	<b>DO</b>
<b>Interview</b>	<b>I</b>

<b>Knowledge statements</b>	<b>Assessment method</b>
<b>The company they work for including:</b>	
K1 The companies' product range and business model	I
K2 The companies' overall manufacturing and production method	I
K3 How the job role fits into the manufacturing process and structure of the company	I
K4 Workplace procedures and policies i.e. employer and employee legal obligations, employees' rights and responsibilities, ethical trading standards, equality and diversity	I
<b>Materials used in production including:</b>	
K5 The characteristics and behaviors of materials, threads and trimmings used in production i.e. woven, non-woven, knitted, stretch, finish	I
K6 The significance of the materials to the product style i.e. waterproof, durable, drape	I
K7 Faults and flaws common to the materials used within production of sewn products i.e. shading, misprint, pulls, holes	PST
K8 Awareness of material and resource costs	I
<b>Specialist sewing machines including:</b>	
K9 Different types of industrial sewing machines used to produce sewn products i.e. Lockstitch, overlockers, coverstitch, linkers and blind hemming machines	I
K10 Industrial sewing machine settings i.e. stitch length, tension, pedal control	PST
K11 Different types of industrial sewing machine needles and their uses	PST
K12 Industrial sewing machine maintenance procedures	PST

K13	The importance of machine test runs and the consequence of not carrying out test runs	I
K14	Health & safety procedures in relation to setting up and using industrial sewing machines	PST
<b>The production process including:</b>		
K15	Each stage of the manufacturing process required to make the finished product i.e. pattern making, sample making, cutting, sewing, final checks	I
K16	Work techniques and methods used in sewing production i.e. seam types, stitch type, fabric handling and finish	PST
K17	Common product faults, their causes and remedy i.e. material defects, stitching defects, cutting errors	PST
K18	The agreed reporting process and the consequence of unreported faults on production	I
K19	Stitching industry terminology i.e. stitch, seam and finish types	I
K20	Awareness of lean manufacturing and continuous improvement i.e. efficiency rates, organised workstation layouts, fast techniques	I
<b>Quality &amp; quantity requirements including:</b>		
K21	Different quality standards for sewn items including specifications, tolerances, seam allowance and finish	I
K22	The efficiency rates that apply when manufacturing sewn items i.e. standard minute value, non-productive minutes, down time, targets and deadlines	I
<b>Supply chain &amp; customer base including:</b>		
K23	Key clients and their expectations i.e. specific requirements, quality standards	I
K24	The supply chain - where raw materials come from and where the finished product goes	I
<b>Policies and procedures:</b>		
K25	Employment policies i.e. employer and employee legal obligations, employees' rights and responsibilities, equality and diversity	I
K26	Health, safety, welfare, compliance and environmental policies and procedures.	I
K27	Safe working practices and workplace risks and hazards i.e. needle guards, belt guard, personal protective equipment.	DO

<b>Communication including:</b>		
K28	The companies' communication protocol across all levels and departments involved in the manufacturing process	I
K29	How to accurately complete the companies work records and tracking process i.e. dockets, documentation or electronic systems.	I

<b>Skills statements</b>		<b>Assessment method</b>
<b>Prepare workstation:</b>		
S1	Prepare an efficient workstation and organise workload to ensure a quick, smooth workflow	PST
S2	Ensure the machine and working environment is safe to use	PST
S3	Ensure the machine is in full working order and thread, components and tools are to hand	PST
S4	Carry out test runs before production work to ensure quality of stitch.	PST
S5	Inspect cut components before sewing and report deviations.	PST
S6	Adhere to any documentation accompanying the work to be done i.e specifications, specific instruction.	PST,
<b>Carry out stitching operations:</b>		
S7	Operate and control relevant specialist industrial sewing machines i.e. lockstitch, linker, blind hemmer, overlocker, cup seamer, cover stitch machine	PST, DO
S8	Sew components, following the correct sequence of work i.e. Standard Operating Procedure	PST, DO
S9	Handle and sew materials in accordance with its characteristics and behaviour	PST
S10	Apply a high level of hand/eye co-ordination when carrying out the sewing process	PST
S11	Work to specifications i.e. seam allowance, tolerances, hem depths	PST
S12	Work to quality standards i.e. neat finish, straight sewing, straight hems ,even stitch tension	PST
S13	Meet production deadlines and targets	PST, DO
S14	Identify and report poor quality work i.e. uneven seams, bad stitching	PST,DO

