Part of the Enginuity Group

Qualification Manual

EAL Level 3 NVQ Extended Diploma in Automotive Engineering

Qualification Number: 600/1784/3

Issue E

www.eal.org.uk

Part of the Enginuity Group

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1.0 About EAL

For over fifty years, EAL has been the specialist awarding organisation for engineering, manufacturing, building services and related sectors. Developed to the highest technical standards, our qualifications reflect ever-changing industry and regulatory needs. We support the providers of our qualifications with an unparalleled level of service to ensure that learners are well prepared to take the next step in their journeys, whether study, an apprenticeship or work.

Through industry partnerships with EAL centres and training providers, decades of experience supporting our core sectors, and our role as part of the Enginuity Group, we have built unrivalled knowledge and understanding of employer skills needs. As a result, EAL's skills solutions, including apprenticeship End-Point Assessment, External Quality Assurance and qualifications are respected and chosen by employers to deliver real lifelong career benefits for all our learners. That's why in the last ten years, 1.2 million people across the UK have taken EAL qualifications.

1.1 Equal Opportunities and Diversity

EAL expects its centres to enable learners to have equal access to training and assessment for qualifications in line with equalities legislation. Further details can be located in the EAL Equal Opportunities and Diversity Policy:
http://www.eal.org.uk/centre-support/centre-support/policies-and-important-documents

1.2 Customer Experience and Feedback

Customer Experience is a fundamental part of EAL's commitment to you. EAL aims to ensure that all customers receive a high-quality efficient service. We are always interested in feedback and if you have any comments or feedback on our qualifications, products or services, please contact the Customer Experience team:

EAL Customer Experience
Tel: +44 (0)1923 652 400
Email: Customer.Experience@eal.org.uk

2.0 Introduction to the Qualification

This NVQ qualification is gained when all the necessary units have been achieved. The centre will then be able to apply for the learner's NVQ certificate of achievement. The learner will also receive a certificate of unit credit, listing all the units they have completed, which can be used as accredited prior learning to complete a qualification.

2.1 Qualification Support Materials

The following assessment support materials are available for this qualification:

- Units of competence

This qualification is made up of a number of units of competence, which EAL has derived from the National Occupational Standards (NOS) which set out the collective performance, skills requirements and underpinning knowledge requirements. These documents allow both the apprentices and the assessor to record the progress through the qualification. The units contain the performance to be assessed, the knowledge to be assessed and the evidence required from the apprentices to demonstrate their skills.

All units in this qualification contain the following information:

- Unit title
- Unit summary
- Performance and skills to be assessed and evidenced
- Underpinning knowledge to be assessed and evidenced.

2.2 Learner's Portfolio Building and Referencing

For guidance to assessment and exemplars on completing documentation including assessment planning documentation refer to EAL centre guidance.
For further information please contact:

EAL Customer Experience
Tel: +44(0)1923 652 400
Email: Customer.Experience@eal.org.uk

2.3 Achievement of the Qualification

The EAL Level 3 NVQ Extended Diploma in Automotive Engineering has been designed to allow a learner to specialise in **one** of the **thirteen** pathways listed.

In order to achieve this qualification each learner will be required to attain **three** Mandatory Units, Level 2 PEO Units, the required number of optional units and the specified number of additional units, detailed within the selected pathway. The overall grading type for this qualification is Pass/Fail. Units will be assessed and endorsed against the learner's chosen discipline.

Learners will be required to create a Portfolio of Evidence to prove their competence in the workplace. Learners should therefore select the unit that reflects the job they carry out in the workplace to be able to obtain the required workplace evidence.

Learners will be assessed in relation to their chosen discipline and endorsed accordingly. The endorsement will be printed on the certificate to show future employers which discipline was covered during their assessment.

3.0 Qualification Structure

3.1 Rule of Combination

This qualification has **143** Credits, a minimum of **453** Guided Learning Hours (GLH) and has a Total Qualification Time (TQT) of **1430** hours, the notional time required by the learner to complete the qualification.

Structure of the EAL Level 3 NVQ Extended Diploma
The Extended Diploma is comprised of a Level 3 Engineering Qualification **extended** by inclusion of technically specific PEO Units as follows:-

Mandatory Units – A combination of Level 2 & 3

Group A – Level 2 PEO Units x 3

OR

Group B – Level 2 PEO Units x 5

And

Group C – One of the Automotive Engineering pathways

Delivery requirements
The technically specific Level 2 PEO Units **must** be delivered and assessed in a sheltered work environment **before** starting delivery and assessment of the Level 3 components in the working environment.

PEO:
To support these basic engineering skills and techniques, the learner must be trained in, and continuously practice the relevant Health and Safety, engineering communication requirements along with all the other Mandatory Unit(s) listed within that qualification. The Learner cannot be signed off as being competent for these units in this period.

Level 3:
On completion of the PEO2 Units, the Learner moves on to the units from the Level 3 qualification which can only be assessed within a workplace environment.

The learner must complete the required number of optional units of competence, from **one** of the **thirteen** pathways listed.

Mandatory Units:

Learners must complete all **three** units:

EAL Code	Unit Title	Level	Credit	GLH	Ofqual Code
QAUE3/001	Complying with statutory regulations and organisational safety requirements	2	5	35	A/601/5013
QAUE3/002	Using and interpreting engineering data and documentation	2	5	25	Y/601/5102
QAUE3/003	Working efficiently and effectively in engineering	3	5	25	K/601/5055

Group A (Engineering practices)

Optional Units: Learners must complete **three** more units from the following:

Notes:
Only one unit from **4, 32** and **61** may be included in the learner's choice of three units.
If unit **65** is selected units **5, 6, 8, 11, 12, 15, 16, 17** cannot be included in the learner's choice of three units.
If unit **66** is selected units **10, 22, 23, 25, 26, 27, 28, 29, 30, 34** cannot be included in the learner's choice of three units.
If unit **67** is selected units **33, 35, 36, 40** cannot be included in the learner's choice of three units.
If unit **68** is selected units **19, 21, 37, 38, 39, 40, 58, 59** cannot be included in the learner's choice of three units

QPEO2/004N	Producing mechanical engineering drawings using a CAD System	2	11	61	F/504/6348
QPEO2/005N	Producing components using hand fitting techniques	2	14	64	J/504/6349
QPEO2/006N	Producing mechanical assemblies	2	15	68	F/504/6351
QPEO2/007N	Forming and assembling pipework systems	2	14	64	L/504/6353
QPEO2/008N	Carrying out aircraft detail fitting activities	2	14	64	R/504/6354
QPEO2/009N	Installing aircraft mechanical fasteners	2	11	61	L/504/6367
QPEO2/010N	Producing aircraft detail assemblies	2	14	65	L/504/6370
QPEO2/011N	Preparing and using lathes for turning operations	2	15	68	Y/504/6372
QPEO2/012N	Preparing and using milling machines	2	15	68	K/504/6375
QPEO2/013N	Preparing and using grinding machines	2	15	68	T/504/6377
QPEO2/014N	Preparing and proving CNC machine tool programs	2	14	64	F/504/6379

QPEO2/015N	Preparing and using CNC turning machines	2	14	64	F/504/6382
QPEO2/016N	Preparing and using CNC milling machines	2	14	64	L/504/6384
QPEO2/017N	Preparing and using CNC machining centres	2	14	64	D/504/6387
QPEO2/018N	Preparing and using industrial robots	2	14	64	D/504/6390
QPEO2/019N	Maintaining mechanical devices and equipment	2	14	64	T/504/6394
QPEO2/020N	Assembling and testing fluid power systems	2	14	64	J/504/6397
QPEO2/021N	Maintaining fluid power equipment	2	14	64	F/504/6401
QPEO2/022N	Producing sheet metal components and assemblies	2	14	64	J/504/6402
QPEO2/023N	Producing platework components and assemblies	2	14	64	L/504/6403
QPEO2/024N	Cutting and shaping materials using thermal cutting equipment	2	14	64	R/504/6404
QPEO2/025N	Preparing and proving CNC fabrication machine tool programs	2	14	64	Y/504/6405
QPEO2/026N	Preparing and using CNC fabrication machinery	2	14	64	D/504/6406
QPEO2/027N	Preparing and using manual metal arc welding equipment	2	15	68	K/504/6408
QPEO2/028N	Preparing and using manual TIG or plasma-arc welding equipment	2	15	68	M/504/6409
QPEO2/029N	Preparing and using semi-automatic MIG, MAG and Flux cored arc welding	2	15	68	H/504/6410
QPEO2/030N	Preparing and using manual Oxy/fuel gas welding equipment	2	14	64	Y/504/6419
QPEO2/031N	Preparing and using manual flame brazing and braze welding equipment	2	11	61	L/504/6420
QPEO2/032N	Producing electrical or electronic engineering drawings using a CAD system	2	11	61	R/504/6421
QPEO2/033N	Wiring and testing electrical equipment and circuits	2	14	64	Y/504/6422
QPEO2/034N	Forming and assembling electrical cable enclosure and support systems	2	13	65	D/504/6423
QPEO2/035N	Assembling, wiring and testing Electrical panels/components mounted in enclosures	2	14	64	H/504/6424
QPEO2/036N	Assembling and testing electronic circuits	2	14	64	K/504/6425
QPEO2/037N	Maintaining electrical equipment/systems	2	15	68	M/504/6426

QPEO2/038N	Maintaining electronic equipment/systems	2	15	68	T/504/6427
QPEO2/039N	Maintaining and testing process instrumentation and control devices	2	15	68	A/504/6428
QPEO2/040N	Wiring and testing programmable controller based systems	2	15	68	F/504/6429
QPEO2/041N	Using wood for pattern, modelmaking and other engineering applications	2	15	68	T/504/6430
QPEO2/042N	Assembling pattern, model and engineering woodwork components	2	14	64	A/504/6431
QPEO2/043N	Producing composite mouldings using wet lay-up techniques	2	14	64	F/504/6432
QPEO2/044N	Producing composite mouldings using pre-preg laminating techniques	2	14	64	L/504/6434
QPEO2/045N	Producing composite mouldings using resin flow infusion techniques	2	14	64	R/504/6435
QPEO2/046N	Producing composite assemblies	2	14	64	Y/504/6436
QPEO2/047N	Producing components by rapid prototyping techniques	2	11	61	D/504/6437
QPEO2/048N	Producing and preparing sand moulds and cores for casting	2	14	64	H/504/6438
QPEO2/049N	Producing and preparing molten materials for casting	2	14	64	K/504/6439
QPEO2/050N	Producing cast components by manual means	2	13	65	D/504/6440
QPEO2/051N	Fettling, finishing and checking cast components	2	11	61	H/504/6441
QPEO2/052N	Finishing surfaces by applying coatings or coverings	2	9	41	M/504/6443
QPEO2/053N	Finishing surfaces by applying treatments	2	9	41	T/504/6444
QPEO2/054N	Carrying out heat treatment of engineering materials	2	9	41	A/504/6445
QPEO2/055N	Carrying out hand forging of engineering materials	2	9	41	F/504/6446
QPEO2/056N	Stripping and rebuilding motorsport vehicles (Pre-Competition)	2	14	64	J/504/6447
QPEO2/057N	Inspecting a motorsport vehicle during competition	2	14	64	L/504/6448
QPEO2/058N	Diagnosing and rectifying faults on motorsport vehicle systems (During a Competition)	2	15	68	R/504/6449
QPEO2/059N	Carrying out maintenance activities on motor vehicle electrical equipment	2	15	68	J/504/6450

QPEO2/060N	Stripping and rebuilding motorsport engines (Pre – Competition)	2	14	64	L/504/6451
QPEO2/061N	Producing CAD models (Drawings) using a CAD system	2	11	61	R/504/6452
QPEO2/065N	General machining, fitting and assembly applications	2	12	55	K/504/6456
QPEO2/066N	General fabrication and welding applications	2	12	55	M/504/6457
QPEO2/067N	General electrical and electronic engineering applications	2	12	55	T/504/6458
QPEO2/068N	General maintenance engineering applications	2	12	55	A/504/6459
QPEO2/069N	Joining public service vehicle components by mechanical processes	2	11	61	L/503/4056
QPEO2/070N	Assembling structural sub assemblies to produce a public service vehicle	2	14	64	R/503/4057
QPEO2/071N	Fitting sub assemblies and components to public service vehicles	2	14	64	Y/503/4058
QPEO2/072N	Preparing and manoeuvring armoured fighting vehicles AFVs for maintenance and transportation	2	14	64	R/503/7198
QPEO2/073N	Producing composite mouldings using resin film infusion techniques	2	14	64	J/504/3404

OR

Group B (Technical Support)

Optional Units: Learners must complete **one** Level 2 PEO Unit from the following:

QPEO2/004N	Producing mechanical engineering drawings using a CAD system	2	11	61	F/504/6348
QPEO2/032N	Producing electrical or electronic engineering drawings using a CAD system	2	11	61	R/504/6421
QPEO2/061N	Producing CAD models (drawings) using a CAD system	2	11	61	R/504/6452

Learners must complete **two** Level 2 PEO Units from the following:

QPEO2/062N	Producing engineering project plans	2	8	37	Y/504/6453
QPEO2/063N	Using computer software packages to assist with engineering activities	2	8	37	D/504/6454

QPEO2/064N	Conducting business improvement activities	2	8	41	H/504/6455

Learners must complete **two** more Level 2 PEO Units from the following:

QPEO2/065N	General machining, fitting and assembly applications	2	12	55	K/504/6456
QPEO2/066N	General fabrication and welding applications	2	12	55	M/504/6457
QPEO2/067N	General electrical and electronic engineering applications	2	12	55	T/504/6458
QPEO2/068N	General maintenance engineering applications	2	12	55	A/504/6459

In addition to the PEO Level 2 unit requirement in Group A or B, learners must complete the unit requirements for **one** of the following Level 3 automotive Engineering Pathways from Group C

Group C (Level 3 Automotive Engineering Pathways)

Pathway QAUA: Vehicle Fitting

Learners must complete **three** of the following units:

QAUE3/004	Assembling sub-assembly units to vehicles	3	55	98	T/600/5807
QAUE3/005	Assembling power plant units	3	55	98	A/600/5808
QAUE3/006	Assembling the rear axle sub-assembly	3	55	98	F/600/5809
QAUE3/007	Assembling the front suspension sub-assembly	3	55	98	T/600/5810
QAUE3/008	Assembling braking systems to vehicles	3	55	98	A/600/5811

Pathway QAUB: Vehicle Body Building

Learners must complete **both** of the following units:

QAUE3/009	Assembling vehicle body sub-assemblies	3	60	105	F/600/5812
QAUE3/010	Assembling body sub-assemblies to produce a vehicle	3	70	119	H/600/5818

Pathway QAUC: Vehicle Electrical and Electronic Wiring and Assembly

Learners must complete **three** of the following units:

QAUE3/013	Assembling and fitting wiring looms to vehicles	3	55	98	A/600/5825
QAUE3/014	Assembling electrical and electronic equipment to vehicles	3	60	105	L/600/5828

QAUE3/015	Diagnosing and rectifying faults in vehicle electrical and electronic systems	3	58	105	R/600/5832

Pathway QAUD: Composite Manufacture

Learners must complete **three** of the following units:

QAUE3/023	Manufacturing vehicle composite mouldings using wet lay-up techniques	3	86	210	Y/600/5850
QAUE3/024	Manufacturing vehicle composite mouldings using pre-preg laminating techniques	3	86	210	H/600/5852
QAUE3/025	Manufacturing vehicle components by resin casting	3	86	210	L/601/5050
QAUE3/026	Manufacturing vehicle components by vacuum forming	3	50	98	K/600/5853
QAUE3/027	Manufacturing vehicle components by acrylic moulding	3	50	98	T/600/5872
QAUE3/028	Assembling composite vehicle components	3	86	210	R/600/5877
QAUE3/029	Bonding vehicle composite components	3	30	52	D/600/5882
QAUE3/030	Trimming vehicle composite mouldings using hand tools	3	46	105	L/600/5893
QAUE3/031	Repairing defects in vehicle composite mouldings	3	77	161	K/600/5898
QAUE3/032	Applying finishes to vehicle composite mouldings	3	46	105	K/600/5903

Pathway QAUE: Experimental/New Model Development

Learners must complete **four** of the following units:

QAUE3/033	Marking out components for experimental vehicle engineering	3	21	77	F/600/5910
QAUE3/034	Hand fitting techniques to produce components for experimental vehicle engineering	3	55	105	K/600/5920
QAUE3/035	Assembling and disassembling mechanical equipment on experimental vehicles	3	70	126	J/600/5942
QAUE3/036	Assembling and Disassembling Electrical and Electronic Equipment on Experimental Vehicles	3	70	126	R/600/5958
QAUE3/010	Assembling body sub-assemblies to produce a vehicle	3	70	119	H/600/5818
QAUE3/037	Fabricating structural components for experimental vehicle engineering	3	60	119	Y/600/5962

QAUE3/038	Machining components for experimental vehicle engineering	3	70	126	F/600/5969
QAUE3/039	Cutting and shaping sheet metal for experimental vehicle engineering	3	60	119	D/600/5977
QAUE3/040	Assembling structures for experimental vehicle engineering using mechanical fasteners	3	20	56	T/600/5984
QAUE3/041	Assembling structures for experimental vehicle engineering using a manual welding process	3	60	168	R/600/5992
QAUE3/042	Assembling components for experimental vehicle engineering by resistance spot welding	3	7	35	A/600/5999
QAUE3/043	Assembling components for experimental vehicle engineering by manual torch brazing and soldering	3	35	84	A/600/6005

Learners must complete **one** more unit from the following:

QAUE3/044	Carrying out fault diagnosis on experimental vehicles	3	53	105	J/600/6010
QAUE3/045	Conducting and monitoring static tests on vehicles	3	60	105	Y/600/6013
QAUE3/046	Conducting and monitoring road tests on vehicles	3	60	105	H/600/6015

Pathway QAUF: Commercial and Passenger Carrying Vehicle Body Building

Learners must complete **two** of the following units:

QAUE3/047	Producing commercial and passenger carrying vehicle body sub-assemblies	3	65	112	T/600/6018
QAUE3/048	Assembling commercial and passenger carrying vehicle body sub-assemblies to produce a vehicle	3	70	119	T/600/6021
QAUE3/049	Repairing and refurbishing commercial and passenger carrying vehicles	3	65	112	A/600/6022
QAUE3/050	Fitting ancillary units to commercial and passenger carrying vehicles	3	47	105	J/600/6024
QAUE3/054	Modifying commercial and passenger carrying vehicles	3	47	105	J/600/5553

Learners must complete **one different** unit from the following:

QAUE3/047	Producing commercial and passenger carrying vehicle body sub-assemblies	3	65	112	T/600/6018
QAUE3/048	Assembling commercial and passenger carrying vehicle body sub-assemblies to produce a vehicle	3	70	119	T/600/6021
QAUE3/049	Repairing and refurbishing commercial and passenger carrying vehicles	3	65	112	A/600/6022
QAUE3/050	Fitting ancillary units to commercial and passenger carrying vehicles	3	47	105	J/600/6024
QAUE3/051	Fitting internal and external trim and fitments to commercial and passenger carrying vehicles	3	20	56	L/600/6025
QAUE3/052	Fitting pipework systems to commercial and passenger carrying vehicles	3	45	105	R/600/6026
QAUE3/053	Fitting electrical and electronic components to commercial and passenger carrying vehicles	3	45	105	R/600/5524
QAUE3/054	Modifying commercial and passenger carrying vehicles	3	47	105	J/600/5553
QAUE3/055	Joining components for commercial and passenger carrying vehicles using a manual welding process	3	76	252	R/600/5569
QAUE3/056	Assembling components for commercial and passenger carrying vehicles by resistance spot welding	3	7	35	M/600/5577

Pathway QAUG: Motorsport Vehicle Technician (Mechanical)

Learners must complete **both** of the following units:

QAUE3/058	Setting up motorsport vehicles	3	60	105	D/600/5638
QAUE3/059	Carrying out motorsport vehicle inspections during a competition	3	50	105	F/600/5647

Learners must complete **three** units from the following:

QAUE3/060	Removing and re-fitting motorsport engines and ancillary components	3	65	112	M/600/5658
QAUE3/061	Removing and re-fitting transmissions on motorsport vehicles	3	65	112	Y/600/5668

QAUE3/062	Removing and re-fitting suspension systems on motorsport vehicles	3	65	112	M/600/5675
QAUE3/063	Removing and re-fitting braking systems on motorsport vehicles	3	60	105	A/600/5680
QAUE3/064	Removing and re-fitting steering systems on motorsport vehicles	3	60	105	J/600/5682
QAUE3/065	Removing and re-fitting chassis sub-assemblies and components on motorsport vehicles	3	60	105	J/600/5830
QAUE3/066	Removing and re-fitting fuel systems on motorsport vehicles	3	60	105	L/600/5831
QAUE3/067	Carrying out fault diagnosis and rectification activities on motorsport vehicles during a competition	3	58	105	Y/600/5833

Learners must complete **one** unit from the following:

QAUE3/068	Removing, fitting and trimming bodywork to motorsport vehicles	3	25	63	H/600/5835
QAUE3/069	Removing and re-fitting electrical/electronic equipment on motorsport vehicles	3	65	112	M/600/5837
QAUE3/070	Restoring motorsport mechanical components to usable condition by repair	3	47	105	A/600/5839
QAUE3/074	Welding motorsport vehicle components using a manual welding process	3	76	252	R/600/5846
QAUE3/078	Inspecting motorsport components by penetrant flaw detection techniques	3	52	105	M/600/5854

Pathway QAUH: Motorsport Composite Manufacture

Learners must complete **one** of the following units:

QAUE3/080	Motorsport composite mouldings using pre-preg laminating techniques	3	86	210	J/600/6072
QAUE3/081	Producing motorsport composite mouldings using wet lay-up techniques	3	86	210	L/600/6073
QAUE3/082	Producing motorsport composite mouldings using resin infusion laminating techniques	3	86	210	D/600/6076
QAUE3/083	Producing motorsport composite assemblies	3	86	210	K/600/6078

Learners must complete **two different** units from the following:

QAUE3/080	Motorsport composite mouldings using pre-preg laminating techniques	3	86	210	J/600/6072
QAUE3/081	Producing motorsport composite mouldings using wet lay-up techniques	3	86	210	L/600/6073
QAUE3/082	Producing motorsport composite mouldings using resin infusion laminating techniques	3	86	210	D/600/6076
QAUE3/083	Producing motorsport composite assemblies	3	86	210	K/600/6078
QAUE3/084	Bonding Motorsport Composite Mouldings	3	30	52	M/600/6079
QAUE3/085	Repairing motorsport composite mouldings	3	77	161	H/600/6080
QAUE3/086	Applying finishes to motorsport composite mouldings	3	46	105	A/600/6084
QAUE3/087	Trimming motorsport composite mouldings using hand tools	3	46	105	F/600/6085
QAUE3/088	Identifying defects in motorsport composite mouldings	3	30	52	L/600/6087

Note: two different units must be completed

Pathway QAUI: Prototype Powertrain Development

Learners must complete **one** of the following units:

QAUE3/015	Diagnosing and rectifying faults in vehicle electrical and electronic systems	3	58	105	R/600/5832
QAUE3/044	Carrying out fault diagnosis on experimental vehicles	3	53	105	J/600/6010

Learners must complete **three** units from the following:

QAUE3/035	Assembling and disassembling mechanical equipment on experimental vehicles	3	70	126	J/600/5942
QAUE3/036	Assembling and Disassembling Electrical and Electronic Equipment on Experimental Vehicles	3	70	126	R/600/5958
QAUE3/136	Removal and fitting fuel systems to prototype engines for test	3	65	119	A/601/0393
QAUE3/137	Installing electrical/electronic engine/transmission control units to prototype vehicles	3	70	126	L/601/0396
QAUE3/138	Setting up and testing prototype vehicle electrical/electronic engine/transmission control units	3	60	105	R/601/0397

QAUE3/139	Setting up and testing prototype vehicle data acquisition systems	3	60	105	J/601/0400
QAUE3/140	Stripping and rebuilding prototype engines for test	3	75	140	R/601/0402
QAUE3/141	Building prototype engines for test	3	70	133	Y/601/0403
QAUE3/142	Testing prototype engines (fixed dynamometer)	3	60	105	D/601/0404
QAUE3/143	Testing prototype engines installed in vehicles	3	60	105	H/601/0405
QAUE3/144	Dressing prototype engines for test	3	65	105	K/601/0406

Pathway QAUJ: Vehicle Painting and Finishing

Learners must complete **two** of the following units:

QAUE3/011	Preparing vehicle body surfaces for finishing	3	60	119	T/504/2832
QAUE3/012	Spraying vehicle body surfaces	3	80	133	A/504/2833
QAUE3/145	Flattening and polishing vehicle bodies	3	60	119	H/505/9528

Pathway QAUK: Vehicle Trimming

Learners must complete **either: three** units from the following:

QAUE3/016	Trimming of body components for vehicles	3	35	70	F/504/2834
QAUE3/017	Machining and hand sewing of vehicle trim components	3	45	98	L/504/2836
QAUE3/018	Assembling trim components to vehicles	3	30	70	R/504/2837
QAUE3/019	Making vehicle trim prototypes and patterns	3	50	119	Y/504/2838

Or: Learners must complete **all** of the following PMO 2 units:

QPMO2/003	Transferring materials	3	13	53	Y/601/3009
QPMO2/004	Preparing for manufacturing operations	3	9	42	L/601/3010
QPMO2/005	Concluding manufacturing operations	3	9	42	Y/601/3012

Learners must complete the following unit:

QAUE3/019	Making vehicle trim prototypes and patterns	3	50	119	Y/504/2838

Learners must complete **one** of the following units:

QAUE3/016	Trimming of body components for vehicles	3	35	70	F/504/2834
QAUE3/017	Machining and hand sewing of vehicle trim components	3	45	98	L/504/2836
QAUE3/018	Assembling trim components to vehicles	3	30	70	R/504/2837

Pathway QAUL: Vehicle Woodworking/Veneering

Learners must complete **all three** of the following units:

QAUE3/020	Producing and assembling substrates for vehicle components	3	48	105	D/504/2839
QAUE3/021	Veneering and finishing vehicle components	3	46	98	R/504/2840
QAUE3/022	Lacquering and polishing veneered vehicle components	3	46	98	Y/504/2841

Pathway QAUM: Quality Inspection

Learners must complete **both** of the following units:

QAUE3/146	Inspecting manufactured vehicles	3	142	286	D/505/9527
QAUE3/147	Implementing quality control systems and procedures in an engineering environment	3	40	106	H/600/5785

4.0 Centre and Qualification Approval

Centres wishing to run this qualification will need to comply with this qualification manual and EAL's centre approval criteria for the qualification. Centres must also put in place the appropriate physical and human resources and administration systems to deliver the qualification effectively.