S15	Consistently produce items of quality standard at the required rate of efficiency	<b>PST</b>
S16	Complete the appropriate work tracking process i.e. work docket, documentation or electronic tracking system.	<b>DO</b>
S17	Pass work on to the next production operation, following company procedures to ensure continuous production	<b>DO</b>
<b>Maintain machine and work station:</b>		
S18	Layout workstation to ensure an efficient, continuous work method	<b>PST</b>
S19	Monitor machine speed, feed and material flow and report problems	<b>PST</b>
S20	Make machine adjustments as required for different products and materials	<b>PST</b>
S21	Clean machine to prevent contamination i.e. oil, dirt on product, broken needles	<b>PST</b>
S22	Recognise needle damage, select appropriate new needle and replace damaged needle	<b>PST</b>
S23	Carry out routine machine maintenance i.e. Stitch tension, spool replacement, lubrication	<b>PST</b>
S24	Carry out test sews following maintenance and adjustments to prevent contamination and ensure stitch quality	<b>PST</b>
S25	Identify and report machine problems that require a machine mechanic i.e. motor replacement, broken parts, machine electronic failure	<b>I</b>
<b>Instructions/ specifications:</b>		
S26	Read, interpret and work to instructions i.e. specifications, standard operating procedure	<b>I</b>
S27	Interpret and follow work policies and procedures within a sewing production environment	<b>DO</b>
<b>Communication:</b>		
S28	Develop and maintain effective communications with colleagues and sewing production staff to ensure a productive work environment i.e. supervisors, team leaders, fellow machinists, senior machinists	<b>DO</b>
S29	Work as part of a sewing production team or individually demonstrating flexibility and adaptability	<b>DO</b>
S30	Accurately complete work records and tracking process i.e. dockets, documentation or electronic systems	<b>DO</b>

<b>Behaviour statements</b>	<b>Assessment method</b>
B1 Strive for effective working relationships conducive to meeting sewing production targets with a co-operative attitude and approach	<b>I</b>
B2 (i) Be efficient when working individually, with ambition to achieve in all aspects of work (ii) Be efficient when working as part of a sewing production team with ambition to achieve in all aspects of work	<b>PST</b> <b>DO</b>
B3 Take ownership of work, recognising the value of the role within the organisation and the value of the role others perform	<b>I</b>
B4 Commit to achieving and maintaining sewing production quality standards and efficiently rates	<b>I</b>
B5 Demonstrate a responsive, flexible approach to changing working environments and sewing production demands	<b>I</b>
B6 Demonstrate a positive work ethic and can-do attitude showing initiative and self-motivation	<b>DO</b>
B7 Be punctual and reliable, with an understanding of the consequences of absence from work and late arrival and the effect this may have on colleagues and sewing production	<b>I</b>
B8 Have a safety-first attitude in sewing production and the wider work environment	<b>DO</b>

## Annex 2(A). Practical Skills Test Grading Criteria

KSBs covered by each criterion are referenced in brackets, see annex 1 for KSB referencing