For **existing** EAL centres to put this qualification on their centre remit:
Create and complete a qualification approval application form in Smarter Touch and submit to EAL.

For non EAL centres to gain centre approval to run this qualification, EAL Customer Experience will be happy to help. Please contact them on:

EAL Customer Experience
Tel: +44(0)1923 652 400
Email: Customer.Experience@eal.org.uk

5.0 Profiles and Requirements

5.1 Staff Responsible for Registering and Certification of Learners

Centres are required to appoint a suitable member of staff who can take responsibility for registering learners onto qualifications, submitting entries for assessments to EAL and taking receipt of external assessment procedures (if appropriate). They may also be responsible for applying to EAL for learner certificates. The role may be undertaken by the same person who undertakes quality assurance.

5.2 Learners

The Level 3 Units have been designed to cover those learners who are either:

- Individuals that need to acquire Automotive Engineering competencies for the engineering sectors.
- Individuals employed in the Automotive Engineering sectors but require additional competencies as part of an existing job role or to enable career progression.

There are no formal entry requirements for this qualification. Learners must have been initially assessed to ensure they have both the potential and opportunity to achieve the assessment criteria set out in the qualification units and gain evidence from the workplace.

If the qualification is used to support implementation and delivery of an apprenticeship standard, the formal entry requirements will be listed within the standard assessment plan.

Learners are required to obtain evidence against each assessment criteria when competence has been proven.

Performance, Skills and **Knowledge** evidence must be sufficiently covered and recorded in the Evidence Reference boxes contained within the units, to ensure all criteria has been met.

5.3 Assessors

Assessment must be carried out by competent assessors who, as a minimum, must hold the Level 3 Award in Assessing Competence in the Work Environment. Current and operational Assessors that hold units D32 and/or D33 or A1 and/or A2 as appropriate to the assessment being carried out, will not be required to achieve the Level 3 Award as they are still appropriate for the assessment requirements set out in this Unit Assessment Strategy. However, they will be expected to regularly review their skills, knowledge and understanding and where applicable undertake continuing professional development to ensure that they are carrying out workplace assessment to the most up to date National Occupational Standards (NOS).

Assessor technical requirements

Assessors must be able to demonstrate that they have verifiable, relevant and sufficient technical competence, to evaluate and judge performance and knowledge evidence requirements, as set out in the relevant learning outcomes and associated performance criteria within the unit.

This will be demonstrated either by holding a relevant technical qualification or by proven industrial experience of the technical areas to be assessed. The assessor's competence must, at the very least, be at the same level as that required of the learners in the units being assessed.

Assessors must also:

Be fully conversant with the EAL assessment recording documentation used for the units of competence, against which the assessments and verification are to be carried out, plus any other relevant documentation and system and procedures to support the QA process.

5.4 Internal Quality Assurers

Internal quality assurance (IQA) must be carried out by competent IQA's that as a minimum must hold the Level 4 Award in the Internal Quality Assurance of Assessment Processes and Practices. Current and operational IQA that hold internal verification units V1 or D34 will not be required to achieve the Level 4 Award as they are still appropriate for the verification requirements set out in this Unit Assessment Strategy.

Internal quality assurers will be expected to regularly review their skills, knowledge and understanding and where applicable undertake continuing professional development to ensure that they are carrying out workplace Quality Assurance (verification) of assessment processes and practices to the most up to date NOS.

Internal quality assurers will also be expected to be fully conversant with the terminology used in the units of competence against which the assessments and verification are to be carried out, the appropriate Regulatory Body's systems and procedures and the relevant EAL documentation, systems and procedures within which the assessment and verification is taking place.

Specific technical requirements for persons undertaking the role of external quality assurance

Internal and external quality assurers for the units of competence must be able to demonstrate that have verifiable, sufficient and relevant industrial experience, and must have a working knowledge of the processes, techniques and procedures that are used in the engineering industry.

The following tables show the recommended levels of technical competence for assessors, internal and external quality assurers.

Technical requirements for Assessors and Quality Assurers

Position	Prime activity requirements	Support activity requirements	Technical requirements (see notes)
Assessor	Assessment skills	Internal Quality Assurance Systems	Technical competence in the areas covered by the units being assessed
Internal Quality Assurance (IQA)	Quality Assurance skills	Assessment knowledge	Technical understanding of the areas covered by the qualification
External Quality Assurance (EQA)	Quality Assurance skills	Assessment understanding	Technical awareness of the areas covered by the qualification

Notes

1. Technical competence is defined here as a combination of practical skills, knowledge, and the ability to apply both, in familiar and new situations, within a real working environment.

2. Technical understanding is defined here as having a good understanding of the technical activities being assessed, together with knowledge of relevant Health & Safety implications and requirements of the assessments.

3. Technical awareness is defined here as a general overview of the subject area, sufficient to ensure that assessment and evidence are reliable, and that relevant Health and Safety requirements have been complied with.

4. The competence required by the assessor, internal verifier, and external verifier, in the occupational area being assessed, is likely to exist at three levels as indicated by the shaded zones in the following table.

Technical competence / **Job role:**	An ability to **discuss** the general principles of the competences being assessed	An ability to **describe** the practical aspects of the competences being assessed	An ability to **demonstrate** the practical competences being assessed
Assessor			
Internal Quality Assurance			
External Quality Assurance			

6.0 Assessment

6.1 Assessment environment

PEO: Assessment environment

The PEO Level 1 and 2 Units are intended to have a wide application throughout the engineering sector. It is necessary therefore to have a flexible approach to the environment in which the units are delivered and assessed.

There will be learners who have been working in an industry for some time and wish to acquire a broad range of basic competencies as part of an existing job role or to enable career progression. The PEO Units will satisfy that need. Where this is the case assessment should take place within the learner's normal workplace/environment.

However, there is much to be gained by acquiring the basic engineering competencies whilst working in a sheltered environment. This is due to an ongoing emphasis on safety critical work activities and the need to ensure flexibility of assessment opportunities to both maintain and enhance the provision of competent personnel within the industry. This assessment method will allow a minimum safe level of skills, knowledge and understanding to be achieved and demonstrated by the learner prior to being exposed to the hazards of the industrial environment, thus minimizing the risk of injury to themselves and other employees.

It is recognised that not all learners who wish to achieve PEO NVQ Units would require this form of assessment. Only those who are judged to be potentially at risk would need to provide evidence of a minimum level of skills, knowledge and understanding to enter the industrial environment.