<b>Fail</b>  <b>Apprentices demonstrate one or more of the following:</b>	<b>Pass</b>  <b>Apprentices demonstrate all of the following criteria and in doing so is demonstrating full competence in the KSBs assessed by this assessment method:</b>	<b>Distinction</b>  <b>Apprentices demonstrate all the pass criteria plus the eight of the following criteria and in doing so is demonstrating a deeper level of competence in the KSBs assessed by this assessment method:</b>
Working in a way that compromises health and safety of self or others	Works in a safe manner, following procedures and does not compromise the safety of self and others (K14, S2)	
Poor preparation and organisation of the workstation, applies incorrect machine settings	Prepares and organises an efficient work station, setting machines as appropriate to task e.g. stitch, tension, threading, balance, position, test sews (S1, S3, K10, S18)	Quickly prepares and organise the work station and can make feasible suggestions that could speed up the standard work flow
Poor handling of materials and trimmings	Handles materials and trimmings correctly in accordance with their behaviour and characteristics (S9)	Suggest techniques/work aids that may help when working with difficult materials
Lack of hand /eye coordination when sewing	Hand and eye coordination when handling and materials and completing sewing operations (S10)	Hand and eye coordination when working at a high performance rate (over 75%)
Does not recognise faults and flaws in the materials	Recognises faults and flaws in material and takes appropriate corrective action e.g. shading, marks, holes (K7)	



Does not recognise faults during production	Recognises faults during production, and identify their cause (K17)	Rectifies faults quickly and efficiently
Unable to select and insert the correct needle (recognition of needle damage)	Recognises needle damage and can explain reason for damage. Can select and inset the correct new needle and explain the appropriate disposal of the old needle (S22, K11)	Identifies the correct needle type and size for a minimum of three different materials/ tasks
Does not carry out test sews	Carries out appropriate test sews, and can explain why tests are carried out and the consequence of not carrying out test sews (S4, S24)	
Inability to operate and control sewing machines confidently	Operates and controls two different sewing machines, confidently, safely and at moderate speed (400 to 800 stitches per minute) (S7)	Operates and controls two different types of sewing machines confidently, safely and at high speed (over 800 to 1100 stitches per minute)
Does not check cut components before starting work or recognise faults in cut component	Inspects cut components before sewing and reports deviations (S5)	Suggests feasible use of badly cut components without jeopardising quality
Does not use the correct sequence of assembly when making the product	Follows the correct sequence of assembly and the forms the sewn product correctly (K16, S8)	Suggest feasible improvements to the assembly sequence / process that may reduce production time
Unable to identify and resolve simple construction faults	Identifies simple construction faults and takes corrective action e.g. stitch tension, bad top stitch (S14)	Identifies complex construction faults and can suggest corrective action e.g. seam slippage, badly cut components, seam match
Does not follow specifications or instructions correctly	Follows specifications and instructions to produce the sewn product within error tolerance (S11, S6)	Follows specifications and instructions to produce the sewn product with no errors
Does not work to the required quality standards	Meets quality standards within given tolerances (S15, S12)	No quality errors

Does not complete tasks within the set target time	Completes all tasks within the tolerances of the given target time (S13)	Completes all task exceeding the given target time
Cannot work autonomously	Works efficiently as an individual, autonomous sewing machinist, with ambition to achieve all aspects of work (B2i)	Describes the differences when working as an autonomus machinist to working as part of a team e.g. responsibilities, initiative
Does not recognise machine problems e.g. machine will not sew, slows down or stops	Recognises and reports machine problems (S19) e.g machine will not sew, slows down or stops	Recognises the problem and suggest feasible reasons. Highlight when a mechanic is required and suggest ways to utilise down time
Cannot adjust the machines settings correctly to suit different materials	Adjusts machine setting to suit materials and carry out test sews following adjustments (S20)	
Uses ineffective cleaning and maintenance procedures	Carries out the correct cleaning and maintenance procedure, (followed by test sews) and can explain the routine machine maintenance process (K12, S21, S23)	

## Annex 2 (B) Direct Observation in the Workplace Grading Criteria

KSBs covered by each criterion are referenced in brackets, see annex 1 for KSB referencing