Examples of this are:

- Where the hazardous nature of the engineering occupations mean that the learner requires close supervision whilst they provide evidence of competence involving safety critical activities.
- For reasons of age, people entering an industrial training environment are gradually introduced to the "world of work", this helps them mature and grow in confidence as well as providing evidence of their engineering competence.
- Learners with special assessment requirements benefit from the close supervision offered by this type of environment whilst providing evidence of competence.
- Adult earners new to the industry or to a specific skill area can provide evidence without fear of making mistakes which could prove to be dangerous and/or expensive.
- Where equipment to be used or worked on by approved, licensed or competent people (such as the aircraft industry) learners can only provide the necessary evidence that they have achieved a level of skills, knowledge and understanding in-order that they may prepare themselves for future employment.
- Penal institutions where learners wish to provide evidence of a vocational achievement in-order that they may prepare themselves for future employment.

For the above reasons the assessment of a learner's competence in a sheltered environment is acceptable for this qualification, where the environment replicates that expected in industry.

Where applicable, the machinery, tools, materials, equipment and resources used must be representative of industry standards and there must be sufficient equipment/resources available for each learner to demonstrate their competence individually. Workpieces or work outcomes assessed must be the learners own work and should be actual work examples that combine the skills and techniques required by the units so that achievement will properly reflect the learner's competence as specified in the unit assessment criteria.

Assessors must therefore ensure that the competency is fully transferable to the workplace. Other aspects that should be considered could include:

- Environmental conditions such as lighting conditions, noise levels and the presence of hazards
- Pressure of work such as time constraints and repetitive activities
- Producing actual workpieces or work outcomes and the consequence of making mistakes and the effect this has on customer, supplier and departmental relationships.

NVQ Assessment environment

Assessment of all learners in the automotive engineering related occupations, against the NOS developed by the employers in the engineering sector, will be undertaken in accordance with the following criteria:

- Evidence of occupational competence should be generated and collected through real work activities in a real working environment.
- Real work activities are those undertaken to provide a secure product or service under typical business conditions.
- A real working environment is one that reflects typical employment conditions relevant to the work activities being assessed.
- The evidence collected under these conditions should also be as naturally occurring as possible.

Taking account of the above, it is not acceptable to undertake assessments in a classroom, or similar environment that has been set up specifically for training. Where opportunities for evidence collection are not available at the workplace, simulation is permitted, in accordance with the criteria listed in section 6.3 below.

6.2 Access to assessment

16 is the minimum age limit required by learners to undertake the units unless this is a legal requirement of the process or the environment. Assessment is open to any learner who has the potential to achieve the criteria set out in the units.

When used as part of an apprenticeship standard apprentices must have achieved the requirements of the foundation phase of the apprenticeship in line with the apprenticeship standard they are working towards.

Aids or appliances, which are designed to alleviate disability, may be used during assessment, providing they do not compromise the standard required.

6.3 Carrying out assessment

The EAL Level 3 Extended Diploma in Automotive Engineering units have been specifically developed to cover a wide range of activities.

The PEO and NVQ Units were specifically developed to cover a wide range of activities. The evidence produced for the units will, therefore, depend on the learner's choice of "bulleted items" listed in the unit assessment criteria. Where the assessment criteria give a choice of bulleted items (for example 'any three from five'), assessors should note that learners do not need to provide evidence of the other items to complete the unit, particularly where these additional items may relate to other activities or methods that are not part of the learners normal workplace activity or area of expertise.

PEO: Performance Evidence Requirements

Performance evidence must be the main form of evidence gathered. In order to demonstrate consistent competent performance for a unit a minimum of **three** different examples of performance of the unit activity will be required. Items of performance evidence often contain features that apply to more than one unit and can be used as evidence in any unit where they are suitable.

Performance evidence must be:

- Products of the learners' work, such as items that have been produced or worked on, plans, charts, reports, standard operating procedures, documents produced as part of a work activity, records, or photographs of the completed activity.

Together with:

- Evidence of the way the learners carried out the activities, such as witness testimonies, assessor observations or authenticated learner reports of the activity undertaken.

Competent performance is more than just carrying out a series of individual set tasks. Many of the units contain statements that require the learner to provide evidence that proves they are capable of combining various features and techniques. Where this is the case, separate fragments of evidence would not provide this combination of features and techniques and, therefore, will not be acceptable as demonstrating competent performance.

If there is any doubt as to what constitutes suitable evidence the internal/external Quality Assurer should be consulted.

Example:

Unit 11: Preparing and Using Lathes for Turning Operations Level 2

Unit specific additional assessment requirements:

In order to prove their ability to combine different turning operations, at least one of the machined components produced must be of a significant nature, and must have a minimum of six of the features listed in assessment criteria 1.11.

NVQ: Minimum performance evidence requirements

The evidence produced for the units will, therefore, depend on the learner's choice of "bulleted items" listed in the unit performance criteria. Where the performance criteria gives a choice of bulleted items (for example **'any three from five'**), assessors should note that learners do not need to provide evidence of the other items to complete the unit (in this example above, two items) particularly where these additional items may relate to other activities or methods that are not part of the learners' normal workplace activity or area of expertise.

Performance evidence

Performance evidence must be the main form of evidence gathered. In order to demonstrate consistent competent performance for a unit, a minimum of **three** different examples of performance of the unit activity will be required, unless otherwise stated. Items of performance evidence often contain features that apply to more than one unit and can be used as evidence in any unit where they are suitable.

- Products of the learners' work, such as items that have been produced or worked on, plans, charts, reports, standard operating procedures, documents produced as part of a work activity, records, or photographs of the completed activity.

Together with:

- Evidence of the way the learners carried out the activities, such as witness testimonies, assessor observations or authenticated learner reports of the activity undertaken.

Competence performance is more than just carrying out a series of individual set tasks. Many of the units contain statements that require the learner to provide evidence that proves they are capable of combining various features and techniques. Where this is the case, separate fragments of evidence would not provide this combination of features and techniques and, therefore, will not be acceptable as demonstrating competent performance.

Simulation

Direct evidence produced through normal performance in the workplace is the primary source for meeting the evidence requirements of this qualification.

If the learner cannot meet all assessment criteria under naturally occurring activities in their workplace and need to simulate a specific task, please refer to the guidance notes "Centre Guidance for Developing Assessments for Simulation/Replication" in smarter touch.

Assessing knowledge and understanding

Knowledge and understanding are key components of competent performance, but it is unlikely that performance evidence alone will provide enough evidence in this area. Where the learner's knowledge and understanding (and the handling of contingency situations) is not apparent from performance evidence, it must be assessed by other means and be supported by suitable evidence.

EAL expects oral questioning and practical demonstrations to be used, as these are considered the most appropriate for these units. Assessors should ask enough questions to make sure that the learner has an appropriate level of knowledge and understanding, as required by the unit. EAL may choose other methods, which must be supported by a suitable rationale.

The achievement of the specific knowledge and understanding requirements of the units cannot simply be inferred by the results of tests or assignments from other units, qualifications, or training programmes. Where evidence is submitted from these sources, the assessor must, as with any assessment, make sure the evidence is valid, reliable, authentic, directly attributable to the learner, and meets the full knowledge and understanding requirements of the unit.

Where oral questioning is used the assessor must retain a record of the questions asked, together with the learner's answers.

Please note: Knowledge and understanding can be demonstrated in a number of different ways.

Witness testimony
Where 'observation' is used to obtain performance evidence, this must be carried out against the unit assessment criteria. Best practice would require that such observation is carried out by a qualified Assessor. If this is not practicable, then alternative sources of evidence may be used.

For example, the observation may be carried out against the assessment criteria by someone else that is in close contact with the learner. This could be a team leader, supervisor, mentor or line manager who may be regarded as a suitable witness to the learner's competency. However, the witness must be technically competent in the process or skills that they are providing testimony for, to at least the same level of expertise as that required of the apprentice. It will be the responsibility of the assessor to make sure that any witness testimonies accepted as evidence of the learner's competency are reliable, auditable and technically valid.

Specific Assessment Requirements:

Unit	**Unit specific additional assessment requirements:** **Performance Learning Outcomes**
QPEO2/004N	In order to prove their ability to combine different drawing features, at least one of the drawings produced must be of a significant nature, and must have a minimum of seven of the features listed in assessment criteria 12
QPEO2/005N	In order to prove their ability to combine different fitting operations, at least one of the components produced must be of a significant nature, and must have a minimum of five of the features listed in assessment criteria 13
QPEO2/006N	In order to prove their ability to combine different assembly operations, at least one of the assemblies produced must be of a significant nature, and must contain a minimum of six of the components listed in assessment criteria 7
QPEO2/007N	In order to prove their ability to combine different pipe assembly operations, at least one of the pipe assemblies produced must be of a significant nature, and must have a minimum of five of the fittings listed in assessment criteria 13
QPEO2/008N	In order to prove their ability to combine different aircraft detail fitting operations, at least one of the components produced must be of a significant nature, and must contain a minimum of five of the features listed in assessment criteria 15
QPEO2/009N	In order to prove their ability to combine different aircraft fastener installation operations, at least one of the assemblies produced must be of a significant nature, and must contain a minimum of four types of the fasteners listed in assessment criteria 7
QPEO2/010N	In order to prove their ability to combine different aircraft detail assembly operations, at least one of the assemblies produced must be of a significant nature, and must contain a minimum of four of the components listed in assessment criteria 6

QPEO2/011N	In order to prove their ability to combine different turning operations, at least one of the machined components produced must be of a significant nature, and must have a minimum of six of the features listed in assessment criteria 11
QPEO2/012N	In order to prove their ability to combine different milling features, at least one of the components produced must be of a significant nature, and must have a minimum of five of the features listed in assessment criteria 11
QPEO2/013N	In order to prove their ability to combine different grinding operations, at least one of the machined components produced must be of a significant nature, and must have a minimum of three of the features listed in assessment criteria 11
QPEO2/014N	In order to prove their ability to produce programs that combine different features, at least one of the programs produced must be of a significant nature, and must cover a minimum of five of the features listed in assessment criteria 9
QPEO2/015N	In order to prove their ability to combine different turning operations, at least one of the machined components produced must be of a significant nature, and must have a minimum of five of the features listed in assessment criteria 13
QPEO2/016N	In order to prove their ability to combine different milling operations, at least one of the machined components produced must be of a significant nature, and must have a minimum of five of the features listed in assessment criteria 13
QPEO2/017N	In order to prove their ability to combine different features, at least one of the machined components produced must be of a significant nature, and must have a minimum of six of the features listed in assessment criteria 13
QPEO2/019N	In order to prove their ability to combine different maintenance operations, at least one of the maintenance activities must be of a significant nature, and must cover at least seven of the activities listed in assessment criteria 10 plus the removal and replacement of a minimum of five of the components listed in assessment criteria 11
QPEO2/020N	In order to prove their ability to combine different fluid power assembly operations, at least one of the fluid power assemblies produced must be of a significant nature, and must contain a minimum of six of the components listed in assessment criteria 7
QPEO2/021N	In order to prove their ability to combine different maintenance operations, at least one of the fluid power maintenance activities must be of a significant nature, and must involve the removal and replacement of a minimum of five of the components listed in assessment criteria 12
QPEO2/022N	In order to prove their ability to combine different sheet metal cutting and forming operations, at least one of the jobs produced must be of a significant nature, and must contain a minimum of three of the features listed in assessment criteria 1.13 plus three of the features listed in assessment criteria 15
QPEO2/023N	In order to prove their ability to combine different platework cutting and forming operations, at least one of the assemblies produced must be of a significant nature, and must contain components with a minimum of three of the features listed in assessment criteria 12 plus three of the features listed in assessment criteria 14

QPEO2/024N	In order to prove their ability to combine different thermal cutting operations, at least one of the components produced must be of a significant nature, and must involve a minimum of four of the operations listed in assessment criteria 11
QPEO2/027N	Welded joints must be at least 150mm long, using single or multi-run welds (as appropriate), with at least one stop and start included
QPEO2/028N	Welded joints must be at least 150mm long, using single or multi-run welds (as appropriate), with at least one stop and start included
QPEO2/029N	Welded joints must be at least 150mm long, using single or multi-run welds (as appropriate), with at least one stop and start included
QPEO2/030N	Welded joints must be at least 150mm long, using single or multi-run welds (as appropriate), with at least one stop and start included
QPEO2/031N	Brazed or braze welded joints must be at least 100mm long (except for joints in pipe or tube)
QPEO2/032N	In order to prove their ability to combine different electrical/electronic drawing features, at least one of the drawings produced must be of a significant nature, and must have a minimum of seven of the features listed in assessment criteria 11
QPEO2/033N	In order to prove their ability to combine different electrical assembly and wiring activities, at least one of the electrical assemblies produced must be of a significant nature, and must contain a minimum of five of the components listed in assessment criteria 10 plus five of the activities listed in assessment criteria 13
QPEO2/034N	In order to prove their ability to combine different cable enclosure forming and assembly operations, at least one of the cable enclosure and support systems produced must be of a significant nature, and must contain a minimum of four of the features listed in assessment criteria 9
QPEO2/035N	In order to prove their ability to combine different electrical panel assembly and wiring operations, at least one of the assemblies produced must be of a significant nature, and must contain a minimum of eight of the components listed in assessment criteria 7 plus six of the activities listed in assessment criteria 8
QPEO2/036N	In order to prove their ability to combine different electronic assembly and testing activities, at least one of the electronic assemblies produced must be of a significant nature, and must contain a minimum of ten of the components listed in assessment criteria 10
QPEO2/037N	In order to prove their ability to combine different electrical maintenance operations, at least one of the electrical maintenance activities carried out must be of a significant nature, and must cover a minimum of eight of the activities listed in assessment criteria 11
QPEO2/038N	In order to prove their ability to combine different electronic maintenance operations, at least one of the electronic maintenance activities carried out must be of a significant nature, and must cover a minimum of seven of the activities listed in assessment criteria 10 plus the removal and replacement of three of the components identified in assessment criteria 11
QPEO2/039N	In order to prove their ability to combine different process instrumentation and control maintenance operations, at least one of the instrumentation maintenance activities carried out must be of a significant nature, and must cover a minimum of eight of the activities listed in assessment criteria 10