<b>Fail</b>  <b>Apprentices demonstrate one or more of the following:</b>	<b>Pass</b>  <b>Apprentices demonstrate all of the following criteria and in doing so is demonstrating full competence in the KSBs assessed by this assessment method:</b>	<b>Distinction</b>  <b>Apprentices demonstrate all of the pass criteria and in addition eight of the following criteria and in doing so is demonstrating a deeper level of competence in the KSBs assessed by this assessment method:</b>
Working in a way that compromises health and safety of self or others	Works in a safe manner, following workplace procedures and does not compromise the safety of self and others (K27, B8)	
Cannot handle or operate the sewing machine confidently	Ability to handle operate and control the sewing machine in production environment, confidently, safely and at moderate speed (between 300 and 800 stitches per minute) (S7)	Operates and controls the sewing machine, at high speed (800 and 1100 stitches per minute) confidently and safely
Does not use the correct sequence of assembly when making the products	Sews the component following the correct sequence of assembly (S8)	Suggest feasible improvements to the assembly sequence that may reduce production time

Does not recognise poor quality work coming through the production process	Describes or identifies poor quality work that has been passed by others through the production process (S14)	Explains the cause of the poor quality and suggests feasible, cost effective rectification
Does not complete tasks within the production target time	Completes tasks within 20% of the production target times (S13)	Completes tasks exceeding the given production target time
Fails to complete workplace documentation / records correctly	Completes workplace documentation / records correctly and at the right time (S16, S30)	
Fails to pass completed work on for the next operation correctly and efficiently	Passes work on for the next operation correctly and efficiently (S17, S29)	Suggests feasible options of passing work through the process that will speed up production
Cannot work efficiently as part of a team	Works efficiently as part of a team, with ambition to achieve all aspects of work (B2ii)	
Lack of co-operation with colleagues striving to meet production targets	Communicates and co-operates with colleagues to help meet production targets (S28)	Works pro-actively with colleagues, contributing significantly in order to meet production targets
A negative attitude and approach to allocated work and the workplace	Demonstrates a positive, proactive attitude and approach to work and the workplace (B6)	An enthusiastic attitude and approach to work and the workplace. Demonstrating proactive activity that helps to meet production deadlines

Mis-interprets and does not follow work policies and procedures whilst working in the sewing production environment (S27)	Interprets and follows work policies and procedures whilst working in the sewing production environment (S27)	
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## Annex 2 (C) Interview Grading Criteria

KSBs covered by each criterion are referenced in brackets, see annex 1 for KSB referencing

<b>Fail</b> <b>Apprentices demonstrate one or more of the following:</b>	<b>Pass</b> <b>Apprentices demonstrate all of the following criteria and in doing so is demonstrating full competence in the KSBs assessed by this assessment method:</b>	<b>Distinction</b> <b>Apprentices demonstrate all of the pass criteria and in addition eight of the following criteria and in doing so is demonstrating a deeper level of competence in the KSBs assessed by this assessment method:</b>
Poor knowledge of the companies' product range and business model	Can identify key products within the companies' product range and explain the basics of the companies the business model (K1)	Identifies all the companies' product range and explain the company's business model in full
Cannot explain the overall manufacturing and production process	Can provide an overview of the company's overall production processes for the items they are involved in making (K2)	Describes their company's production process in detail supported by workflow diagrams
Unaware of how their job role fits into the manufacturing process and company structure	Can describe their own job role, how it fits in and the importance of the role within the manufacturing process and company structure (K3, B3)	Explains the potential problems if the sewing machinist role is not carried out correctly
Cannot provide an overview of the companies workplace and employment procedures and policies	Can identify the workplace and employment procedures, and policies (K4, K25)	Can explain the key elements of workplace and employment procedures, and policies are in place and why they are in place
Cannot provide an overview of the companies Health & safety welfare, compliance and environmental procedures, and policies	Can identify Health & safety welfare, compliance and environmental procedures, and policies (K26, S26)	Can explain why the key elements of health & safety welfare, compliance and environmental procedures, and policies and why they are in place
Cannot provide samples of work using different materials, explain different handling and sewing techniques, or the characteristics and behaviours of different materials	Show and tell - show samples of work using two different materials, explaining the different handling and sewing techniques required, the fabric characteristics and behaviours and the	Show and tell - shows samples of work using four different materials, explaining the different handling and sewing techniques required, the characteristics and behaviours of each of the four materials