QPEO2/040N	In order to prove their ability to combine different wiring and testing operations, at least one of the PLC systems worked on must be of a significant nature, and must cover a minimum of five of the items listed in assessment criteria 9
QPEO2/041N	In order to prove their ability to combine different pattern, model or woodworking operations, at least one of the components produced must be of a significant nature, and must have a minimum of seven of the features listed in assessment criteria 13
QPEO2/042N	In order to demonstrate their ability to combine different pattern, model or woodwork assembly operations, at least one of the assemblies produced must be of a significant nature, and must cover a minimum of six of the activities listed in assessment criteria 7
QPEO2/043N	In order to prove their ability to combine different wet lay up operations, at least one of the components produced must be of a significant nature, and must have a minimum of three of the features listed in assessment criteria 11
QPEO2/044N	In order to prove their ability to combine different pre-preg laminating operations, at least one of the components produced must be of a significant nature, and must have a minimum of three of the features listed in assessment criteria 11
QPEO2/045N	In order to prove their ability to combine different resin flow infusion operations, at least one of the components produced must be of a significant nature, and must have a minimum of three of the features listed in assessment criteria 11
QPEO2/046N	In order to prove their ability to combine different aircraft detail assembly operations, at least one of the assemblies produced must be of a significant nature, and must contain a minimum of four of the components listed in assessment criteria's 11 and 12
QPEO2/048N	In order to prove their ability to combine different moulding techniques and procedures, at least one of the moulds produced must be of a significant nature, and must contain a minimum of one core
QPEO2/050N	In order to prove their ability to combine different casting techniques and procedures, at least one of the components produced must be of a significant nature, and must contain two of the features listed in assessment criteria 14
QPEO2/051N	In order to prove their ability to combine different casting fettling techniques and procedures, at least one of the components fettled must be of a significant nature, and must contain four of the features listed in assessment criteria 10
QPEO2/052N	In order to prove their ability to combine different surface preparation and finishing activities, at least one of the finishing activities must be of a significant nature, and must cover five of the activities listed in assessment criteria 5
QPEO2/055N	In order to prove their ability to combine different forging operations, at least one of the components produced must be of a significant nature, and must involve a minimum of four of the operations listed in assessment criteria 9
QPEO2/061N	In order to prove their ability to combine different 3D modelling features, at least one of the models/drawings produced must be of a significant nature. It must involve a minimum of five of the operations listed in assessment criteria 12, and must include a minimum of seven of the features listed in assessment criteria 13

QPEO2/073N	In order to prove their ability to combine different resin film infusion operations, at least one of the components produced must be of a significant nature, and must have a minimum of three of the features listed in assessment criteria 11

7.0 Quality Control of Assessments

General

There are two major points where EAL interacts with the Centre in relation to the external quality control of assessment for a qualification and these are:

- Approval - when a Centre take on new qualifications, EAL, normally through an external verifier ensures that the Centre is suitably equipped and prepared to deliver the new qualification.
- Monitoring - throughout the ongoing delivery of the qualification EAL, through external verification monitoring and other mechanisms must maintain and the quality and consistency of assessment of the qualification.

Approval

In granting approval, EAL, normally through its external verifiers must ensure that the prospective Centre:

- Meets any procedural requirements specified by EAL
- Has sufficient and appropriate physical and staff resources
- Meets relevant health and safety and/or equality and access requirements
- Has a robust plan for the delivery, assessment and quality assurance for the qualification/units.

EAL may decide to visit a Centre to view evidence or may undertake this via other means and there must be a clear rationale for the method(s) deployed.

Monitoring

EAL, through external monitoring and other mechanisms will ensure that a strategy is developed and deployed for the ongoing EAL monitoring of the Centre.

This strategy must be based on an active risk assessment of the Centre. In particular, the strategy must identify the apprentice, assessor, and internal verifier sampling strategy to be deployed and the rationale behind this:

- That the Centre's internal quality assurance processes are effective in assessment.
- That sanctions are applied to a Centre where necessary and that corrective actions are taken by the Centre and monitored by the EAL external quality assurer (EQA).
- That reviews of EAL's external auditing arrangements are undertaken.

Appendix 1: Unit Summaries

All **QAUE3** and Level 2 **PEO** unit summaries are available in the Qualification Specification unit summaries document. For more information, please visit the EAL Qualification Website

Appendix 2: Learner Registration and Certification

Learners must be registered with EAL on a code which relates to the qualification, this must be completed prior to assessment. Both learner registration and certification can be completed online at the EAL website. For paper-based registration and certification use the appropriate forms. These are located on the EAL Website, for guidance on registration and certification please refer to the Registration and Certification User Guide.

Qualification Title:	**Code:**
Level 3 NVQ Extended Diploma in Automotive Engineering	600/1784/3

To register the learner on the chosen Qualification/Pathway Code	
The following table is for those learners who follow the **Engineering Practices** pathway within the qualification **(Group A)**	
Vehicle fitting	600/1784/3AUA1
Vehicle body building	600/1784/3AUB1
Vehicle electrical and electronic wiring and assembly	600/1784/3AUC1
Composite manufacture	600/1784/3AUD1
Experimental/New model development	600/1784/3AUE1
Commercial and passenger carrying vehicle body building	600/1784/3AUF1
Motorsport vehicle technician (mechanical)	600/1784/3AUG1
Motorsport composite manufacture	600/1784/3AUH1
Prototype Powertrain development	600/1784/3AUI1
Vehicle painting and finishing	600/1784/3AUJ1
Vehicle trimming	600/1784/3AUK1
Vehicle woodworking/veneering	600/1784/3AUL1
Quality Inspection	600/1784/3AUM1
The following table is for those learners who follow the **Technical Support** pathway within the qualification **(Group B)**	
Vehicle fitting	600/1784/3AUAZ1
Vehicle body building	600/1784/3AUBZ1
Vehicle electrical and electronic wiring and assembly	600/1784/3AUCZ1
Composite manufacture	600/1784/3AUDZ1
Experimental/New model development	600/1784/3AUEZ1
Commercial and passenger carrying vehicle body building	600/1784/3AUFZ1
Motorsport vehicle technician (mechanical)	600/1784/3AUGZ1
Motorsport composite manufacture	600/1784/3AUHZ1
Prototype Powertrain development	600/1784/3AUIZ1
Vehicle painting and finishing	600/1784/3AUJZ1
Vehicle trimming	600/1784/3AUKZ1
Vehicle woodworking/veneering	600/1784/3AULZ1
Quality Inspection	600/1784/3AUMZ1

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