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	importance of using materials that are suitable for the style/ product (K5, K6, K9)	
Does not know or understand basic material, labour and resources costs	Show and tell – explain the basic material, labour and resources costs in relation to the sample shown (K8)	Gives examples of where cost could increase costs and suggestions for decreasing costs (K8)
Does not know the reason for test sews and when to carry them out	Explains the importance of carrying out machine test sews and the consequence of not doing them (K13)	
Cannot describe the company's overall manufacturing process	Describes each stage of their company's overall manufacturing process from design to final check (K15)	
Cannot explain the faults reporting process and the consequence of unreported faults (K18)	Explains the reporting process in relation to faults encountered during production and the consequence of unreported faults on the production process (K18)	Explains the consequence of unreported faults on future business
Does not use the correct stitching industry terminology when being interviewed	Uses the correct stitching industry terminology throughout the interview (K19)	
Does not understand the basic principles of lean manufacturing and continuous improvement	Explains the basic principles of lean manufacturing and continuous improvement e.g. efficiency rates, workstation layouts, work techniques (K20)	Provides examples of implementing simple lean manufacturing/continuous improvement ideas and techniques within their own workstation or work process
Cannot provide a product they have been involved in making and explain specifications used in production	Show and tell – shows a product they have been involved in making, and explain the product specifications and the consequences of not following these specifications (K21)	
Cannot provide a product they have been involved in making and explain the quality standards used in production Cannot provide evidence of consistently meeting quality standard's	Show and tell – shows a product they have been involved in making, and explain the relevant quality standards and the consequences of not meeting these standards. Can provide evidence, consistently meeting quality standard's over a	Provides work records/evidence of consistently meeting quality standard's over a six month period e.g work tickets, production documents

	three month period e.g. work tickets, production documents (B4)	
Cannot provide a product they have been involved in making the performance/ efficiency rates that apply in production. Cannot provide evidence of consistently meeting efficiently rates	Show and tell – shows a product they have been involved in making, and explain the relevant efficiency rates and the consequences of not meeting targets and deadlines. Can provide evidence of consistently meeting efficiently rates over a three month period e.g work tickets, production documents (K22)	Provides evidence of consistently meeting efficiently rates over a six month period e.g work tickets, production documents
Cannot show or explain work records and tracking processes used in production	Show and tell - shows the work records used in relation to a product they have been involved in making, explaining the tracking process and the consequences of incorrect work records (K29)	
Cannot list the companies key clients	Lists the companies top clients and describe their overall expectations (K23)	
Cannot explain where raw materials come from and where the finished product goes	Gives an overall explanation of where raw materials come from and where the finished product goes (K24)	
Cannot explain the companies' communication systems and protocol	Explains their company's communication systems and protocol across all levels (K28)	
Cannot give examples of machine problems that require the attention of a machine mechanic	Describe the process required when encountering a machine problem that requires the attention of a machine mechanic i.e. motor replacement, broken parts, machine electronic failure (S25)	
Does not know the role of colleagues or give examples of working together to meet production targets	Provides an overview of the role of immediate colleagues e.g fellow machinist, supervisors , and can give examples of working together to meet production targets (B1)	Provides an overview of the role of colleagues across the company e.g. quality control, cutters, designers, pattern cutters
Is not aware of potential changing working environments and sewing production demands or how to deal with them	Describes potential changing working environments and changing sewing production demands and how to deal with them (B5)	Provides examples of flexibility and adaptation in response to a changing production or environment demand



Does not understand the importance of punctuality and reliability or the consequences of absence from work and late arrival	Explains the importance of being punctual and reliable and the consequences of absence from work and late arrival (B7)	Provides evidence of attendance and punctuality e.g. attendance records, performance reviews
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